

Business Internationalization: Motivations, Challenges, Resilience, and the Strategic Impact of N-Tuple Helix Networks

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Dedictory

With love, I dedicate this thesis to my wife Sandra, to my daughter Joana,
to my son Tiago, to my parents, family and everyone
who somehow made me move forward!

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Abstract

This thesis aims to study the theme of Business internationalization, analyzing the motivations that encourage companies to expand into international markets, as well as the challenges faced that determine the successful or unsuccessful of companies in adapting to the complexities of the international markets and the decisive strategic impact of N-Tuple of Helices collaborative networks in simplifying and improving the internationalization process.

In practical terms, by highlighting business internationalization, this research will allow company managers to understand the main motivating factors and challenges faced in this process and identify resilient strategies to overcome global barriers. Furthermore, the study provides insights on how to benefit from N-Tuple of Helices networks in strengthening partnerships, promoting innovation, obtaining competitive advantages, and contributing to strategic decision-making to improve competitiveness in international markets.

In the theoretical context, this study seeks to contribute to the dynamics of business internationalization, exploring the implementation of multi-helix collaborative networks in business initiatives and public policies for the robustness of the internationalization of companies, particularly with regard to the integration of multiple actors, such as academia, companies, government and entities that promote support for internationalization, this research offers an innovative perspective on how these synergies in desire of a common objective, enhance and foster the growth and competitiveness of companies in the global market.

This research will follow the empirical-formal research method, which will be characterised by the formulation of research questions based on the theoretical framework, testing these questions and critical reflection, confronting theory with the evidence of observed facts, and safeguarding the possibility of refutation. In the specific case of this research, the formulation of questions will be inspired by the existing theoretical framework on the internationalization of companies, which is a delimited set of observable phenomena.

The first empirical essay in this thesis (Chapter 2) is entitled "Analysing stimuli and barriers, failure and resilience in Companies' Internationalization: a systematic and bibliometric review", where the framework and issues of the topic were framed, following a process of deductive reasoning, construction and based on a logic of a chain of reflection in descending order, which consisted of a general theoretical framework for private

research cases. The results of the Systematic Literature Review (SLR) allow for the identification of emerging and as yet little explored themes on which the development of the following chapters is based.

The second empirical essay in the thesis (Chapter 3), entitled "SMEs internationalization process: from success to insolvency, from brand rebirth to the re-internationalization", highlights the need to better understand the negative impact of these experiences on the internationalization of companies, SMEs with major investments deployed in their internationalization processes, through recourse to high levels of bank financing, in association with the COVID-19 pandemic period, were not able to successfully overcome the calvary of internationalization and culminating in their own bankruptcies, however, despite such failures, the attractiveness and reputation of the brand, supported by the strategic vision and perseverance of new entrepreneurs, enabled the rebirth of the brands and opening the door to their re-entering international markets.

The third empirical essay in this thesis (Chapter 4) is entitled "Firms' internationalization: the sustainment process". In this study, we adopted the pragmatist paradigm through a mixed-method research approach that included two distinct studies. The first was a conceptual study focusing on the internationalization strategies of small and medium-sized enterprises (SMEs), which utilized a questionnaire for data collection. This was followed by a qualitative study that involved interviews to explore the factors that enhanced and propelled companies towards greater competitiveness in international markets.

The fourth empirical essay in the thesis (Chapter 5) is entitled " What is the Role of Collaborative Networks in the Internationalization of Companies? An N-Tuple Helix Qualitative Approach". The N-Tuple of Helices is fundamental for increasing the internationalization of companies, allowing adaptation to global complexities and expanding presence in international markets through collaborative networks. The study methodology applied was multiple cases, comprising the current synergies of the Triple Helix and the respective combination between the spheres, thus promoting the viability of the success of government and international projects to increase the national competitiveness of companies in international markets.

The present thesis uncovered new insights and a clearer understanding of the business internationalization by highlighting the interplay between internal motivations, external challenges, and organisational resilience in navigating global markets. This study demonstrated how strategic engagement with N-Tuple of Helices networks fosters

innovation, facilitates knowledge exchange, and strengthens collaborative efforts among academia, industry and government.

Furthermore, the research provides actionable recommendations for business leaders, emphasizing the importance of leveraging multi-stakeholder partnerships to overcome barriers, enhance adaptability, and secure competitive advantages in diverse international contexts. These contributions enrich existing literature and offer a practical framework for businesses aspiring to expand globally in a competitive and strategic way.

Keywords

Barriers; Challenges; Collaborative Networks; Covid-19; De-internationalization; Failure; Government funds; Innovation; Internationalization; Motivations; Small and medium-sized enterprises; Planning; Recovery and resilience plan; Re-internationalization; Success; Triple Helix; Quadruple Helix; Quintuple Helix; N-Tuple of Helices.

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Resumo Alargado

A presente tese tem como objetivo estudar o tema da internacionalização empresarial, analisando as motivações que potenciam as empresas a expandirem-se para os mercados internacionais, os desafios enfrentados que determinam o (in)/sucesso das empresas na adaptação às complexidades dos mercados internacionais e o impacto estratégico das redes colaborativas *N-Tuple Helices* na simplificação e melhoria do processo de internacionalização.

Num contexto de globalização marcado pela elevada complexidade e competitividade, a internacionalização surge assim como uma estratégia essencial para o crescimento, sustentabilidade e inovação das empresas (Mathews & Zander, 2007). Este tema adquire relevância à medida que as empresas enfrentam transformações nos mercados internacionais e necessitam de responder às exigências num ambiente económico em constante mudança.

A capacidade das empresas de acederem mercados internacionais é um fator determinante para o seu sucesso. A internacionalização potencia que as empresas diversifiquem os riscos bem como a exploração de novas oportunidades nos mercados, impulsionando a troca de conhecimento e inovação, permitindo assim fortalecer a competitividade global (Eichholz *et al.*, 2024). Este estudo procura compreender como as empresas podem superar as barreiras enfrentadas, alavancar os estímulos disponíveis, suprir as falhas e terem a capacidade de resiliência para prosperarem nos mercados internacionais.

O alinhamento estratégico combina os recursos internos das empresas, como o capital humano, capacidades tecnológicas e redes de colaboração, com os fatores externos, dos quais evidenciamos as políticas governamentais, incentivos e as regulamentações internacionais, são fundamentais para o sucesso no processo de internacionalização, pelo que as empresas que conseguem combinar e integrar esses elementos posicionam-se como atores competitivos nos mercados globais, contribuindo para o desenvolvimento económico (Chung *et al.*, 2022; Vrontis *et al.*, 2022).

Contudo, a internacionalização é um processo complexo que nem sempre decorre como planeado, pelo que em determinadas circunstâncias obriga as empresas a reduzir frequentemente a atividade podendo inclusivamente levar à des-internacionalização das empresas nos mercados internacionais (Kafouros *et al.*, 2022). Porém, outras empresas optam pela re-internacionalização pois consideram como sendo uma experiência de aprendizagem, sendo determinante corrigirem as falhas e serem resilientes, utilizando os

conhecimentos previamente adquiridos para melhorarem a sua estratégia internacional e tornando-se assim mais competitivas nos mercados internacionais (Surdu, Greve, & Benito, 2021). A combinação de estratégias bem estruturadas aliado à utilização de redes colaborativas têm vindo a emergir na literatura como dinâmicas, envolvendo interações entre Academia-Indústria-Governo (A-I-G), pois desenvolvem interações colaborativas determinantes para superar as barreiras na exploração dos mercados internacionais, numa perspetiva da *N-Tuples of Helices*. Esta abordagem interdisciplinar incentiva também à inovação, ao desenvolvimento económico e à internacionalização das empresas, desempenhando também um papel vital na gestão dos projetos colaborativos (Shkarupeta & Babkin, 2024).

Embora o tema da internacionalização das empresas seja amplamente estudado, permanece como um campo de conhecimento fragmentado, com lacunas significativas, tais, como:

- A falta de uma compreensão integrada sobre as barreiras e estímulos no processo de internacionalização, especialmente em contextos de crise como a Covid-19.
- Insuficiente exploração dos conceitos da Des-internacionalização e da Re-internacionalização, ainda pouco debatido na literatura.
- Necessidade de uma análise aprofundada acerca das interações colaborativas entre A-I-G, no modelo *N-Tuple of Helices*, que são fundamentais para aumentar a internacionalização das empresas e a melhoria da competitividade nos mercados internacionais, permitindo assim uma melhor adaptação às complexidades globais.

A literatura evidencia e identifica as barreiras e os estímulos como fatores centrais para o (in)/sucesso da internacionalização das empresas. Isto é particularmente evidente quando consideramos os desafios enfrentados pelas empresas no contexto covid-19, que reforçaram a necessidade de uma compreensão mais integrada sobre como as empresas podem mitigar riscos, adaptar-se às mudanças e aproveitar oportunidades emergentes.

Analisamos através de estudo de caso múltiplos, a des-internacionalização e a re-internacionalização das empresas, a exploração destas temáticas permitiu desenvolver um quadro teórico que sistematiza os conceitos e contribuí para o avanço científico no campo da internacionalização. Em termos gerais, a presente tese propõe-se ainda investigar as dinâmicas das redes colaborativas, como o modelo *N-Tuple of Helices*, do qual destacamos além das interações entre os diferentes atores, a propulsão para o sucesso na internacionalização.

O objetivo geral desta investigação é analisar a internacionalização empresarial, estudando as motivações que potenciam as empresas a expandirem-se para os mercados internacionais, bem como os desafios enfrentados aliado à capacidade de resiliência, que determina o (in)/sucesso das empresas na adaptação às complexidades dos mercados internacionais e o impacto estratégico das redes colaborativas *N-Tuple Helices* na simplificação e melhoria do processo de internacionalização. A partir do objetivo geral são definidos ainda cinco objetivos específicos:

- ✓ Sistematizar a literatura existente sobre o tema da internacionalização das empresas sobre estímulos, barreiras, falhas e resiliência;
- ✓ Identificar os principais aceleradores e obstáculos que levam as empresas a (re)/entrar nos mercados internacionais;
- ✓ Analisar o papel do governo especificamente no período pós-Covid-19, no apoio prestado às empresas nos mercados internacionais;
- ✓ Analisar as interações colaborativas, numa perspetiva *N-Tuple of Helices*, que permite captar a complexidade das redes e apoiar a entrada das empresas nos mercados internacionais;
- ✓ Formular e testar um modelo de suporte para o papel da dinâmica das redes colaborativas no incentivo à internacionalização das empresas onde destacamos o modelo *N-Tuple of Helices* combinado com os insights dos modelos Triple Helix (TH), Quadruple Helix (QH) e Quintuple Helix (qH).

No seguimento dos objetivos definidos, no Capítulo 2 é realizada uma revisão sistemática da literatura (RSL) que aborda a temática da internacionalização das empresas, procurando dar resposta à questão de investigação: Qual o atual estado da arte sobre os estímulos e barreiras, os fracassos e a resiliência na internacionalização das empresas? Responder a esta questão de investigação vai fornecer-nos contributos tanto a nível académico como empresarial para o campo dos negócios internacionais, permitindo a configuração de um mapa de conhecimento, possibilitando o desenho de caminhos para a internacionalização, obtendo assim a chave para o (in)/sucesso das empresas nos mercados internacionais.

Conforme proposto por Denyer & Tranfield (2009) e aplicado por Casado-Belmonte *et al.* (2020) à internacionalização, a RSL utilizada neste estudo consiste em cinco fases. A primeira envolve a questão de investigação e explana todo o processo de recolha e análise de dados. A segunda fase consiste na recolha dos artigos na base de dados *Web of Science*. Na fase 3 efetua-se a seleção da amostra tendo por base diversos critérios de inclusão e

exclusão. Na fase 4 procede-se a uma exposição dos resultados obtidos e respetiva discussão assim como as conclusões, identificando as lacunas existentes e propondo uma agenda de investigação futura. Posteriormente, efetuamos um mapeamento bibliométrico que permitiu construir um mapa científico da literatura (Cobo *et al.*, 2011) e fornecer os detalhes para a criação e análise dos grupos temáticos. Os resultados da RSL permitem a identificação de diferentes áreas de investigação existentes no domínio da internacionalização das empresas, em cinco clusters: i) estratégia; ii) des-internacionalização e re-internacionalização; iii) barreiras; iv) estímulos; e v) sobrevivência. Estes temas são explorados no desenvolvimento dos capítulos seguintes.

Assim, no Capítulo 3 foca-se na necessidade de compreender melhor os fatores de sucesso e insucesso associados ao calvário da internacionalização das PME em período de pandemia Covid-19 e identificar os principais aceleradores e obstáculos que levam as empresas a (re)/entrar nos mercados internacionais. Com recurso a entrevistas semiestruturadas foram recolhidos dados de seis PME com antigos e atuais CEO, identificamos quatro tópicos relevantes, o sucesso, a insolvência, o renascimento e a re-internacionalização. A internacionalização pode criar um alto grau de incerteza e desestabilizar rotinas das PME, exigindo-se respostas inovadoras e específicas ao contexto. Este ensaio oferece diretrizes sobre como contornar o calvário da internacionalização. Especificamente, nosso estudo demonstra a importância da tomada de decisões nas PME para singrarem nos mercados internacionais.

No capítulo 4 investigamos como as barreiras, o planeamento e as motivações influenciam o processo de internacionalização de empresas, através de uma abordagem de método misto de dois estudos. No estudo 1 aplicamos técnicas multivariadas para identificar as premissas para a internacionalização das empresas que culminou num modelo teórico e testado através de uma amostra de 402 empresas. No estudo 2 adotamos uma análise qualitativa baseada em estudos de caso múltiplos mediante a realização de várias entrevistas permitindo a identificação de estratégias que possibilitaram às empresas superar os desafios da Covid-19 e fortalecer a sua posição internacional. Os resultados evidenciam que i) a falta de apoios governamentais, barreiras culturais e taxas alfandegárias exigem planeamento e afetam a motivação à internacionalização; ii) o planeamento ajuda a mitigar as barreiras e reforça a motivação para a internacionalização; iii) a motivação é essencial para o sucesso nos mercados internacionais, especialmente quando sustentada pelo apoio governamental; iv) a estratégia de internacionalização e o planeamento influenciam significativamente o sucesso das empresas nos mercados internacionais; v) o apoio governamental, incluindo subsídios, incentivos fiscais e programas de financiamento, foram fundamentais para aliviar as pressões financeiras e

promover a resiliência empresarial; vi) a adoção rápida de tecnologias digitais foi crucial para manter as operações e a expansão para os mercados globais vii) a capacidade de adaptação das empresas, através de uma liderança eficaz e gestão ágil, permitiram dar uma resposta rápida e eficaz às mudanças no ambiente de negócios global; e viii) as parcerias estratégicas facilitam o acesso a novos recursos e aos mercados internacionais, mitigando riscos operacionais.

No Capítulo 5, tendo por base vinte entrevistas semi-estruturadas aos *stakeholders* que integram as dinâmicas das múltiplas hélices, foi explorada a relevância das interações colaborativas, a partir de uma perspetiva *N-Tuple of Helices* que permite capturar a complexidade das redes e apoiar a entrada das empresas nos mercados internacionais.

Os resultados indicam que a abordagem *N-Tuple of Helices* é fundamental para o incremento da internacionalização das empresas, permitindo adaptação às complexidades globais e alargando a presença nos mercados internacionais através das redes colaborativas, resultam num impacto positivo para a competitividade das empresas nos mercados globais. Com base nestas evidências, o estudo descreve um modelo integrativo de redes colaborativas para a internacionalização das empresas e referencia que os projetos estimulados pelo governo e financiados pela União Europeia podem disponibilizar às empresas incentivos para a entrada nos mercados internacionais, dinamizando redes colaborativas, e apoia as empresas a suplantar as barreiras à internacionalização.

A articulação dos diferentes ensaios desenvolvidos visa contribuir de forma concreta e relevante para o aprofundar do conhecimento existente sobre a temática da internacionalização das empresas. Para tal consideramos fulcral no capítulo 2 estabelecermos o alicerce teórico da investigação, através de uma RSL, que destaca lacunas críticas na literatura, como a necessidade de compreender melhor os estímulos e barreiras que as empresas enfrentam, especialmente em contextos de crise. As descobertas apresentadas servem como ponto de partida para a aplicação prática e empírica nos capítulos subsequentes.

Assim, no capítulo 3 aprofundámos a base teórica ao investigar empiricamente como as PME enfrentam os desafios de internacionalização em cenários adversos, tais como, a pandemia da Covid-19. Este ensaio foca os conceitos de barreiras e estímulos da internacionalização das empresas, que permite analisar o impacto dessas variáveis no (in)/sucesso das empresas. A ligação é evidente, pois a teoria apresentada anteriormente é validada é complementada pela análise prática e específica de situações disruptivas,

destacando-se o papel da resiliência organizacional e a capacidade de adaptação das empresas nos mercados internacionais.

O capítulo 4 dá continuidade à investigação, pois permite ampliar a análise ao explorar a interação dinâmica entre as barreiras, o planeamento estratégico e as motivações no processo de internacionalização. Enquanto o capítulo anterior concentra-se nos eventos disruptivos e na superação de crises, este capítulo 4 expande essa abordagem ao incorporar métodos mistos que permite compreender como esses fatores interagem para moldar os resultados das empresas nos mercados internacionais. A investigação qualitativa realizada no capítulo 3 foi essencial para fundamentar e enriquecer a abordagem quantitativa e qualitativa mais ampla que foi desenvolvida no capítulo 4.

Por fim, o capítulo 5 complementa e expande as contribuições dos ensaios anteriores, focando-se nas dinâmicas colaborativas, em particular no modelo *N-Tuple of Helices*, que impulsionam a internacionalização. A transição para este ensaio ocorre dos fatores internos das empresas para analisarmos o papel estratégico das redes colaborativas. A articulação dos quatro capítulos desenvolvidos visa contribuir de forma concreta e relevante para o aprofundar do conhecimento existente sobre a temática da internacionalização das empresas. Assim, a progressão ao longo dos ensaios demonstra uma abordagem integrada e abrangente, que vai desde a fundamentação teórica, passando pela aplicação empírica e pela análise estratégica, para tal consideramos fulcral que se conheçam as dinâmicas existentes nos modelos *N-Tuple of Helices*, desde as interações entre A-I-G, à utilização das redes colaborativas potenciadoras de internacionalização, tentando assim superar as barreiras dos mercados internacionais, torna-se por isso, imperioso potenciar os estímulos que são dinamizados por todas as sinergias que procuram obter sucesso nos mercados internacionais.

Palavras-chave

Internacionalização; Empresas; Des-internacionalização; Re-internacionalização; Barreiras; Estímulos; Planeamento; Apoio Governamental; Mercados Internacionais; N-Tuple of Helices; Redes Colaborativas; Competitividade.

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List of Acronyms

| | |
|---------|--|
| AED | Aeronautics, Space and Defense |
| A-I-G | Academy-Industry-Government |
| AVE | Average Variance Extracted |
| CB-SEM | Covariance Based Structural Equation Modeling |
| CA | Cronbach's Alpha |
| CEO | Chief Executive Office |
| CoLabs | Collaborative Labs |
| CR | Composite Reliability |
| DIH | Digital Innovation Hub |
| EU | European Union |
| HTMT | Heterotrait-monotrait |
| IAPMEI | Institute of Support for Small and Medium-sized Companies and Innovation |
| I&D | Research and Development |
| I&TD | Technological Research and Development |
| PACT | Park Alentejo Science and Technology |
| PLS-SEM | Partial Least Squares based Structural Equation Modeling |
| PRR | Plan for Recovery and Resilience |
| QH | Quadruple Helix |
| qH | Quintuple Helix |
| R&D | Research and Development |
| R&D+I | Research & Development and Innovation |
| SEM | Structural Equation Modeling |
| SLR | Sistematic Literature Review |
| SMEs | Small and Medium-sized Companies |
| TH | Triple Helix |
| WoS | Web of Science |

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PART I

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Chapter 1. General Introduction

1.1 Statement of the Problem

The literature has experienced rapid growth in the studies examining company internationalization processes, attracting great interest in the scientific community (Morais & Ferreira, 2020; Gammeltoft & Panibratov, 2024). The resulting outputs have changed the ways in which companies deal with the challenges and opened up access to new business opportunities while also making them more competitive at a faster pace (Lima *et al.*, 2020).

The research literature on internationalization has also become increasingly specialised (Eduardsen & Marinova, 2020) focusing on ever more specific themes such as, and for example, the internationalization of small and medium sized companies (SMEs) (Jafari-Sadeghi *et al.*, 2021; Morais & Ferreira, 2020), or the internationalization processes of family-owned companies (Metsola *et al.*, 2020). Despite this growing corpus, the body of knowledge on the internationalization of companies remains systematically disorganised, thus compromising theoretical and empirical progress in this field (Evers *et al.*, 2023). Hence, companies should develop and implement appropriate strategies within the framework of maximising their company's performance as a well-designed strategy stimulates the entire process of internationalization (Knight, Moen, & Madsen, 2020). Furthermore, the ongoing technological, economic, political and social changes are stimulating researchers to raise new questions and to provide alternative explanations as to the "whys" behind companies engaging in internationalization processes (Ribau, Moreira & Raposo, 2017).

Currently, the dynamic world in which we live requires the traditional theories on international business be subject to review in order to obtain new insights into the internationalization of companies (Surana *et al.*, 2024). Correspondingly, internationalization reflects a strategic benefit for companies (Colapinto, Gavinelli, Zenga & Di Gregorio, 2015), fostering both their growth and survival over the long term (Alayo, Maseda, Iturralde & Arzubiaga, 2019). However, the need to develop and test new explanatory approaches to business internationalization constitutes one of the most challenging areas for researchers (Morais & Ferreira, 2020), hence, decision-makers need to pay attention to strategic facets, especially as regards the initial stages of company internationalization (Chabowski & Samiec, 2020; Jiménez-Asenjo *et al.*, 2024) that produce gains for the overall competitiveness of economies (Cortellazzo *et al.*, 2020).

Furthermore, the diversity in the literature underpins the need for a systematic structuring of the main contributions and discoveries of this field. This, thus, represents a shortcoming in the literature studying the internationalization processes of companies that detect barriers/obstacles, failures in re-internationalization processes and the stimuli capable of driving new approaches to re-internationalization (Ali, 2021; Vissak & Francioni, 2020; Vissak, 2024). Hence, there is the need to analyse, summarise and detail the preponderant themes in the research and development of company internationalization and thereby identifying priority areas (Martins *et al.*, 2022; Vissak, 2023) and set out a map of knowledge on company internationalization processes.

In this context, the general research objective is to analyse the internationalization of businesses, thereby taking into account the determining factors shaping the barriers, the motivations, the resilience arising from (in)success in adapting to the complexities of international markets and the strategic impact of N-Tuple of Helices. This overall objective thus contains five specific objectives, which are the following:

- ✓ Systematise the existing literature on the theme of company internationalization focusing on the stimuli, barriers, failures and resilience;
- ✓ Identify the key drivers and obstacles that lead companies to (re)enter markets and distinguish the different approaches made by successful and unsuccessful SMEs that opted to expand into international markets;
- ✓ Analyse the role of government, specifically in the post-Covid-19 period, in terms of the support provided to companies in international markets;
- ✓ Analyse the collaborative interactions, from an N-Tuple of Helices perspective, which serves to capture the complexity of the networks and supports for companies engaging with international markets;
- ✓ Deepen and better understand the interactions between the different institutional spheres of the TH, QH, qH and N-Tuple of Helices through analysing and interrelating the various collaborative projects that stimulate both the private sector and the broader economy.

1.2 Unit of Analysis and Conceptual Model

The unit of analysis in this research focuses on the internationalization processes of companies, taking on different formats over the course of this thesis. This unit correspondingly varies between companies, the international markets in which they operate and the collaborative interactions ongoing among strategic actors, such as governments, business associations and academic institutions. As the research advances, we deploy a more focused and contextualised approach to each of the defined objectives while always maintaining our focal point on the internationalization of companies. Figure 1.1 sets out the conceptual structure of the different research essays (chapters 2, 3, 4 and 5) of this thesis.

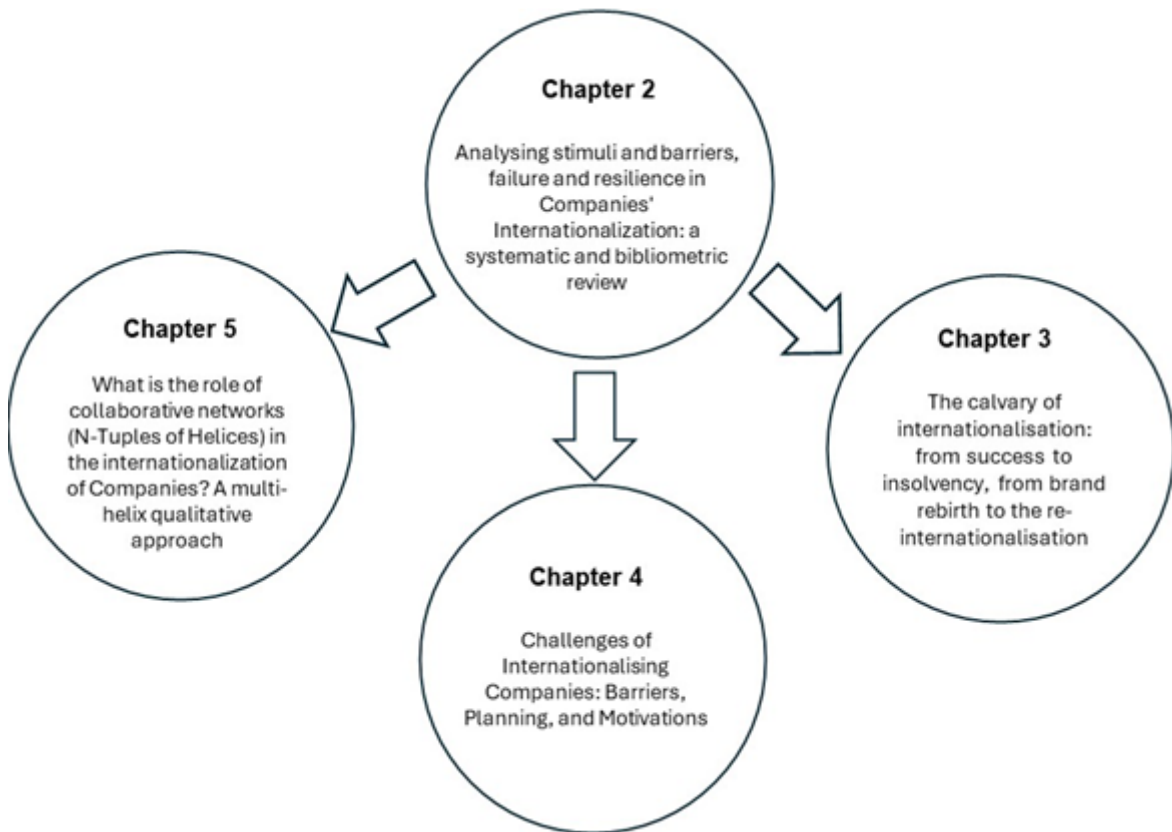


Figure 1.1 Thesis Conceptual Structure

The structure of this research project spans five sequential and interrelated chapters. Firstly, we undertake a systematic literature review that establishes the framework and problematic issues around this theme. Subsequently, a process of rational deduction ensures the construction stems from a chain of reflection in a descending order. We then advance with detailed empirical analysis that explores the particular different aspects of company internationalization.

After this, the research then deepens in chapter 3 that identifies and portrays the main challenges that companies face on entering the constantly changing international markets. The unit of analysis encapsulates companies that experienced either success or failure in international markets through case studies and qualitative analysis that delves into how companies deal with these barriers and the stimuli enabling them to access international markets.

The unit of analysis in chapter 4 focuses on the strategies adopted by companies to overcome the challenges faced in international markets. In this chapter, we deploy mixed methods that combine quantitative analysis of 402 responses with a qualitative study containing ten in-depth interviews. We hereby develop the factors behind the strategic planning for company internationalization, their resilience and how companies adapt to contexts of great uncertainty in the specific case of the Covid-19 pandemic, their attempts to mitigate the risks and explore the resulting opportunities.

Finally, in chapter 5, the unit of analysis stems from the collaborative interactions ongoing among companies, governments, academic institutions and other actors, the participants in the N-Tuple of Helices model to generate an understanding of just how collaborative networks foster innovation and access to the resources necessary for the internationalization of these companies.

Within the scope of analysing the dynamics and strategies driving the internationalization of companies, focusing on the factors that shape the barriers, the role of the N-Tuple of Helices collaborative networks, the (in)success in adapting to the complexities of international markets, table 1.1 presents an overview of the specific objectives underlying each of these chapters as well as the research questions they strive to answer.

Table 1.1 – Articulation between objectives and research questions

| Objectives / Research questions | Obj. 1 | Obj. 2 | Obj. 3 | Obj. 4 | Obj. 5 |
|---|--|---|--|---|---|
| | Systematize the existing literature on the internationalization of companies about stimuli, barriers, failures and resilience. | Identify the main accelerators and obstacles that lead companies to (re)/enter markets and distinguish the differences followed by SMEs with success and failure when opting for international markets. | Analyze the role of the government specifically in the post-Covid-19 period, in terms of support provided to companies in international markets. | Analyze collaborative interactions, from an N-Tuple of Helices perspective, which allows capturing the complexity of networks and supporting the entry of companies into international markets. | Understand the interaction between the different institutional spheres of TH, QH, qH and N-Tuple of Helices, through the analysis and articulation of several collaborative projects that stimulate entrepreneurship and the economy. |
| Which are the most relevant trends in the literature on the internationalization of companies? | Chapter 2 | | | | |
| What are the success or failure factors associated with the ordeal of internationalizing SMEs during a pandemic period? | | Chapter 3 | | | |
| What are the main challenges companies face when returning to international markets? | | Chapter 3 | | | |
| How barriers, planning and motivations interact dynamically throughout the internationalization process and influence the success or failure of companies in international markets? | | | Chapter 4 | Chapter 5 | Chapter 5 |
| How collaborative interactions, from an N-Tuple of Helices perspective, can contribute and boost the internationalization of companies | | | | Chapter 5 | Chapter 5 |

1.3 Methodology

Adopting methodological pluralism (Nielsen *et al.*, 2020), this thesis combines three methods. To begin with, a systematic literature review enabled the bibliometric mapping of the internationalization of companies and subsequently developed to produce a scientific map (Cobo *et al.*, 2011) detailing the identification of the thematic clusters in the literature and their respective classification and analysis. Subsequently, we employ the inductive method through multiple case studies that enable the aggregation of data on a broad range of crucial factors and following up ideas in examining the responses in detail (Yin, 2013). This type of approach generates valuable perceptions and/or knowledge aligned with the research objectives (Martineau & Pastoriza, 2016) focusing the study not only on the successes and achievements in the internationalization of SMEs but also the failures, insolvencies and subsequent company relaunches.

Next, we conjugate the deductive method with the mixed method that we initially applied in a quantitative study analysing the relationships among overcoming obstacles and barriers, planning and the motivations for internationalization. This then enabled us to formulate and test hypotheses. In a second phase, we carried out a qualitative study that enabled us to undertake the triangulation of data, thereby ensuring greater veracity and an overall understanding of the phenomena around internationalization.

Finally, we advanced with a multiple case study approach that captured the activities around the creation of knowledge and the complex interactions of individuals that, at the macro level, aggregate into the N-Tuple of Helices structure (Ankrah *et al.*, 2013; Tippmann *et al.*, 2013).

1.3.1 Method

This research integrates a range of different methodologies in order to be able to capture the many phenomena around the internationalization of companies and resulting in methodological pluralism (Felin *et al.*, 2012). In the specific case of this research, inspiration for formulating the research questions arose out of the existing theoretical framework on the internationalization of companies as a defined set of observable phenomena. This philosophical orientation guaranteed research structured around the factors that shape and influence the internationalization of companies while also ensuring the systematic development of the theoretical contributions.

The research starts out with a systematic literature review in accordance with the approach defined by Denyer & Tranfield (2009). This stage involved the identification, selection and analysis of 310 articles sourced from scientific databases, stored in the ris and csv formats, codified in Excel (2013 version) and VOSviewer (v1.6.9).

Next, we identified the objectives of the respective studies and their methodologies, the key results and contributions. This process led to the highlighting of the key factors of each article. The method applied also enables the cross-referencing of the information obtained with other articles in order to thematically systematise and categorise them. Subsequently, we applied VOSviewer software to illustrate, visualise and build scientific maps with a database featuring the citations and key words in accordance with their co-occurrence and encountering the collaborative networks existing among the authors.

This software also extends to the VOS mapping technique (visualising the similarities) to build up maps based on the distance between any two items to reflect the strength of the relationship. The co-citation technique served for the study of the relationships among the authors and journals and the co-authorship data to consider the scientific cooperation and the data on the co-occurrence of words to then produce maps of these co-words that provide a visual representation of the respective scientific field (Van Eck & Waltman, 2009).

In chapter 3, we adopted the multiple case study method that makes recourse to qualitative research and represents the most commonly used method in international business studies (Piekkari, Welch & Paavilainen, 2009) as this enables the aggregation of data on a broad range of core information and minimising the extent of data bias (Eisenhardt & Graebner, 2007). This qualitative research approach becomes essential when attempting to discover more specific processes in individuals, groups and organisations and understand how these processes take place over the course of time (Bluhm, Harman, Lee & Mitchell 2011).

We carried out semi-structured interviews as the mostly common source of data applied in case study research projects (Yin, 2014). We gathered data on six SMEs from their former and current CEOs through holding interviews and the contents subject to analysis to define and analyse the categories of information (Weber, 1990).

Chapter 4 features the applications of a mixed methodology with two studies. Hence, study 1 deploys multivariate techniques to identify the premises for company internationalization and that culminated with a theoretical model subject to testing according to a sample of 402 companies. In study 2, we adopted a qualitative analytical

approach based on multiple case studies through staging a series of interviews with CEOs, presidents of business association and members of the government. This integration of quantitative and qualitative methodologies constitutes a clear strength of this research, enabling the triangulation of results and a still deeper understanding of the phenomena around internationalization. Furthermore, the quantitative methods provide the statistical rigour underpinning generalisation while the qualitative approaches return rich contextual and analytical insights.

This recourse to methodological pluralism ensures the research captures the complexity around internationalization processes covering not only the macroeconomic patterns but also the microeconomic dynamics. This approach not only strengthens the reliability of the results but also fosters the proposition of practical insights susceptible to implementation by entrepreneurs, policy makers and academics.

In chapter 5, we set out a qualitative study applying multiple cases stemming from semi-structured interviews with actors integrated into the dynamics of the multiple helices. These qualitative approaches enable academics to learn about complex but specific phenomena (Zaefarian & Tasavori, 2016), based on multiple case studies adapted to the “how” and “why”, thus providing researchers with adaptability in their data collection with ideas followed up prior to examining and analysing the answers in depth (*Delios et al., 2023*).

Table 1.2 provides a summary of the methodology adopted in each chapter, listing the software deployed in each analytical process.

Table 1.2 Systematization of the Method Adopted

| Chapter | Design | Sample | Method |
|----------------|------------------------------|---|---|
| Chapter 2 | Systematic Literature Review | 310 articles from WoS | Coded by VOSviewer Bibliographic Coupling Parameters |
| Chapter 3 | Empirical Essay | Gathered data from six former and current CEOs of SMEs and with recourse to nine semi-structured interviews with the senior managers of exporting SMEs. | Qualitative research methodology |
| Chapter 4 | Empirical Essay | Online survey applied to database provided by AICEP-Portugal containing 7230 companies. Our questionnaire involved 402 CEO of firms active in international markets. Gathered data from three interviews with senior company managers, two interviews with directors responsible for internationalization, the president of a private business association, a director in an agro-food sector association, three witnesses from government through interviewing an ex-minister of the economy, a state secretary for internationalization and president of PRR. | Mixed methodological approach: Quantitative - Multivariate statistical analysis Qualitative – Multiple case study analysis |
| Chapter 5 | Empirical Essay | Based on twenty semi-structured interviews with the agents that integrate the dynamics of the multiple helices. | Qualitative approach - Multiple case study analysis |

1.4 Thesis Contributions

The current thesis returns a range of theoretical, methodological and practical contributions within the framework of enriching the body of knowledge on the internationalization of companies. This thesis approaches significant gaps in the literature and the need for guiding recommendations to strengthen business practices and attain higher standards of efficiency within a context of increasingly demanding international markets.

Under the auspices of our general study objective and striving to comply with our first specific objective, Chapter 2 features a systematic literature review on the theme of the internationalization of companies within the scope of responding to the following research question: - What is the current state-of-the-art on the stimuli and barriers, failure and resilience in company internationalization processes? This review applied advanced techniques, such as bibliometric analysis making recourse to VOSviewer software (Fonseca, Sampaio, Fonseca & Zicker, 2016), which underpins the accuracy of our discoveries in portraying five clusters that define different, while interrelated, thematic areas.

The results enable the identification of emerging and still poorly explored themes that may serve as opportunities for future research. Therefore, this study also produces a deeper understanding on the internationalization of companies, enabling different actors to improve their decision-making processes, especially important in highly competitive environments undergoing constant change.

In alignment with our general study objective and seeking to comply with our second specific objective, the prior systematisation of the literature enabled the next chapter (Chapter 3) to delve deeper into the factors of success and failures associated with the calvary of SME internationalization during the Covid-19 pandemic, reconfiguring the company entry and exit strategies for international markets (Mitan *et al.*, 2024; Vissak *et al.*, 2024).

This analysis contributes through its approach integrating organisational resilience and adaptation to global changes as the fundamental pillars of internationalization (Aguzzoli *et al.*, 2020; Crick *et al.*, 2020; Galkina *et al.*, 2023). In addition to better grasping this dimension, the study produced insights based on empirical evidence of the key drivers and obstacles that lead companies to (re)/enter markets and furthermore distinguishing the different paths SMEs take, both successfully and unsuccessfully, when opting for international markets. These combinations ensure the robust triangulation of data on the stimuli, barriers and resilience and subsequently validated based on practical evidence to endow wider applicability and greater relevance to the results.

The goal of Chapter 4 was to comply with our third specific study objective. We correspondingly analyse the extent to which planning is essential to prepare companies for the challenges identified in international markets (Schembri *et al.*, 2023) in which government support (Ferreira *et al.*, 2024; Vissak, 2023) and innovation (Soesetio, 2024) play a vital role in mitigating the impact of these barriers and enabling the internationalization process.

Another contribution stems from the validation and emphasis of how internationalization does not amount to any uniform process and companies have to overcome different and diverse barriers and obstacles, customs duties and the lack of government support, for example (Chinda, 2024; Jiménez-Asenjo *et al.*, 2024). We also propose that companies should develop specific strategies for each target market, especially covering the tariff and customs barriers, cultural difficulties and the need for swift adaptation by companies in the face of market changes (Chandra & Dutta, 2023).

These contributions strengthen the relevance and appropriateness of Uppsala's incremental internationalization theory that highlights the importance of gradual experiences and acquired knowledge in any international expansion process (Johanson & Vahlne, 1977). Finally, we also detail the relevance of digital and innovation strategies in adaptation and constant innovation as the means to obtain success in international markets (Christofi *et al.*, 2024; Ferreira *et al.*, 2024).

In order to comply with the fourth and fifth specific objectives, and while chapter 4 highlights the relevance of digital strategies and innovation in constantly adapting to the surrounding environment to obtain success in international markets, Chapter 5 expands the research in the direction of returning a better understanding of the importance of collaborative networks, especially the N-Tuple of Helices model (Leydesdorff, 2013a; Rossoni *et al.*, 2023), which highlights interactions among all the spheres in order both to sustain the competitiveness of companies engaging in international markets (Carayannis & Campbell, 2012; Carayannis *et al.*, 2024), and to mitigate for the associated risks (Chowdhury *et al.*, 2020; Dong, 2022).

The catalysers and the factors driving the international expansion of companies explore the potential of digital technologies and inevitably investing more in internationalization and innovation (Leydesdorff & Smith, 2022), endowing companies with the means that enable them to be more competitive within the context of international markets.

1.5 Thesis Structure

The thesis is structured in three distinct but complementary parts. The first part - Chapter 1: General introduction – contextualises the subject under study based on the existing literature. This way, we present the main concepts in the following chapters. The unit of analysis, the objectives, and the research questions that we intend to see answered are presented, and the methods underlying their pursuit are also presented.

Afterward, the second part of the thesis consists of five chapters - Chapter 2 to Chapter 5 - which can be read individually. In Chapter 2, we developed a SLR, and Chapters 3 to 5 are dedicated to empirical studies. In the third part - Chapter 6 - we present the final considerations, implications, contributions, and future lines of research. The thesis will follow the structure presented in Figure 1.2.

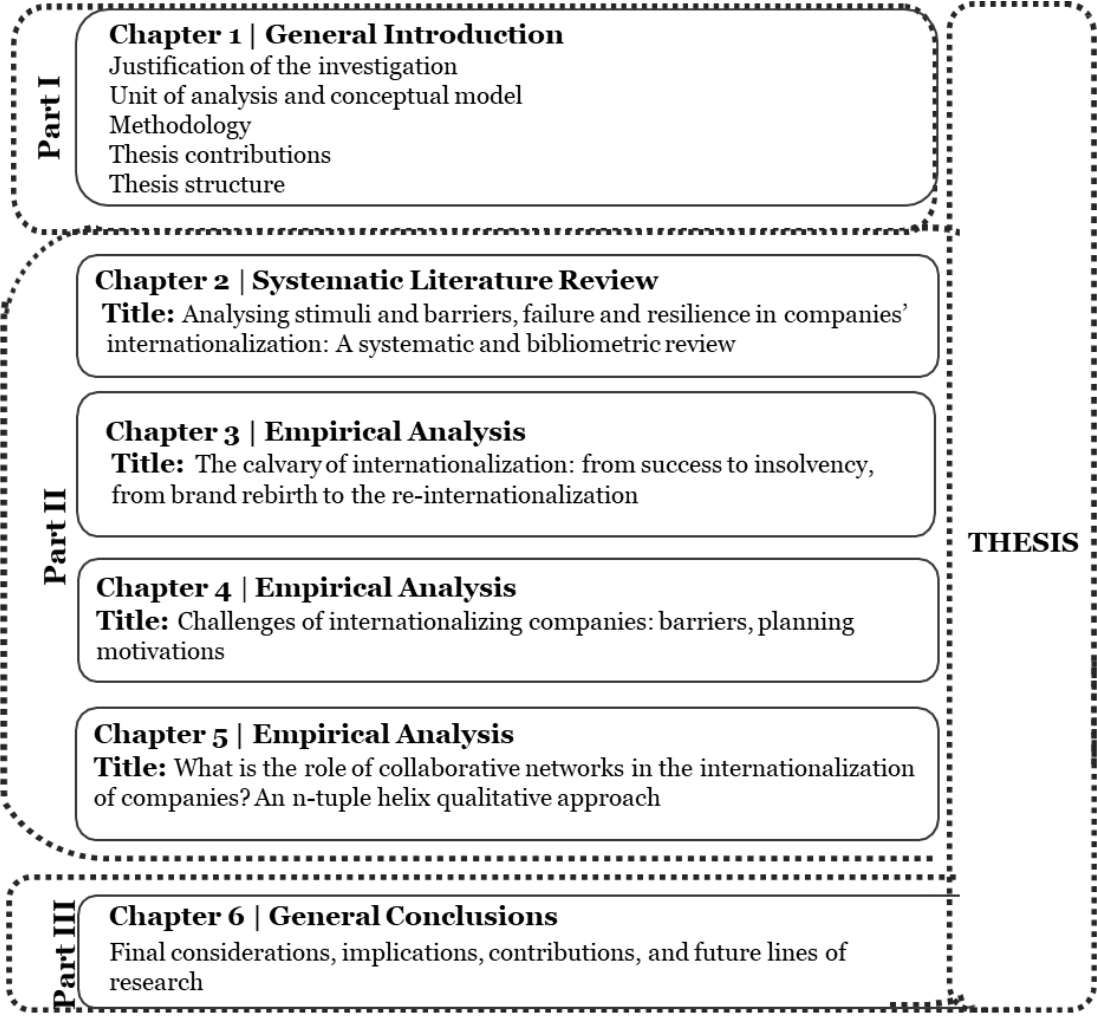


Figure 1.2 Structure of the Thesis

PART II

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Chapter 2. Analysing stimuli and barriers, failure and resilience in companies' internationalization: a systematic and bibliometric review

ABSTRACT

Company internationalization constitutes an issue that has in recent decades experienced exponential growth in scientific attention. This study aims to systematise and analyse the internationalization of companies in an attempt to identify the main themes explored in the literature - What does the current state of the art tell us about the stimuli and barriers, failures, and resilience in the internationalization of companies is what we set out to answer with this research. This study offers a systematic review based on the bibliometric mapping techniques of 310 articles collected from the Web of Science database between 1996 and 2024. Furthermore, contributing to literature by the logic of stimuli, barriers failure in internationalization companies. The main conclusion is that, from the analysis, we can see that the scientific production in this field of knowledge has intensified in recent years, but the centrality and the search density undergo major changes. The main research contributions enable a better understanding of the involvement of failure and resilience in companies re-internationalization and suggestions for future studies in this field.

KEYWORDS

Business; Internationalization Strategy; Systematic Literature Review.

2.1 Introduction

Internationalization has emerged as an increasingly topical issue, attracting great interest across the scientific community and therefore also the higher levels of study that explain the exponential rise in publications in recent decades (Casado-Belmonte, Marín-Carrillo, Terán-Yépez, & Capobianco-Uriarte 2020; Morais & Ferreira, 2020; Sousa, He, Lengler, & Tang, 2021).

The nature of trade has become increasingly global, which, in turn, generates numerous opportunities for companies that may provide solutions for expansion and even survival within competitive contexts (Mitja *et al.*, 2006). Furthermore, company internationalization represents a strategic option for their sustainability and gains in economic competitiveness, potentially resulting from this process (Paul, Parthasarathy, & Gupta, 2017).

This research extends beyond analyzing the benefits of internationalization to consider the main themes studied in the literature on company internationalization, analysing in-depth the barriers, failures and incentives to re-internationalization. The state-of-the-art literature does feature high-quality research on internationalization (Eduardsen & Marinova 2020; Haddoud, Onjewu, Nowiński & Jones, 2021) and, for example, about SMEs internationalization (Casado-Belmonte *et al.*, 2020; Kahiya, 2018; Morais & Ferreira, 2020; Ribau, Moreira & Raposo 2017), or family business internationalization (Metsola *et al.*, 2020). Moreover, the diversity of literature generates the need for systematization of this field's main contributions and discoveries.

There is a deficit in the literature in studying the internationalization processes of companies that clarify barriers/obstacles, failures with processes in the re-internationalization, and stimuli that lead to new approaches of re-internationalization. Therefore, there is a need to analyze, synthesize, and report on the preponderant themes undergoing research and development in companies' internationalization and identify priority areas to develop a knowledge map for the companies internationalization processes.

The application of a Systematic Literature Review (SLR) approach ensures the production of a framework allowing for deeper analysis of the literature by adopting a transparent scientific process susceptible to replication by other researchers (Tranfield *et al.*, 2003). The benefits of this methodology derive from the scope for synthesizing the research while minimizing bias.

Hence, this study aims to systematize and analyze the literature detailing research on company internationalization over the last twenty-nine years (1996-2024), setting out a systematic review based on the bibliometric mapping techniques of 310 articles collected from the Web of Science, build a framework in VOSviewer that exemplifies the internationalization process model by clusters and an informative map enabling the classification of five clusters.

What does the current state-of-the-art tell us about the stimuli and barriers, failures, and resilience in companies' internationalization? To answer this research question provides contributions at both the academic and the business levels to the field of international business, allowing the configuration of a map of knowledge, enabling the design of pathways to internationalization, thus obtaining the key to the (in)success of companies in international markets. Indeed, even the government bodies responsible for supporting and encouraging such internationalization processes cannot fully support businesses, particularly due to the lack of broad support from other government organizations.

Furthermore, this contributes to the literature on the logic of stimuli and barrier failures in internationalization companies. The main conclusion states that, from the analysis, we find that scientific production in this field of knowledge has intensified in recent years even while the centrality and the search density has undergone major changes. In practical terms, by highlighting the internationalization of companies, this study allows company managers that have not yet expanded into international markets to ascertain which factors to consider for their internationalization process, especially in terms of the strategies for adoption, the modes of internationalization, entering new markets, the barriers faced as well as the impact of internationalization on their levels of performance.

2.2 Scope of the Review

Recent decades have seen the study of the internationalization of companies surge in importance and only deepened by the weighting such companies hold in the world panorama (Fernandez & Nieto, 2005) in keeping with their capacity to leverage the new opportunities created by globalization (Mathews & Zander, 2007). Companies initially aim to internationalize to culturally similar countries (Lloyd-Reason et al., 2003), representing a cornerstone in the Uppsala model (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977), since they are closer in terms of psychic distance before these firms then gradually enter new markets that present a greater psychic distance (Johanson & Wiedersheim-Paul, 1975).

The strategy of early internationalization helps to increase competitiveness, facilitating access to new product ideas, innovation and technology, as well as the ability to engage in export activities (Bianchi *et al.*, 2017), and is thus fundamental to ensuring the survival and growth of enterprises (Westhead *et al.*, 2001). When companies go international, they can have unavoidable repercussions, culminating in a critical decision (Lu & Beamish, 2006), the failure of these companies in international markets (Qian *et al.*, 2018; Sedziniauskiene *et al.*, 2019).

However, the stigma of approaching the failure of companies remains; it is therefore analyzed as a dark and embarrassing phenomenon for managers (Ghemawat & Nalebuff, 1985), and there is hardly any predisposition for them to address the failure of companies, trying to cover up the failed activities of public opinion (Godley & Fletcher, 2001). The de-internationalization of companies encapsulates the total or partial withdrawal from foreign markets (Welch & Welch, 2009), therefore leaving or cutting operations in one or more countries and changing how companies enter and engage with these markets (Benito & Welch, 1997; Calof & Beamish, 1995; Johanson & Vahlne, 2009). For some authors, de-internationalization constituted exactly is just the opposite process compared to internationalization (Turcan, 2003).

The reasons for companies undertaking de-internationalization of companies include changes in the external environment (Swoboda *et al.*, 2011), decreasing local demand (Welch & Wiedersheim-Paul, 1980), competition (Javalgi *et al.*, 2011), resource costs (Boddewyn, 1979), changes and international commitments (Benito & Welch, 1994) as well as their own long-term goals (Akhter & Choudry, 1993). Some contributions focus exclusively on the topic of de-internationalization (Benito & Welch, 1997, Turcan, 2003) while others approach foreign disinvestments (Boddewyn, 1979; Sachdev, 1976; Tornedon & Boddewyn, 1974) and, finally, there are contributions on the withdrawal of exports (Bonaccorsi, 1992; Pauwels & Matthyssens, 1999; Welch & Wiedersheim-Paul, 1980).

Many companies leave the international scene after such negative experiences that there remains a strong disinterest in any attempt at resuming their international involvement. Furthermore, this group is difficult to motivate even when government internationalization assistance/support schemes (Crick, 2004). However, the de-internationalization of companies does not always represent failure and may emerge as a strategic option (Benito, 2005) and a logically made decision in view of the market assessment, where normally these markets are small and with low exit costs. Exchange rates may also play a role in this process, as emphasized in a study by Crick (2004), where

this was a preponderant factor in the international exit of companies that nevertheless maintained an interest in returning to such operations.

Entrepreneurs accumulate limited knowledge about the main export markets (Kalinic & Forza, 2012) and learn from market penetration experiences to improve the capabilities of their companies (Gray & McNaughton, 2010); after an initial step backwards, they continue their learning and growth processes (Ciravegna *et al.*, 2019), moving from de-internationalization to re-internationalization (Hallbäck & Gabrielsson, 2013).

Re-internationalization involves a period of international business activity and then followed by an interregnum of operations for a certain period until there is again an international re-entry process leading to the successful renewal of international operations (Welch & Welch, 2009). This process incorporates learning, positive behaviours towards re-internationalization, and the capacity for resilience in the face of obstacles that were not initially overcome. Nevertheless, several authors acknowledge other factors that re-internationalization entails, such as entry and exit costs, which may be too low/high, and health and financial crises with potentially devastating effects (Ratten, 2020).

Firms may also choose to re-enter international markets by assuming new networking relationships (Hadjikhani, 1997), including different resources and capabilities (Javalgi *et al.*, 2011), opting for other entry costs (Roberts & Tybout, 1997), and diverging from previously established strategies (Jones & Khanna, 2006) in their decisions to re-enter international markets. Some authors also identify other factors that influence and lead to the re-internationalization of companies, such as changes of ownership (Welch & Welch, 2009), the acquisition of additional experience (Benito & Welch, 1994), reductions in trade barriers (Javalgi *et al.*, 2011) and improvements in the prevailing market conditions (Akhter & Choudry, 1993; Crick, 2004; Swoboda *et al.*, 2011).

2.3. Methodology

2.3.1 Planning the Review

As Denyer & Tranfield (2009) proposed and applied by Casado-Belmonte *et al.* (2020) to internationalization, the SLR used in this study consists of five phases that cover the progress and realization of the SLR. The first phase involves formulating the SLR research questions that ultimately guide and define the subsequent studies and analysis.

The research question specified in the introduction section of this study represents the starting point for the SLR and shows the entire data collection and analysis process. The

second phase then proceeds to collect the articles for inclusion in the systematic review; we made recourse to the Web of Science (WoS) database.

2.3.2 Selection Criteria

The choice of the database stems from the predominance of peer-reviewed journals of high relevance to the topic of internationalization it contains that ensures the accuracy and academic quality of the articles included in the sample (Jones et al., 2011), which underpins confidence in the results presented. The survey took place during December 2024 and deployed the following keywords, "internationali* strategy", "re-international*" and "de-International*", which returned 310 articles then stored in the ris and csv formats and coded by Excel (version 2013) and VOSviewer (v1.6.9). Following this selection phase, we carefully analyzed the records that make up the study with the most relevant information stored to identify the objectives of the respective studies and their methodologies, key findings, and contributions.

This process involved highlighting the key aspects of each article. The method applied made it possible to cross-check the information obtained with other articles and systematize and thematically categorize them. The VOSviewer software illustrates, visualises, and builds scientific maps based on the citation data and keywords according to the co-occurrence data and encountering collaborative networks between authors. This software also applies the VOS (visualization of similarities) mapping technique to build maps based on the distance between two items and reflect the relationship's strength.

Combining these tools allowed the data coding to identify production indicators (e.g., published articles), produce tables, and draft descriptive graphics. Co-citation data, for example, can be used to study relationships between authors or journals, co-authorship data can be used to study scientific cooperation, and data about word co-occurrences can be used to construct so-called co-word maps, which are maps that provide a visual representation of the structure of a scientific field (Van Eck & Waltman, 2009).

At the end of the co-word or co-citation analysis, a set of clusters is returned that can be understood as clusters of different scientific aspects. In citation analysis, the clusters represent groups of references that can be understood as the intellectual basis of the different subfields. The purpose of co-word analysis is to design the conceptual structure using a word co-occurrence network to map and group terms extracted from keywords, titles, or abstracts in a bibliographic collection.

Bibliometric mapping was developed to build a scientific map, most commonly used as co-citation of documents and analysis of co-words, the thematic evolution based on the co-word network analysis and clustering is a methodology inspired in Cobo *et al.* (2011) and the details for the creation of an interesting and informative map it is possible to classify the clusters.

The database study selection and evaluation phase (phase 3) defined the criteria for validating the inclusion or exclusion of the articles through analyzing the contribution made to the study of the internationalization of companies and considering how the incidence of studies on this subject gained greater acuteness at the beginning of this century.

2.3.3 Data Extraction

In this SLR (phase 4), we have considered only articles and reviews. Thus books, book chapters, reports, and conference papers were excluded from the database due to the variability in their review processes (Jones et al., 2011), and only takes into account research produced in the fields of Business, Business Finance Development Studies, Economics, Engineering Industrial, International Relations, Management Operations Research Management Science and Social Sciences Interdisciplinary. EndNote and Mendeley's citation management software served to store the articles before proceeding with reading the abstracts to ensure their relevance to the study.

Finally, a more careful analysis of the articles took place and two documents subject to exclusion because is in another language. Thus, the number of articles in the final sample totals 310, including the empirical studies (quantitative and qualitative), conceptual and/or theoretical articles eligible for review.

The final SLR phase formally sets out the results obtained and discusses the findings within the scope of the theme subject to study, thereby identifying the existing gaps and proposing a future research agenda. Figure 2.1 summarises the criteria and selection process of the papers that comprise the sample

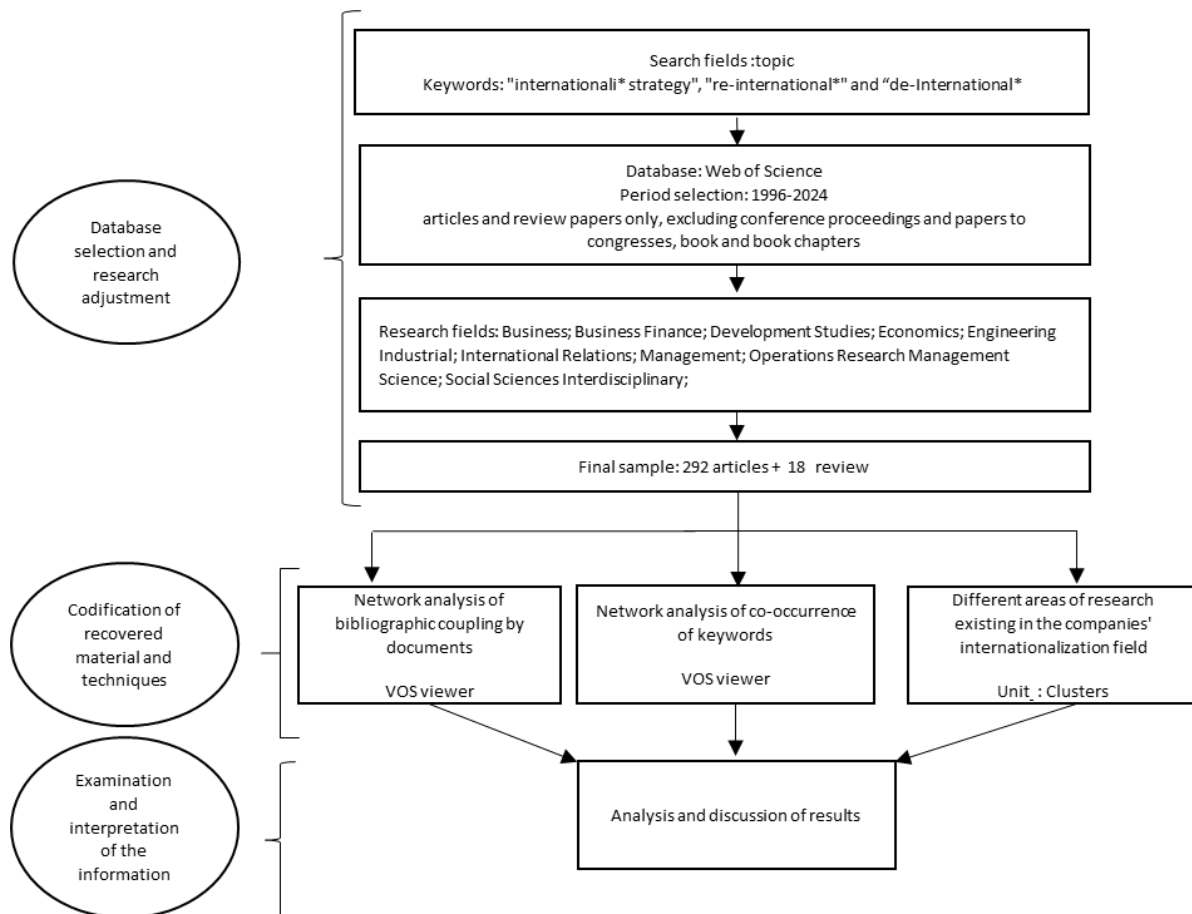


Figure 2.1 Design of the review strategy

2.4. Results

2.4.1 Descriptive Data Analysis

This SLR displays a significant increase in citations from the beginning of the century through 2020 (figure 2.2). From 1996 until 2024, there are few annual variations in the number of articles, with its peak occurring in 2020 with 32 articles.

The article *“Emerging multinationals from mid-range economies: The influence of institutions and factor markets”*, by Hoskisson, Wright, Filatotchev, Peng & Mike (2013), was the most cited article, with 517 citations, followed by the article *“Impact of ownership on the international involvement of SMEs”* by Fernandez & Nieto (2006).

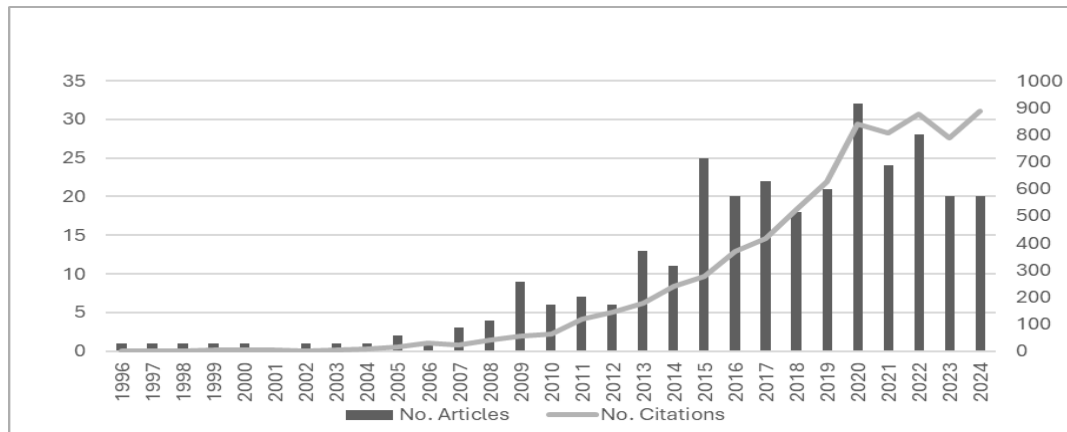


Figure 2.2: Evolution of the number of articles and citations by year

Table 2.1 indicates the 17 journals that contain three or more publications and the respective authors. The journal with the most studies published on business internationalization is the "*International Business Review*" with 21 publications, followed by the "*Journal of Business Research*" with 10 publications.

Table 2.1 Journals with most publications

| Nº | Journals | No. articles | Authors |
|----|---|--------------|--|
| 1 | International Business Review | 21 | Jiang & Zhang (2024); Graves, Shi, Barbera (2022); Edacherian & Panicker (2022); De Beule, Elia, Garcia-Bernardo, Heemskerk, Jaklic, Takes, Zdziarski, (2022); Eduardsen & Marinova (2020); Niittymies (2020); Ozkan (2020); Vissak, Francioni & Freeman (2020); Loufrani-Fedida, Hauch & Elidrissi (2019); Dominguez & Mayrhofer (2017); Cerrato, Crosato & Depperu (2016); Jiang, Kotabe, Hamilton & Smith (2016); Vissak & Masso (2015); Wei, Zheng, Liu & Lu (2014); Gaffney, Kedia & Clampit (2013); Vissak & Francioni (2013); Jimenez & Bautista (2012); Jimenez (2010); Prime, Obadia & Vida (2009); Welch & Welch (2009); Tuppura, Saarenketo, Puumalainen, Jantunen & Kylaheiko (2008) |
| 2 | Journal of Business Research | 10 | Vecchi & Brennan (2022); Bucciari & Park (2022); Islam Wang, Marinakis & Walsh (2022); Driffield, Jones, Kim & Temouri (2021); Ciravegna, Kundu, Kuivalainen & Lopez (2019); Cooke, Wu, Zhou, Zhong & Wang (2018); Crick, Crick & Chaudhry (2020); Luo & Zheng (2018); Auletta (2015); Van den Waeyenberg & Hens (2012) |
| 3 | Journal of International Business Studies | 9 | Zabetta, Miguelez, Lissoni & Hegarty (2024); Wang, Gu, Von, Mary & Hirsch (2020); Choquette (2019); Bernini, Du, Love & James (2016); Maitland & Sammartino (2015); Sui & Baum (2014); Dau (2013); Schotter & Beamish (2013); Fernandez & Nieto (2006) |
| 4 | Multinational Business Review | 9 | Sui, Baum & Li (2023); Jain, Oh, & Shapiro (2022); Kaczmarek & Nyuur (2021); Kaczmarek & Nyuur (2021) Hermans, & Borda (2020); Kuiken, Wentrup & Schweizer (2020); Aguilera, Flores & Kim (2015); Pananond (2015); Van Tulder (2015) |
| 5 | Entrepreneurial Business and Economics Review | 7 | Daszkiewicz, Kordalska & Olczyk (2023); Wojcik & Ciszewska-Mlinaric (2020); Hadrys-Nowak (2018); Wasowska (2017); Mlody (2016); Jaklic & Karageorgu (2015); Wach (2015) |
| 6 | Management International Review | 7 | Cha, Kotabe & Wu (2023); Da Silva, Keilla de Miranda, Morley, Michael & Candido (2021); Buckley (2018); Zhou (2018); Pellegrino & McNaughton (2015); Richter (2014); Liesch, Welch & Buckley (2011) |
| 7 | Chinese Management Studies | 7 | Zhao & Yu, Shu (2024); Li, Li, Zhang, Wang (2024); Yao, Zhong, Liu, Chen (2023); Lv, Xiong, Zheng (2022); Zhou (2018); Drauz (2013); Deng, Tian, Li, & Abrar (2012) |
| 8 | Review of International Business and Strategy | 6 | Bhatia & Khurana (2024); Wang & Sun (2024); Chow & Yee (2023); Chebbi, Ben, Bouzinab, Papadopoulos, Labouze & Alexie (2022); Martins, Farinha & Ferreira (2022); Coudounaris & Arvidsson (2022) |
| 9 | International Journal of Emerging Markets | 6 | Chen, Zhong & Lan (2024); Saikia, Bhattacharya & Dwivedi (2024); Sahin, Tatoglu, Mert, Kaplan, & Golgeci (2024); Machado, Marcelo Andre; Bischoff, Viviane (2023); Jain, Samta; Kashiramka, Smita; Jain, |

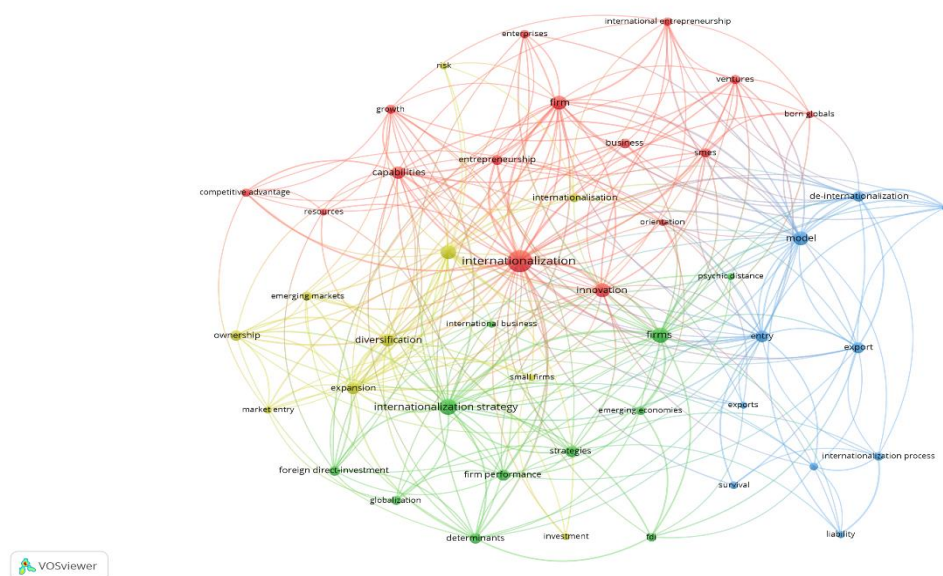
| Nº | Journals | No. articles | Authors |
|----|--|--------------|--|
| | | | P. K. (2023); Singh, Nitya P. (2022); |
| 10 | International Small Business Journal Researching Entrepreneurship | 5 | Crick, Crick, Chaudhry (2023) ;Onkelinx, Manolova & Edelman (2016a); Park, LiPuma & Prange (2015); Hilmersson (2014); Coeurderoy, Cowling, Licht & Murray (2012) |
| 11 | Global Strategy Journal | 5 | DeMello, Gama, Bertrand, Betschinger (2024); Ma, Cui, Dong, Liao (2023); Bertrand, Betschinger & Laamanen (2019); Ray, Mondal & Ramachandran (2018); Luiz, Stringfellow & Jefthas (2017) |
| 12 | Asian Business & Management | 4 | Jansson & Soderman (2013); Yiu, Ng & Ma (2013); Pananond (2012); Horn, Forsans & Cross (2010) |
| 13 | Business History | 4 | Verhoef (2016); Binda & Colli (2011); Strandskov & Pedersen (2008); Binda & Iversen (2007) |
| 14 | Journal of Business & Industrial Marketing | 4 | Zheng Wang, Fusheng; Zhang (2024); Calvo & Villarreal (2019); Hanell & Nordman (2019); Turner & Gardiner (2007) |
| 15 | Journal of World Business | 3 | Thams & Dau (2023); Miroshnychenko, Eddleston, & De Massis (2023); Kafouros, Cavusgil, Devinney, Ganotakis, & Fainshmidt (2022); |
| 16 | Journal of International Management | 3 | Murtinu & Scalera (2016); Onkelinx, Manolova, Tatiana S. & Edelman (2016b); Morschett, Schramm-Klein, & Swoboda (2010) |
| 17 | International Marketing Review | 3 | Magnani & Zucchella (2019); Jensen & Petersen (2014); Freeman, Deligonul & Cavusgil (2013) |

2.4.2 Network and Cluster Analyses

The network analysis performed in this research applied the *VOSviewer* software programs, which are complementary bibliometric tools as they serve to undertake bibliometric analysis of the data sourced from the Web of Science database, which produces graphic, map-based representations.

In figure 2.3 shows the analysis of co-occurrence of all keywords summarizes the selection process with eight or more co-occurrence, comprising a final sample of 56 keywords.

Figure 2.3 Network Analysis of Co-occurrence of keywords



The bibliographic coupling with the unit of analysis of documents is increasingly used as a preponderant tool to assess collaboration trends, allowing researchers and leading organizations to be identified (Fonseca, Sampaio, Fonseca & Zicker, 2016). Figure 2.4 summarizes the selection process of authors with four or more citations, comprising a final sample of 176 articles by 5 clusters.

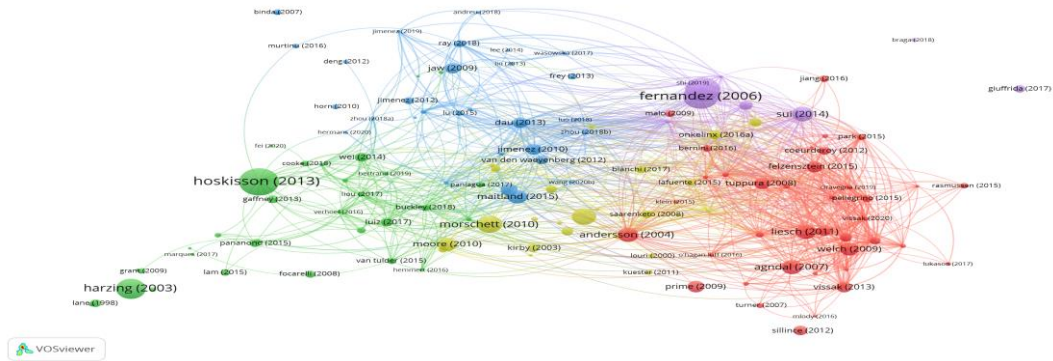


Figure 2.4 Network Analysis of Bibliographic Coupling by Documents

2.5. Thematic Analysis

After completing the content analysis of the articles, we compiled them into the different themes established to categorize the studies and reflecting the different areas of research existing in the companies' internationalization field.

The results allow to identify five clusters: i) strategy; ii) De-internationalization and re-internationalization; iii) barriers; iv) stimuli; v) survival, as presented in figure 2.5.

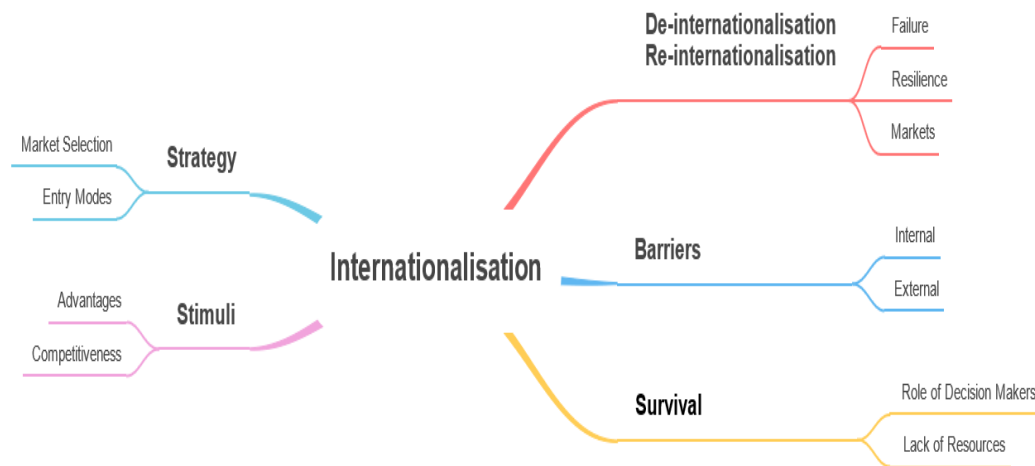


Figure 2.5 Thematic Foci of the Studies

2.5.1 Cluster 1: Strategy

Figure 2.4 details cluster 1 in green and brings together the 55 articles (table 2.2) that analyse internationalization strategies within the scope of enhancing standards of company performance, through emphasising the scope of globalisation, on occasion targeting emerging markets and economies and thereby seeking to engage in foreign direct investment.

Table 2.2 Cluster 1: Main Contributions

| Authors | Contributions |
|--|--|
| Simba <i>et al.</i> , (2024) | The study shows choosing a foreign market entry strategy is known to be essential for firm internationalization high-tech SMEs. |
| Sui <i>et al.</i> , (2023) | The study propose a dynamic perspective and suggest that learning-by-exporting is duration-dependent and contingent upon the born global internationalization strategy. |
| Ma <i>et al.</i> , (2023) | This study investigates formal institutional pressure from government policy, informal institutional pressure from filial piety, and their interaction effect on firms' internationalization strategy. |
| Debellis <i>et al.</i> , (2023) | Study advances the family firm internationalization literature show that the influence the family obtains through board directorship that affects the family firm internationalization strategy. |
| Singh (2022) | The study gives highlight that internationalization process, adopt a combination of strategic practices that include strategic alliances, acquisitions, entry into targeted geographic markets, localized and innovative product offerings and niche market focus. |
| Lv <i>et al.</i> , (2022) | The study shows factors as cultural distance and investment risk of the host country significantly influence the choice of outward foreign direct investment entry modes. |
| Sanchez Pulido <i>et al.</i> , (2022) | The study shows that the internationalization strategy is determined by the size of the business and the sector in which it operates. |
| De Beule <i>et al.</i> , (2022) | The study shows how multinational corporation resource-dependent strategic responses can occur at the headquarters level to address uncertainties experienced at the subsidiary level. |
| Edacherian & Panicker (2022) | The study show that while inside director interlocks promote exploitative strategies over exploratory internationalization strategies, independent director interlocks deter exploitative internationalization. These preferences are contingent upon the R&D intensity of the firm. |
| Gonzalez Calzadilla <i>et al.</i> , (2022) | The study shows the internationalization strategy becomes more efficient when a differentiation and innovation strategy are followed simultaneously. |
| Ledesma-Chaves & Arenas-Gaitan (2022) | The study determine the mediator role of innovative dynamic capabilities in performance in the internationalization strategy of firms during periods of economic crisis. |
| Xiao <i>et al.</i> , (2022) | This study promotes the development of internationalization and guides managers of multinational enterprises in emerging markets to formulate internationalization strategies. |
| Buccieri & Park (2022) | Study examines market dynamism and entry mode with respect to their moderating roles in the relationship between knowledge-based capabilities and post-entry performance in international new ventures. |
| Coudounaris & Arvidsson (2022) | This study aims to investigate the antecedents of the internationalization strategy on the international performance of the firm. |
| Cirillo <i>et al.</i> , (2022) | This study explores the contingency effect of sales internationalization strategy on the relationship between family firm status and employee downsizing. |
| Vecchi & Brennan (2022) | Study shows the Chinese internet firms that started to internationalize later adopting a internationalization strategy that displays a remarkably higher level of sophistication. |
| Jain <i>et al.</i> , (2022) | This study aims identify research gaps, opportunities and provide a research agenda that addresses several sustainability-related and other contemporary challenges. |
| Graves <i>et al.</i> , (2022) | Study shown that family firms are less likely to adopt an internationalization strategy compared to their non-family firms. |
| Ren & Zeng, (2022) | This research contributes to the literature on firms' internationalization speed. |
| Driffield <i>et al.</i> , (2021) | This research contributes on tax havens and tax mitigation strategies, we know very little about how the use of tax havens relates to a firm's internationalization strategy. |
| Chung & Ho (2021) | This study aims to examine the effects of international competitive strategies, cost leadership and differentiation, on export (market share and strategic) performance. |
| Yi <i>et al.</i> , (2021) | The study shows effective management of dispersed location-specific knowledge is the key to successful internationalization strategies for companies. |
| Alves <i>et al.</i> , (2021) | This article adds how micro- and macro-level factors concurrently affect innovation and internationalization strategies for new ventures. |

| Authors | Contributions |
|--------------------------------|--|
| Fei (2020) | This study approaches three Chinese companies in the construction sector and the strategies for their Chinese members of staff employed in Ethiopia, the host country. |
| Bertrand <i>et al.</i> (2019) | The study demonstrates how corruption impacts on the acquisition behaviours of companies in emerging markets. |
| Cooke <i>et al.</i> (2018) | The internationalization strategies of Chinese multinational companies in emerging countries interconnect with their human resource management policies. |
| Quer <i>et al.</i> (2018) | This study analyses how state ownership moderates the political risk and choice of location by Chinese multinationals. |
| Buckley (2018) | This research applies internationalization theories to multinational companies in emerging countries in order to examine their strategies, networks and the failures in their domestic market. |
| Costa <i>et al.</i> (2018) | The researchers propose a performance evaluation model for multinational companies. |
| Liou <i>et al.</i> (2017) | The study analyses how, in emerging markets, multinationals make recourse to mergers to overcome their shortcomings in terms of resources. |
| Luiz <i>et al.</i> (2017) | This analyses and explores the internationalization decisions of one of the most successful multinationals in Africa that diversifies risk and institutional exposure as well as the risk to the destination country. |
| Marques <i>et al.</i> (2017) | The research focuses on the private banking sector and the factors that influence their internationalization strategies. |
| Alguacil <i>et al.</i> (2017) | The study observes the relationship between the characteristics of European countries and the international markets that they operate in. |
| Paniagua <i>et al.</i> (2017) | Drafting of a framework vision based on the resources present, the article provides a conceptual and empirical model enabling an approach to social networks in foreign direct investment. |
| Prange & Bruyaka (2016) | This study analyses Chinese companies as regards their capacity to improve on innovation both as internal and as external companies. |
| Hemmer & Jackson (2016) | The researchers question the validity of the "western" internationalization models to Japanese and South Korean multinational corporations operating in China. |
| Verhoef (2016) | This research studies the different phases in the internationalization strategy of SANLAM and what led to its success in international markets. |
| Boehe (2016) | This article puts forward a conceptual framework that seeks to expand the theoretical knowledge on internationalization based on the internationalization strategies implemented. |
| Konijn, & Van (2015) | The study approaches energy companies and the key role played in the exchange of resources for infrastructures in their internationalization strategies. |
| Van Tulder (2015) | This study approaches the internationalization strategies of companies and their intrinsic and extrinsic factors. |
| Pananond (2015) | This research study adopts multinational companies in emerging markets to ascertain the motives behind foreign direct investment and the choices behind internationalization. |
| Carmen <i>et al.</i> (2015) | This study identifies the obstacles and provides recommendations on international expansion outside of Asia. |
| Quer (2015) | This research concludes that the chains of family-owned Spanish hotels opt for riskier internationalization and growth strategies. |
| Wei <i>et al.</i> (2014) | This examines the factors that determine the international expansion of private Chinese companies, their internationalization strategies and whether or not they make recourse to foreign direct investment. |
| Hoskisson <i>et al.</i> (2013) | This study contributes to knowledge on multinational corporations and their governmental influence, resources, means of entrance and business management as regards their internationalization strategies in emerging economies. |
| Gaffney <i>et al.</i> (2013) | Deploying dependence theory, this explains how multinational companies from emerging markets compete in international markets through foreign direct investment. |
| Yiu <i>et al.</i> (2013) | The research deals with the role that Chinese business groups play in internationalization and their search for assets and the demand relationships in selecting target markets. |
| Calia & Ferrante (2013) | This article researches the means of internationalization through a multi-variable survey. |
| Pananond (2012) | This approaches the internationalization strategies of Thai multinationals through vertical integration and the reputation that they are able to establish. |
| Grant & Venzin (2009) | The research casts its attention on the internationalization strategies and the major gains for financial services both in terms of the differences in the markets and the products. |
| Focarelli & Pozzolo (2008) | The internationalization of the banking and insurance sectors follows core patterns whether in terms of economic integration, distance and/or culture. |
| Harzing & Sorge (2003) | This article contributes to perceptions on the effects of the country of origin of organisational practices of multinational corporations operating in international markets. |
| Lane, C (1998) | Based on a restricted number of case studies of German and British companies, this carries out a comparison as regards their internationalization strategies. |
| Arze & Svensson (1997) | This research advocates the development of technology and foreign know-how for the improvement of the forestry sector in Chile, contributing to improving resources and processes. |
| O' Neill (1996) | The role of the Australian state is to promote support policies, regional programs and training for internationalization strategies. |

The internationalization strategies began to take on greater importance in the 1990s (Lane, 1998) and with the first study produced by O'Neill in 1996, who studied the hollowing out of the role of the Australian state according to which Grant & Venzin (2009) subsequently emphasised that internationalization strategies need adapting, and to an unprecedented extent, to the positioning of companies.

The research by Alguacil *et al.* (2017) conveys the differences between exporting companies and those making recourse to foreign direct investment, similar to the study by Wei *et al.* (2014), through examining the means of entrance of Chinese companies and whether or not they opt for foreign direct investment in order to enter international markets. Boehe (2016) warns that with the scarcity of resources, companies need to engage in foreign direct investment in order to acquire intangible resources in international markets, and with Van (2015) also highlighting how the attitudes of CEOs are fundamental to obtaining these commitments.

The research findings from Hoskisson *et al.* (2013) demonstrate that multinational corporations located in emerging economies seek to internationalise in global terms and, leveraging this opinion, Gaffney *et al.* (2013) also add that these companies are already competing internationally through recourse to foreign direct investment through their decision-making according to Pananond (2015) while their financial orientation drives this option according to Quer *et al.*, (2015) but with Costa *et al.* (2018) pointing to their performance evaluation models and with Buckley maintaining this stems from their efforts to generate competitive advantages (2018).

The Calia & Ferrante (2013) research findings emphasise how company characteristics influence their choice of pattern for internationalization with Liou *et al.* (2017) reflecting on how companies located in emerging markets strive to enter developed markets in conjunction with a strategy for diversification able to minimise the company's exposure to risk (Luiz *et al.*, 2017).

The study of the financial sector by Verhoef (2016) returned evidence as regards the preponderance of knowledge on the host market for the globalisation strategy to achieve success while Marques *et al.* (2017) identified how the success of this sector in emerging markets derives from other drivers and factors, such as the importance of the organisational control factors in the country of origin as referred to by Harzing & Sorge (2003) allied with the market entrance strategy (Focarelli & Pozzolo 2008).

Bertrand *et al.*, (2019) returned evidence that companies, whenever opting to expand their activities into different markets, opt for less corrupt countries even while Quer *et*

al. (2018) conclude that companies incorporating capital stakes held by the Chinese state display a greater probability for opting to enter markets involving high levels of political risk. Prange & Bruyaka (2016) studied how Chinese companies go about developing internationalization strategies based on process and product innovations while Vecchi (2022) finds that the strategies deployed by Chinese companies to penetrate African markets essentially align with a capitalist logic and their respective capacities to meet the demands prevailing.

The research findings of Konijn & Van (2015) demonstrate how Chinese companies agreeing to exchange resources for infrastructures in the Congo and in Ghana have enabled the establishing of strong business relationships that sustain access to these natural resources. Furthermore, the study by Arze & Svensson (1997) highlights the importance of networks to the forestry sector in Chile and clearly contributing to its expansion even while the study by Cooke *et al.*, (2018) warns on the growing global footprint of Chinese companies and corporations.

2.5.2 Cluster 2: De-internationalization and Re-internationalization

Cluster 2, depicted in red (Fig. 2.4), contains 43 articles (table 2.3) sharing the same focus; the models of company internationalization and their businesses based on innovation management and on knowledge management. This cluster also approaches the development of international entrepreneurial initiatives that cast a particular emphasis on risk and the phenomena surrounding de-internationalization and re-internationalization.

Table 2.3 Cluster 2: Main Contributions

| Authors | Contributions |
|---------------------------------|--|
| Thams & Dau (2023) | The study explore multinationals' de-internationalization at the onset of the 2022 Russia/Ukraine crisis, based on their CEO's political ideology. |
| da Fonseca & da Rocha (2023) | The study shows a comprehensive review of research on de-internationalization, encompassing the themes of export withdrawal, subsidiary divestment, and backshoring or reshoring. |
| Crick <i>et al.</i> , (2023) | The study investigates how a firm's governance affects decision-making within international new ventures, which rapidly withdrew from markets abroad, regarding their re-internationalization activities. |
| Martins <i>et al.</i> , (2022) | The main research contributions enable a better understanding of the involvement of failure and resilience in companies re-internationalization. |
| Kafouros <i>et al.</i> , (2022) | The study prior explanations as to why firm behaviour exhibits cycles of de-internationalization and re-internationalization. |
| Vissak <i>et al.</i> (2020) | The study explains the circumstances of initial foreign market entries and how the subsequent foreign market exits also influenced the case firm re-entry decisions. |
| Magnani & Zucchella (2019) | This article is to explore how entrepreneurial companies deal with uncertainty through a global niche strategy, with the research linking the marketing and international strategies. |
| Choquette (2019) | The authors emphasise how the internationalization processes of companies can be non-linear and, on numerous occasions, involves the de-internationalization of companies |
| Ciravegna <i>et al.</i> (2019) | Strategic types of internationalization: entrepreneurial, casual, and strategic internationalization. |
| Crick <i>et al.</i> (2018) | This study contributes to the knowledge surrounding the business marketing practices of companies undergoing rapid internationalization after a temporary interruption of sales abroad brings about de-internationalization. |
| Vissak <i>et al.</i> (2018) | This article studies whether committed /aggressive/active exporters experience more export fluctuations than passive/experimental exporters and what the random patterns of export |

| Authors | Contributions |
|-----------------------------------|---|
| | growth/decline are. |
| Lukason & Vissak (2017) | The research detects failure and failure processes in French exporting companies |
| Dominguez & Mayrhofer (2017) | The study indicates that the process of internationalization follows several steps, but the commitment to the external market may increase, decrease, and increase again. |
| Bialek & Gabryelczyk (2016) | The study identifies factors in the business model and the characteristics of biotechnology spin-offs for the implementation of their internationalization strategies. |
| Park <i>et al.</i> (2015) | The authors apply a vision for the development of internationalization strategies and the components making up international knowledge. |
| Alejandra <i>et al.</i> (2016) | The restrictions facing the internationalization of SMEs in emerging markets correlate with the age of the company and furthermore constitute a determining influence on their internationalization strategies. |
| Bernini <i>et al.</i> (2016) | Firms with a low probability of exit, have a high probability of re-entry. However, the way firms react to market conditions at the time of exit is central to determining the likelihood of re-entry. However, re-entry depends crucially on the logic and strategy of exit. |
| Trapczynski (2016) | Analysis of the background and implications of de-internationalization, broadening knowledge |
| Mlody (2016) | The research explained and analysed the theoretical knowledge of de-internationalization and the inherent decision-making. |
| O'Hagan & Berrill (2016) | Analyses the internationalization of multinationals, including of re-internationalization. |
| Jiang <i>et al.</i> (2016) | An early internationalization strategy can improve the survival rate with immigration status moderating the effect of an early internationalization strategy on their survival. |
| Pinho & Pinheiro (2015) | The researchers apply social network analysis to detect the advantages and disadvantages inherent to internationalization strategies. |
| Pellegrino & McNaughton (2015) | This study approaches the learning processes in international new ventures, in internationalization strategies and in the co-evolution of learning strategies. |
| Vissak & Masso (2015) | The research focuses on Estonian companies engaged in exports and the frequency of occurrence of such export patterns. |
| Felzensztein <i>et al.</i> (2015) | This study expands the literature on networks and their business orientation for the internationalization strategies of SMEs. |
| Turner <i>et al.</i> (2015) | The group of ventures created internationally, and their impact on Russia is discussed. |
| Klein <i>et al.</i> (2015) | This analysis deploys a probit model to evaluate the motives driving the establishment of international bases by European low-cost companies. |
| Stavnsager & Tanev (2015) | This study makes a two-pronged approach to "lean startups" and their strategies for global internationalization. |
| Wach, K (2015) | Decision-makers and entrepreneurs should pay more attention to strategic aspects, even in the early stages or early internationalization. |
| Vissak (2014) | This investigation concludes that are several phases during the internationalizations process, numerous critical factors can culminate in the company's re-internationalization. |
| Freeman <i>et al.</i> (2013) | They refer to the processes of strategy, and internationalization is created by entrepreneurial behaviour. How do managers go through the process of de-internationalization (exit) to re-internationalization (re-entry)? And how do they choose their patterns of internationalization? |
| Vissak & Francioni (2013) | Re-internationalization may not be a sign of failure, as in small markets and/or entry and exit costs are low, which contributed to companies choosing re-internationalization and/or de-internationalization over time. |
| Coeurderoy <i>et al.</i> , (2012) | British and Germany companies based on new technologies demonstrate how recently founded companies hold a greater probability of survival when opting to undertake internationalization processes. |
| Sillince <i>et al.</i> (2012) | The research applies a longitudinal case study to better understand the internationalization strategic theory as taught in business schools. |
| Liesch <i>et al.</i> (2011) | The findings here warn about the uncertainties and the risks in accordance with international experiences and how in some cases this may lead to the de-internationalization of companies. |
| Turcan <i>et al.</i> (2010) | The research uses a longitudinal multiple case study on the de-internationalization of high-tech SMEs used to structure a conceptual framework. |
| Prime <i>et al.</i> (2009) | The research analyses the psychological distances in international business and marketing. |
| Malo & Norus (2009) | This study analyses biotechnology companies in Lithuania and Poland that deploy internationalization strategies combining high quality products at low costs and that improve the growth rates of these SMEs. |
| Welch & Welch (2009) | This study investigates the behaviour of companies, after an interruption in operations and how they approach the re-entry into the markets and whether the behaviour is identical or if they change. |
| Tuppura <i>et al.</i> (2008) | This research contributes towards deepening our knowledge on internationalization strategies through interconnecting company resources, their market orientations and international growth within the scope of internationalization theories. |
| Agndal & Chetty (2007) | This study explores the internationalization strategies both in terms of the entrance modes and the choices over international markets. |
| Turner & Gardiner (2007) | This article examines the process of de-internationalization of British telecommunications and the retrenchment vis-à-vis international markets. |
| Andersson (2004) | The application of internationalization strategies as regards the modes of entrance and the selection of international markets. |

Entrepreneurial companies deal with uncertainty through global niche strategies, thus the research field unites international strategy and marketing (Magnani & Zucchella, 2019), encompassing co-innovation, allowing for the acceleration of value for the client and international expansion (Klein *et al.*, 2015). Thus, the internationalization strategy is closely related to an orientation on entering markets (Tuppura *et al.*, 2008), psychic distance, Prime, Obadia & Vida (2009), where commercial relations predominate (Agndal & Chetty, 2007), and the strategies are suitable for each branch of activity (Andersson, 2004).

According to Felzensztein *et al.* (2015), Chilean entrepreneurs are more likely to look for more distant markets when using networks, with Pinho & Pinheiro (2015) also highlighting the advantages of network analysis for the internationalization strategy, thus allowing for the introduction of new products and processes into the Russian market, and benefiting partner ecosystems (Thurner *et al.*, 2015).

The study by Malo & Norus (2009), carried out in the Baltic countries and Poland, highlights that the networks take advantage of low-cost, high-quality products to boost the growth of companies. In the research by Bialek & Gabryelczyk (2016), they also demonstrate the influence of international partnerships and the CEO's international experience as drivers in the model of biotechnological spin-offs, combined with tax advantages and low costs.

Young companies are more likely to survive when they opt for internationalization according to Coeurderoy *et al.*, (2012). Still, in the early days they operate in a few markets (Vissak & Masso, 2015), expanding to more markets in subsequent years, (O'Hagan & Berrill, 2016), including the development of partnerships on a global scale (Stavnsager & Tanev, 2015).

Alejandra *et al.* (2016) analyze internationalization in emerging markets in South America as did Ciravegna *et al.* (2019), who studied Costa Rican technology exporters, concluding that entrepreneurs choose markets and ways of entry according to an economic logic and with Sillince *et al.* (2012) further demonstrating how entrepreneurs build up strategic actions. Thus, the evidence on this topic reveals how no standard can fully explain the internationalization process (Pellegrino & McNaughton, 2015).

A comprehensive view of the internationalization process should be adopted, i.e., aspects of the various existing standards should be considered, not just one. The difficulty of the main models to fully explain the internationalization processes of companies led to the

adoption of alternative frameworks, which jointly observed the arguments of the dominant standards (Dominguez & Mayrhofer, 2017).

The theme of corporate internationalization gains special relevance when companies try to accelerate and diversify their international expansion strategies, then those that lack these strategies (Wach, 2015) do not survive in international markets (Jiang *et al.*, 2016). However, increasing levels of uncertainty Park *et al.*, (2015) can culminate in the de-internationalization of companies (Liesch *et al.*, 2011).

The international business ability and knowledge of entrepreneurs reflect improvements to their business and management skills and play an important role in influencing their strategic learning orientations (Vissak & Francioni, 2013). However, not all entrepreneurs are ready for international expansion as the institutional capacities of their companies negatively moderate the relationships in underdeveloped host country institutional environments and in cases of accelerated company internationalization (Vissak *et al.*, 2020). After their initial setback phase, continuing with their learning and growth processes Vissak, (2014) closely interlinks exit and re-entry. Firms with a low probability of exit also have a high likelihood of re-entry and vice versa. However, the way firms react to market conditions at the time of exit is important in determining the probability of re-entry, and thus re-entry crucially depends on the strategic logic behind the exit (Bernini *et al.*, 2016).

Entrepreneurs accumulate limited knowledge about their main export markets and learn from the experiences of re-entry and market penetration to improve the capabilities of their companies (Vissak & Francioni, 2020). Many companies withdraw from international operations, go through an interregnum, and then re-enter the international arena (Welch & Welch, 2009), recognizing the prevailing international opportunities (Dominguez & Mayrhofer, 2017) shaped by the mental images of the entrepreneur collaborating between companies and the foreign market. Internationalization requires viewing in a holistic way (Turcan *et al.*, 2010) without neglecting the approach to de-internationalization.

Understanding the consequences of de-internationalization processes may contribute to greater awareness around the management of overseas operations (Trapczynski, 2016) as decision-makers responsible for international expansion (Freeman *et al.*, 2013) should not ignore the ongoing processes, especially due to the sensitive nature of the underlying decisions, such as financial losses, declining exports (Vissak *et al.*, 2018) and company credibility issues (Crick *et al.*, 2018). Choquette (2019) analyzes the decisions over exiting an international market in accordance with the sunk costs meanwhile incurred, and

Lukason & Vissak (2017) resort to a case study of a French company where they detected particular failures as resulting in de-internationalization. The investigation by Turner & Gardiner (2007) analyzed the de-internationalization of a British telecommunications company and demonstrated that the determining reason for the failure was the strategy used.

The entry speed of companies is crucial in less competitive international markets as any failure to advance implies a high probability of exit (Mlody, 2016). However, some companies opt only for partial de-internationalization as they leave and return to the same markets with some frequency (Bernini *et al.*, 2016).

2.5.3 Cluster 3: Barriers

The blue-coloured cluster 3 (Fig. 2.4) represents an essential and multi-developed pillar to the architecture of internationalization through an approach that values the resources and capacities applied to leverage innovation and in the sense of obtaining competitive advantage and growth (table 2.4).

Hendriks *et al.*, (2018) highlight how managers fear that expanding into international markets may bring about financial ruin with the external barriers proving key and inhibiting companies from acting while Yan *et al.*, (2020) demonstrate that the absence of governmental interventions and political changes may bring about a reductive impact. In turn, the study by Hermans & Borda (2020) on the Latin-American context stresses the serious shortcomings in effect, including: the capital markets, the low levels of competition and government intervention, which fall far short of that demanded with Jimenez & Bautista (2012) also highlighting the greater level of adversity and political risk. Wang *et al.*, (2020) study the Chinese civil construction sector that, in periods of weak economic growth, explores the global market to generate more robust financial performances even while the criterion of geographic distance represents a determinant factor to these companies (Schotter & Beamish, 2013).

Nevertheless, innovation processes provide excellent opportunities for companies engaging in the “green economy” to be competitive in international markets (Frey *et al.*, 2013) and a core factor in the internationalization of companies (Zhou, 2018), which generates greater competitiveness and profitability (Dau, 2013). In the research by Ray *et al.*, (2018), Indian family companies shape their international strategy around the pillar of family involvement and company management attributed to the responsibility of non-family members (Wasowska, 2017). The research findings put forward by Deng *et al.*, (2012), following analysis of the internationalization strategies of private companies

with powerful political connections, conclude in favour of their propensity to deploy diversification strategies that contribute towards broader knowledge about markets that facilitates the development of new capacities (Van & Hens, 2012).

Table 2.4 Cluster 3: Main Contributions

| Authors | Contributions |
|---------------------------------------|---|
| Miroshnychenko <i>et al.</i> , (2023) | This study examine family versus nonfamily firms' propensity to increase or decrease their internationalization in response to different sources of risk. |
| Cha <i>et al.</i> , (2023) | This research explores the divergence in global e-commerce policies may be a major barrier to the internationalization of the sharing economy business. |
| Li, & Wang (2023) | Study shows that cross-border mergers and acquisitions to build a better reputation through environmentally friendly behaviour and socially responsible engagement and therefore gain capital market benefits. |
| Igwe <i>et al.</i> , (2022) | The study suggest that the institutional-legal environment constitutes key barriers that firms in in transition and emerging markets must overcome to develop an early internationalization strategy. |
| Markovic <i>et al.</i> , (2021) | The paper provides empirical results on the barriers, the existence of strategies and indicators for internationalization, the benefits of internationalization, internal and external drivers of internationalization and the potential risks of internationalization. |
| Hermans & Borda (2020) | The research details how the international business dealings of Latin American multinationals stem from decision-making specific to the emerging markets where they maintain operations. |
| Wang <i>et al.</i> (2020) | The study stresses the opportunities available to the cultural industries and expands international business theories as regards innovation, social inclusion, internationalization strategies and the demand prevailing in emerging markets. |
| Wang <i>et al.</i> (2020) | This research draws on case studies of Chinese construction companies in order to analyse whether their financial performance improves through internationalization and correspondingly setting out four regression models. |
| Zhou (2018) | This study analyses Chinese companies in terms of the analogy between internationalization and performance. |
| Hendriks <i>et al.</i> (2018) | These research findings demonstrate the preponderant role of the domestic presence of any company to its internationalization strategy. |
| Zhou (2018) | Analyses Chinese companies in terms of the analogy between internationalization and performance. |
| Ray <i>et al.</i> (2018) | The internationalization strategies of companies reflect the influences of their family management and the family ownership of companies in emerging markets. |
| Jimenez <i>et al.</i> (2019) | The research study applies social capital theory to the effect of exposure to risk and control over the internationalization strategies of multinational corporations. |
| Andreu <i>et al.</i> (2018) | This analyses family-owned businesses in the hotel sector in Spain and how this family owned character influences their internationalization strategies. |
| Luo & Zheng (2018) | This study approaches how analysts determine the strategic value of internationalization in the contribution towards company performance. |
| Wasowska (2017) | The research studies family-owned companies and ascertains the determinant factors to their internationalization. |
| Murtinu & Scaleria (2016) | This article deals with the strategies applied by sovereign fund cross-border investments. |
| Maitland & Sammartino (2015) | This study seeks to explain the decisions taken by multinational managers as regards internationalization and the strategies subsequently applied in international markets. |
| Lu <i>et al.</i> (2015) | The research studied the performance of 225 Chinese family-owned businesses in terms of their growth and profitability and finds that internationalization improves their growth but has the opposite effect on their profitability. |
| Aguilera <i>et al.</i> (2015) | The researchers here focus on the theoretical justifications and the development of regional multinational companies before setting out a future research plan. |
| Huo (2015) | This study effectively demonstrates that there is a positive relationship between the internationalization strategy and company performance and an indirect effect on the financial leverage of Chinese technology and information technology companies. |
| Lee <i>et al.</i> (2014) | The research findings demonstrate that the financial results are better for American hotel chains that opt for internationalization in comparison with those opting to remain in the domestic market. |
| Richter (2014) | This study applies an information cost model to test the development of internal information costs during internationalization. |
| Schotter & Beamish (2013) | The location decisions of multinational corporations emerge from the decisions taken by their managers over their respective attractiveness to travel and live in the destination countries. |
| Frey <i>et al.</i> (2013) | The authors here analyse the innovation processes of 300 companies in the green economy. The effective innovations emerge out of cooperation with research centres and ensuring more efficient access to the capital markets. |
| Lin & Cheng (2013) | This article examines the strategic management of human resources and business strategy in terms of company internationalization. |
| Dau (2013) | The pro-active market reforms are fundamental to international companies to the extent they boost their profitability, competitiveness and improve their knowledge about international markets. |

| Authors | Contributions |
|---------------------------|--|
| Jimenez & Bautista (2012) | This research study took place between 2000 and 2005 and analysed the international strategies, the political risk assumed by Spanish multinationals and their respective performances. |
| Deng <i>et al.</i> (2012) | This article studies the interconnection between the company policy and the effect of the company type on the respective international performance. |
| Van & Hens (2012) | The expansion of multinationals in developed countries enables them to develop new product innovations and broaden their capacities for development. |
| Binda & Colli (2011) | This study covers the 50 largest Italian and Spanish corporate groups as regards their strategies, structures and transformation of ownership. |
| Jimenez (2010) | The analysis here contrasts the international diversification strategies applied by Spanish multinational corporations in terms of the incidence of political risk and the scope of internationalization. |
| Horn <i>et al.</i> (2010) | These research findings contribute to a better understanding of the internationalization strategies of the Japanese automobile sector in emerging markets such as India. |
| Jaw & Lin (2009) | This research contributes towards clarifying the relationship between the Chief Executive Officer and the senior management team as regards their roles in the respective internationalization strategy. |
| Binda (2007) | This study examined the growth strategies in effect at the 40 largest Spanish and Danish companies between 1973 and 2003 and demonstrates how these companies are less oriented towards markets and more internationalised at the end of 2003. |

2.5.4 Cluster 4: Stimuli

This cluster, portrayed in yellow in Figure 2.4, approaches the increased performance of companies generated by their strategies for expansion, diversification, entrance into new markets and acquiring other companies (table 2.5).

Table 2.5 Cluster 4: Main Contributions

| Authors | Contributions |
|-------------------------------------|--|
| Crespo <i>et al.</i> , (2024) | The study shows the business digitalization strategy, early internationalization strategy and internet international strategy have a positive effect of both responses to the covid-19: production recovery (short-term response) and digital transformation (long-term response). |
| Yao <i>et al.</i> , (2023) | This study shows the positive effect of home country institutional environment on firms' outward foreign direct investment. |
| Chebbi <i>et al.</i> , (2023) | This study shows the managerial cognition is important to seize opportunities while the manager's human capital is needed to reconfigure resources while internationalizing rapidly. |
| Reim <i>et al.</i> , (2022) | The study analyses how digitalization can help to surmount the business model challenges associated with SME internationalization. |
| Islam <i>et al.</i> , (2022) | The study shows that family enterprises in China have significant impact on China's social and economic development |
| Fon & Alon, (2022) | This research examines how Chinese foreign aid interacts with the quality of the host country's governance in shaping Chinese state-owned enterprises' foreign direct investment in Africa. |
| Cano-Rubio <i>et al.</i> , (2021) | This study analyzes the relationship between family involvement and a internationalization firm's growth. |
| Odlin & Benson-Rea (2021) | The study shows SMEs may target new niches when they internationalize because they cannot access the resources needed to co-create their domestic niche or because resources are valued differently. |
| Da Silva <i>et al.</i> , (2021) | This research examining emerging economy inward and outward foreign direct investment flows is on a significant upward trajectory. |
| Orero-Blat <i>et al.</i> , (2021) | The elaboration internationalization mechanism based on Lean Start-up methodology will imply a cost-effective solution for cybersecurity enterprises that want to achieve profitability and higher return on investment in internationalization. |
| Wang & Zhou (2019) | The study analyses how learning and orientation towards profits constitute crucial factors for the internationalization strategies deployed by multinational corporations. |
| Pisani <i>et al.</i> (2017) | This research considers the understanding of the importance of the impacts of internationalization strategies based on establishing minority stakes in shared ownership international companies within the context of SMEs. |
| Clavel <i>et al.</i> (2017) | This study applies the business resource theory to the wine-making sector in Spain to explain international processes. |
| Bianchi <i>et al.</i> (2017) | This research focuses on the management and technological capacities of SMEs in emerging markets in Latin America and analyses the impact of international performance. |
| Onkelinx <i>et al.</i> (2016a) | The level of investment in SME human capital rises when this encapsulates the choice to adopt an internationalization strategy. |
| Onkelinx <i>et al.</i> (2016b) | The level of human capital varies with the internationalization strategy implemented by companies. |
| Cerrato <i>et al.</i> (2016) | This article deals with 63 Italian SMEs based on analysis of their internationalization in accordance with configurational theory. |
| Lafuente <i>et al.</i> (2015) | The authors investigate the sustainability and export behaviour and de-internationalization of 319 Romanian SMEs and entrepreneur fears of international failure. |
| Eisend & Schmidt (2014) | The researchers apply internationalization strategies to improve the performance of their scientific research work. |
| Winch (2014) | This analyses the implications as regards the positioning of companies in their domestic market towards their positioning in the internationalization strategic networks of professional service companies. |
| Jensen & Petersen (2014) | This research advances the Stabell & Fieldstad (1998) model to deepen and better understand how service companies internationalise their markets. |
| Zen <i>et al.</i> (2014) | The article analyses the impact of resources on internationalization performances and proposes that clusters proactively influence access to greater resources in internationalization processes. |
| Drauz (2013) | The study approaches the Chinese automobile industry and the factors that influence the internationalization process. |
| Jansson & Soderman (2013) | The research applies a case study of Chinese multinational companies in the construction sector that deploy an internationalization strategy initially leveraged on their competitive strengths and targeting the low cost segment. |
| Williams & Martinez (2012) | The research findings demonstrate how the behaviours of multinational corporations shift as regards the means of entering markets during periods of recession. |
| Kuester & Vila (2011) | The study approaches market strategy, business success and innovation and these may end up diverging in international contexts. |
| Morschett <i>et al.</i> (2010) | This analyses internationalization strategies and choice over the means of companies entering international markets. |
| Moore <i>et al.</i> (2010) | Benchmark stores are fundamental to internationalization strategies in the luxury fashion retail sector driven by the international development of these retailers. |
| Mariz-Perez & Garcia-Alvarez (2009) | This study spans the relevant differences and compares 316 Spanish franchising companies in terms of those opting and those not opting to embark on internationalization processes. |
| Strandskov & Pedersen (2008) | This research studies the International Service Systems company to demonstrate the international expansion record over a four-decade long period of applying an aggressive internationalization strategy. |
| Saarenketo <i>et al.</i> (2008) | This study adopts the transaction costs theory to examine the internationalization of Finnish technology companies and sets out a model for entering and diversifying markets |

| Authors | Contributions |
|----------------------------|--|
| Hollenstein (2005) | Research into Dunning's OLI paradigm and then highlighting the key drivers of internationalization and their internationalization strategy. |
| Kirby & Kaiser (2003) | This article incorporates analysis of nine British and twelve Germany SMEs that embarked on joint ventures located in China and reports a level of satisfaction when the choice of partnership is appropriate. |
| Louri <i>et al.</i> (2000) | This analyses the taking of decisions by Greek companies prior to engaging in the strategies through using the logit model to understand whether they have the financial and accounting capacities. |

The choice over how to enter a market represents a determinant factor to the internationalization strategy (Morschett *et al.*, 2010) as well as holding relevance to expanding beyond the regional framework in order to improve on the effects of the international expansion (Pisani *et al.*, 2017). The Bianchi *et al.*, (2017) study establishes due recognition of how the opportunities and the networks shape the relationship between the business orientation and the international performance of companies in emerging markets. In turn, the research by Strandskov & Pedersen (2008) incorporates the aggressive internationalization strategy through its case study of International Service Systems, which made recourse to poorly qualified workers to supply services requiring high levels of labour intensity.

Collaboration based strategies are susceptible to improving performances (Eisend & Schmidt, 2014) in an approach overlapping with the work carried out by Winch (2014) in the service industry that established concrete connections between the strategic positioning and the network positioning within the scope of internationalization strategies. The Onkelinx *et al.*, (2016a) study demonstrates how internationalization may compensate when the human capital aligns and achieves harmony with the strategy (Onkelinx *et al.*, 2016b), which emerges as a determinant factor in the research of Jensen & Petersen (2014) that highlights the importance of a solid and wide reaching structure for the internationalization of service companies.

The research by Saarenketo *et al.*, (2008) further advocates how internationalization strategies take place based on sustained knowledge perspectives even while Mariz-Perez & Garcia-Alvarez (2009) adopt the resource-based vision in order to research the internationalization processes of Spanish franchising chains. Moore *et al.*, (2010) also share the opinion that the means of entering international markets is decisive while Louri *et al.*, (2000) opt to highlight how the foreign direct investment undertaken by Greek companies correlates with the size of the company, the financial capacity, the growth rate in sales and the level of labour intensity, which all contribute towards decisions to invest in international markets.

However, Williams & Martinez (2012) affirm that the best solutions involve investments carried out by the company itself; whether in times of health and/or financial crises or

with government support in the destination country. The Jansson & Soderman (2013) research study, focusing on the Chinese construction equipment sector, concludes that the best option for expansion into international markets involves capturing the low cost/price segment.

2.5.5 Cluster 5: Survival

The purple cluster contains the lowest number of publication as detailed in table 2.6 with its theme focusing on the survival of companies and in strengthening internationalization processes focused on either exports and/or entering new markets.

Table 2.6 Cluster 5: Main Contributions

| Authors | Contributions |
|-----------------------------|--|
| Eduardsen & Marinova (2020) | The research study enquires into the implications and the risks of internationalization, the impacts of this risk on the internationalization strategy and the strategies actually deployed to evaluate and manage risk in internationalization processes. |
| Shi et al. (2019) | This article details the histories of eleven family owned Chinese companies and how they react to the succession from the first to the second generation in internationalization processes |
| Hadrys (2018) | The research states that the business orientation is crucial to the internationalization of family businesses. |
| Braga et al. (2018) | This research focuses on the effects of knowledge, cooperation and innovation in internationalization strategies. |
| Giuffrida et al. (2017) | Articles based on cross-border e-trade to China and establishes sources of knowledge on themes and shortcomings that might be subject to future study. |
| Sui & Baum, (2014) | The internationalization strategy is fundamental to contextualising the relative lack of SME resources in international markets. |
| Hilmersson (2014) | The strategies deployed by SMEs and their performance when faced by turbulence in international markets. |
| Fernandez & Nieto (2006) | This analyses the internationalization strategies of SMEs and their different types of property. |
| Fernandez & Nieto (2005) | The study approaches the internationalization strategies of family owned SMEs and the restrictions encountered in terms of the lack of resources. |

The research by Eduardsen & Marinova (2020) highlights the impacts and the implications associated with risk within the framework of companies undergoing internationalization processes and hence how companies seeking to engage in such processes encounter internal and external obstacles. These restrictions faced by companies in terms of their internal barriers interlink with a lack of resources, (Fernandez & Nieto, 2005), the scarcity of these same resources for innovation, (Sui & Baum, 2014), for financial resources and for specialist human resources and as well as for research (Giuffrida *et al.*, (2017) as well as identifying barriers facing managers in terms of logistics for cross-border e-commerce with China. Nevertheless, Shi *et al.*, (2019) emphasises how internationalization plays a preponderant role in the strategic processes of companies and generating positive effects on performance (Hilmersson ,2014).

2.6 Discussions and Future Agenda

The main areas of research on the theme of internationalization of companies, including in the previous clusters, enable the development of a framework (figure 2.6) for analyzing companies' internationalization process.

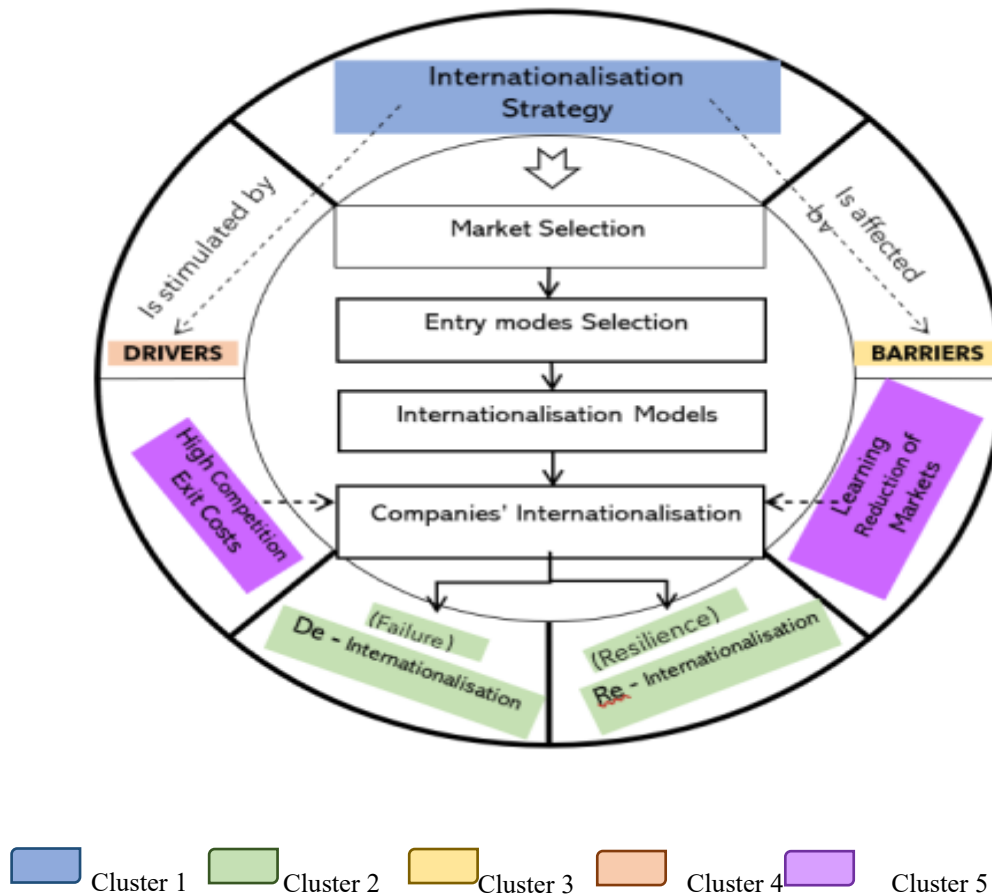


Figure 2.6 Knowledge Map for Company Internationalization Processes

The first strategy cluster essentially covers those studies investigating two sub themes: market selection and entry modes, and their interlinked pathways related to internationalization models and company internationalization processes. Market Selection enables companies to implement and nurture good international business practices to anticipate opportunities for sustainable growth and increase their competitiveness by resorting to international expansion, whether by diversifying the target markets, intensifying their presence in them and/or gaining the trust of new customers.

We also perceive other opportunities for companies that feel encouraged and aspire to follow the path of internationalization within a perspective of increased sales, prospects of profits, new opportunities in new markets and strengthening the competitiveness of companies within the framework of which entrepreneurs play relevant in

internationalization and attempting to generate competitive advantages for their companies.

This cluster advocates symmetries between companies and universities, thus improving networks to improve product/service innovation increasingly fosters the ability to enter international markets at a later stage and subsequent improvements to performance. Cluster 2 represented the resilience and/or failure of the companies in internationalization. The second cluster, entitled "de-internationalization and re-internationalization" encompasses articles that discuss three sub themes, failure, resilience and markets. The partial or total abandonment of companies from international markets while also identifying interesting pathways that closely interrelate with this cluster, such as companies, internationalization, globalization, and models of internationalization and re-internationalization.

The cluster shows companies' resilience capabilities in international markets in the challenge of high competition and the costs of withdrawing from international markets. The "re-internationalization" analyzes the re-entry of companies into international markets and enables the identification of pathways. Furthermore, the re-internationalization cluster demonstrates how periods of internationalization of varying duration lead to increases and decreases in company activities that depend essentially on internal and external factors over time.

However, not all companies achieve the desired results, with many needing to opt for re-internationalization or even de-internationalization. As a theoretical contribution, we conclude here how markets are fundamental to the process of re-internationalization coupled with the learning and entrepreneurial orientations of entrepreneurs and their capacity to offset any shortcomings in the initial process.

Should errors escalate and/or other factors, such as entry and exit costs, turn out too low/high or the occurrence of financial or health crises, this can cause devastating effects on businesses and lead to the total de-internationalization of companies. Markets are key to re-internationalization processes whenever companies undergo a change of managers/owners, with the new leaders bolder and more experienced internationally than their predecessors, drawing on more sustainable international networks than previously. A lack of market knowledge, errors in decision-making, and other factors may impact company decisions to de-internationalize and drive a loss of competitive advantage in some markets or, in worst case scenarios, even in all target markets.

Cluster 3 details the sub themes of internal and external barriers. The barriers to the internationalization process and inhibit companies, among which, among others, the absence of government intervention in support of companies, political changes, capital market, and low competition stand out. Companies exposed to foreign exchange risk are conditioned, either on the value of the company in accounting terms, which can suffer large fluctuations, and the respective business profitability can be irreparably compromised, so a management model will be advised to mitigate barriers to allow for improvement and optimizing companies' international transactions to improve the performance and financial results of companies. Combined with other motivating factors, such as an approach to valuing resources and capabilities to leverage innovation and the feeling of achieving a competitive advantage and growth, it will allow to mitigate and even overcome barriers.

Cluster 4 is the stimulus that have two sub themes, advantages and competitiveness, that drives companies in an increasingly globalized world to choose the path of internationalization, aiming to increase productivity, economic growth and increase transactions in economies of scale.

Companies increase their international presence through expansion strategies, diversification, entry into new markets, acquisition of other companies and resorting to national and/or international networks that allow them to improve products and/or services for international markets, ensuring no competitiveness alone, as adjusting the strategic positioning of companies in the face of fierce competition in international markets. Lately, internationalization is also a stimulus for start-ups and spin-offs, as they combine flexibility and adaptability supported by knowledge, which allows them to create new products/services meeting the needs of consumers, contributing to improving competitiveness.

The systematic review also returned the identification of two thematic subdivisions, the role of decision makers and lack of resources in the last cluster focuses on the survival of companies in international markets. However, the decision can be more drastic if there is a shortage of human and financial resources that are not exceeded and that will cause the company to abandon international markets, focusing only on the domestic market.

Afterwards, the decision makers will carry out a new assessment if they intend to venture again in the international markets or opt for definitive de-internationalization. Therefore, this SLR represents an attempt to understand the internationalization of companies better and conclude here that strategy is cross-cutting areas to all the preponderant themes of internationalization, reflected both by the development of these areas and by the careful

attention given by researchers. The SLR results identify several sub themes for each cluster of greatest interest, which we shall discuss in the research gaps and potential lines of future research below (Table 2.7).

Table 2.7 Internationalization Future Research

| Clusters | Future Research |
|--|---|
| Strategy | What are the reasons for the reduced success in implementing international projects, based on triangulation between companies, universities, and innovation, using the methodology of case studies. |
| | How do collaborative interactions, within a <i>N-Tuple of Helices</i> perspective, contribute to and drive the internationalization of companies? |
| | How barriers, planning and motivations dynamically interact over the course of internationalization processes and influence the success or failure of companies in international marketplaces. |
| De-internationalization and Re-internationalization | Extend research to other geographical contexts to examine how the country/region of origin affects the paths of de-internationalization of enterprises. |
| | What are the impacts of the Covid-19 health crisis on the de-internationalization of businesses? |
| | To explore and better understand the negative impact of experiences on the internationalization of companies. |
| | In re-internationalization, companies follow a strategy of re-entering the same external markets or choosing to prefer other markets. |
| Barriers | Explore and better understand the negative impact of experiences on the internationalization of companies. |
| | Identify the main obstacles that drive companies to enter in international markets. |
| | What are the insurmountable barriers that force companies opt for de-internationalization of international markets. |
| Stimuli | What are the main challenges companies face when re-entering international markets? |
| | Analyze national and international support provided to companies to catapult them to international markets. |
| | What are the main stimuli that government can give to the companies face when entering international markets? |
| Survival | In which situations the survival of companies goes through re-internationalization in international markets. |
| | How can international markets be used for the survival of companies. |
| | What are the impacts and implications associated with the risk in the internationalization of companies. |

The articles collected and systematized enabled the differentiation of two predominant lines of research, which then branch out into the five clusters and sub themes studied above. The first line of research focuses on the strategy cluster that highlights the barriers to entry, drivers, the human capital of companies, the orientation of the managers/entrepreneurs, and the social relationships they maintain. The levels of innovation and technology in effect are determinant to the internationalization of companies and hence the reasons for reduced levels of success in implementing international projects.

Based on the triangulation between companies, universities, and technological innovation, apply the case study methodology, we perceive the viability of success as increasing exponentially in the near future. These synergies between companies and universities are playing an increasingly important role in technological innovation, which will also drive the opening of new gaps and understandings of the contribution of higher education institutions and technology centers in terms of technology transfer and industrial property

with a view to companies approaching international markets. The cluster has relevant ramifications for business strategy, identifying gaps while understanding how companies are taking advantage of e-commerce to exploit international markets and how managers/entrepreneurs seek to drive increases in the market shares of their companies.

Future research should also focus on identifying the main challenges companies face when entering constantly evolving international markets. Hence, there is also relevance in studying the extent to which internationalization contributes to company survival, particularly in periods of uncertainty, such as that brought about by the recent Covid-19 health crisis and enabling the undertaking of a comparative study of the rates of company survival and internationalization among countries.

The second research line focuses on re-internationalization and de-internationalization, reasons and incentives for internationalization, and the consequent selection of markets and modes of internationalization for such markets. Intertwining future lines of research on the re-internationalization and de-internationalization and stimuli clusters, which still require attention from the scientific community and where there remain considerable shortfalls in their reception by business managers, gaps open up, including those deriving from the Dominguez study (2017), extending research to other geographical contexts and analyzing how the country of origin shapes the paths of re-internationalization.

Another pathway is the main challenges companies face when re-entering international markets and analyze national and international support provided to companies to catapult them to international markets.

A final but no less important recommendation arises from the main stimuli that the government can give to the companies when re-entering international markets. This would provide for extending the research into other geographical contexts, analyzing how the country/region of origin affects the paths of re-internationalization and de-internationalization of companies and exploring the gap around the decisive role played by the international strategy of entrepreneurs/managers in decision-making and alongside the respective implications of their decisions for their companies.

2.7. Conclusion

In this context, our study aims to update the mapping of this area of study, identifying the main current issues related to internationalization, and at the same time, establish a capable framework to serve as a reference and support for researchers, academics, and managers. The SLR methodology has proven a useful tool for advancing the results returned from descriptive literature reviews with its contributions, including synthesising key literature findings, identifying gaps, and establishing a basis for future research. The SLR applied in this study involved a total of 310 articles from the period 1996 to 2024. The analysis and systematization of the articles retrieved made it possible to identify three clusters, which concentrate on the main issues discussed in the internationalization of companies field, among which there is a clear interdependence of issues.

Strategy enables companies to implement and nurture good international business practices to anticipate opportunities for sustainable growth and increase their competitiveness by resorting to international expansion, whether by diversifying their target markets, intensifying their presence in them and/or gaining the trust of new customers. We also perceive other opportunities for companies that feel encouraged and aspire to follow a path of internationalization within a perspective of increased sales, increased customer portfolios, prospects of improving results/profits, new opportunities in new markets, product expansion and strengthening company competitiveness within the framework of which entrepreneurs/managers play relevant, where not determinant, roles in internationalization and attempting to generate competitive advantages for their companies.

Strategy advocates symmetries between companies and universities, thus improving networks to increasingly improve product/service innovation that fosters both the ability to enter international markets at a later stage and subsequent improvements to performance. Furthermore, re-internationalization demonstrates how the existence of periods of internationalization of varying duration leads to increases and decreases in company activities that depend essentially on internal and external factors over time.

As a theoretical contribution, we conclude here how markets are fundamental to the process of re-internationalization, coupled with the learning and entrepreneurial orientations of entrepreneurs and their capacity to offset any shortcomings in the initial process. Should errors escalate and/or other factors, such as entry and exit costs turning out too low/high or the occurrence of financial or health crises, this may cause devastating effects to businesses and lead to their total de-internationalization.

This SLR reveals some natural limitations that researchers in this field should be aware of when interpreting the findings presented here. The SLR only incorporated articles from a single bibliographic database: Web of Science, for the sake of ease of information extraction and reproducibility, while covering a wide range of articles and periodicals across the most diverse areas, there are other databases (e.g., EBSCO, Google *Scholar* and Scopus) that might have served for this purpose. Different theories of internationalization, conceptual structures, and other specific theories underpin the work analyzed. The findings and conclusions result from the database constituting the SLR and require interpreting only in that context. Therefore, this literature review may not be fully comprehensive but provides new insights that complement the knowledge generated by previous studies and help stimulate further research of benefit to the scientific community.

Folha em branco

Chapter 3. The calvary of internationalization: from success to insolvency, from brand rebirth to the re-internationalization

ABSTRACT

In an increasingly globalised world, small and medium sized companies (SMEs) inevitably have to embark on the internationalization of their activities, competing for the growth and sustainability of their business and contributing towards the creation of employment, wealth and improving the trade balances of their respective countries of origin. This article strives to answer the following question – What are the factors of success and failure associated with the internationalization of SMEs in the pandemic period? to provide a deeper understanding of the barriers and stimuli associated with different internationalization processes. This adopts a qualitative research methodology based on six case studies and with recourse to semi-structured interviews with the senior managers of exporting SMEs.

The study reports that SMEs with major investments deployed in their internationalization processes, through recourse to high levels of bank financing, in association with the COVID-19 pandemic period, were not able to successfully overcome the calvary of internationalization and culminating in their own bankruptcies. Our study furthermore demonstrates how, despite such failures, the attractiveness and reputation of the brand, supported by the strategic vision and perseverance of new investors (entrepreneurs), enabled the rebirth of the brands and opening the door to their re-entering international markets.

KEYWORDS:

Brand rebirth; Case study; Internationalization; Internationalization strategy; Re-internationalization; SME Internationalization.

3.1 Introduction

Small and medium sized companies (SMEs) class as the backbone to national economies (Paul, Parthasarathy & Gupta, 2017) with approaches to international markets involving countless challenges and barriers to their effective market entrance (Rahman, Uddin & Lodorfos, 2017). In an increasingly globalised world, SMEs inevitably have to internationalise their activities, contributing to the preponderant source of employment growth and to the economic success of countries (Ribau, Moreira, & Raposo, 2017), hence the reason the academic community has so strongly focused on the influences of this rising involvement of SMEs in international markets.

The constant technological, economic and political changes drive business owners and managers to seek out new opportunities (Korsakienė, Liučvaitienė, Bužavaitė, & Šimelytė, 2017) and are increasingly willing to enter international markets in keeping with their desire to boost their reputations and leverage their own knowledge (Tarek, Adel & Sami, 2016).

For SMEs to prevail in highly competitive markets, they have to deploy advanced capacities for innovating their products, associated with lower production costs than the competition and, furthermore, applying agile and innovative marketing solutions (Acosta *et al.*, 2018). Any SME internationalization strategy requires appropriate response capacities in keeping with the high demands of markets (Nakos *et al.*, 2018) as well as defining strategic orientations motivated by their own specific characteristics (Fernandes *et al.*, 2020). Nevertheless, some SMEs encounter restrictions on accessing resources (Kim & Vonortas, 2014) and hence the relevance of re-internationalization that emerges in the ever rising number of companies that leave international markets before then later returning after a period of inactivity (Sousa, He, Lengler, & Tang, 2021).

Understanding this re-entrance crucially involves observing how these companies exit international markets and how they reduce their level of involvement and/or changeover to lower levels of commitment (Aguzzoli *et al.*, 2020). This process stands out as a learning experience (Bernini, Du & Love, 2016) throughout which companies have to forget the calvary of their initial failure, correct their mistakes and failings and deploy the knowledge acquired to improve their strategy as a means of operating and achieving competitiveness in international markets (Surdu, Greve, & Benito, 2021).

COVID-19 brought about devastating social and economic consequences as we faced the greatest health crisis in recent human history and that swiftly escalated into a global pandemic (Chowdhury *et al.*, 2022) and demonstrating the fundamental importance of

SME resilience (Liu *et al.*, 2019). SMEs need to maintain strategic agility to overcome this challenge (Liu *et al.*, 2020), reinventing themselves in a swift transition to concentrate on creating value and supporting the agile adaptation to the changes ongoing in the global chain of value and interruptions to logistics supply chains (Kano *et al.*, 2020). The literature portrays the need to better understand the negative impacts of company internationalization experiences and details the lack of research on the insolvency processes of SMEs due to internationalization as a gap in the literature (Galvão, Marques, Mascarenhas, Braga, & Pereira, 2021; Lee, Jiménez, & Devinney, 2020).

Approaches to these processes may consider long temporal timeframes for the internationalization activities and the involvement of SMEs in these markets (Lukason & Vissak, 2017) analysing whether they opt to cut back on their level of involvement (Aguzzoli *et al.*, 2020) or instead opt to suspend their international transactions during which they centralise their activities only in their domestic markets (Vissak, 2020).

To better understand this phenomenon, our study seeks to fill this gap and obtain insights based on empirical evidence identifying the key drivers and obstacles that lead companies to (re)/enter markets and distinguish the different paths taken by SMEs, whether successful or unsuccessful in their option to enter into international markets (Jayasekara, Fernando, & Ranjani, 2020; Martins, Farinha, & Ferreira, 2021; Vissak, Francioni, & Freeman, 2020). This also provides deeper insights into internationalization, success, failure and the potential for the re-internationalization of the SMEs. Hence the relevance of returning answers to our research question: What are the factors of success and failure associated with the calvary of internationalization of SMEs during the pandemic?

In order to respond to this question, we developed an initial conceptual model based on our literature review and qualitatively analysed six case studies of SME success and failures through interviews. In terms of the contributions to the literature, our findings provide a deeper understanding of the dynamic complexity surrounding actions taken to advance with internationalization, a still little explored phenomenon (Lukasson & Vissak, 2017) and with high levels of failure worldwide (Jayasekara *et al.*, 2020).

Furthermore, our study adds the role of entrepreneurs in the attractiveness of returning to international markets (Lafuente, Vaillant & Gomez, 2018), who should be agile and able to leverage the opportunities (Kraus *et al.*, 2017) in conjunction with configuring the marketing communications tools, such as artificial intelligence in online communications (Krchova, 2021) in order to minimise the negative impacts of Covid-19. However, there are the fears of entrepreneurs (Lafuente, Stoian & Rialp, 2015) and how their SMEs will react

to this adverse Covid-19 pandemic context, for example with consequences for logistics and travel restrictions (Chowdhury *et al.*, 2022).

This research also contributes to better understanding the positive and/or negative impacts of the experiences of SMEs during internationalization (Vissak, Francioni & Freeman, 2020) through focusing on the divergent paths taken by SMEs that achieve success in international markets coupled with the incentives fostering their growth and that register greater financial stability (Galvão, Marques, Mascarenhas, Braga & Pereira, 2021), which is all of great interest to academics and managers as well as to political decision-makers.

3.2 Theoretical Background

Internationalization emerges as a complex and multidimensional decision-making process (Kraus, Mitter, Eggers & Stieg, 2017), which brings enormous benefits to SMEs, constituting a highly important business strategy for nurturing their growth and long term survival (Alayo, Maseda, Iturralde & Arzubiaga, 2019). The drivers of internationalization include various factors, for example, the lowering of economic barriers between countries, political liberalisation, integration into global financial markets, environmental problems and global technologies (Ivanov & Ivanova, 2016).

When SMEs undertake internationalization, there are unavoidable repercussions both in terms of expansion and the successes and failures of companies operating in international markets (Sedziniauskiene *et al.*, 2019). The motives for internationalization divide into pro-active (for example, growth and development, technological advantages, economies of scale) and reactive (resulting from competitive pressures, loss of profitability in the home market) motivations depending on whether internationalization stems from a development strategy or derives from a particular market conjuncture (Lee, Jiménez & Devinney 2020). Many negative experiences may return beneficial effects in the future given they may assist in SMEs avoiding any repetition of the errors during the re-entrance process and experimenting with alternative strategic options that provide greater resistance against the adverse effects (Nikolić *et al.*, 2019).

The re-entrance decisions of SMEs reflect a process depending on internal and external factors but especially highlighting the decision-making, the business environment, company relationships with business partners and the resources available (Vissak & Francioni, 2020). Any company heading back into international markets has already accumulated experience of the various commercial activities in addition to having

developed various relationships with local partners (Chen *et al.*, 2019), all crucial to achieving better export performance (Santos *et al.*, 2023).

Nevertheless, managers are understandably unwilling to deal with the failures of the company at the time they happen, frequently attempting to keep their failures away from the public domain (Godley & Fletcher, 2001). Hence, there remains a stigma around the failed approaches of companies, subject to analysis as a serious and embarrassing issue for managers (Ghemawat & Nalebuff, 1985). Fig.3.1 sets out the conceptual research model that integrates knowledge of the literature on the difficulties of internationalization and relevant approaches to studying the: i) development, ii) barriers, iii) drivers, iv) failures and v) resurgence.

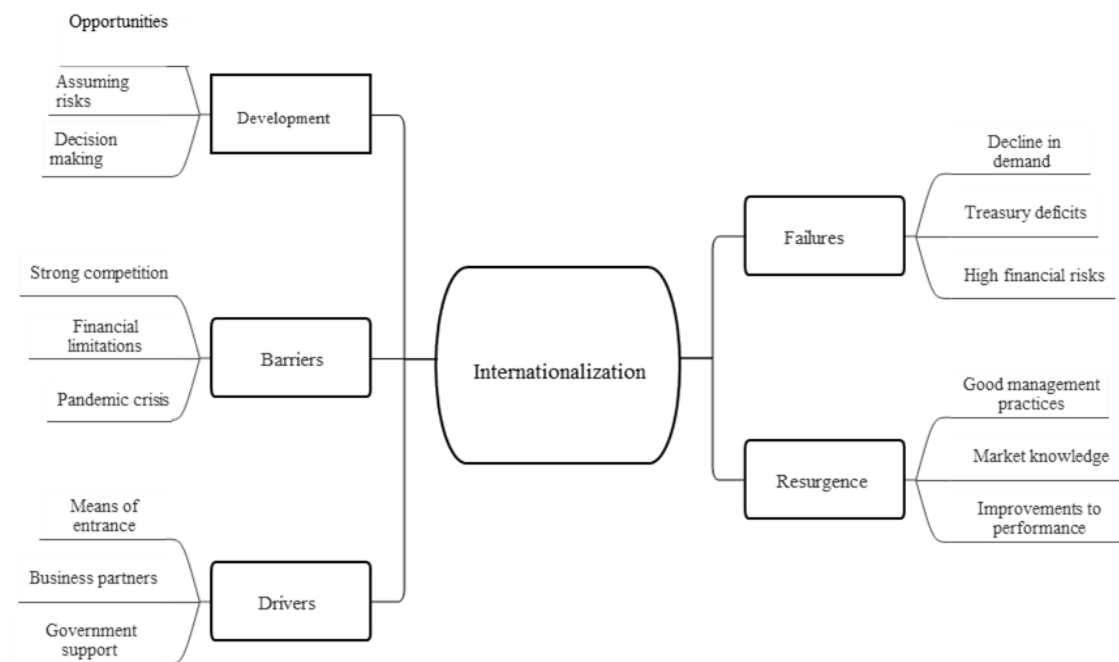


Figure 3.1 Conceptual Model on the Calvary of Internationalization

3.2.1 International Development

In recent decades, a large number of SMEs have embarked on deep searches for opportunities in international markets with this facet drawing the attention of entrepreneurs (Vissak, Francioni, & Freeman, 2020) attempting to obtain crucial competitive advantages through their resource utilisation and the sale of their products (Aguzzoli *et al.*, 2020). The dynamics of industries generate beneficial opportunities for company initiatives able to identify and then enhance opportunities in international markets (Westhead, 2008), encouraging SME proactivity and the improvement of their

competitive advantages, thus minimising the scope for companies to make mistakes in unknown markets (Lu & Beamish 2001).

The international development and strategic changes of companies are core to their entrepreneurs who hold business ideas and take on risk-positive behaviours for the internationalization of their companies (Crick *et al.*, 2020). As SMEs, by definition, possess more limited resources, their CEOs are constantly involved in decision-making processes (Cortellazzo, Bonesso & Gerli, 2020) over the appropriate allocation of the resources of their SMEs in keeping with what they shall encounter in the target country (Kraus *et al.*, 2017). The dynamism and diversity reported by analysis of company behaviours (Puig *et al.*, 2020) require that decision-making in an international context incorporates levels of flexibility as companies invariably encounter obstacles, producing the levels of uncertainty that mean managers need to regularly align their behaviours to diverse international markets (Aharoni *et al.*, 2011).

3.2.2 Barriers to Internationalization

The barriers to internationalization processes fundamentally stem from both attitudes and the structural, operational and legal obstacles that limit companies when launching international activities (Kahiya, 2018). One immediate implication of opening up to markets globally reflects the level of competition these companies encounter with the establishing of a business model a fundamental step to becoming more competitive within an international panorama (Child *et al.*, 2017).

SMEs, primarily due to their limited financial resources, geographic limitations and focus on domestic markets, face particular difficulties in entering international markets (Ozkan, 2020) even while the scope for companies to internationalise closely interrelates with their capacities to overcome these perceptions of barriers and the risks intrinsic to such decisions (Wąsowska, 2016).

Another barrier currently faced comes with the COVID-19 crisis that is profoundly shaping the development of the global economy while threatening the lives of people worldwide. The confinement measures imposed by countries to reduce the high risk of contagion have, in turn, altered the prevailing patterns of consumption (Wang *et al.*, 2020). The impact of this crisis varies substantially across the economy and therefore requires analysis at the sectoral level (Juergensen *et al.*, 2020) with the losses occurring potentially more pronounced in countries more dependent on trade and/or where tourism represents an important factor in the economy (Chen *et al.*, 2021). The risk of interruption impacts

on the sustainability of the supply chain (Moktadir *et al.*, 2018), triggering breakdowns in the supply chain (Wang & Yu 2020) and corresponding problems for production.

3.2.3 Drivers of Internationalization

The means of entrance represents one of the key reasons for the needs faced by SMEs and the resources necessary to achieve long term international success (Game & Apfelthaler, 2016; Tian *et al.*, 2018), thus accounting for one of the most important strategic decisions in internationalization processes (Li *et al.*, 2016). The most commonly referenced drivers of internationalization include economies of scale, organisational learning as well as the advantages based on location and internationally prevailing opportunities (Magnani & Zucchella, 2019).

The majority of SMEs opt for investments in lesser developed economies due to the advantages these provide with abundant low costs and human capital in addition to natural resources (Gao *et al.*, 2016). At certain times, SMEs also make their approach to international markets through partnerships that help them build up both new relationships and trust in the international capital network (Jeong, 2016). Entrepreneurs attempt to discover creative solutions, applying knowledge and wisdom to generate opportunities in online businesses, in livestreaming and on social media platforms (Liu *et al.*, 2020) to reach out to consumers and thereby encountering channels that successfully achieve this aim and assist in surviving the health crisis (Lawton, 2020).

To overcome the COVID-19 health crisis, stability in the world economy is crucial in the short term so as not to jeopardise the future of all business activities and with the need for support targeted at the worst affected sectors to protect both employment and industries (Liu *et al.*, 2020). In turn, digitalisation provides new opportunities and strengthens and deepens the response capacities of SMEs (Cirillo & Zayas, 2019), enabling greater digital interactions with clients, automating processes and enabling more flexible and stable supply chains.

To help alleviate the financial burdens on companies, governments and central banks declared emergency measures and assistance packages (Liu *et al.*, 2020), agreeing for companies to delay payments as well as deploying lines of financing to protect the liquidity of SMEs (Juergensen *et al.*, 2020). Currently, this close collaboration between government and industries guarantees a minimum of interruption to global supply chains (Lim & Lee 2020), due to blocking measures and the fall in consumer confidence (Juergensen *et al.*, 2020).

3.2.4 Failure

Failure results from the lack of vision of management and the incapacity to respond effectively to the corrections necessary to halt spirals of decline triggered by different factors, including declines in demand, increased competition and businesses reaching the end of their life cycles (Mihajlović & Stojanović, 2019).

When SMEs face very weak financial positions and lack the scope to access financial resources (Gupta & Gregoriou, 2018), they get forced into abdicating from operations with failures in international market raising the risk of facing bankruptcy (Gupta, Gregoriou & Healy, 2015). Therefore, one of the greatest challenges faced by SME management teams involves the level of deficit financing companies should incur to meet their commitments, coupled with the low level of interest of banking institutions in financing these companies (Wang, 2016). The financial sector, when faced with particular conjunctures, may even force the insolvency of SMEs as a means of dealing with conflicts of interest with shareholders and owners of bonds bearing rights over company assets (Wilson, Ochofnicky & Kacer, 2016).

In such contexts, creditors maintain low levels of trust in SMEs and especially when the level of financial risk rises (Gupta *et al.*, 2015) and heightening the risks of companies going insolvent, leading to creditors becoming concerned and demanding the immediate repayment of their debts out of fear of not getting paid-back (Altman *et al.*, 2010). The closure of subsidiary companies generally emerges as a case of business failure but may constitute a desired result and a financial success for stakeholders able to benefit and profit in the future, safeguarding employment, providing a basis for future expansion, satisfying shareholders and appearing as the right business decision (El Kalak & Hudson, 2016).

3.2.5 Resurgence

Some factors are preponderant in the likelihood of resurgent SMEs that, despite the setbacks, maintain their interests in resuming operations (Sousa, He, Lengler, & Tang, 2021) in the wake of economic crises/recessions due to the scope for growth, external demand, high domestic competition, and fluctuations in both the exchange rates and costs (Dominguez & Mayrhofer, 2017).

The failure may drive the beginning of informal learning processes, helping managers to identify the mistakes made in strategic decisions and experiment with alternatives able to boost the likelihood of success (Tsinopoulos *et al.*, 2019). SMEs thus explore learning in

productive ways, enabling them to subsequently obtain better levels of performance in international markets and learning from their past errors (Ali, 2021).

The role of the government authorities is overwhelming in the case of support for SMEs that collapse and retreat from international operations thus enabling them to maintain their operational performance with such financial support measures also leveraging the economy (Ali *et al.*, 2021). The changes in the business environment may trigger subsequent re-entries as happened with Turkish firms in Egypt following the first Arab Spring (Yayla *et al.*, 2018), when the option of entrepreneurs was to retreat from the market due to the existence of international hostility and personal pressures to the detriment of the best management practices of SMEs (Thanos *et al.*, 2017). Furthermore, involuntary exits may take place due to internal factors in the host country, such as heightened risks, political risks, economic boycotts and acts of war/terrorism (Liu & Li, 2020). In addition, the main factors driving voluntary market exits include the lack of local demand, competition, the cost of resources, sharp fluctuations in the exchange rate and product shortages (Yayla *et al.*, 2018).

3.3. Methodology

3.3.1 Research Methods

This research adopts the multiple case study method that enables the aggregation of data on a broad range of core details and minimising tendentious data (Eisenhardt & Graebner, 2007). Such qualitative approaches allow academics to learn about complex and specific phenomena (Zaefarian & Tasavori, 2016), based on case studies structured towards “how” and “why”, ensuring the research holds greater adaptability as regards data collection, which may thus follow ideas and examine responses in detail (Yin, 2013). This type of approach thus produces valuable perceptions and/or knowledge in accordance with the research objectives (Martineau & Pastoriza, 2016), which here consist of an in-depth study of the trials and tribulations of SME international processes, their successes in international markets but also their insolvencies and subsequent rebirths and the re-internationalization of companies.

Through recourse to semi-structured interviews, which are the most common research tool for case studies (Yin, 2014), we gathered data from six former and current CEOs of SMEs. The data collected in the interviews was then subject to content analysis in order to define and analyse the information categories (Weber, 1990).

3.3.2 Case Companies and Key Participants

We maintain confidentiality over the identity of the participant companies that are correspondingly hereafter referred to by the names Omega, Psi and Zeta, the companies that attained success in international markets, on the other hand, Alfa, Beta and Delta reflect the companies that did not obtain the desired results and their efforts in international markets ended in failure.

These six cases refer to only a significant minority of national SMEs and we selected interviewees by the convenience method before making telephone contact to set the interview date, we carried out two interviews with the CEOs of the Alfa, Beta and Delta SMEs with experience of failure and one interview with the CEOs of SMEs that attained success internationally. Table 3.1 provides a general perspective of the interviewees and identifies the current situation of the SMEs and puts forward a broad ranging vision over the quotations that represent the interview data that empirically supported our interpretation of the themes in the following order and for each dimension aggregated within the theoretical framework that culminated in the success and/or failure of the SMEs and the findings produced.

The procedures for handling and analysing the data included the strict coding of the data received, thus the excerpts from the interviews identified by the letter E, followed by the order in which they occurred (E1, E2, and so forth, identifying the interview number per participant). We structured the interview script according to the four most relevant topics: i) success; ii) insolvency; iii) rebirth; and iv) company re-internationalization. The study collected data and compiled a sufficient quantity of information to appropriately grasp the field under research (Yin, 2013).

We questioned the interviewees about the strategic decisions during the company's expansion into international markets, characterized by a script (Appendix A) ,enabling this study to highlight how companies manage to take the path of (un)/success in these markets. Next, we addressed the main difficulties and accelerators in international markets and how companies overcame or failed to cope with the adversities caused by the Covid-19 pandemic, thus allowing for this research to demonstrate the real impacts on a business context. Finally, we inquired about the attractiveness of insolvent companies and how they were reorganized by entrepreneurs, which returned insights into how a change in the business structure can result a business case study of success.

Table 3.1 General Vision of Interviewees

| Company | Interview | Duration (min) | Position | Reason | Relevant topics raised | Findings |
|-----------------------------------|----------------|----------------|-------------------------------------|--|---|---|
| Alfa (Case of failure) | E ₁ | 55 | Founder CEO | Explained the internationalization expansion process through to the company's insolvency. | Development, success, failure | The government encouraged all national SMEs to internationalise even while the government supports granted were clearly insufficient. |
| | E ₂ | 50 | CEO | Explained the company's re-internationalization and its expansion into international markets. | Re-internationalization | The broad international experience of the CEO and the history of the brand were the core motives for the company re-internationalizing. |
| Beta (Case of failure) | E ₃ | 45 | Founder CEO | Explained the motives for acquisition and the barriers encountered through to the sale of the company. | Re-internationalization and failure | The motives involved the long history of the brand with the worst barriers being cheap Asian labour, a worsening financial situation, and with the sales volume registering sharp falls. |
| | E ₄ | 50 | CEO | Explained the brand's activities and how the company dealt with Covid-19 in international markets | Obstacles overcome in the Covid-19 pandemic | The Covid-19 pandemic delayed everything, having even closed the borders, so we had to reinvent ourselves to keep the factory working. |
| Delta (Case of failure) | E ₅ | 55 | Ex - CEO | Explained the formal implementation of policies and practices observed in the company's re-internationalization process. | Re-internationalization Failure in the Covid-19 context | Covid-19 brought consequences for logistics and travel restrictions coupled with a very sharp fall in sales. |
| | E ₆ | 45 | CEO | Explained the acquisition and the company's future. | Restructuring and reformulation | Opted for innovative products and a controlled production strategy, which allowed for a substantial increase in international sales. |
| Omega (Case of success) | E ₇ | 45 | CEO | Explained the success of the company's international expansion. | International development in international markets | Internationalization was extremely important for the creative and technological advance of this company and only feasible due to the awarding of government support. |
| Psi (Case of success) | E ₈ | 55 | Company Managing-Director | Explained the barriers and the success of the company's international expansion. | Drivers and barriers in international markets | Gained a significant market quota on the American continent through the development of partnerships. The barriers are political, social and exchange rate instability. |
| Zeta (Case of success) | E ₉ | 60 | President of the Board of Directors | Explained the barriers and the success of the company's international expansion. | Drivers and barriers in international markets | The most serious barriers encountered in international development were customs duties. Success stemmed from the increase in the added value of the products sold as a result of product development and alterations to the channels of distribution. |

3.3.2.1 SMEs Experiencing Failure

The companies Alfa, Beta and Delta did not obtain the desired results from their SME internationalization processes that ended in their failure in international markets. Alfa company started out as a family business, founded in 1948 as a manufacturer of wooden articles and, after the factory experienced considerable growth, the founder's son began assisting his father in the 1950s. To further develop the company, and with knowledge that a German factory that produced fountain pens was selling its machinery to develop new products, Alfa acquired them alongside the know-how necessary for production.

This was the first step the company took along what became its future path: from commercialising writing instruments to a wide range of stationary products and expanding to employ 300 members of staff in the 1990s even while currently having 5 workers. In turn, Beta was founded in 1924 when the entrepreneur, with a high level of know-how following working experiences in Germany, decided to set up a rubber plant to produce sports shoes.

The brand began experiencing exponential growth that culminated in the construction of a factory in 1944 that launched mass production. Under the dictatorship that ruled Portugal until 1974, impassable trade barriers enabled Beta to consolidate its growth and, employing some 200 workers over the course of three decades. However, post-revolution competition from international markets resulted in its insolvency and later sale by public auction. It was once again sold in 2018 to entrepreneurs with new management ideas and currently employing 40 members of staff and registering sharp growth over the last three years.

The Delta company started out as a family business in northern Portugal with its activities focused on producing textiles for the home. Following World War Two, the company grew immensely and was at one time employing 3,000 workers at its factories. Nevertheless, despite the success of internationalization in the 1960s, there began a period of decline that would result in an agreement with creditors being reached in the 1990s and with the family thereby staving off company insolvency.

The new management defined new objectives and diversified the product range even though market liberalisation was to undermine such efforts. Delta was again subject to a takeover, this time by a risk capital fund. Nevertheless, given the Covid-19 pandemic and the sharp fall in sales, the company was to go through the same painful process for a third time, this time acquired by an entrepreneur in the same sector and now employs 220 members of staff.

3.3.2.2 SMEs Experiencing Success

The Omega, Psi and Zeta companies achieved the results they defined for their internationalization processes and were corresponding successful in international markets. Omega belongs to the wine sector, counts on over two centuries of production and owns over 1,100 hectares of terrain and began its internationalization process in the 1960s targeting Portuguese emigrant markets and following sustained growth in the business, international sales now account for 77% of company turnover and clearly convey the importance of international markets. The company currently employs 60 workers and has a presence in 30 countries, with the following key export markets: Brazil, Canada, China, Germany, Hong Kong, Japan, the Netherlands, the Philippines, Singapore, South Africa, Switzerland and Venezuela.

Psi launched as a mechatronic company operating in the automobile industry, with 30 members of staff since its founding in 2006 and building machinery assisting in the production of electric cabling to guarantee its safety and, deploying infrared technology, able to develop individual, client-tailored solutions. Internationalization began from its own foundation as becoming a global company was a defining objective and subsequently establishing partnerships with importers that contributed to product development and provided assistance in international markets with the company experiencing strong growth over the years and now employing 160 staff across its different subsidiaries.

Finally, Zeta began operations in 1973 with 15 employees in the footwear sector and making recourse to outsourcing for its production process and thereby able to meet client needs and gain national market leadership in keeping with a lack of internal competition.

At the beginning of the 1980s, the company exclusively produced soles and had achieved hegemony in this sector from development and innovation processes through to the footwear commercial process. Thus, at the time of Portugal joining the then European Economic Community, given community support funding and the end of customs duties, Zeta did not hesitate in advancing with its internationalization and today employs 240 members of staff.

The empirical research work and the data structure of the cases of SME failures identified in our analysis enables the explanation of the calvary of internationalization based on the accounts of participants, set against the success of SMEs in international markets. This structure incorporates the three blocks that emerge from the empirical analysis: success, failure and re-internationalization. These construction blocks serve to consolidate the

analytical dimensions relating to the general concepts of relevance to the theoretical framework of this article and in accordance with an authenticity based perspective.

This perspective may open up insights into ways SMEs might be able to avoid internationalization turning into a calvary and how best to achieve success in international markets. In our opinion, the experiences of these businesses convey the feasibility of establishing a trade-off between the difficulties of international markets and the means of SMEs prevailing in international markets and achieving the sought after success (De Massis *et al.* 2018; Calabrò *et al.* 2019). Figure 3.2 sets out the final data structure that correlates

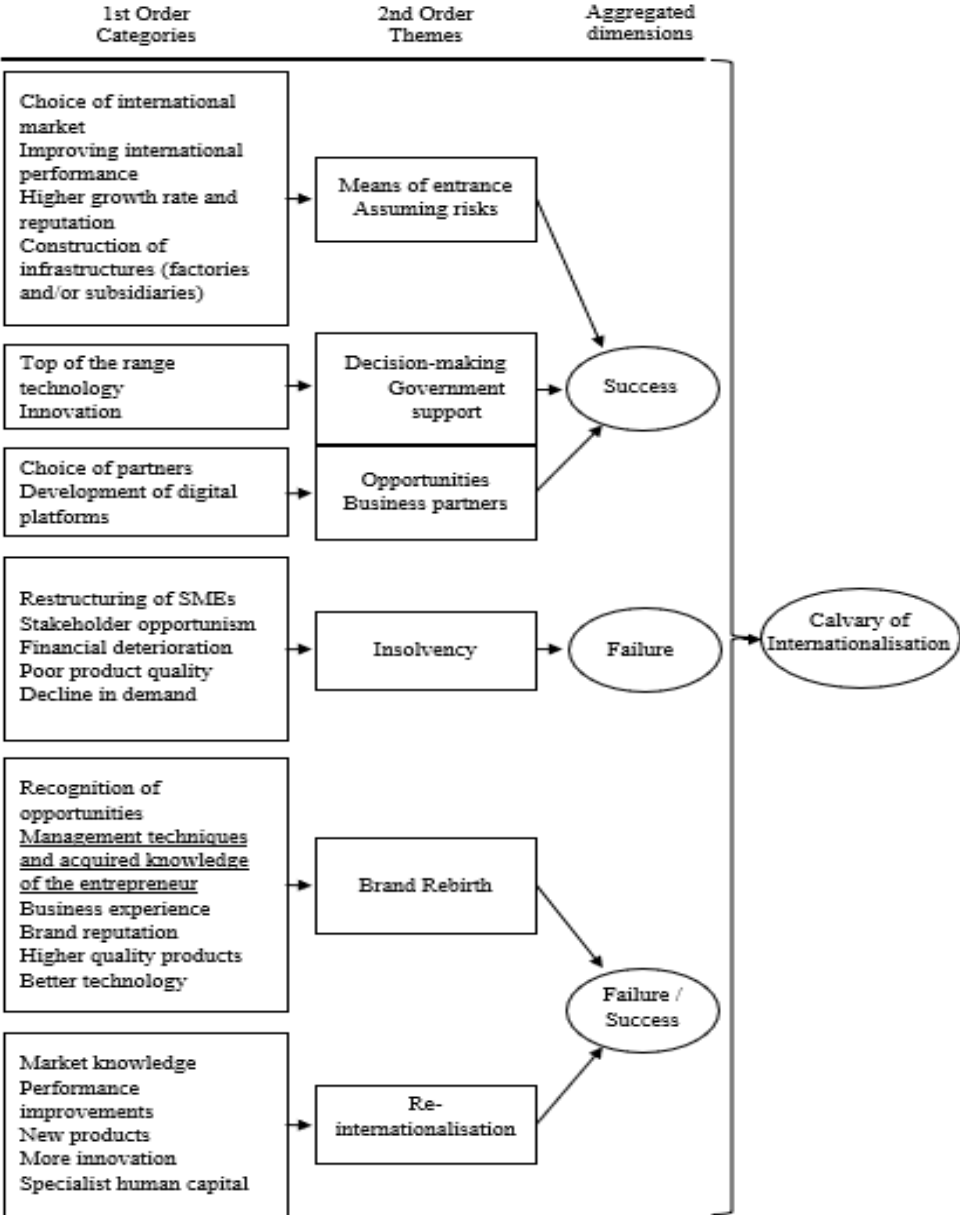


Figure 3.2 Data Structure Correlating SME Success and Failure

3.4 Findings

The findings of this study return a broad understanding and describe in detail two sets of factors that we classify in accordance with the analytical breakdown between success and failure and correlating both with the SME factors in international markets. Table 3.2 puts forward a broad ranging vision over the quotations that represent the interview data that empirically supported our interpretation of the themes in the following order and for each dimension aggregated within the theoretical framework that culminated in the success and/or failure of the SMEs.

3.4.1 Success

A key point to success is the appropriate choice of international markets, generating a positive effect on the market orientation, improvements to the international performance and enabling SMEs to achieve both higher rates of growth and stronger profiles.

The means of entrance, assuming risks, decision-making, government supports, opportunities and business partners constitute the second order themes that consolidate the aggregated dimension of success.

3.4.1.1 Means of Entrance

The choice of the means of entering the target market represents one of the strategic decisions of greatest importance to the internationalization of SMEs (Li, He & Sousa, 2016) and, as we found, returns implications for company performance, due to the strategic factors, and the business and financial decisions that are determinant in launching internationalization processes. Extending the survival of SMEs down through various decades involves leveraging strategies for innovative performances, enabling new advances that aggregate value to companies, for example exporting to boost sales and profits, which only proves possible when creating value for clients (Knight, Moen & Madsen, 2020). The different means of entrance may be divided in accordance with the level of company investment, without investment (exporting, franchising and licencing contracts) and with direct investments (acquisitions, joint-ventures and setting up subsidiaries).

In the majority, the SMEs analysed made recourse to no investment means of entrance, with the exception being Alfa, which overcame adversities: *“With apartheid, they closed the borders and levied customs duties of 120% and so we couldn’t get our products there.*

So, we opted to get round this situation by opening a factory in South Africa, sending old machinery and products, both at the domestic and the European levels, in terms of packaging and design but that were very attractive for this market. In South Africa, we had to buy components and contract local labour and we'd go there once a month and control the business from Portugal.” (E₁).

3.4.1.2 Assuming Risks

Growth through successful internationalization requires entrepreneurs feel the need for their SMEs to take on risks and hence simultaneously require knowledge about international markets and deploy the tools that enable their access to the competences determinant to their commercial success in international markets. Knowing and evaluating the specific risks inherent to the decision to advance in international markets involves designing plans whether to mitigate or transfer them.

Such entrepreneurs need global mentalities, which involves being proactive and thus constantly seeking out and exploring international business opportunities as well as holding the capacity to come up with innovative products, which reflect in competitive advantages for their SMEs. The personalities of entrepreneurs and their needs for self-realisation lead them into business risks in the transactions that secure their attention and, in this way, proactively dealing with the respective inherent risks.

CEO (E₅) explained how he was able to leverage competitive advantage: *“Delta defined new targets for home textile products and the strategic policies put into practice brought about a rise in sales. In parallel, there was an increase in the added value in the products sold as a result of this product development process and alterations to the chains of distribution. We consolidated our market position, and I took on risks that enabled an increase in competitiveness and imposing an image of quality on our new products and undertaking investments in the reconversion of the finishings, logistics and quality, before finally advancing with a re-engineering of the manufacturing process, ensuring we were again playing an important role in the European textile market.”*

The role of the strategic intentions of entrepreneurs emerges as fundamental as their capacities to define and communicate the strategy throughout the entire company to ensure better preparation and the willingness to accumulate knowledge in external markets (Ciszewska-Mlinarič, 2016).

3.4.1.3 Decision-Making

Decision-making incorporates the coherent and controlled risks SMEs face and should form due part of the strategy, therefore preceding the complexity of analysis and advocating for transversal policies to the markets targeted for internationalization as each market poses different challenges stemming from their respective economic, social, legal and political environments, as (E₈) states: *“Out of a question of security, we thought about doing the company in El Paso in the United States and then came the first difficulties because one thing was the intention but implementation was an entirely different thing. We paid out \$25,000 dollars just in lawyers and then I was denied a visa. These were the difficulties at the outset and, as I’m not the type to quit, I thought about how to resolve all this.*

Therefore, we went to the other side, we went to Mexico, perhaps at the right time, we wanted to conquer, therefore, we wanted to employ people. For this, there was a completely different approach, they were very willing, very nice. That is, the opposite to the United States and six months later we began operating”. The approach to decision-making taken by SME leaders reflects their experience and level of knowledge as well as adapting to the business context (Hauser *et al.*, 2019) as (E₉) highlights: *“The components sector only worked for internal consultation and never had an international vision. We were the first to want to compete internationally in what we were doing with products because we considered we could sell to Spanish clients and compete directly with the Spanish component factories, so we exported and that was a winning bet.”*

The CEO (E₅) applied his experience and took decisions appropriately: *“the pandemic turned out to be the greatest challenge experienced in the last year, especially as regards offline sales given that our partners had their businesses closed for substantial periods of time but what is surprising is that our investments in online sales grew significantly and we were even able to turn in better results than the previous year.”*

3.4.1.4 Government Supports

Government supports promote internationalization strategies through the interactions of various actors enabling national economies to establish a position in the global economy, leveraging growth and nurturing qualified employment and greater added value. Trade fairs continue to play a very relevant role in international businesses as they also foster networking between partners and entities in the same sector and deepen the contacts that enable the identification of leads for potential buyers as (E₈) describes: *“a company in the footwear sector looks for international fairs where it can present its products and, while*

there, attempts to make contacts that can then later be thoroughly explored. This model was only possible due to government supports and that meant we could attract international clients in the 1990s and ensured our growth in close alignment with presenting innovative products.”

Support from government programs therefore acts as an incentive for SMEs and a fundamental leverage to their establishing and building the networks through which they obtain valuable resources for promoting their products in conjunction with support for the innovation of SME processes and products. The assertive testimony of E₇ as regards the incentive provided by government support schemes and their preponderant weighting for SMEs is highly clarifying when affirming that *“Internationalization was extremely important for the creative and technological advance of this company and thanks to the awarding of government support.”*

We always prepared very well for the international wine fairs and always anticipated our arrival with a completely packed agenda as it’s not really worth paying for a stand and going to a fair without having pre-defined meetings. Doing your homework is absolutely fundamental.”

3.4.1.5 Opportunities

Market opportunities emerge as the core motive for SMEs to embark down the path of internationalization (Colapinto *et al.*, 2015), as E₉ details: *“In the 1980s, my father wanted more control over the chain of value, more capacity to be able to produce, to meet market demands, have control over the technological process and guarantee the production of products. Only like that was it possible to approach the international markets.”*

For SMEs, internationalization may be an opportunity to escape saturated domestic markets, thereby boosting its range of clients, ensuring the greater stability returned by the diversity of the markets expanded into. Nevertheless, the demands of new clients also force SMEs to make investments in top of the range machinery and equipment and in product/service innovation.

Entrepreneurs also require a global mentality which aligns with the proactivity to ensure the constant seeking and exploring of international business opportunities as well as the capacities and capabilities to create innovative products (Demel, J. & Potužáková, Z. 2012), which reflect in the competitive advantages of their companies (Suarez-Ortega & Alamo-Vera, 2005). Therefore, it is important to highlight the key motives identified by previous studies for the internationalization opportunities of SMEs, including increases in

sales, broadening the markets (Vide *et al.*, 2010), raising profits, the lack of scale in the domestic market, strengthening competitiveness and opportunities in the host market.

E₅ affirms that: *“the management defined new targets for the products, deciding to invest in household textiles (bedclothes). This strategy took into account the controlled production of products allowing for the flow of stock and an exponential increase in sales. In parallel with this rise, there was also greater added value to the products sold resulting from the efforts put into product development and the changes to the distribution channels.*

This enables the consolidation of our position in international markets, boosting our competitiveness and imposing an image of quality on our new products while simultaneously undertaking investment in the reconversion of the finishings, logistics, control and quality and, to this end, re-engineering the manufacturing process.

This all enabled us to perform an important role in the European textile market with the investment in differentiated products involving the introduction of designs, embroidery and digital printing, ending with thread production and taking advantage of this space for warehousing. Hence, we were able to do all of the logistical supply from Portugal to the world”.

3.4.1.6 Business Partners

To gain success in the business world, SMEs fundamentally require the capacity to adapt to new realities and hence it is crucial to establish competent business partnerships able to assist with their experiences of prevailing in international markets. To this end, the business expansion strategy needs to be very well planned and constitutes an essential leverage that enables the SMEs to enhance their flexibility so that they are able to collaborate with other companies at increasingly early phases and thereby attain a higher level of internationalization. This cooperation among partners arises from effective strategies that enable SMEs to overcome the difficulties they face in terms of resources and capacities when expanding into international markets.

E₈ affirms how the basis of experience also corroborates with that of business partners: *“Our company started out with an exporting profile and with the ambition of becoming a global company and we gained a significant quota of markets on the American continent through the development of partnerships. Our commercial strategy stemmed from establishing partnerships with importers, representatives that would help us in each market not only to develop products but also to sell them, provide assistance and give*

support. In every market outside of the European Union, there was a trend to normally have a company there with which we had a partnership and that would do this work.”

3.4.2 Failure

The failures of SMEs extend over a determined period, first making recourse to restructuring to enable a return to past times of prosperity even while the closure of SMEs may represent a desirable result for stakeholders able to benefit and profit into the future.

In the case of SME failures in international markets, the financial variables are determinant, contributing to a worsening of the financial performance and ultimately to SMEs declaring insolvency.

One of the greatest challenges faced by SME management is the level of deficit financing available to the company to meet their commitments and with treasury difficulties a major problem for SMEs coupled with the lack of interest of financial institutions in financing these companies (Wang, 2016).

Creditors approach SMEs with high levels of distrust, especially when financial risks rise (Gupta *et al.*, 2015; El Kalak & Hudson, 2016) and the potential insolvency risks of companies deepens, triggering unease among creditors and who then often begin demanding the immediate settlement of their debts out of fear of not being repaid (Altman *et al.*, 2010).

These financial difficulties, the lack of capital and the possibility of recovery following international market failure (Milošević *et al.*, 2019) provide the key motives leading to company bankruptcies. SMEs facing extremely weak financial positions and lacking the scope to access financial resources (Gupta & Gregoriou, 2018) are effectively forced to abdicate on their commercial operations and declare bankruptcy.

E₅ explains how he went through this experience: *“The company declared insolvency following a drop in sales of over 60% caused by the pandemic and the non-approval of the applications submitted to Covid-19 credit lines. Our company looked for different alternatives to continue with our activities, highlighting the attempt to re-negotiate the debt with the banks and state creditors but not all of our intentions and attempts emerged with success.”*

3.4.3 Success/Failure

New entrepreneurs play a fundamental role in acquiring insolvent SMEs and spotting new opportunities, thinking about re-launching in international markets allied with their experiences in other companies, the past reputation of the brand and advancing with investment in technology that ensures higher product quality standards. The aggregated dimension of Success/Failure undergoes consolidation through the following second order themes: Brand-Rebirth and Re-Internationalization.

3.4.3.1 Brand-Rebirth

The brand rebirth involves a complete change in activities; the natural end of the life cycle of one business project or its withdrawal due to some subjective or objective reasons (Tobback *et al.*, 2017; Mihajlović & Stojanović, 2019). These entrepreneurs deploy the capacity to recognise opportunities and hold the technical and management skills and abilities to convey the reputation of the brand acquired and with a symbiosis of synergies fundamental to success in international markets.

This was also the situation that E₂ perceived: *“I began to realise that we had a large part of the company’s assets. In 2017, I submitted a request for the brand to expire with the National Institute of Industrial Property, already with the objective of getting the company operating again and acquiring the brand on 16 November 2019. Today, we have vision, another capacity, more resources and more information than this company has ever had in the past. Currently, we have a machine that is 20 metres in length and capable of producing 80,000 pens per day and was purchased for half a million euros”.*

3.4.3.2 Re-internationalization

Re-internationalization emerges as an opportunity for companies to advance based on the already acquired knowledge. Furthermore, SMEs are more effective in terms of innovation and introducing new products to the market than multinational corporations and hence the means of entrance generates a positive effect on the increase in technology, on company performance and on product innovation over the competition.

The entrepreneurial orientation plays a fundamental role and favours re-internationalization with past entrepreneurship experiences tending to have a positive effect on the probability of entrepreneurs making new starts as they are themselves capable of positively learning from the failure, backed by a future return to entrepreneurial activities, as E₄ describes *“The history of the brand was the core motive for acquiring the company. We may say that the decision-making involved a large emotional component as this*

company is a bit of a flag for our country. The opportunity to develop and make grow what was once grandiose in its own day, the possibility to give it some new clothes and bring back the cult around an object that forms part of our genetic code was undoubtedly fuel for embracing this project.

The perspectives consist of maintaining that which was already identified in past times and be able to add value without undermining that which existed but always with the objective of making this current and adapted to the reality of our days. In order to achieve this, we knew beforehand that we would have to bring the company home, produce with transparency, with quality materials, with partners who respect our values of sustainability, dignity in work and pride in what is ours. Another objective was to seal the brand's presence firstly in our market and this was the focus for two years and we afterwards took our first steps in international markets, initially making some points of sale available in our neighbouring country and we may say that through our online store, we've had orders from all over the world.

We are now focused, more than ever, on developing our internationalization and the objective is to take the brand to as many countries as possible and the truth is that we only did not do this before as we understood that this was not the most appropriate moment, especially with the challenges that have been experienced over the last year due to the Covid-19 pandemic". This orientation is determinant when opting for any rapid re-internationalization irrespective of whether there subsequently emerge periods of consolidation or contention, highlighting how re-internationalization becomes ever less probable as the period of time SMEs remain outside of the international arena grows longer.

Table 3.2 Data Supporting the Interpretation of the Second Order Themes

| Dimensions | Themes | Representative quotes |
|------------|--------------------|---|
| Success | Means of Entrance | “Beta embarked on its timid internationalization process when setting up a presence in some markets, such as Angola, Mozambique and Venezuela in the 1970s and in the following decades invested heavily in the more competitive markets in Europe, for example the United Kingdom and Spain, through to the late 1990s when it acquired a factory in South Africa” (E ₁). “Delta began its internationalization in the health market and in Spain in the 1980s” (E ₃), according to (E ₄) Delta currently makes recourse to digital platforms and is thereby able to export worldwide. “Omega started its internationalization in the European market in the 1960s and expanded to the American market in the 1980s” (E ₅). (E ₇) always had a vocation for international markets and hence the internationalization of this SME began right from its year of launch. |
| | Assuming risks | (E ₆) maintains the firm conviction that these markets are the most profitable and will only subsequently approach other markets. The international experience as a CEO of other companies enables having the same ambitions for the international success of Omega and is therefore targeting international markets (E ₆) with the entrepreneurs (E ₂ ; E ₄) also sharing the same opinion. Entrepreneurs (E ₇ ; E ₈ ;) sought out international markets as the domestic market was becoming saturated and they decided to open up new horizons. CEO (E ₈) affirms that having a high level of knowhow on the wine sector and efforts to promote the image of Portugal as a producer of fine wines reflects the broad purpose of the work done. I set out the paths to the international markets in which PSI has the greatest chance of being successful and, whenever possible, having the space for growth as well as the PSI investment decisions being entirely my responsibility. |
| | Decision-making | CEO (E ₄) highlights that “we are now focused, more than ever on developing internationalization and the objective is to get the brand into as many countries as possible and the truth is that we only did not do this before because we understood that the timing was not the most appropriate, especially with the challenges that have taken place over the last year due to the pandemic.”, with CEO (E ₂) also stating “The COVID-19 pandemic delayed everything, having even closed the borders, so we had to reinvent ourselves in order to keep the factory going”.(E ₅) highlights “development deepened in the 1980s, investing in state-of-the-art technology”, with the interviewees (E ₃ ;E ₇ ;E ₈ ;E ₉) “leveraging the development of their SMEs through product innovation and investment in top of the range machinery”. |
| | Government Support | “The government, after Portugal joined the European community, encouraged all national SMEs to internationalise nevertheless even while the government supports granted to them were clearly insufficient as they were such a long way behind the competition whether in terms of the machinery, the specialist staff or in financial resources.” (E ₁) “International fairs were important as they were co-funded by financed programs that enabled the establishing of new contacts and for us also to understand the new developments in the competition.” (E ₁ ;E ₇ ; E ₈ ;E ₉). ; |
| | Opportunities | “We overtook the competition as we were the first to discover the way to produce without the pens leaking and so large quantities were immediately sold” (E ₁). “The increase in the added value of the products sold, as a result of product development and alterations to the channels of distribution” (E ₅ ; E ₇ ; E ₈ ; E ₉). “We’ve already had various meetings with the sales reps and Delta also has offices in Spain with a commercial team of five. Everybody has the will to work in every market. We’re going to put new collections onto the market in various countries. Each country will get a new collection. We have to have the collections on the international markets before the fairs. The collections of each country basically have a different product. Spain consumes one product, Germany another and the United States another so that we are not going to ignore any market” (E ₆). |
| | Business Partners | (E ₈ ; E ₉) opted “for partners to get their products into international markets”, while (E ₇) highlighted that as the company was globalisation focused, from the outset it had established partnerships with importers that assisted with product development as well as providing assistance in international markets. The factory in Felgueiras and its people are in perfect symbiosis with our flags/values, we could not be more satisfied with this partnership that currently enables us to export to international markets (E ₄). |
| Failure | Insolvency | “In 1998, Alfa became a public limited company to cope with the high levels of investment made in South Africa, deliberating to open the capital to a state institution and a bank as the brand was very attractive to stakeholders, there was a large business group that managed to get its members into key positions in the company’s management, deliberately causing its losses to then later acquire it at a token cost. And, four years later, its judicial liquidation was decreed and the compulsory closure of Alfa which, when existing, held a portfolio of orders with a value of around three million euros, convertible stocks of 2.5 million, and a factory continually in operation, preventing stocks from reaching the market and not allowing the raw materials to runout. The bankruptcy process would remain deadlocked for 15 years as there were always failures in the public auctions as it was necessary for potential stakeholders to make between 300 and 500 thousand euros available for treasury funding and those amounts meant that nobody was interested in advancing” (E ₃). (E ₃) affirmed that the first collapse took place because of the cheap labour in Asian countries that the national footwear industry was unable to cope with and so the SME was acquired for its brand due to “its sheer potential but, unfortunately, because of restrictions between the purchase and the brand relaunch, there were 12 years of inactivity and insolvency happened again due to the poor quality of the material arriving from China and the raw materials also being of weak quality coupled with shortcomings in the network of intermediaries that were not able to meet deadlines and so, over the years, the company’s financial situation got worse and the sales volume registered sharp falls”. (E ₅) stated that the “first collapse of Delta in 1991 was due to a lack of strong |

| Dimensions | Themes | Representative quotes |
|------------------|-------------------------|--|
| | | <p>leadership by the heirs, major investments that were ruinous in management terms, very high levels of debt to banks and to creditors as well as international businesses that only generated losses with subsidiaries in Spain and the United Kingdom and the poor profitability of the North American market. Nevertheless, in 2011, Delta was acquired by a risk capital company with measures, including the redundancy of 600 workers and the closure of the subsidiaries in the United Kingdom and Spain as well as the renegotiation of debts to the state and banks, that were inevitable to overcome the calvary of the company closing". (E₆) stressed that "Delta had at the end of 2020, liabilities in excess of 30 million euros and 250 creditors, including especially the state and banks, faced with the strangulation of its cashflow, the company's situation had become unsustainable and there was no other alternative than to request its liquidation".</p> |
| Failure /Success | Brand Rebirth | <p>"When I ran another SMEs, I began buying machinery from the former Alfa factory. Afterwards, sets of machinery began appearing and I saw that they might be useful, and I bought them. Over time, I noticed that I'd acquired a significant part of the Alfa assets so, in 2017, I requested that the brand expired, and I acquired the brand at the end of 2019 and I'm going to recover the exclusivity of the Alfa brand. I'm also going to the European court to get exclusivity over the Alfa Portugal brand and try and annul the Alfa brand in Spain and Brazil, which are counterfeit products with far lower quality. I managed to recover all the machinery, which was acquired for half a million euros, currently enabling the production of 80,000 pens per day and we also still operate all the Alfa molds". (E₂). (E₄) affirms that in the relaunch of Beta the brand history was the core motive for the acquisition of the SME, we may say that this decision-making contained a highly emotional component, and we began by relaunching the most famous model from the 1970s". The third life of Delta was "the history of the brand was the core reason for acquiring Delta and we may say this decision was deeply emotional as Delta had accompanied the most challenging decades in Portugal's history and I have ambitions and experience to promote the international success of the Delta company" (E₆), with (E₂; E₄) also sharing the same opinion for their SMEs".</p> |
| | Re-internationalization | <p>(E₂) approaches the future of Alfa and guarantees "the perspectives of recruiting people and maintaining product quality as we currently have another vision, more resources and more information about this industry. The brand gained a good image and reputation in the past now I only have to maintain this same quality to make sure this SME again becomes the 5th largest company in Europe and reconciliating synergies and strategies as people are very keen on seeing our products in the national and international markets (..) Each market has its specific features that require us to display great capacities for adaptation. I should however emphasise the care taken by Alfa in this process of re-internationalization to certify every product in accordance with the European norms in effect." (E₄) describes how "the rapid development came from returning Beta production to a Portuguese factory and giving up on production in China, which enabled the return to producing vulcanised soles and canvas upper sections. We are now focused, more than ever, on developing internationalization and with the objective of getting the brand to as many countries as possible. (...) while also highlighting the online market which, even in the times of the pandemic, enabled sales to grow very significantly." (E₁) affirms that "Alfa always strived for innovative products and to develop new products". Finally, (E₆) emphasises that "the new management defined new targets for Delta products, deciding to invest in home textiles. This strategy takes into account the controlled production of products, requiring a flow of stock allied with the strategic policy of substantially raising international sales".</p> |

3.5. Discussion

The structure and contextual configurations of the internationalization strategies of SMEs require an appropriate capacity for response as regards the demands of international markets, representing a vital research perspective on the factors differentiating success from failure (Jayasekara *et al.*, 2020; Vissak *et al.*, 2020). As regards this research perspective, the main objective of our research was to study in-depth the successes and failures of SME internationalization processes, with a particular focus on the pandemic period we have been experiencing, to thereby provide greater knowledge about the barriers and stimuli associated with different internationalization processes.

On comparing the details of companies that experienced success/failure in international markets through extended interviews with the founders and CEOs of SMEs, we identified four relevant topics, success, insolvency, rebirth and re-internationalization.

Our study results in a conceptual model and the approaches to internationalization processes that lead to success or failure in keeping with the paths taken by the SMEs and that so often culminate in a calvary of internationalization.

The set of factors of success consist of SMEs remaining competitive over time, taking due advantage of the means of entering international markets, from the outset involving entrepreneurial decisions that incur risks, strengthening recognition in reliable networks, securing government support, robust information about the markets and identifying the opportunities of greatest weighting to their success in international markets.

Another path leads to insolvency, which may emerge as a consequence desired by stakeholders to take future profits from the SMEs even while there are other critical factors with financial difficulties, the lack of capital and the scope for recovery following failure in international markets constituting the key motives driving SMEs into insolvency.

Nevertheless, the attractiveness of these SMEs, formerly icons in the national panorama, may culminate in new directions with new entrepreneurs playing a fundamental role in their acquisition of insolvent SMEs and perceiving new opportunities, planning their relaunch in international markets coupled with their experiences and visions gained from successful experiences in other companies.

3.5.1 Implications for Theory

This study contributes to our understanding of the trials and tribulations of internationalization in three significant ways and as well as how accumulated experiences shape the decisions of SMEs throughout their internationalization processes.

Firstly, we provide empirical evidence that demonstrates how the most relevant financial variables for analysing company success in international markets interrelate with the liquidity of assets and growth in sales, extending the results of previous research (Galvão, Marques, Mascarenhas, Braga, & Pereira, 2021) that identify how the SMEs attaining the highest export growth rates manage to be more consistent over the course of time with larger quotas of international market as well as improving the performance of their products and increasing the profits derived from international sales.

Our empirical evidence highlights how successful SMEs remain attractive over time and leverage the means of international market entrance, strengthening the recognition received in reputable networks, gaining government support, applying robust information about markets and identifying the opportunities preponderant to their success in international markets, building on the research undertaken by Calabrò, Brogi, & Torchia (2016) that affirms SMEs take advantage of the opportunities raised by growth in international market as a factor in business continuity and development.

Furthermore, Zahra, Ireland & Hitt (2000) conclude that the SMEs able to successfully prevail in international markets over the course of decades reflect how the means of entrance returns a positive effect on the increase in technology coupled with product innovation (Farinha, Ferreira, & Gouveia, 2016), thereby driving competitive advantage over business rivals (Zucchella, Palamara & Denicolai, 2007).

In this sense, the appropriate management of financial resources by SMEs depends on the competences/abilities/experience of their owners, which may be valuable in the discovery and exploration of the entrepreneurial opportunities capable of driving company success.

On the other hand, SMEs that fail are unable to overcome the barriers encountered in international development and of which we would highlight customs duties and the difficulties posed by political, social and exchange rate instability.

Secondly, we provide empirical evidence detailing how SME insolvency happens when potential stakeholders perceive a good business with the abrupt collapse of SMEs enabling them to control decision-making to the extent of bringing about the replacement of particular staff in key company positions. The interest rate provides a relevant input for

predicting bankruptcies to the extent that above average interest rates lead to SMEs not only incurring higher costs on the loans contracted but also facing greater challenges in obtaining new loans and thereby undermining the financial health of SMEs.

Simultaneously, to this banking suffocation on the grounds of honouring the already assumed commitments of SMEs, this triggers the future financial collapse, initially starting out with financial difficulties and that worsen over the course of time through accumulation and subsequently driving the company into bankruptcy.

Our results also demonstrate how insolvency resulted from erroneous decision-making around internationalization, for example, setting up a subsidiary requiring high levels of financial investment and management costs that were never recovered. Some SMEs opted to lower the quality of their products in order to undertake mass production and thereby seeking to raise profitability, but which do not gain the acceptance of clients that call into question the reputation of the brand and the product commercialised.

Currently, SMEs are experiencing serious difficulties and that have deepened with the onset of the Covid-19 pandemic, including the rejection of applications for government support and significant falls in production that leave no other alternative than for SMEs to go into bankruptcy.

Thirdly, our results provide new insights regarding how attempts at sale may lead to the rebirth of companies and with the entrepreneurial vision coupled with the reputation of the brand patented in times past as key contributory factors. In the rebirth of SMEs, our findings emphasise the decisive role of new entrepreneurs who, with high levels of experience, attempt to restore these SMEs to their former paths after perceived opportunities based on their knowledge of markets, experience in the sector, the brand's reputation interlinked with substantial improvements in product quality and investing in technology and in keeping with the research results returned by Rahayu & Day (2017) who affirm that SME success depends on the capacities of their leader for innovation, formulating and implementing competitive strategies and responding to changes in the market conditions under favourable laws and government regulations.

As Garavito Hernández & Rueda Galvis (2021) explain, the largest impact of innovation, as a strategy that contributes to business success in the current competitive and globalized market conditions, coupled with effective policies and an innovation-driven environment, also increases innovative-ambitious entrepreneurs (Amorós *et al.*, 2019).

Additionally, these entrepreneurs have already encountered the need to take decisions regarding international markets as SMEs faced deeper uncertainty in the international business context due to the outbreak of the COVID-19 pandemic, with the problems raised driving the need for reinvention, making recourse to technological solutions, alternative channels of distribution and concentrating on creating value and therefore in keeping with the findings of Maldonado *et al.*, (2023) who affirm that diversifying the risk and the need to conquer new markets and consumers are fundamental factors.

The role of new entrepreneurs is essential to the internationalization strategies implemented by SMEs and may vary in accordance with changes in the environment, leveraging the interests of SMEs in returning to formerly abandoned markets or opting for entirely new markets, all the while retaining their focus on international markets and immediately attempting to raise their profit margins, refurbish their machinery and equipment and establish partnerships.~

3.5.2 Implications for Practice

Complementing the theoretical contribution of our study, our results also contain various practical implications, specifically approaching the role of government interventions in support of SME internationalization processes. Government support seeks to promote an internationalization strategy that coordinates the various actors and enables the national economic to position itself in the global market, stimulating economic growth, advancing with the creation of qualified employment and thereafter attempting to obtain greater added value. Support from government programs constitutes a fundamental leverage for SMEs to develop networks through which they obtain valuable resources for promoting their products in conjunction with support for innovating the processes and products.

Focusing on the role of the contextual factors, our study complements the research findings on aspects related to innovation and the state-of-the-art technology necessary to internationalization. Our research results indicate that the future internationalization of SMEs depends on the articulated combination of more rigid government regulation in the target markets and the financial support systems that back the acquisition of cutting-edge technology to nurture SME innovation into the future. Without these support systems, as detailed in the research findings of Rock & Ahmed (2014) in Chile, the long term survival of SMEs in competitive conditions is not possible and thereby jeopardising their profit oriented strategies.

3.6. Conclusions, Limitations and Future Lines of Research

The main objective of this study was to understand more deeply the success and failures of SME internationalization processes. This compared data on companies achieving success and those registering failure in international markets. The study enabled the design of a research model that incorporates the topics that hold the greatest influence over the decisions interacting with international market success/failure, the collapse, rebirth and re-internationalization of SMEs. This model focuses on the factors influencing the key strategic decisions over entering international markets as well as analysing the diverse factors acting as drivers and obstacles that companies encounter in external markets.

Successful companies, from the outset, develop robust information systems on markets and identify the opportunities of greatest importance to their own success while striving to improve their professional performance and competitiveness and therefore engaging in market oriented behaviours.

A fundamental leverage for SMEs involves attempting to develop the networks, especially as the business environment is today characterised by deeper competition, which are able to provide valuable resources for promoting their products, alongside tailoring government policies to best develop the economy and thereby enabling the creation of employment through the development of SMEs and their success in international markets.

The financing difficulties, the lack of capital and the possibilities for recovery after failures in international markets represent the main motives causing the insolvency of SMEs. Furthermore, while some financial factors are more significant than others, no single aspect clearly stands out as a key factor for all SMEs, hence, no factor in isolation may trigger the success or failure of SMEs. In the rebirth of SMEs, we would highlight the decisive role of new entrepreneurs who apply their experience to attempting to resuscitate SMEs after perceiving opportunities in keeping with their knowledge of markets, the reputation of the brand interlinked with substantial improvements to product quality and investment in technology.

Additionally, these entrepreneurs display the capacity for decision-making as regards the international markets as SMEs face such uncertainties as regards the international business context, overcoming the barriers thrown up by the COVID-19 pandemic with the need for companies to reinvent themselves, through recourse to technological solutions, alternative channels of distribution and concentrating on creating value. This study contains some limitations. Firstly, we collected the case studies in the sample by convenience and refer to only a significant minority of national SMEs. Secondly, the

adoption of the case study method means that the conclusions are not susceptible to generalisation to all Portuguese SMEs. To overcome these limitations, we would recommend a quantitative study, deploying questionnaires for example as a means of gaining a more representative sample both of the SMEs studied here and of all SMEs across Portugal. Despite the limitations detailed above, we may set out the following lines of research detailed as regards theory, methodology and context (Table 3.3).

Table 3.3 Future Research Agenda by Theory, Methodology and Context

| Theory | |
|--|---|
| Future research question | Theory, methodology and context |
| Q1: Extend research to other geographical contexts to examine how the country/region of origin affects the de-internalisation paths of companies. | The literature seems to be silent on the factors that enable or inhibit commitment on failure (El Kalak & Hudson, 2016). |
| Q2: In re-internationalization, do companies adopt the strategy of re-entering the same external markets or do they tend to prefer other markets. | Extending research to other geographical contexts and analysing how the country of origin shapes the paths of re-internationalization (Dominguez, 2017). |
| Q3: How can international markets be the source of company survival? | General lack of research of the role of decision (Crick, Crick, & Chaudhry, 2020; Fernandes, Ferreira, Lobo, & Raposo, 2020). |
| Q4: What are the main stimuli that governments can give to companies when they re-enter international markets? | Since the competitive advantage of firms are contingent on external and internal factors, there is a shortage of literature examining the same (Ali, 2021). |
| Methodology | |
| Future research question | Methodology to consider |
| Q5: Which situations do companies face when surviving through re-internationalization and covering the population of failed exporting SMEs, thus seeking to obtain answers to the questions analyzed here. | Longitudinal case studies or panel data. |
| Context | |
| Future research question | Contexts to consider |
| Q6: Identifying the main challenges companies face when entering constantly evolving international markets and the de-internationalization of businesses. | Compare unsuccessful case studies in the context of emergencies. |
| Q7: Identifying the main barriers companies faced from the Covid-19 health crisis on the de-internationalization of businesses. | |

In conclusion, internationalization may create a high level of uncertainty and destabilise the routines of SMEs, demanding innovative responses tailored specifically to the respective context. Our study provides some guidance on how to survive the potential calvary of internationalization. The findings specifically demonstrate the importance of decision-making for SMEs to prevail in international markets.

Folha em branco

Chapter 4. Challenges of internationalizing companies: barriers, planning and motivations

ABSTRACT

The shortage of studies on the paths producing success in international markets led us to undertake this research project that looks at how the barriers, planning and motivations influence the processes inherent to the internationalization of companies. Through two mixed method approaches, we propose and test a model based on Uppsala's incremental internationalization theory. In study 1, we apply multivariate techniques to identify the premises for businesses advancing with internationalization processes that culminates in a theoretical model then tested against a sample of 402 companies. In study 2, we adopt qualitative analysis based on multiple case studies through interviewing various CEOs, business association presidents and government officials to enable the identification of strategies capable of enabling companies to overcome the challenges of the Covid-19 pandemic and strengthen their international position. The results demonstrate that i) the lack of government supports, cultural barriers and customs duties impact on the motivations for internationalization; ii) planning can help mitigate the barriers and deepen the motivations for internationalization; iii) the motivation factor is essential for success in international markets, especially whenever sustained by government support; iv) the strategy for internationalization and its planning significantly influence company success in international markets; v) government support, including subsidies, fiscal incentives and financing programs, represents a fundamental factor in alleviating the financial pressures and boosting the resilience of companies; vi) the swift adoption of digital technologies is crucial both to maintaining operations and expanding into global markets; vii) the capacity of companies to adapt through effective leadership and agile management enables swift and efficient responses to changes in the global business environment; and viii) strategic partnerships facilitate access to new resources and international markets, mitigating operational risks. This article also sets out the various implications for the theory and practice on the challenges companies face when embarking on internationalization processes.

KEYWORDS: Barriers; Competitiveness; Companies; Internationalization; Motivation; Planning.

4.1 Introduction

Globalisation has already altered the ways in which companies face up to the challenges of international markets through providing access to new business opportunities (Nave & Ferreira, 2022) that boost the level of international transactions (Witt, 2019) through investing in innovation and in technology with companies furthermore becoming increasingly competitive (Bianchi, Glavas & Mathews, 2017). Within the scope of maximising their performance, companies develop and leverage strategic orientations designed to stimulate internationalization processes (Knight, Moen, & Madsen, 2020), capable of producing competitive gains for economies (Cortellazzo *et al.*, 2020). The technological, economic, political and social transformations have pushed researchers into exploring new questions and presenting new contributions as regards the reasons underlying company internationalization processes (Ribau, Moreira & Raposo, 2017; Ribau *et al.*, 2024).

One of the most challenging facets derives from the need to develop company internationalization processes (Morais & Ferreira, 2020) given how the business environment today displays far greater complexity, competition and globalisation (Gerschewski *et al.*, 2020) and with government policies acting to develop economies, fostering the creation of employment and eradicating poverty through the development of companies (Tob-Ogu *et al.*, 2018).

The Covid-19 pandemic resulted in very significant impacts for companies even though research on this theme within the scope of international business management still remains limited (Delios *et al.*, 2023). Some recent studies have explored internationalization strategies (Sharma *et al.*, 2022), analysing how barriers influence the level of motivation towards internationalization processes and the need to make recourse to strategic planning (Schembri *et al.*, 2023).

Furthermore, government support also seems to play an important role in the internationalization processes of private sector firms (Aguinis *et al.*, 2021; Kraus *et al.*, 2020). However, there is scant literature explaining how barriers, planning and motivations dynamically interact over the course of internationalization processes and influence the success or failure of companies in international marketplaces (Schembri *et al.*, 2023; Vissak, 2024). This gap in the literature reflects the need to develop a more integrated and dynamic approach to how these three facets interrelate and shape the strategic decisions taken by companies within the increasingly complex and uncertain international environment.

Given this context, this study sets out to contribute to filling these gaps through analysis of the role played by the key barriers companies face when engaging in internationalization processes, of the planning undertaken within the scope of decision-making by managers and entrepreneurs, and of the motivations behind the internationalization of companies. We also aim to evaluate the role of government, specifically in the post-Covid-19 period as regards the support provided to companies in international markets. Hence, the ways in which such support contributed towards creating new market based solutions and enhancing international competitiveness.

This study adopts a 'pragmatic' paradigm that, considering both theory and practice, tends to include the perspectives of both quantitative and qualitative research methods (Johnson *et al.*, 2007). This mixed approach enables a wide reaching and detailed understanding of internationalization processes and strategies, highlighting the preponderant factors for company competitiveness, such as digitalisation and innovation that bring about improvements to the internationalization processes of companies striving to establish markets internationally.

This study makes various contributions to the literature on business internationalization. Firstly, this provides detailed analysis of the strategies adopted by companies when approaching international markets, deepening our understanding of the core factors that may impact on such expansion processes (Jafari-Sadeghi *et al.*, 2021) furthermore complemented by the proposed theoretical model of internationalization.

The contextual structure and configuration of internationalization requires an appropriate level of response to the demands of international markets and constituting a vital research perspective on the factors determining success or failure (Mitan *et al.*, 2024; Vissak, 2024). Secondly, the opportunities that companies took advantage of in the post-Covid period, of which we would highlight investments in digitalisation and innovation processes, brought about a reorganisation of the planning of companies and added motivations to successfully establish themselves in international markets (Christofi *et al.*, 2024).

Thirdly, the government support made available to companies represents a crucial aspect to dynamically boosting the competitiveness of companies in international markets (Ferreira *et al.*, 2024; Vissak, 2023). This study also demonstrates how well-structured policies, focused on the long term, coupled with the organisational resilience imposed by the pandemic, and the strategic and dynamic allocation of resources are all crucial to producing significant future improvements to companies operating in international

markets. This article is organised as follows. Firstly, there comes the literature review on internationalization to develop the conceptual structure that underpins both the hypotheses and the research model. Secondly, there is the characterisation of the methodology before presenting the results of the two studies carried out. The final section contains a discussion of those results and the theoretical and practical implications as well as the conclusion and future lines of research.

4.2 Literature Review

4.2.1 Internationalization Processes

The internationalization of businesses and firms constitutes a theme receiving widespread attention in the international business literature. International business theories intrinsically interconnect with such internationalization processes that rarely come about instantaneously (Musso & Francioni, 2020). The extent of internationalization plays a determining role in the development of companies, with the ability to collaborate in international markets and deploy digital technologies shaping their capacity to build competitive advantages (Christofi *et al.*, 2024; Ferreira *et al.*, 2024), thereby stimulating innovative performance levels that strengthen the competitiveness of firms (Soesetio, 2024), while improving the chain of value (Enderwick & Buckley, 2019) and guiding the organisation through a constantly changing international environment (Bertoldi *et al.*, 2018; Galkina *et al.*, 2023; Vissak, 2023).

The incremental theory underpinning the Uppsala model of internationalization represents one of the most commonly applied theories in the literature on internationalization processes. This theory, first put forward by Johanson & Vahlne (1977), served as the basis for diverse subsequent research examining the relationship with innovation based models of internationalization (Cavusgil, 1980; Reid, 1981) that posit incremental actions over the course of internationalization processes (Hult *et al.*, 2020). McDougall, Shane & Oviatt, (1994) explain the global and early internationalization strategies of companies that actively pursue international markets and correspondingly labelled ‘Born Globals’, thereby calling into question the traditional theories on internationalization (Rialp *et al.*, 2010), deeming them to fail to explain the internationalization of companies in the modern world (Lakshman *et al.*, 2023).

The born globals swiftly expand into far distant markets where they acquire knowledge and international experience to subsequently drive innovation and thereby also boosting the likelihood of their international success. Currently, the swift pace of global development, proactively boosted by digital platforms, constitutes one of the most notable

transitions for born globals (Etemad, 2022), enabling them to reorganise their business models and become more competitive, boosting the dynamism of their business activities through online and digital means and driving reductions in costs and timespans (Oliva *et al.*, 2022).

This research approaches the perspective of incremental theory in conjunction with innovation as that emerges as key to the survival and/or growth of companies (Vuorio *et al.*, 2020), with the capacity to innovate recognised as a competitive factor for internationalization (Yang, 2018), significantly improving company performance levels in international markets while also fostering the obtention of sustainable competitive advantages (Hashai & Buckley, 2014). Innovation is crucial to maintaining the overall competitive viability of companies (Thakur-Wernz & Samant, 2019), resulting in better understandings of core markets (Pereira *et al.*, 2016), expanding market shares, (Morais & Franco, 2018) and facilitating the accumulation of intellectual property assets, such as patents and registered brands (Enderwick & Buckley, 2019).

The dynamism and diversity observed in the behaviours of companies (Puig, Madhok, & Shen, 2020) suggests that internationalization decisions may be more complex than the current models predict, reflecting, as least in part, the different experiences, objectives and expectations of decision-makers (Santangelo & Meyer, 2017). The challenges and opportunities that companies face as regards their means of internationalization, the types of markets selected, the diversity of markets in which they operate and/or the various levels of development of target markets are all determining factors for successful internationalization strategies (Jiang *et al.*, 2016).

The internationalization route has thus become an option for many companies but, and above all, a strategic means of growth (Alayo *et al.*, 2019), exploring new opportunities and markets (Paul & Rosado, 2019; Shams *et al.*, 2021). Furthermore, the maturity of domestic markets and the consequent limitations on growth opportunities also push managers and entrepreneurs into deciding on their most appropriate internationalization strategies (Roy *et al.*, 2016).

To the extent that companies do advance with their internationalization processes, they go through different stages of development, abandoning more simple organisational structures in favour of more complex alternatives (Breuillot *et al.*, 2022). Indeed, the experience accumulated over the course of time drives this evolution and, consequently, these companies become more stable, reliable and committed to their strategies and objectives (Surdu *et al.*, 2019).

4.2.2 Motivations for Internationalization

Companies perform a fundamental role in economies, cooperating for practices producing innovation, new technology and economic development (Fernandes *et al.*, 2023). Internationalization processes take on greater chances of success when there is government support behind them (Campos *et al.*, 2021; Vissak, 2023; Ferreira *et al.*, 2024). Roy, Sekhar & Vyas (2016) highlight how governments provide funding through the public-private partnership model to stimulate companies taking up positions in international markets through export activities, thus assisting companies to overcome financial restrictions and thereby fostering economic growth (Kashyap & Raghuvanshi, 2020).

The motivations for companies seeking to expand into international markets are various with internationalization potentially representing the means for companies to raise their competitive levels through exploiting their core competences in new markets and leveraging economies of scale in order to obtain returns on investment (Renko & Freeman, 2017). In sum, the motivations for internationalization may be pro-active whenever the company internationalises in search of a higher profile (Vuorio *et al.*, 2020; Jiménez-Asenjo *et al.*, 2024), technological advantages (Christofi *et al.*, 2024), fiscal benefits (Eichholz *et al.*, 2024) and economies of scale (Vendrell-Herrero *et al.*, 2017).

The motivations may stem from a more reactive nature whenever companies are responding to external threats such as competitive pressures or even market saturation (Czinkota *et al.*, 1999; Mitan *et al.*, 2024). The motivations of company managers and leaders play a crucial role in resilience and the international orientation (Dominguez & Mayrhofer, 2017; Lakshman *et al.*, 2023). Training and learning programs for members of staff are essential to enable them to develop specific skills and knowledge (Chen *et al.*, 2024; Cortellazo, 2020).

The stimuli triggered by companies striving to improve their levels of competitiveness and expand internationally (Shirodkar *et al.*, 2024) rank among the most strategically important options (Sapienza, Autio, George & Zahra, 2006). Thus, success stems from the capacity to assimilate and deploy the knowledge in accordance with the prevailing market demands (Angeles Rodriguez-Serrano & Martin-Armario, 2019), which particularly emphasises innovation given its relevance to company sustainability (Rastrollo-Horrillo & Martín-Armario, 2019). Chen *et al.* (2024) affirm that political connections help companies in promoting market innovations, facilitating the acquisition of the necessary resources and knowledge. Furthermore, these connections establish collaborative

relationships between small and medium sized companies and their corporate peers producing mutual benefits (Ferreira *et al.*, 2024).

Furthermore, other favourable factors, such as negotiating powers, the number of distributors, a variety of distribution channels, the prestige and profile of the company and its brands (Agostini, Filippini & Nosella, 2015) positively influence the internationalization strategies of companies (Clavel *et al.*, 2017). Experiences with brands play a vital role in building loyalty and in the search for international business sustainability, contributing to retaining clients (Ong, Lee, & Ramayah, 2018) and strengthening the company performance and profitability (Narooz & Child, 2017).

4.3. Research Strategy: an Overview

The lack of studies on the paths to take to achieve success in international markets led us to construct this research based on the two methodological principles underpinning the mixed method approach (Jafari-Sadeghi, Amoozad Mahdiraji, Bresciani & Pellicelli, 2021).

This approach provides a holistic understanding of phenomena, especially when there are shortcomings with the existing research given studies adopting this particular approach are highly scarce (Edwards, 2022). The first methodological justification stems from the theoretical review identifying the existing gaps, establishing the scientific grounds for this study and its respective hypotheses. The second stage implements the core empirical tools applied in accordance with the mixed quantitative-qualitative method (Trȳpczyȳski & Banalieva 2016). In epistemological terms, and in order to render continuity to the research, we applied a deductive rationing process (study 1) as a logical procedure applicable to undertaking research (Overmars *et al.*, 2007) characterised by the ways in which we think from the general to the particular (Blachowicz, 2009).

Theoretical constructions guide these deductive approaches, deploying empirical tools to gather quantitative data. Nevertheless, this needs complementing by study 2 (inductive method) that enables the capacity to discover still unknown aspects and producing a broader understanding of the internationalization processes of companies (Polsa, 2013). Hence, we designed and implemented two studies to comply with the proposed research objectives (table 4.1).

Table 4.1 Methodological Tools.

| <i>Study</i> | <i>Principal Tools</i> | <i>Auxiliary and Complementary Instruments</i> |
|--------------|----------------------------|--|
| <i>1</i> | Survey 1 - Questionnaire | Data: Quantitative and Primary data Sample: 402 CEOs of firms active in international markets Method: Multivariate statistical analysis Purpose: to support, combine and/or interrelate empirical findings |
| <i>2</i> | Survey 2 – Interview guide | Data: Qualitative and Primary data Sample: ten experts (five industry practitioners, a president of a public association and another private association president, one former economy minister, two members of government). Method: Multiple case study analysis Purpose: Analyse the government support which will boost the competitiveness of companies in international markets. |

Study 1 identifies the premises fundamental to the internationalization of companies that then culminates with a theoretical model that is then subject to testing against a sample of 402 companies and with recourse to multivariate methods and statistical techniques. In study 2, we undertake qualitative research based on multiple case studies (Yin, 2013), interviewing CEOs, business association presidents and government members in order to explore the strategies that enable companies to overcome the challenges of Covid-19 and strengthen their international positions. We analyse the preponderance of government support, improvements to internationalization strategies, and investment both in digitalisation and in innovation. These actions spur company competitiveness and drive sustainable economic growth (Ferreira *et al.*, 2024). This study provides a vision focused on the internationalization practices of companies through the identification of barriers, strategic planning and the particular motivations for internationalization.

In terms of the philosophical approach to this theme, this study adopts a 'pragmatic' paradigm that, in considering theory and practice, also tends to include the points of view returned by quantitative and qualitative research methods (Johnson, Onwuegbuzie & Turner, 2007). The dynamic concepts under study are subject to empirical testing so that the corresponding results may provide a more robust understanding of this topic while, simultaneously, disseminating the findings to a broader population through the research and interviews carried out (Yin, 2013). The pragmatic paradigm facilitates the design of the mixed methods herein applied and that both supplies additional clarification and verifies the results that would not be feasible if applying only a single methodological approach (Bryman, 2006) as well as enabling the data to be compiled to obtain higher levels of reliability and authenticity (Creswell & Clark 2011).

4.4. Study 1

Study 1 establishes the scientific grounding and underpins the hypotheses, enabling the testing of complex relationships and effectively exploring the vast range of motivations for managers and entrepreneurs to strive for the internationalization of their businesses, including how to overcome the respective barriers, the means of planning for internationalization and the rationale defined following approaches to external markets. Hence, the quantitative study verified the mutually auxiliary roles of internationalization and enabled the setting out of a theoretical model and thereby helping to overcome, to the best of our knowledge, the lack of research into the motivations for the internationalization of companies (Galvão *et al.*, 2021; Hsieh *et al.*, 2019; Kahiya 2018).

4.4.1 Theoretical Model and Hypotheses Development

4.4.1.1. Barriers and Planning

The barriers to internationalization represent the obstacles to the international expansion of companies, thus, the factors restricting their internationalization processes (Leonidou, 2004). These barriers constitute restrictions that shape the capacity of company to embark on, develop and maintain commercial operations in international markets (Galvão *et al.*, 2021; Kahiya, 2018). Ignoring these barriers, and their dynamic nature, when taking decisions on entering, re-entering and withdrawing from markets within the scope of internationalization processes, may result in insurmountable constraints, such as disinvestment (Nummela, Saarenketo, & Loane, 2016). The barriers perceived by companies may thus hinder or even block their internationalization processes, and demotivating efforts to launch operations in international markets (Dao Mai Xuan & Buu Le Tan, 2024).

However, planning internationalization processes plays a fundamental role in identifying and mitigating for these barriers, enabling companies to advance with efficient strategies for expanding into international markets (Jafari-Sadeghi *et al.*, 2021). Planning internationalization requires a structured process that ensures the readiness of companies to face the challenges and take advantage of the opportunities present in the international scenario (Galkina *et al.*, 2023). Thus, we may therefore posit our first hypothesis 1 (H1):

H1: The higher the barriers to internationalization, the greater the need for company planning.

The processes triggered by impulse decisions that produce contingent factors, without the existence of any prior planning, may result in barriers only overcome with difficulty (Crick & Spence, 2005), and that condition the entrance of companies into international markets, such as culture differences, saturated domestic markets, the lack of government support and customs duties and charges (Ozkan, 2020). The FIFA World Cup held in Qatar demonstrated the binary facets of culture, individualism/collectivism, power/distance, uncertainty/avoidance that assisted the organisers of this event to grasp the cultural differences (Kaplanidou *et al.*, 2016). These cultural differences stand out as a significant barrier to internationalization, reflected in the differences in languages and cultural facets that raise the level of uncertainty surrounding the internationalization of companies (Urban *et al.*, 2023). The lack of foreign language skills has seriously held back the internationalization of firms in Central and Eastern Europe with many managers lacking foreign language skills potentially contributing to failure in international markets (Vissak, 2024). To surmount these cultural differences, companies should engage in exhaustive planning for internationalization and establish the means to respond to and overcome the particular needs and demands of other markets and thus enabling their own success (Schembri *et al.*, 2023). Hence, we arrive at the following hypothesis 1a (H1a):

H1a: The greater the cultural differences, the greater the need for companies to plan their internationalization.

Specific barriers emerge when companies opt to target international markets, beginning with geographic distance and close/different mental frameworks and extending to new competitive scenarios for which the company has not prepared, such as high customs duties and physical factors (Villar *et al.*, 2014). Company planning needs to be still more thorough in competitive business environments, which demand compliance with a flexible range of corporate legislation that broadens the range of business opportunities and environments and thereby enhancing the entrance conditions for companies striving to target international markets (Sjögrén & Syrjä, 2015). We may therefore propose the following hypothesis 1b (H1b):

H1b: High customs rates significantly impact on the internationalization planning of companies.

Companies tend to imitate the international expansion strategies of their competitors in keeping with how internationalization necessarily involves high levels of uncertainties and

risk, with companies tending to manage this situation by adopting behaviours similar to their competitors (Li & Ding, 2013). Thus, the internationalization risk models require adjustment by sector of activity to take into account the problems, specific features and characteristics developed to cope with the increased competition present in international markets (Toulová *et al.*, 2016). The advance in globalisation and the liberalisation of markets has led to more intense levels of cooperation that require companies to evolve and overcome the fierce competition with managers fearing that should they not deal with such adversity they may face financial ruin (Hendriks *et al.*, 2018; Korsakienė *et al.* 2015). In order to deal with the competition, companies need to prioritise the appropriate planning to see off the heightened competition prevailing in the international panorama (Child *et al.*, 2017). This underpins our following hypothesis 1c (H1c):

H1c: High competition impacts significantly on planning for business internationalization.

Mendy & Rahman (2019) also highlight the urgent need for governments to prioritise the internationalization of businesses, making available resources and processes to effectively optimise the economic and social dividends returned by companies able to get round and/or over the barriers to international markets (Zaheer, 1995). Financial barriers are especially relevant, for example difficulties in obtaining the necessary financial capital to achieve the economic growth desired (Gupta *et al.*, 2016). The study by Galkina *et al.*, (2023) stresses how the entrepreneurial vision, the resources, capacities and strategic options of business leaders, coupled with the potential adversities, such as the lack of political and government support, are fundamental factors for planning internationalization processes. Given this context, we may formulate the following hypothesis 1d (H1d):

H1d: The lack of government support raises the need for the planning company internationalization processes.

4.4.1.2 Barriers and Motivations

The weighting attributed to internationalization by the management team reflects a core factor in decision-making and mobilising members of staff to align with the global orientation of the company's leadership (Chaudhry *et al.*, 2024). The business leader/manager/entrepreneur is the key driver of motivation for the company to internationalise and should correspondingly deploy a pro-active mentality, exploring innovation, seeking ways around barriers and accepting risk in decision-making (Cortellazzo *et al.*, 2020). Furthermore, senior management strives to continually promote

the profile and reputation of their brands in international markets that may, over the course of time, result in larger client portfolios (García-Cabrera *et al.*, 2016).

The leadership plays a key role in the choices and decisions taken under the auspices of the internationalization process (Ribau *et al.*, 2017), given their learning enables the accelerated internationalization of the company (Ciszewska-Mlinarič, Wójcik, & Obłój, 2020). This may represent a fundamental strategy for growth and success in international businesses, including driving increased sales and profits, the openness to new markets and enhanced economies of scale (Bagheri *et al.*, 2019; Jiménez-Asenjo *et al.*, 2024). Therefore, we arrive at hypothesis 2 (H2):

H2: The higher the barriers, the lower the motivation for company internationalization processes.

The cultural differences serve to describe variations across certain aspects, such as culture, beliefs, customs, rituals, with the motivation for internationalization posing a challenge to the efficiency of communications and the sharing of knowledge (Klitmøller & Lauring, 2013). These cultural differences, when backed by continuous learning and drafting strategic alternatives, become factors of motivation for companies striving to overcome obstacles and attain success in international markets (Inés López-López, 2015). Furthermore, the motivation to overcome cultural differences may extend to building stronger and more trusting relationships with local partners, suppliers and clients, which are fundamental to long term success in international markets, as demonstrated by the research findings of Gebrewahid & Wald (2017) and that also values the importance of the cultural adaptation of local knowledge, constructing strong networks and contracting local talent. Collectively, this enables companies to better navigate the complexities posed by international markets. Hence, we may set out the following hypothesis 2a (H2a):

H2a: Significant cultural differences influence the motivations for internationalization.

Customs duties and other business taxes dissuade companies from international involvement and, as a result, Africa, for example, experienced a decline in its proportion of global trade between 1970 and 1999 (Tarek *et al.*, 2016). On the Asian continent, companies also face these difficulties but have made recourse to bribery as a means of overcoming such issues with such payments accounting for approximately 6.4% of their total annual sales. Therefore, there is the need for the political will to eliminate such inefficiencies, especially in terms of customs processes (Kumanayake, 2021) all the while the international community has witnessed very little success in reducing these trade

tariffs over recent years, and which particularly impact on exporters from low income countries (Essaji, 2008).

Internationally involved companies concur in denouncing high customs duties with evidence that this is a constraint that they strive to overcome (Drinkwater & Robinson, 2023). A study by Hutchinson *et al.*, (2009) highlights the enormous barriers to trading existing for United Kingdom export companies with high customs rates, bureaucracy and the legislation prevailing in countries outside the European Union having led to companies breaking off eventual deals in these countries despite negotiations having reached advanced stages. Hence, we may propose the following hypothesis 2b (H2b):

H2b: High customs duties negatively impact on the motivations for internationalization.

One immediate implication of the liberalisation of global trade was the surge in competition that companies experienced in their respective markets and necessarily requiring business models enabling them to become more competitive within the international scenario (Child *et al.*, 2017). Many companies have engaged in developing networks to try and cope with the business environment prevailing in international markets characterised by its extremely high levels of global competition (Martins *et al.*, 2023). This competition, the lack of resources and the low level of knowledge about highly competitive markets are determining factors and that hinder company expansion while reducing the motivations for internationalization in keeping with companies perceiving that the market entry costs exceed the likely benefits (Sousa *et al.*, 2021). In more competitive markets, companies are systematically pressured to innovate and differentiate their market positions from the competition, incurring high costs, for example with digital transformation processes, rendering eventual investment less attractive (Sassanelli & Terzi, 2022).

Intense levels of international competition raises the risk of failure in international markets, which deters diverse businesses and firms from expanding into new international markets (Schembri *et al.*, 2023). Therefore, we may state the following hypothesis 2c (H2c):

H2c: The strong competition in international markets negatively influences the motivations for internationalization.

Research findings by Kalpaka *et al.*, 2020 also emphasise how in recent years, initiatives undertaken by the European Commission and member state governments to enable

internationalization have fallen short essentially due to the lack of knowledge about the companies and the clear shortfalls in the levels of financing available. Political decision-making should intensely promote and support the internationalization of companies and enabling them to explore the opportunities arising from penetrating international markets (Odoom, Agbemabiase, Anning-Dorson, & Mensah, 2017). The lack of government support creates a barrier to companies, especially stemming from high levels of bureaucracy and poor communication and dissemination of the support actually available undermines the motivations of business leaders towards internationalization (Hashim, 2015). Given this context, we may formulate the following hypothesis 2d (H2d):

H2d: The lack of government support negatively influences the motivations for company internationalization.

4.4.1.3 Planning and Motivation

Effective planning is crucial to strengthening the motivations for internationalization prevailing in companies whether due to the saturation of their local domestic markets and/or opting for new markets to continue growing and boost client numbers (Czinkota *et al.*, 1999). Companies invest in digitalisation, fostering innovation and generating technological advantages, resulting in positive impacts on the motivations towards internationalization.

Furthermore, digital technologies cut the costs of production and enable the design of innovative products and transforming them into competitive advantages (Plečko & Bradač Hojnik, 2024). In addition, planning internationalization processes further demonstrates the importance of the motivations for internationalization as companies select the activities most appropriate for international expansion in keeping with the potential transaction and market exploration costs necessary to gaining significant competitive advantages and/or generating returns in the host country (Rugman & Verbeke, 2005).

The factors shaping the means of entrance hold fundamental importance to long term international success as the strategic decisions related with choice of market and means of entrance are crucial to internationalization (Li, 2018; Tian, Nicholson, Eklinder-Frick & Johanson, 2018). Hence, it is essential for companies to choose the right markets and, paying attention to the specific conditions, opt for the means of entrance most appropriate to returning the best results (Morais & Ferreira, 2020).

It requires highlighting how the scope for profiting from these opportunities always depends on the capacities of each company (Sui, Yu, & Baum, 2012). Within this

framework, the strategy most commonly deployed by companies in such international contexts is to export as this enables higher profitability through economies of scale with few additional resource requirements (Jiménez-Asenjo *et al.*, 2024). Against this background, we may posit the following hypothesis 3 (H3):

H3: The greater the planning for the internationalization process, the deeper the motivations for internationalization.

Company planning processes, designed to endow greater visibility, diversify revenue streams, access new opportunities for growth, boost competitiveness, improve innovation and quality levels and to source new technologies and resources, may produce positive effects for the respective internationalization strategy (Jafari-Sadeghi *et al.*, 2021). A consistent strategy strengthens the internal motivations as regards company growth, maximising the productive capacities and diversifying risks in international markets (Diego Ruiz *et al.*, 2024).

This furthermore deepens the motivations to explore new international contexts, returning appropriate responses to competitive pressures and taking advantage of the opportunities that help drive growth in international markets (Alayo *et al.*, 2019). The planning of actions may take place strategically, focusing on the preferred means of market entrance (Goncalves & Cornelius, 2017) while others opt for market liberalisation strategies when needing to recover from economic setbacks (Dau *et al.*, 2013) and thereby expanding the scope for success in international markets. Hence, we may put forward the following hypothesis 3a (H3a):

H3a: A defined strategy strengthens company motivations for internationalization.

Business models remain essential for companies as the means of explaining their own operations. The drafting of a robust business model always contains the motivations and an outline on the added value achievable (Magretta, 2002). Any viable organisation depends on a solid business model but a business model does not represent a strategy despite the terms often getting used indistinctively. Business models describe a system; the way in which the different pieces of a business fit together (Meuter *et al.*, 2005).

Thus, business models provide a comprehensive structure that helps companies to understand and clearly articulate the motivations for internationalization, thereby facilitating strategic decision-making, aligning the internal resources and capabilities with the opportunities and challenges present in international markets (Kathan *et al.*, 2016).

Business leaders that align their strategic intentions with a business model achieve greater efficiency and effectiveness as they set out a structured vision of the goals, strategies and resources necessary for the company to target international markets (Madu *et al.*, 2011), hence capitalising on the capacity to perfect market oriented behaviours and minimising the risks inherent to internationalization (Faroque *et al.*, 2020). Hence, we arrive at the following hypothesis 3b (H3b):

H3b: Business models perform a crucial role in identifying the motivations for business internationalization processes.

Companies adopt internationalization plans for various reasons, for example, enabling them to enter far-off emerging markets, and generating deeper understandings of these new business environments (Gonzalez-Perez *et al.*, 2016). Company internationalization plans reduce market risks through becoming more efficient in acquiring knowledge about markets all the while this new knowledge acquisition produces the competences enabling the firms to mitigate their risks while accelerating their growth through the internationalization of their products and/or services (Prashantham, 2008).

Any effective internationalization plan substantially improves the identification and understanding of the motivations resulting in a better grounded and more focused internationalization strategy (Childress, 2009). Company internationalization plans produce greater visibility, diversify revenue sources, access new growth opportunities, raise competitiveness, strengthen innovation and quality as well as accessing new technologies and resources and thereby producing positive effects on the respective company internationalization strategy (Jafari-Sadeghi *et al.*, 2021). These benefits may catapult firms to growth and competitiveness in the global marketplace (Diego Ruiz *et al.*, 2024). Given this context, we arrive at our final hypothesis 3c (H3c):

H3c: An effective internationalization plan strengthens the identification of the company's motivations.

Figure 4.1 sets out the conceptual structure for this study.

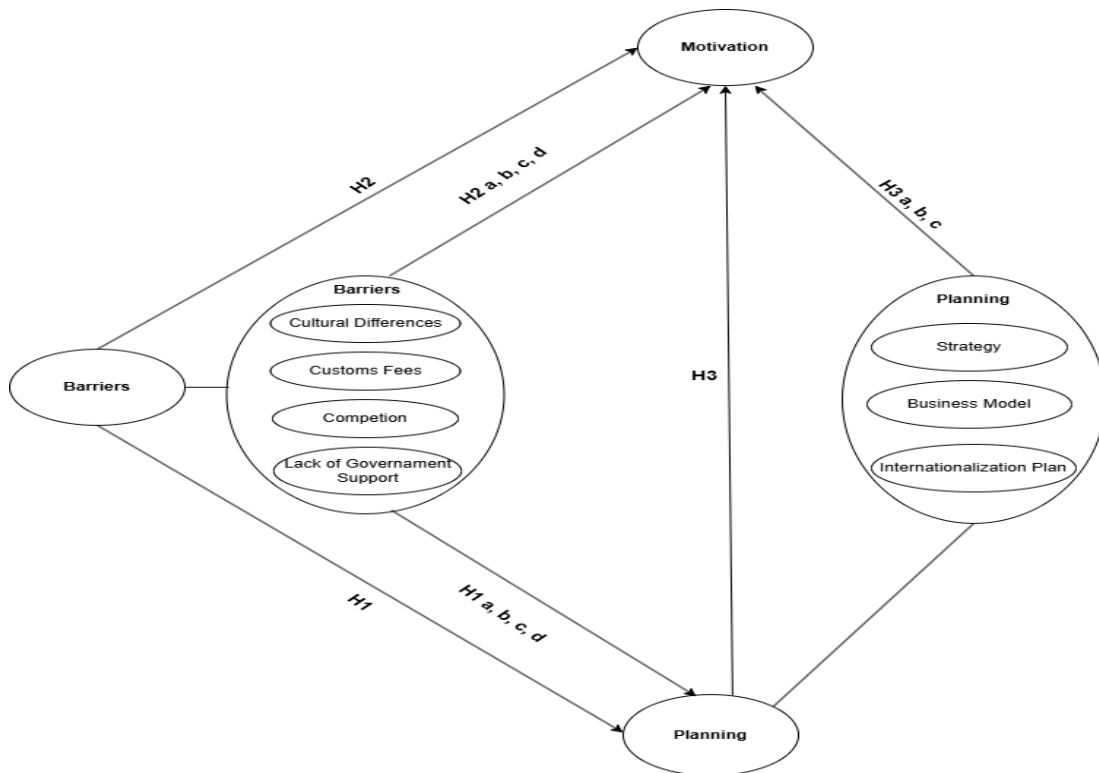


Figure 4.1 Theoretical Model

4.4.2 Method

4.4.2.1 Sampling, Data Collection

The companies selected for our sample derive from a database provided by AICEP-Portugal containing 7,230 companies. We sent out questionnaires by means of a mix of random and intentional selection (Terziovski & Sohal 2000) and received a total of 402 duly validated answers, spanning 138 micro companies, 160 small companies, 69 medium companies and 35 large companies with 52% belonging to the secondary sector, 29.3% the tertiary sector and with the primary sector making up the remaining 18.7%.

Furthermore, the questionnaire came with a participation terms of consent form that each participant completed prior to responding to the questionnaire (Appendix B).

4.4.2.2 Measurement

The dependent variable is the internationalization of companies and we therefore produced this calculation as the percentage market share of respondent companies stemming from international market sales against total company sales, a commonly adopted measurement for internationalization as already applied in previous studies (Alessandri *et al.*, 2018; Arregle *et al.*, 2021; Hennart *et al.*, 2019).

$$\text{International Market \%} = \frac{\text{International Sales}}{\text{Total Company Sales}} \times 100$$

Subsequently, we divided up the company in terms of the percentage weightings of the international market share (0-10%) (11-25%) (26-50%) (51-75%) (76-100%).

The independent variables span the barriers, the planning and the motivations. In the case of the barriers, we adopted four research questions with answers provided on a 5-point Likert scale ranging from “total disagreement” to “total agreement” (Chandra *et al.*, 2020; Mendy & Rahman 2019 and Villar *et al.*, 2014). In relation to the planning, we applied three questions with answers again provided on a 5-point Likert scale ranging from “total disagreement” to “total agreement” (Dana *et al.*, 2016; Fernández-Ortiz & Lombardo, 2009).

Finally, in relation to the motivations for internationalization, there were a total of four questions and answered on the same 5-point Likert scale (Hennart *et al.*, 2019; Paul *et al.*, 2017; Roy *et al.*, 2016). To guarantee the validity and reliability of the measurement items applied in this study, we deployed items sourced from existing and already tested and applied scales. Finally, we adopted company size as the control variable in keeping with the research study by Love *et al.*, (2016). Table 4.2 sets out the key construct measurement items.

Table 4.2 Measures of Key Constructs

| Variables | Items | Sources |
|-------------------|---|---------------------------------------|
| Barriers | i) The steepest barrier to internationalization was the cultural differences. ii) The steepest barrier to internationalization was the customs duties. iii) The steepest barrier to internationalization was the competition. iv) The steepest barrier to internationalization was the lack of government support. | Mendy & Rahman (2019) |
| Planning | i) The company has a defined business model for international markets. ii) The company has an internationalization plan implemented for these markets. iii) The company has a strategy for approaching international markets. | Fernández-Ortiz & Lombardo (2009) |
| Motivation | i) The main motivation for internationalization was profit. ii) The main motivation for internationalization was brand profile/reputation. iii) The main motivation for was the saturated domestic market. | Paul (2020); Roy <i>et al.</i> (2016) |

In order to test these research hypotheses, we deployed two approaches with one based on structural equation models (SEM) and the other based on simple linear regression models. In order to analyse the hypotheses representing the constructs (Model 1), we applied SEM calculated via the partial least squared method (PLS-SEM). This method has gained popularity in the behavioural sciences due to its flexibility and capacity to deal with various research contexts (Becker *et al.*, 2023; Hair *et al.*, 2021; Ketchen, 2013; Sarstedt *et al.*, 2022).

We chose PLS-SEM over covariance based SEM models (CB-SEM) primarily due to the specific characteristics of the data in this study. The item distribution does not behave according to the criteria of normality, an essential requirement for the effective application of CB-SEM, the relatively small scale of the sample may impact on the reliability and validity of the results produced by CB-SEM, which generally requires larger samples to stabilise the estimates and the complexity of models with moderating and mediating effects (Sarstedt *et al.*, 2022).

We also opted for PLS-SEM due to its distinctive approach to the compounded latent variables. Differently to CB-SEM, which presumes that the constructs cause their indicators, PLS-SEM assumes these indicators are external expressions of the latent

variables, thus assuming that the construct stems from a composition of its indicators, which reflects the compound nature of the latent variables (Becker *et al.*, 2023; Hair *et al.*, 2021; Ketchen, 2013; Sarstedt *et al.*, 2022). In order to determine the hypotheses associated to the items making up each dimension, we applied two regression models. In one model (Model 2), planning served as the dependent variable with the barrier items providing the independent variables. In the other model (Model 3), the motivations acted as the dependent variable while the barriers and planning provided the independent variables. For the dependent variables, we applied the composite scores produced by SEM while adopting the standardised values for the independent variables.

4.5. Results

4.5.1. Construct Validity and Reliability

In the first phase, we exclude certain items returning factorial weightings of below 0.5. In this study, we evaluated the reflective constructs first. We applied the factorial weightings, Cronbach's alpha (CA), rho A, composite reliability (CR) and average variance extracted (AVE) to evaluate the internal consistency and convergent validity of the constructs (for the complete dataset and divided up by company size; micro, small, medium and large). Table 4.3 presents all of the item weightings that exceeded the recommended level of 0.5, with the exception of Support following its removal.

As a result, the subsequently obtained values for CA, rho_A and CR are greater than 0.7, and with the AVE results all greater than the cut-off level of 0.5 (Sarstedt *et al.*, 2022; Hair *et al.*, 2021). Hence, both the complete sample and the sample divided into four group register satisfactory levels of convergent validity and internal consistency.

Table 4.3 Descriptive Statistics, Construct Validity and Reliability

| | FL | CA | rho A | CR | AVE | |
|--------|----------------------------|------|-------|-------|-------|-------|
| Global | Motivation | | 0.705 | 0.780 | 0.793 | 0.621 |
| | Profit | 0.71 | | | | |
| | Reputation | 0.90 | | | | |
| | Saturation | 0.74 | | | | |
| | Planning | | 0.847 | 0.848 | 0.907 | 0.766 |
| | Business Model | 0.82 | | | | |
| | Intern. Plan | 0.91 | | | | |
| | Strategy | 0.89 | | | | |
| | Barriers | | 0.699 | 0.701 | 0.750 | 0.502 |
| | Cultural Differences | 0.71 | | | | |
| | Competition | 0.64 | | | | |
| | Lack of Government Support | 0.75 | | | | |
| | Customs Fees | 0.74 | | | | |

Finally, in order to ascertain the discriminant validity, we applied the HTMT ratio to both the complete and divided datasets (Sarstedt *et al.*, 2022; Hair *et al.*, 2021). Table 4.4 demonstrates how there are no problems with discriminant validity for all the companies and for the micro, small, medium and large companies given that all the HTMT results come in below the maximum limit of 0.85 (Sarstedt *et al.*, 2022; Hair *et al.*, 2021).

Table 4.4 The HTMT Ratio

| | | Barriers | Planning |
|--------|------------|----------|----------|
| Global | Planning | 0.308 | |
| | Motivation | 0.475 | 0.328 |
| Micro | Planning | 0.371 | |
| | Motivation | 0.454 | 0.349 |
| Small | Planning | 0.234 | |
| | Motivation | 0.401 | 0.287 |
| Medium | Planning | 0.383 | |
| | Motivation | 0.612 | 0.343 |
| Large | Planning | 0.512 | |
| | Motivation | 0.596 | 0.508 |

4.5.2. Hypothesis Validation

Table 4.5 details the results returned by the structural model within the scope of validating the hypotheses. The bootstrapping technique, with 10,000 samples, served to evaluate the significance of the path coefficients.

As regards the relationship between the barriers and planning, our results convey how the impact of the barriers on planning is both positive and statistically significant (Model 1: Beta=0.20; $t=3.94$; $p<0,01$). In disaggregate terms, the cultural differences return no significant effects (Model 2: Beta=0.08; $t=1.60$; $p=0.055$) to the contrary of customs duties (Model 2: Beta=0.10; $t=1.89$; $p=0.030$), competition (Model 2: Beta=0.13; $t=2.41$; $p=0.008$) and lack of government support (Model 2: Beta=0.10; $t=1.89$; $p=0.030$) with their positive and significant effects on planning.

As regards the influence of barriers over the motivation for internationalization, the impact is again positive and significant (Model 1: Beta=0.21; $t=4.54$; $p<0.01$). Breaking the items down, the cultural differences do not produce any significant effects (Model 3: Beta=0.05; $t=0.96$; $p=0.170$) while customs duties generate a positive and significant effect (Model 3: Beta=0.11; $t=2.17$; $p=0.015$). In turn, competition reports a positive effect but that fails to attain any significance (Model 3: Beta=0.07; $t=1.35$; $p=0.089$). The lack of government support brought about a positive and significant effect (Model 3: Beta=0.10; $t=1.90$; $p=0.029$).

As regards the relationship between planning and the motivations for internationalization, the results portray a positive and globally significant relationship (Model 1: Beta=0.18; t=3.46; p<0.01). Furthermore, strategy provides a positive and significant impact on the motivations for internationalization (Model 3: Beta=0.17; t=1.80; p=0.036) although the business model causes a negative, if insignificant, effect (Model 3: Beta=-0.08; t=0.83; p=0.203). Finally, the internationalization plan returns a positive and significant effect (Model 3: Beta=0.12; t=2.10; p=0.018).

Table 4.5 The Standardised Model Coefficients

| | | Global | | |
|----------------|---|--------|------|---------|
| | | Beta | t | p |
| Model 1 | Barriers → Planning | 0.20 | 3.94 | 0.000** |
| | Barriers → Motivation | 0.21 | 4.54 | 0.000** |
| | Planning → Motivation | 0.18 | 3.46 | 0.000** |
| Model 2 | Cultural Differences → Planning | 0.08 | 1.60 | 0.055 |
| | Customs Duties → Planning | 0.10 | 1.89 | 0.030* |
| | Competition → Planning | 0.13 | 2.41 | 0.008** |
| | Lack of Government Support → Planning | 0.10 | 1.89 | 0.030* |
| Model 3 | Cultural Differences → Motivation | 0.05 | 0.96 | 0.170 |
| | Customs Duties → Motivation | 0.11 | 2.17 | 0.015* |
| | Competition → Motivation | 0.07 | 1.35 | 0.089 |
| | Lack of Government Support → Motivation | 0.10 | 1.90 | 0.029* |
| | Strategy → Motivation | 0.17 | 1.80 | 0.036* |
| | Business Model → Motivation | -0.08 | 0.83 | 0.203 |
| | Internationalization Plan → Motivation | 0.12 | 2.10 | 0.018* |

* p < 0.05; ** p < 0,01

4.5.3 Discussion

This study contributes significantly to the literature by identifying the critical factors and the barriers that shape the internationalization processes of companies. The data analysis conveys how thorough planning and overcoming the barriers faced are crucial facets to the motivation for company internationalization. The findings report how a lack of government support causes a positive and significant impact on the motivations for internationalization, which reveals how companies that face greater challenges in accessing state support tend to be more proactive in seeking out international

opportunities. This finding aligns with the research carried out by Mendy & Rahman, (2019) that highlights the need for robust public policies to support the internationalization of businesses and firms.

The study by Hermans & Borda (2020) portrays how the main barriers in the Latin American context are the low levels of government intervention while nevertheless mitigated by the agency of public support in overcoming them, assisting companies in developing relationships with risk capital providers and hence the imperative need for governments to dynamically provide public financing (Baum, Schwens, & Kabst, 2013).

We furthermore concur with the research findings of Gyamerah *et al.*, (2023) who conclude that the barriers to internationalization act as a filter that may either restrict or sharpen the motivations prevailing in companies, thus encouraging more strategic, innovative and efficient approaches to searching for opportunities globally. Furthermore, our findings highlight the positive impact of planning on the motivation for internationalization with these results portraying planning as crucial to anticipating and reacting to the internal and external factors that may affect the entire process of expanding into international markets.

This planning directly relates to the internationalization strategies and plans of companies in keeping with the conclusions of Galvão *et al.*, (2021) that stress how planning for internationalization is fundamental to management teams pre-empting and responding to internal and external factors that may shape the perspectives and expectations about the ongoing operations.

Our results also convey the importance of customs duties and the competition, which should not be underestimated by the planning and the motivations behind companies internationalising. The customs duties imposed in certain international markets represent significant barriers to the entrance of products and/or services into these markets. However, companies may offset such contingencies by planning and deploying strategies for mitigating costs and becoming more capable of achieving success when internationalising. The reduction of operational costs and maximising logistics efficiencies are essential to be able to effectively compete in global markets (Andersen & Buvik, 2002).

Furthermore, the competition, while returning a positive effect, did not attain statistical significance, which may indicate how, despite companies recognising the presence of competitors in global markets, they do not account for a decisive factor in their internationalization decisions.

The motivations for company internationalization from the perspective of their leadership derive from ambition, especially highlighting the financial variables in terms of the prospects for profitability and the growth in sales and thereby corresponding to the findings of other recent studies by Bagheri *et al.*, (2019) and Martins *et al.*, (2023).

The study undertaken by Calabrò, Brogi & Torchia, (2016) concluded that companies should take advantage of the opportunities for growth found in international markets as a factor of continuity and business development. The option for internationalization among senior management also stems from ambition, for example, boosting the reputation of brands in a variable identified by the findings produced both by Odoom *et al.*, (2017) and by Narooz & Child, (2017), which positively influences the international performance of companies and concluding that this market orientation improves the financial performance of companies.

Furthermore, the positive and significant effects of planning on the motivations for internationalization strengthen the importance of thorough and structured preparation. Establishing a detailed business model, which includes market analysis, the definition of clear targets and drafting specific strategies to deal with the challenges inherent to internationalization, is certainly fundamental to sustained business success.

Companies that invest in planning are better equipped not only to deal with setbacks and adversities but also to leverage opportunities in global markets (Ribau *et al.*, 2017). The adoption of an internationalization strategy for innovation efforts receives widespread coverage in the literature (Ren, Eisingerich, & Tsai, 2015). Companies that deploy business models and internationalization plans that define proactive and innovative strategies, focusing on digitalisation and specifically investing in innovation, thereby gain significant competitive advantages (Jiang, Branzei, & Xia, 2016). Integrating digital technologies enables companies to access new markets more efficiently and effectively, reducing costs and boosting the speed of their operations (Rialp *et al.*, 2010).

Furthermore, any well defined strategy is able to assist in mitigating risks and guaranteeing the smoother implementation of internationalization processes coupled with gaining access to European funding that enables companies and accelerates their competitiveness and innovation in international markets. Business leaders thereby feel more motivated by internationalization processes as this then sustains their commercial operations in international markets and ending their exclusive dependence on their domestic markets with internationalization correspondingly opening up opportunities not only for companies to expand their businesses but also to transform their business models

and undertake the inevitably resulting learning and innovation processes (Ciravegna *et al.*, 2019).

4.6. Study 2

Qualitative approaches enable academics to learn about complex, new and context specific phenomena (Zaefarian & Tasavori, 2016), based on multiple case studies, themselves adapted to answer the “how” and “why” questions while providing researchers with adaptability in their data collection with ideas susceptible to follow-up, answers more open to examination and with greater exploration of the underlying motivations (Yin, 2013).

Case studies produce contextually valuable data, perceptions and knowledge that is not accessible by other means given how they facilitate the identification of differences in the implementation processes of new strategies and returning insights into the factors leading to successful or unsuccessful implementation processes (Martineau & Pastoriza, 2016). In keeping with the objectives of our research, this study adopts a qualitative methodology in order to deepen and refine the results of the quantitative research.

We applied the data collection methodology via a total of ten interviews that break down as follows: three interviews with senior company managers, two interviews with directors responsible for internationalization, following an expression of interest and willingness to participate within a reasonable timeframe, whom we hereafter designate as Omicron, Sigma, Teta, Upsilon and Zeta.

We carried out an interviews with the president of a private business association that represents private sector firms in a region customed to operating in international markets and in addition to collecting the opinion of a director in an agro-food sector association, financed by the Operational Program for Competitive Factors and the European Union with the set mission of supporting businesses and striving to contribute towards raising the competitiveness of the productive system and raising the region’s profile nationally and internationally.

Finally, we obtained the last three witnesses from government through interviewing an ex-minister of the economy, a state secretary for internationalization, who explained the export context during the Covid-19 pandemic and the subsequent period with a particular focus on the funding provided under the auspices of the Plan for Recovery and Resilience (PRR). The PRR is a strategic instrument for national public policies that results from a concerted response to the impacts of the Covid-19 pandemia and the study drew on the

inputs of the current PRR president. We recorded the ten interviews that took place in person between April and December 2023, characterized by a script (Appendix C) to help the interviewer develop the interview while allowing for randomness in the order of placing the questions and thus enabling adaptation to each individual interviewee.

The data processing and analysis procedures included the thorough coding of the data collected, thus, we identify the interviewee excerpts by the letter E, following the order of the interviews (E1, E2, and so forth, identifying the number of the interview by the participant) as detailed in table 4.6. The study gathered data and compiled a sufficient quantity of information to understand the phenomena under study (Yin, 2013).

Our study systematically analyses the data we aggregated and categorised in addition to comparing the interviews (Yin 2013; Signori *et al.*, 2015). Furthermore, we took the measures necessary both to maintain the reliability of our results and to guarantee the anonymity of the data (Shah & Corley 2006).

Table 4.6 General Overview of Interviewees

| Entity | Interview | Duration (min) | Position | Experience in position (Year) | Activity Sector | Year of internationalization | Reason | Relevant topics raised |
|---------------------------------------|------------------|-----------------------|---------------------------------------|--------------------------------------|------------------------|-------------------------------------|---|---|
| Omicron (Company) | E ₁ | 55 | Internalisation Director | 20 | Cars | 1980 | Explained the internationalization expansion process. | Development, success, barriers in covid-19, opportunities |
| Sigma (Company) | E ₂ | 45 | Senior Manager | 30 | Social Communications | 1992 | Explained the motives for acquisition and the barriers encountered throughout the sale of the company. | Development, success, barriers in Covid-19, opportunities |
| Teta (Company) | E ₃ | 55 | Internalisation Director | 22 | Textile | 1960 | Explained the formal implementation of policies and practices observed in the company's internationalization process. | Development, success, government support |
| Upsilon (Company) | E ₄ | 60 | Senior Managers | 35 | Canning | 1920 | Internationalization process, barriers, accelerators, opportunities and government support. | Development, success, government support |
| Zeta (Company) | E ₅ | 45 | Senior Managers | 15 | Security | 1995 | Internationalization process, barriers, accelerators, opportunities and government support. | Development, success, government support |
| Business Association (Private) | E ₆ | 55 | President | 2 | | | Explained the difficulties in the internationalization process. | Barriers in international markets and government support |
| Business Association (Public) | E ₇ | 45 | Director | 10 | | | Explained the barriers and the success of the company's international expansion. | Support companies in international markets |
| Ex-Member of Government | E ₈ | 50 | Economic minister | 4 | | | Explained the economic context in Portugal's drivers and challenges in the context of COVID-19 and after. | Motivation and barriers in international markets |
| Member of Government | E ₉ | 55 | State of Secretary of Internalisation | 2 | | | Explained the barriers and the success of the company's international expansion in context of covid-19 and after. | Motivation and barriers in international markets |
| President of PRR | E ₁₀ | 60 | President of the Board of Directors | 4 | | | Explained the plan and the importance for companies and for the country in international expansion. | Motivation in international markets |

4.6.1 Characteristics of the Interviewees

The companies Omicron, Sigma, Teta, Upsilon and Zeta stand out for the results they achieved from their internationalization processes and have already demonstrated their success in international markets. Omicron belongs to the automobile sector, in business for over fifty years and employing 240 members of staff. The company began its internationalization process in the 1980s targeting the European market but now, following business growth, exports to 27 countries and with 62% of production destined for international markets.

Sigma is a media company that employs 1,050 staff after launching in 1992 with internationalization beginning right from the outset with the channel always aiming to be a global firm and going onto establish partners with importers that have assisted with product development. Thus, the company has turned in exponential growth in recent years.

In turn, Teta opened for business in the textile component sector in 1927 with 35 employees. In the 1960s, the company developed innovative cloths following the introduction of synthetic fibres, registering the intellectual property and trademarks, enabling strong expansion into international markets. Following Portugal's accession to the European Union, in receipt of support funding, the company set about building on its internationalization processes and currently employs a total 1,160 members of staff.

Upsilon is the oldest fish cannery in the country having first started out in 1853. The company has maintained its own brand, employs 240 workers and is currently present in 50 markets internationally and investing in innovation and sustainability.

Zeta has been in business ever since 1957, currently employs 197 members of staff with its activities focused on electricity installations and support for the civil construction sectors across five continents, specialising in distributing electronic security equipment, access controls, automated systems, video analysis, electricity installations, training, civil construction and with a trend towards further diversification within its respective business areas and in keeping with its client portfolio.

The business association arose from the need for representation of a region's private sector, both in terms of political lobbying and as an entity acting as a driver of regional and international development. The association strives to nurture a sustainable environment favourable to competitiveness and the economic, social and cultural development of the region. This business association supports knowledge transfers as an

interface between the universities and research centres that provide companies with the best talents in the region. Finally, the association operates business and entrepreneurial networks in order to share experiences and a vast range of information that enables each member to take better strategic decisions for their companies. Its core pillars are resilience and the digital and energy transitions deemed a transversal strategy for companies wishing to attain medium and long term success.

Furthermore, we obtained the testimony of the director of an agro-foods sector association that receives support from the Portuguese government and the European Union for its mission to establish platforms aligning the key actors in this sector and support for companies undertaking innovation processes, knowledge transfers, new product development and internationalization.

The government holds key importance for core facets of policy formulation at the national level and in efforts to evaluate whether the public policies and programs are effective for private sector internationalization and improving national competitiveness and thus we also here draw on a former government member over the measures implemented during the Covid-19 context. This health pandemic swept the world and provided the circumstances for political decision-makers to seek greater effectiveness and playing a relevant role in economic growth. Hence, we take advantage of the input from the current Secretary of State for Internationalization to analyse the subsequent period.

The empirical research carried out and the resulting data structure (Figure 4.2) identified in our analysis underpins our explanation of the internationalization process based upon the witness accounts of our interviewees in terms of overcoming the obstacles their companies faced in international markets, the strategic adaptations introduced to the company planning processes and the levels and types of government support made available.

This structure stems from two blocks built out of the findings emerging from the empirical analysis: companies and government. These building blocks serve to consolidate the interrelated analytical dimensions, providing a broad reaching understanding and describing in detail three sets of factors that we classify in accordance with the similarity between how companies and the government strive to stimulate international market competitiveness as well as the correlations among these factors from a perspective based on authenticity and that drives the entire internationalization process in accordance with boosting the competitiveness of companies in international markets.

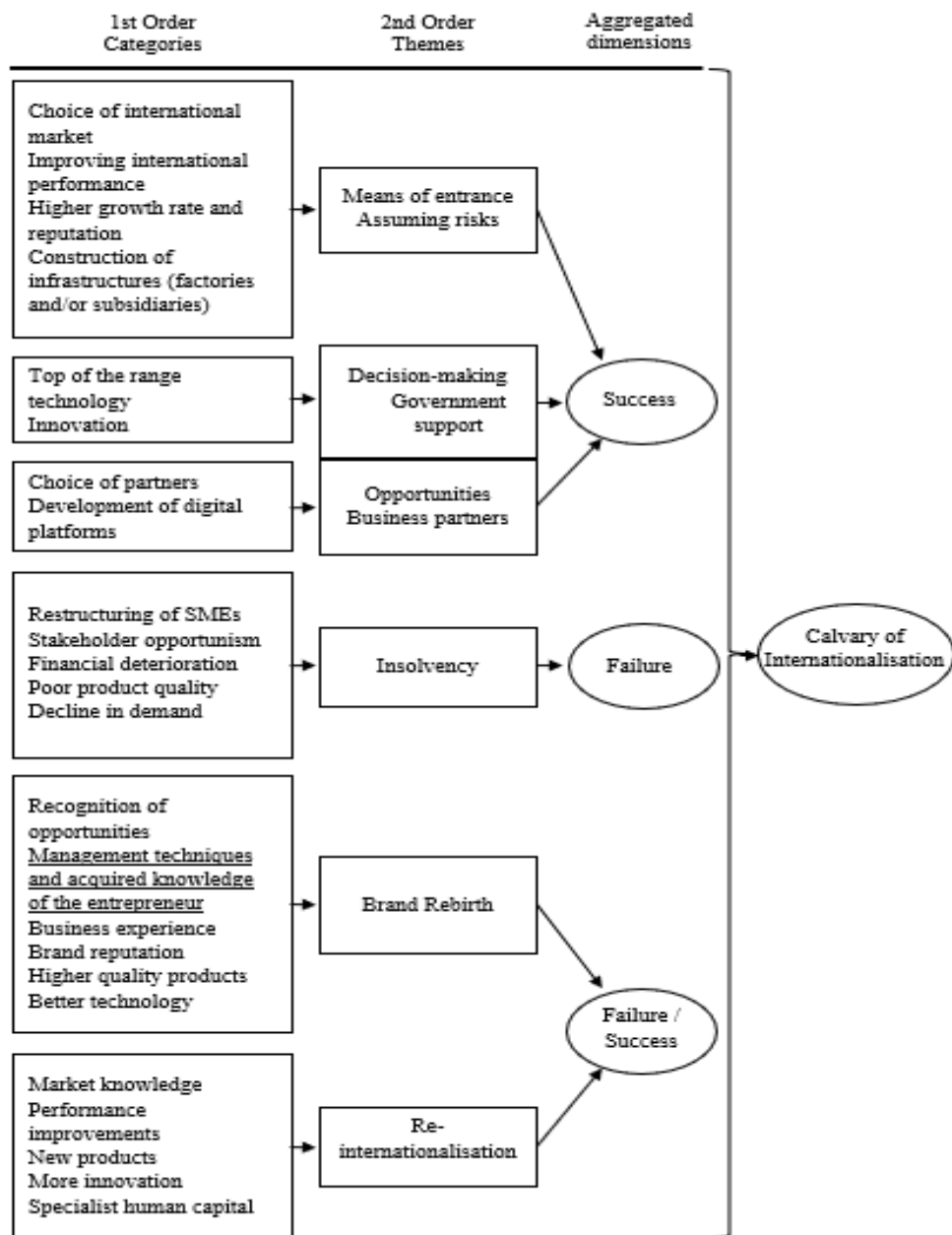


Figure 4.2 Data Structure

4.6.2. Findings

The findings of this study constitute a deep reaching understanding and detailed description of three sets of factors that we classify by distinguishing between the barriers, planning and motivation and with the respective correlation dynamically driving the internationalization of companies and their expansion into new markets in the post-Covid period. Table 4.7 sets out a broad view of the representative quotations from the interview

contents that empirically support our interpretation of the second order themes and the aggregated dimensions set out in the theoretical framework.

4.6.2.1 Barriers to Internationalization

One crucial facet derives from the barriers to internationalization and the detrimental effects companies went through during the period of the Covid-19 pandemic as the same as the adversities encountered in the international context that provide the second order themes that consolidate this aggregated dimension. The Covid-19 pandemic triggered a global health crisis (Chowdhury *et al.*, 2022) in which the importance of company resilience became fundamental (Liu *et al.*, 2020), as highlighted by (E₁); *“We began producing to order, reducing our production level to the minimum and just to satisfy this and that occasional order”*.

This inevitably drove a greater level of collaboration between governments and industries in order to guarantee the minimum of disruption to global supply chains (Liu, 2023), due to the lockdown measures (Juergensen *et al.*, 2020), as emphasised by (E₉); *“the pandemic brought about various consequences for the core factors underlying international trade: on the demand side: with a few exceptions for essential goods, we witnessed a significant fall in consumption; on the supply side: the sudden drop in demand, associated with the limitations placed on the circulation of people and goods, resulted in the slowdown of production and significant disruptions to supply chains”*.

(E₇) warned that; *“despite all the support from government entities, building synergies in sectoral clusters, companies require immediate results as they engage in an international campaign and this does not work out, then they give up there and then but we have also had situations in which companies quit and then later try to re-internationalise and to go back again. We also adopt preventive language so that companies don’t get nasty surprises and so we provide information in harmony with government entities. We explain how we intend to reach these international markets, after all that investment and they come back with the money counted, that it’s all going to end up as nothing. That is, the investment may inevitably not bring about the desired effects”*. (E₅) experienced the detrimental effects *“in the post-Covid-19 impact as the business registered breaks in the supply chain, the lack of raw materials, increased costs. Now, one fact is clear: we came out of the pandemic stronger than we went into it and, currently, we’ve achieved a more robust team in terms of leadership”*.

4.6.2.2 Planning

The aggregate dimension of planning undergoes consolidation through the following second order themes: accelerators and Covid-19 response measures. The crisis imposed by Covid-19 caused widespread consequences for the development of the global economy, with the confinement measures imposed by countries to reduce the high infection risk changing the prevailing patterns of consumption (Wang *et al.*, 2020), forcing companies to reinvent themselves as (E₃) highlighted; *“The strategy defined by the company was to invest in digitalisation and e-commerce, which enabled us to make the leap and move closer to the consumer. This was a major leap and, in parallel, the promotional media campaign on the social networks provided us with dynamic communication with consumers and fostering the one-to-one business.”* (E₈) stated that; *“only with the capacity to export can we grow our consumption, investment and publicity costs without returning to a persistent external imbalance, which had impacted on us in the 1990s and the first decade of this century. In response to the current crisis, which sharply increased the cost of imports, strengthening our export capacities enabled us to cope with a controlled external deficit without the need for measures to contract demand even if not avoiding an inevitable slowdown”.* (E₄) advanced with investment; *“designed to turn our textile company into the most modern in Europe, inaugurating a new logistics pole, carrying out investment of 1.5 million euros and setting up the conditions to centralise the logistics operations and thereby meeting our needs in terms of the storage and warehousing conditions while ensuring rapid and flexible operating responses”.*

Short term stability was crucial to the world economy getting through the pandemic so as not to compromise the entire future of all business sector activities and with support correspondingly channelled into protecting the most affected sectors, employment and industries (Liu *et al.*, 2020), As (E₇) recognised; *“the main difficulties companies experienced were the closure of the market and the distribution chains. Nevertheless, through state support for liquidity, it was possible to mitigate the worst effects of this pandemic. Later, with the PRR, we were able to dynamically adopt a new positioning and managed to advance with various research, development and innovation projects.”*

(E₈) pointed towards how; *“the export sector improved its results and the post-pandemic trend demonstrated strong resilience and the capacity for recovery of the export sector. One important signal in a conjuncture displaying uncertainty and a slowdown in our main markets, exports grew above the global average and continued to gain weighting within GDP. Portuguese companies are now more competitive due to the efforts to invest and also the policies for improving qualifications, strengthening the incentives for*

innovation and supporting companies in the external markets. The strengthening of the export capacity represents a clear indicator of the improved competitiveness. So, this is really a guarantee that the country can improve its income in a sustainable fashion”.

4.6.2.3 Motivation

The aggregated dimension of motivation consists of the ambitions and the following second order themes: stimuli and the PRR. The main stimuli referred to by (E₉) are; *“the government supplied companies with, in support made available by the Investment and International Trade Agency of Portugal, everything from information, capacity building, support for networking, promotional campaigns, sector initiatives, business matchmaking and contextual costs. We also stimulated support for credit insurance (for exports, investment, downpayments, import financing, ...), whether multilateral or from Central Funds for re-industrialisation.*

The government also used some mechanisms to promote positive discrimination towards productive investment in the inland regions: tax breaks and tenders/support programs only for these interior regions”. In turn, (E₆) commends how; *“the economic development program, such as the PRR, when designed and structured, may make recourse to fiscal policy as a means of stimulating compliance with targets. Thus, if we’re going to have funds and they are structural, we guarantee that they are effectively applied to develop the country. Finally, we defend that this is the issue where a regime pact with the centre is most crucial, at least for the key questions: employment taxes, investment taxes; consumption taxes. Fiscal predictability is essential to attracting investment”.* (E₄) affirms that; *“any company striving to remain an international benchmark reference for the design and production of textiles for the fashion sector is preparing the future with PRR projects, which are innovative in terms of industry 4.0 and sustainability”.*

Furthermore, (E₇) highlights how; *“preparing companies for the future, resolving some of the existing problems, not of liquidity, not short term issues but from a medium and long term perspective through innovation and development projects and we currently have fifteen projects taking place. Obviously, we involved all our research and development partners, from education, to create this dynamic. As regards the PRR, this is only a very recent reality and we are in the application phase. We managed, all of us in the consortium, to demonstrate the need based on a survey of the needs of companies, setting out and building long term projects. Therefore, the PRR is, in the medium term, generating mobilising agendas where companies are going to make the investment, private co-financing in terms of productive innovation but also in research. The technological development will shape a competitive image and a series of competitive*

advantages necessary to competing better in international markets”. However, (E₆) warns that; *“the implementation of PRR is falling below expectations. This means that these investment projects are treading water and represent losses to the companies themselves and a handicap on the competitiveness of Portuguese companies, leading to extremely serious management entropy given that a whole series of companies went ahead with investments and allocated human, technological and financial resources in the expectation of applying the PRR funds in good time”*.

4.7 General Discussion

The structure and contextual configuration of company internationalization processes require the appropriate aptitudes to cope with the demands of those markets and reflecting a vital research perspective (Mitan *et al.*, 2024; Vissak *et al.*, 2024). Furthermore, the Covid-19 pandemic impacted on the entirety of the world economy and triggered enormous consequences for companies (Sharma *et al.*, 2022). Interrelated with this research perspective, the core objective of our study involved approaching the internationalization processes of companies through the identification of the inherent barriers, planning and motivations, thus generating greater knowledge and better enabling companies to overcome such adversities in their own internationalization processes.

The quantitative study (study 1) unveiled how planning, barriers and motivations do represent crucial factors for company managers and exercising a determinant role in internationalization processes. Planning, through pre-empting and mitigating risks, facilitates adaptation in various different international contexts, while the barriers, such as high customs duties and intense levels of competition, require innovative solutions and government support. In addition, the motivations, such as the prospects for greater profitability, the growth in sales, allied with the ambition to boost the brand reputation, drive company managers towards expanding their businesses globally, strengthening the importance of a detailed business model that incorporates advancing with the deployment of digital technologies in order to optimise operations and reduce costs.

Study 2 bore witness to these findings with the interviewees highlighting how customs duties in non-European Union states rose higher in the post-Covid period, which has profoundly impacted on the logistics of company already hit by the restrictions imposed on free circulation and the closure of international markets. As regards the relationship between planning and the motivations for internationalization, our results portray a positive and globally significant relationship. Strategy produces positive and significant

effects on the motivations towards internationalization as indeed highlighted by the interviewees in study 2. Companies that swiftly adopt advanced technologies and digital platforms were able not only to survive but also to prosper during the pandemic. To this end, government support was crucial to providing the stability necessary for these companies to concentrate on adaptation and growth. These combined factors not only protected industries and employment in the short term but also opened the way for more robust and strategic planning of company internationalization processes.

The interviewees highlighted the importance of European funding distributed through the PRR as well as establishing the reforms and motivating agendas that are now pushing companies to expand into international markets and that, in parallel, foster sustainable economic growth through projects in the national interest with a particular focus on the digital and climate transitions.

In general terms, this research project returns a wide reaching vision of the factors driving internationalization, highlighting the need for effective government support and planning as stressed in both studies and coupled with the adoption of new technologies as essential factors for the international success of companies as set out in study 2.

4.7.1 Theoretical Contributions

This study makes an important contribution to the literature on the internationalization of companies, which enables us to study this phenomenon in greater detail, demonstrating how planning is essential to prepare companies for the international challenges with government support and innovation playing a vital role in mitigating the barriers and promoting internationalization processes.

One of the key theoretical contributions here stems from validating and emphasising how internationalization is not a uniform process for companies and they face various challenges, such as customs duty costs as well as often lacking in the government support necessary to entering developed markets (Chinda, 2024; Gupta *et al.*, 2016). These discoveries strengthen the relevance and appropriateness of Uppsala's incremental theory of internationalization that stresses the importance of gradually acquired experience and knowledge for international expansion processes (Johanson & Vahlne, 1977).

Additionally, this research project highlights the relevance of digital strategies and innovation in constantly adapting and innovating as the most effective means of obtaining success in international markets (Christofi *et al.*, 2024; Ferreira *et al.*, 2024). The study findings also complement the theoretical discussions around the importance of

government support and public policies, which emerge as crucial to overcoming barriers and boosting the competitiveness of companies within the global scenario (Dao & Buu, 2024; Mendy & Rahman, 2019). Our research aligns with prior studies that identify the great importance of robust strategic planning plays in internationalization (Chandra & Dutta, 2023; Ciszewska-Mlinarič *et al.*, 2020).

The most significant barriers to internationalization processes are customs duties, intense levels of competition and the lack of government support, which may prevent or hinder companies seeking to internationalise. The motivations for internationalization are diverse, including the search for new markets, raising the brand profile and the scope for higher levels of profit, government support programs that align with the ambitions of companies, thus facilitating the implementation of technological innovations and raising the international competitiveness of companies (Ndoforepi, 2024).

4.7.2 Managerial Implications

The practical implications of this study are of assistance both to company managers and policy and decision-makers in this field of study. Firstly, the study suggests that companies should develop specific strategies for each target market, taking into account the tariff barriers, cultural issues and the need for swift adaptation to changes in the marketplace (Chandra & Dutta, 2023).

The capacity for innovation and the adoption of digital technology are essential to raising the levels of competitiveness and resilience of companies in international markets (Soesetio, 2024). For managers, this study very much underlines the critical nature of undertaking robust strategic planning, focusing on strengthening capacities and adopting new technologies, including digitalisation and innovation.

These strategies do not only enable the overcoming of the barriers faced but also take advantage of the emerging opportunities, especially within the post-Covid-19 scenario in which digital transformations have become crucial to the survival and growth of companies (Eichholz *et al.*, 2024). For policy makers, the results emphasise the need to foster environments providing solid support to those companies seeking to internationalise. This extends across the provision of financial resources, empowerment programs and innovation incentive policies (Chaudhry *et al.*, 2024). Appropriately structured public policies may facilitate the entrance of companies into international markets, enhancing competitiveness and nurturing sustainable economic growth (Musayeva *et al.*, 2024).

The study demonstrates the direct connection between internationalization related activities and the barriers faced by companies. The Portuguese companies analysed in study 2 report how digitalisation and innovation are key factors not only to overcoming the difficulties but also as catalysts for success in international markets. Not only do internal factors shape these internationalization activities, whether the respective capacity for adaptation and innovation of companies, but there are also the external aspects such as government support policies.

Companies deploying proactive approaches, investing in digital technology and implementing innovation strategies are more capable of swiftly adapting to changes in the market and overcoming the barriers encountered along the way (Ferreira *et al.*, 2024). Furthermore, collaboration between companies and political decision-making entities (the government) may provide significant levels of support, facilitating access to new markets and deepening the competitiveness of the private sector.

Such activities are crucial to building up the competitiveness of companies and guaranteeing the sustainability of internationalization processes over the long term. Our study findings point to the need for companies to continue investing in digitalisation and innovation to maintain their competitive advantages and to prosper within the dynamic and constantly changing international business environment (Christofi *et al.*, 2024).

4.7.3 Conclusions, Limitations and Future Research

This study contributes towards our understanding of how accumulated experiences shape the decisions of companies throughout any internationalization process. The study concludes that business internationalization is no uniform process and requires dealing with various different challenges, such as barriers (e.g., customs duties and taxes and the lack of government support), the need for planning capable of leading to the implementation of strategies defined for internationalization and as well as the motivations behind such processes.

Thus, internationalization may drive a high level of uncertainty and destabilise company routines, requiring innovative and context specific solutions. Uppsala's incremental theory of internationalization highlights the importance of gradually gained experience and acquired knowledge to international expansion processes. The never before experienced pandemic situation shook the business world, producing duly justified fears across the private sector and that inevitably contributed to the closure of international markets, the cancellation of events, restrictions on the movement of people and goods and market share losses for companies.

Nevertheless, there were opportunities for companies throughout this period and we would hence highlight investment in digitalisation and innovation and enabling those businesses and firms with the courage to reinvent themselves to gain advantages over their competitors. Companies taking this path are able to achieve better results, higher levels of competitiveness, client loyalty, better innovation outcomes, new and better tailored products that allow for a more positive perspective on the future scenario.

The government stimuli designed under the auspices of the PRR, an internationalization strategy that brought together various different actors and that enabled the national economic to position itself in the global marketplace, advancing with the creation of qualified employment and hereafter attempting to extract greater added value and stimulating economic growth.

These national and international stimuli undergo implementation with support from credible entities and each respective business sector, through sector based clusters, mobilising agendas, technology centres and collaborative laboratories that strive to promote and leverage the PRR, which features key objectives such as national economic resilience, advancing the climate and digital transitions, capitalising on improvements to research and development that culminates in the positioning of both companies and Portugal, which should foster a reduction in the asymmetries existing with other competitor countries and with the overall objective of significantly boosting the economic development of national firms and businesses.

This study is not exempt from limitations as the scale of the sample may produce restrictions in terms of its representative scope and only depicts a sample of Portuguese companies. Furthermore, that this is a transversal study that only describes the characteristics of the phenomenon under analysis at a single point in time and we are hence unable to determine cause and effect. Thus, we perceive the relevance of future studies replicating this study with larger samples and in other contexts as well as adopting a longitudinal structure. Another line of research arises from understanding the respective contributions of technology centres, clusters, mobilising agendas and collaborative laboratories in terms of the transfer of knowledge within the scope of enabling the company to enter international markets in accordance with the dynamics of the Triple Helix.

Table 4.7 Support Data for Interpreting the Second Order Themes

| Dimensions | Themes | Representative quotes |
|------------|------------------------|---|
| Barriers | Impacts of pandemic-19 | <p>(E₄) stressed that “we strengthened the preventive measures for staff in the factory and the respective distancing, the back office began remote working and all in-person visits by commercial reps to potential clients were cancelled. We improved our results due to the demand for our products being a basic need for consumers”. Nevertheless, (E₂) affirmed that “there was a loss of publicity in the national market but, as regards the international part, our sector never experienced any fall. However, I would predict that in the future there may be some alterations”. (E₁) stated that “as happened in 2008/2009, we are actively awaiting the recovery of the world economy”. In addition, (E₂) emphasizes having “had some projects to develop with partners, new projects that we now want to develop in the first half of the year to gain revenue and undergo implementation in the second half, however, at this moment, everything is frozen. So, what I want to say is that unfortunately we are going to have a fall in income in the second half and into the forthcoming years”. However, (E₄) highlighted that “the online sales have been recording double-digit growth. It’s clear that the pandemic sent online sales soaring and incentivised such habits, obtaining records for which there is no comparison. We perceived how there was no online store for any canned products and decided to advance, investing and striving to be closer to our consumers. This, furthermore, avoided the negotiations between our company and the wholesale where there is always a lot of pressure on behalf of the retail distributors. They only thing they want is their margins and profitability”. (E₂) approached the impacts that “need the rapid re-establishing of confidence in the economy so that partners do not feel reticent about their investments and we are able to reach and exceed the income of previous years”. In addition, (E₁) hoped that the “opportunities emerge in a not too distant future both for our company and also for the automobile sector. Nevertheless, we have to internationalise and meet the increasingly demanding standards of quality and innovation that consumers want”. (E₅) expressed the fear when “in March 2020, I was doing the accounts. How many months would I be able to get through without selling anything? Thankfully, there were no months. That would have been tremendously negative and we may say that while March and April were somewhat negative but not especially concerning. Sales again stabilised in our business area, we have to readapt ourselves and began providing online training”.</p> |
| | Adversities | <p>(E₁) explained “We have had some clear difficulties in presenting prices that are competitive with our peer companies located in what are known as low cost countries. The automobile sector is very demanding in terms of quality and innovation. We have always concentrated on meeting these demands.” (E₃) also highlighted the core difficulties experienced in markets outside the European Union and commonly encountered in terms of customs duties, tariffs, paperwork and government procedures while (E₇) pointed to “the large barriers that our cluster of company highlights is from the lack of experience in internationalization, the lack of an internationalization strategy, the lack of planning, with some of the examples that frequently occur involving certain companies not even selecting their potential target markets in accordance with the products that they have or their star products and don’t even know which products they should internationalise to the point that there isn’t even any prior selection of the products by the companies and they try to get as much investment as possible in the short term and, afterwards, their prices are not coherent with the market. So, they want to conquer everything but end up conquering nothing. Companies have to adjust their prices and sometimes there just isn’t the capacity for exporting, that is, some companies engaging in internationalization campaigns, initially trying to export, but only when they get their first order with absurd volumes, this company lacks the capacity to meet those needs. Then comes the inevitable decision either they quit or they try and reinvent themselves in some way to be able to export and try and meet those orders. But, according to our vast experience in this field, we have already noticed that sometimes these companies simply do not have</p> |

| Dimensions | Themes | Representative quotes |
|------------|--------------|--|
| | | <p>the capacity for the potential target markets that appear”. (E₅) stated that “it is a privilege for companies that the PRR contains a deadline for discussions as this is an opportunity that I hope is not going to be wasted by our country and does support the structural investment that the country needs to be prepared to compete in the future. We are currently living through the digital transition, the energy transition. In contrast, the PRR is a national project that should be taken advantage of by the government to invest in infrastructures, whether road or rail, or we will otherwise be left ever further behind in relation to Europe and in the technological field. I also think that we are still in time to correct some things, ever since we joined the European Union and still today, we have been lagging behind the rest of Europe and we still continue to receive funds and rarely capitalise on them properly”. Furthermore (E₆) warned “<i>we cannot continue to inject money into our economy without any strategy, it is fundamental to find a path for implementation that effectively incorporates the structured projects that represent real business and economic development</i>”.</p> |
| Planning | Accelerators | <p>“Governments, following Portugal’s membership of the European Community, encouraged national PMEs to embark on mass internationalization despite the level of government support granted turning out to be clearly insufficient in keeping with how far behind the competition we were whether in terms of machinery, specialist staff and with a lack of financial resources. Nevertheless, in the first years of our export activities, we also participated in incentive programs that enabled us to attend the important automobile industry fairs and exhibitions,” according to (E₁). “International fairs are important as they were co-financed by the funding programs that enabled new contacts to be made and to understand what the new products of the competition” was the position of (E₂). This also received corroboration from (E₃) who also added that the margins for the quality, image, intellectual property and profitability of what gets exported, not exporting products with any level of quality at whatever the price. We want to export our image, quality, reputation, everything that we send in our exports has to contain added value. Everything has to bring income to the country, income to the country, for the taxes that we pay the Portuguese state, obviously for our members of staff and reinvesting part of those profits and always engaging in constant innovation. Finally, (E₃) highlights how the internationalization process was always seen by the company as a challenge to rank among the best and being ever more competitive and we always have the ambition of being the most modern textile company in Europe by taking advantage of the PRR”. Furthermore, (E₄) emphasised this intention of leveraging the PRR, especially to reinvest in particular types of equipment, to be able to make the leap into other markets; “and we are also going to beef up our platform, our online store. We were the first canning business to have an online store that originally targeted the domestic market and we today cover all of the European Union. But I think that the next step with be e-commerce and moving beyond the European region. We have to go to Canada; we have to leverage the agreement that was made and take advantage of what can benefit us as this is a two-way process and has to be our path going forwards. (E₃) stated that “we positioned ourselves to become the leading reference in Europe, investing not only in state-of-the-art technology, automation and the efficiency of our new equipment, but also in a digital platform, monitoring the factory floor as well as implementing an artificial vision system for the looms – and optimising processes and strengthening internal competences”. (E₄) also highlighted how “the company gained the means to build a manufacturing unit in the vanguard and able to meet the increasing demands of international markets and, as the project was classed as in the national interest and received government support, we can state that, at this moment in time, in technological terms, top and high range processes, we are positioned in the global top 5 in this sector”.</p> |

| Dimensions | Themes | Representative quotes |
|------------|---------------------------------------|---|
| Planning | Measures implemented against covid-19 | <p>(E9) stressed how the pandemic brought about various consequences for the leading inductive factors for international trade and investment. <u>Distribution Channels</u>: the severe limitations on the circulation of the factors of production imposed by many of our commercial partners and the confinement measures that the pandemic produced, resulted in heavy disruptions to the logistical processes, strengthening the weighting of more direct distribution channels (reducing the dependence on third parties), while also enabling recourse to e-commerce; <u>Freedom of Movement</u>: international trade (and investment) depends considerably on the conditions prevailing for the circulation of goods, services, people and capital. The pandemic forced the majority of countries (in particular those we maintain commercial relations with) to implement highly restrictive measures on movement and that reflected directly on the other factors. The management of these measures is determinant to any recovery; <u>Logistics</u>: the capacity to move the factors of production was profoundly impacted by the restrictions imposed on free movement and by the falls in the two fundamental facets of commercial relationships: supply and demand. These negative impacts spread to various aspects of logistics (procurement, planning production, warehousing and transport) but equally opened up opportunities; <u>Chains of Value</u>: the globalisation process ongoing over recent decades was leveraged by the significant geographic dispersion of activities /processes involved in chains of value, which were strongly affected by the restrictive measures placed on circulation within the scope of dealing with the pandemic. In this sense, the opportunities for greater proximity (relocation) of the links in chains of value may exist alongside investment in the production of strategic goods (for example, at the European level); <u>Promotion</u>: The pandemic conditioned, abruptly and significantly, the traditional promotional strategies (fairs, missions, point of sale special offers, showrooms...), while driving others into digital formats. (E7) points out how “in the pandemic phase, we noted that many companies had to reinvent themselves, this was not good for anybody but did also contribute to certain advantages, such as accelerating digitalisation processes that had already been talked about for many years but that had turned into fairly lengthy processes. In this time, companies had to strive to improve everything from setting up websites, online stores, certification and hardware for innovative products. Everything that was innovation and digitalisation related, this project would help the companies by providing 50% in co-financing. (E7) refers to how “we have 802 million euros allocated to company internationalization projects. This began in 2019 and we verified that investment was very scarce during the pandemic period. In late 2021, the cluster submitted a request to block funds that were not going to be used. However, we understood that companies were once again investing and so we requested the unblocking of the rest of the funding that had already been approved for this application and, in fact, through to the end of 2022, we accepted investment so that we were able to apply all the funding that had been approved for this project because, well, we saw and realised that companies were again investing in internationalization and in innovation”. (E8) saluted how two consecutive years of very robust growth more than compensated for the drop in the year of the Covid-19 pandemic and forecast very positive growth for the forthcoming years with the continued growth of exports and their weightings in GDP and the reflection, perhaps the most relevant, of a structural change in the Portuguese economy that has driven a very significant rise in market share given that we have grown faster than world trade. In the first nine months of 2022 alone, exports grew by 39% year-on-year. Through to September, Portugal exported practically the same as in the entire year of 2021.</p> |
| | Stimuli | <p>(E9) praised how “the existing EU support in the recent past boil down to the PT 2020 incentives: individual internationalization projects, joint projects (promoted by business associations and chambers of commerce) and collective action projects (also backed by business associations and chambers of commerce as well as the AICEP international trade agency. These technical entities carried out the management of support for internationalization, around 5,000 candidates, with investment in excess of 2.2 billion euros. Currently, the funding support under implementation fall under the auspices of PT2030 or the Plan for Recovery and Resilience”. (E7) highlighted how “company support has been a</p> |

| Dimensions | Themes | Representative quotes |
|------------|--------|---|
| | | <p>fundamental tool for changing the industrial profile of our companies (which shifted from competitiveness based on cheap labour to competitiveness derived from added value) and increasing the level of openness of our economy. Even though the impact is asymmetrical, it is natural that, in this phase, these funds take on additional importance and that the European Commission decided to launch the PRR”. In turn, (E8) emphasised how the level of economic growth obtained in 2022 was truly notable and, taking into account the adverse conjuncture and the situation prevailing in the other European Union member states over this year, despite having to face unprecedented rises in the costs of the factors of production coupled with difficulties in accessing raw materials, export companies were able to gain in market share and benefit from the deviations in investment flows and orders to strengthen our country to the detriment of Eastern Europe. Export companies raised their margins and gained another level of confidence in their capacity to compete in international markets. (E8) expressed pride in the results obtained by Portuguese entrepreneurs who greatly overcame even the most optimistic expectations. “The true revolution took place when technological companies are already making an important contribution to the growth of our country and this should advance still further in forthcoming years. This was an important structural change in which Portugal progressed more rapidly than the majority of European countries and which results from the merit of our entrepreneurs and the talent of the most qualified generation ever but also along with the public policies that helped the ecosystem to evolve and contributing to the appearance of more projects. For these projects to be able to grow in Portugal, work focused on supporting entrepreneur, boosting the financing available, leveraging risk capital, endowing greater visibility on the Portuguese ecosystem in order to attract more international investors, startups and with the launching of technological development centres for Portugal and with the Web Summit also providing strong boost to the Portuguese ecosystem. The entrepreneurs were crucial as they believed in their ideas, knew how to convince investors, did not hesitate in contracting the best youth and paying them what they deserve. It was they who made this truly structural alteration and clearly showed how good ideas were able to grow from Portugal.</p> |

| Dimensions | Themes | Representative quotes |
|------------|-------------------|--|
| Motivation | Importance of PRR | <p>(E10) affirmed that “<i>the PRR is the first occasion when the European Union has advanced with mutual debt instruments to finance the Next Generation EU program. This program releases around €750 billion for all European Union member states and seeks to accelerate the economic recovery, fostering reforms and structural investment that seeks to boost the recovery and resilience of the economies of member states of the European Union.</i>” (E9) affirms that “<i>the clusters, the collaborative laboratories, the interface technological centres and the mobilising agendas will play a crucial role in the dynamics and success of the PRR</i>”, with (E10) also highlighting how “<i>PRR encapsulates within its structure a set of challenges that need overcoming. The nature of the plan, based on compliance with targets and goals, associated implementing both reforms and investments. In this framework, the capacity to submit good projects, the speed of analysis and financial and physical supervision are all essential. The capacity to contract human resources is fundamental both to the state organisms and within the scope of the mobilising and green Agendas/Alliances as well as for construction. No less important is the capacity to attract human resources to the ICT fields where the competition is global as the scale and number of projects is extremely high</i>”. (E6) affirms that “<i>the funds provided by the PRR tend to be perceived as a financial opportunity for companies but these are structural funds for financing the economy, which exist in order to place Portuguese companies in circumstances similar to their European peers. Nevertheless, if we do not have the structural funds to develop our economy and reach the market, we effectively have a general backwardness in terms of stimulating competitiveness and the international presence of our companies. I expressed concerns over the weaknesses in implementing the PRR and the delays to PT2030 as the consequences in terms of the relative competitiveness and what this does to the economy. I also conveyed worries over the young people who are educated in Portugal but who then emigrate in search of better living conditions than those available in their own country and reiterated my worries over the credibility of state institutions that have been constantly subject to undermining, which compromises our international credibility.</i>”</p> |

Chapter 5 - What is the role of collaborative networks in the internationalization of companies? An n-tuple helix qualitative approach

ABSTRACT

Collaborative networks have emerged in the literature as dynamics capable of fostering the expansion of companies into international markets. Despite the rising interest in this approach, there is a lack of evidence on just how collaborative networks may stimulate the internationalization of companies within the perspective of interactive *multi-helix* models. Hence, our study seeks to contribute towards filling this gap through analysing the collaborative networks existing among different spheres within the *N-Tuple of Helices* perspective. We carried out a qualitative study of multiple cases based on semi-structured interviews with actors integrated into the dynamics of these multiple helices. Our results report that N-Tuple of Helices play fundamental roles in boosting the internationalization of companies, enabling their adaptation to global complexities and expanding their presence in international markets through collaborative networks, generating a positive impact on the competitiveness of companies competing in global markets. Based on these findings, the study sets out an integrated model of collaborative networks for the internationalization of companies. The study further contributes by making recommendation for the design of public policies capable of stimulating internationalization and greater dynamism in collaborative projects with a focus on sustainability and the strategic alignment of the respective spheres.

Keywords: Collaborative Projects; Triple Helix; Quadruple Helix; Quintuple Helix; Regional Helix Ecosystems; Internationalization.

5.1 Introduction

The *Triple Helix* model (TH), proposed by Etzkowitz & Leydesdorff (1995), approaches the interactions ongoing between academia-industry-government (A-I-G) for the implementation of policies encouraging cooperation and knowledge transfers. The synergies generated by the A-I-G spheres undertake a vital role in the management of collaborative projects and networks that, in turn, drive innovation, economic development and internationalization (Adamovský, 2024; Etzkowitz, 2003; Shkarupeta & Babkin, 2024).

The contemporary relationships arising from these interactions produce a third hybrid current based on the shared interests around partnerships and projects for establishing joint research and development programs (Etzkowitz 2008; Linton, 2024), which enable recourse to multiple sources of financing. Expanding the TH model to become the *Quadruple Helix* (QH) model receives support from a range of authors who defend the full integration into the respective participating spheres and propose overlapping roles for these spheres in the creation and discovery of new knowledge, technologies, products and services (Carayannis & Campbell, 2009).

Leydesdorff (2012) presents civil society as the fourth helix in proposing that this dimension is fundamental to meeting social needs and thereby expanding the impact of this model. Subsequently, Carayannis & Campbell (2010) introduced what they called the *Quintuple Helix* (qH) model as a structure to facilitate knowledge, innovation, sustainable competitive advantage and furthermore incorporating the TH and QH models. Within the framework of this model, the environment and the economy emerge as factors for competitiveness and prosperity (Carayannis & Campbell, 2012; Carayannis *et al.*, 2024).

The literature has since evolved over the course of the years with various *N-Tuple of Helices* models (Leydesdorff, 2013a), having already gravitated towards stakeholders and internationalization in relevant contexts, such as regional and international development (Lew & Park, 2021). The definition of regional development encapsulates the success regions obtain in the continuous and mutual competition that takes place in different ways, whether from the point of view of actions or the results obtained in national and international markets (Farinha *et al.*, 2016; Kumar *et al.*, 2022; Plečko & Bradač, 2024). International development through the means of establishing regional-international connections enables regions to boost their capacity for innovation, thus driving technological innovation and economic growth (Hou *et al.*, 2023; Lew *et al.*,

2018; Lew & Park, 2021). The descriptions of regional innovation models emphasise the means of innovation, new industrial facilities, industrial districts, regional clusters, regions of learning and, more recently fields of high technology, knowledge based industrial clusters and innovation networks (Farinha *et al.*, 2020; Thomas *et al.*, 2023).

Within this context, the internationalization of collaborative and interactive *multi-helix* (*N-Tuple of Helices*) models emerges as a framework crucial to the dynamic interactions characteristic of collaborative projects (Leydesdorff, 2012; Lawton & Leydesdorff, 2022). Despite the growing interest in this approach, the literature still lacks insights into the specific collaborative dynamics in these projects that stimulate companies to opt for internationalization and seek out global markets (Leydesdorff & Lawton Smith, 2022; Williams *et al.*, 2012). Our study here aims to help fill this gap in the literature through analysing collaborative networks within the scope of *N-Tuple of Helices* that stimulate the business sector and the economy through strengthening companies entering and engaging in international markets (Robertson *et al.*, 2023; Wang *et al.*, 2024).

The literature debate on the role of collaboration and networking in interactive processes has especially focused on collaborative laboratories (Qiao & Ao, 2024), clusters (Osarenkhoe, & Fjellström, 2022), Tech Centers (Lew *et al.*, 2023), Digital Innovation Hubs (DIHs) (Sassanelli & Terzi, 2022), science and technology parks (Mineiro *et al.*, 2024) and on state institutions rendering support to innovation, competitiveness and internationalization (Amaral *et al.*, 2023; Farinha *et al.*, 2016; Robertson *et al.*, 2023).

The relevance of analysing the collaborative interactions of international projects, where multiple actors interact (Wickert *et al.*, 2021), is particularly relevant for developing policies and partnerships capable of fostering the international expansion of companies in international markets (Leydesdorff & Smith, 2022). There is currently a rising trend for analysing collaborative interactions based on an *N-Tuple of Helices* perspective, which ensures the capturing of the complexity of these networks and providing support for companies embarking on internationalization processes (Wang *et al.*, 2024). The stage of development of this field of literature allows us to pose the following research question: How do collaborative interactions, within a *N-Tuple of Helices* perspective, contribute to and drive the internationalization of companies?

To respond to this question, we propose an initial conceptual model based upon a literature review and proceed with its analysis in accordance with a qualitative

approach to multiple cases involving interviews with different actors participating in the dynamics of multiple helices, such as from private sector firms, academia, entities developing collaborative projects and state authorities. The case studies analysis underpins the affirmation that the synergies among the different A-I-G spheres are determinant to coping with the challenges of internationalization, such as accessing new technologies and innovation for international markets (Liao *et al*, 2024).

In terms of contributions to the literature, firstly, this demonstrates how interactions at the industry level, highlighting the propulsion of business internationalization, reflect the ways in which the *N-Tuple of Helices* model combines with insights from the TH, QH and qH models originally analysed by Cai (2022) but only with reference to the Academia sphere. Secondly, our study returns a deeper understanding of the *N-Tuple of Helices* interactions (Leydesdorff & Lawton, 2021; Lawton & Leydesdorff, 2022) that sustain internationalization actions, a facet still underexplored.

This adds the role that collaborative project dynamics play in nurturing the internationalization of companies (Linton, 2024). Furthermore, projects stimulated by the government and financed by the European Union (EU) may endow companies with incentives to enter international markets, boosting the dynamics of collaborative networks and assisting firms to overcome the barriers to internationalization. Thirdly, stimuli for internationalization through means of co-creation and technological innovation, with Digital Innovation Hub (DIHs) and Tech Centers playing crucial roles in both digitalisation and international market competitiveness, enable companies to more efficiently integrate into global chains of value.

The structure of this article is as follows: Sections 2 and 3 set out the “Theoretical Framework” followed by the “Methodology” in Section 4, data analysis in Section 5, the discoveries in Section 6 before the discussion in Section 7 and the “Conclusions, Limitations and Future Research Lines” close this study.

5.2 Theoretical Framework

5.2.1 Evolution of the TH, QH, qH and N-Tuple Of Helices Concepts

The TH theory expanded to include greater complexities into the interactions of functions and communications thus recognising the need for more than three helices to fully explain knowledge based economies (Carayannis & Campbell 2009). Figure 5.1

highlights the chronological evolution in the models and their respective authors over the course of time.

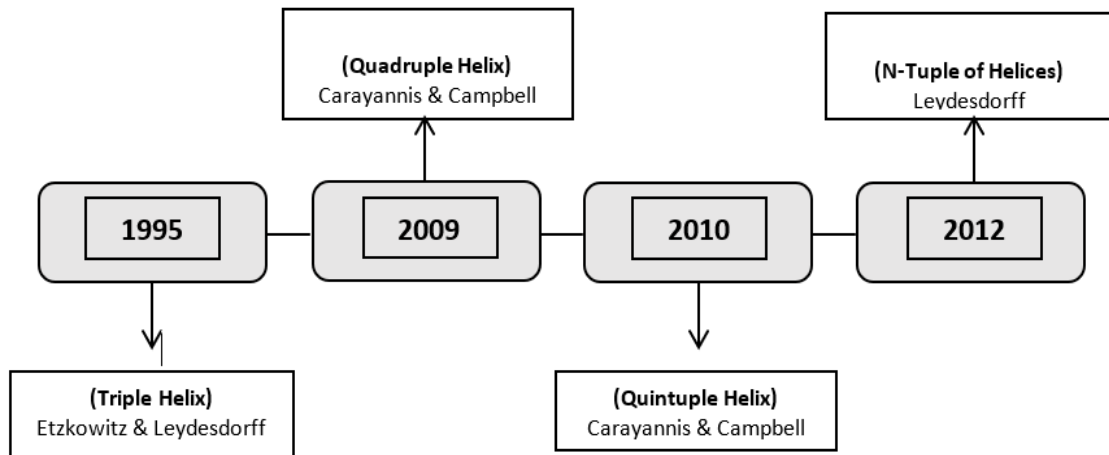


Figure 5.1 Chronological Evolution of the Models

Etzkowitz & Leydesdorff (1995) first highlighted A-I-G interactions in the TH context, correspondingly interrelating the setting up of networks to stimulate regional and international development with the founding of knowledge ecosystems and production directed towards innovation processes. In 1996, Leydesdorff & Etzkowitz debated applying the model in regional and national contexts, interconnecting an integrated vision between the market economy dynamics and the production of knowledge driving new business and employment opportunities, thereby resulting in more adaptable and sustainable environments (Leydesdorff & Etzkowitz, 1996).

The integration of innovation, knowledge and technology transfers into the TH drives the evolution of advanced industrial systems, the internationalization of companies and enabling the achieving of global competitiveness (Etzkowitz & Leydesdorff, 2000). The TH empowers the internal dynamics of knowledge production that have reformulated the academic and scientific infrastructures, including the technological sciences and university research and development systems, contributing towards the intellectual restructuring of academic fields and bringing about greater integration (Etzkowitz, 2003a).

Historically, the A-I-G spheres have varied and were formerly centralised at the government level, as observed in the Soviet Union and the communist states of Eastern Europe (Freeman, 1994). Currently, more moderate versions of this model still exist in some European countries, such as Norway for example (Etzkowitz & Leydesdorff, 2000). The political model, known as *Laissez-faire*, separates these three institutional

spheres, limiting their mutual interactions but while pointing to a new global management model for knowledge and technology (Etzkowitz, 2003a).

The TH model evolved over the subsequent years and enabling each sphere to assume roles within the others, nurturing collaborations and innovative partnerships between academia and industry (Etzkowitz & Leydesdorff, 2000; Leydesdorff & Meyer, 2003). The dynamics of the institutional spheres in developing the TH summarise the internal and external powers of their interactions even though the dynamics necessary to developing a TH derive from regional catalysers of innovation (Etzkowitz & Zhou, 2006).

The A-I-G interactions, especially at the regional and local levels, result from the actions of individuals and/or organisations that hold the power to convene and command the entire TH, thus playing key roles in leveraging the potential of the knowledge base (Etzkowitz & Zhou, 2017). In each of these stages of institutional cooperation and within the collaborative networks perspective, in the TH triangulation model, Farinha & Ferreira (2012) not only deepen the importance of the role of innovation but also highlight the determinant factors of entrepreneurship within the context of regional development (Farinha *et al.*, 2016).

The concept of the regional innovation system closely intertwines with the establishing of clusters and the expansion of regional policies in order to foster the sustainability of innovation based learning economies (González-López *et al.*, 2019). This regional level integrates government and academic actors who take on preponderant roles in establishing the conditions appropriate to a successful regional innovation environment (Brekke, 2021) in which the role of the regional helix reinforces the weighting of regional competitiveness within the scope of internationalization (Lew & Park, 2021).

National innovation systems undergo regionalisation and internationalization to the extent that the innovation processes take place across borders through cooperation agreements between regions and companies (Leydesdorff & Etzkowitz, 1996), boosting the competitiveness of partners engaged in regional innovation systems and their capacity to gain access to global chains of value (Kumar *et al.*, 2022).

The alignment of universities with regional economic development has become increasingly prominent as academic entrepreneurship has expanded from a regime for organisational growth to a strategy for regional economic and social development

(Etzkowitz, 2003b), generating environments favourable to innovation and progress (Etzkowitz, 2008).

The TH model incorporates four dimensions of development. The first arises with the internal transformation of the helices through strategic alliances and the role of universities in nurturing innovation and economic development (Leydesdorff & Fritsch, 2006). The second stems from the influence of the helices as exemplified in the United States in 1980 by Lei Bayh-Dole, who reformulated the intellectual property rules and extended technology transfers to universities (Etzkowitz & Zhou, 2017). The third facet accounts for the launching of trilateral networks and organisations, uniting A-I-G to promote the development of high technology. In turn, the fourth dimension stems from the recursive effect of these entities that influences science and society through means of government policies (Leydesdorff & Etzkowitz, 1996).

The TH model evolved into the QH, which entirely integrated all these spheres, where the overlapping roles drove the creation of new knowledge, technologies, products and/or services (MacGregor *et al.*, 2010). The process of product and/or service development may cohabit with different levels of co-production with consumers, clients and citizens (Leydesdorff & Smith, 2022). Therefore, the QH model blends in the perspectives on dimensions such as the media, culture and civil society to thereby highlight the importance of the social and cultural contexts in promoting innovation (Carayannis & Campbell, 2010; Carayannis *et al.*, 2012). QH empowers and connects co-creators of innovation, entrepreneurs, strengthening the ecosystem and the principles for the broad and deep cooperation necessary to innovation and, furthermore, becoming essential to the majority of the innovative activities undertaken by companies, stimulating competitiveness and business performance (Adamovský, 2024).

The qH innovation model accounts for another evolution in the TH and QH models reflecting a deeper understanding of innovation ecosystems, affirming that sustainable innovation is only attainable when five factors align and interact effectively (Carayannis & Campbell, 2010), alongside the definition of policies and proposals for regional development and designed to promote long lasting development (Carayannis & Campbell, 2012). This qH model posits a sustainable equilibrium between social and economic development and the progress of human civilisations (Casaramona *et al.*, 2015), in which the transformation to sustainable societies demands new innovation driven by new challenges and collaboration among more actors (Grundel & Dahlstrom, 2016).

Furthermore, the qH also fosters innovation in public policies within the scope of efficient strategies for promoting sustainable innovation and establishing an innovation ecosystem that is both socially fair and ecologically sustainable (Cai, 2022). In re-establishing this equilibrium with the environmental system, the qH model ensures future generations enjoy a rich life of plurality and greater diversity on the planet (Lawton & Leydesdorff, 2022).

The EU specialisation strategy incorporates the TH model of innovation (Etzkowitz & Zhou, 2017) and later evolved towards the N-Tuple of helices model in which the interactions between the global economy and the international relations of any regional TH strengthen the regional innovation system (Leydesdorff, 2012).

The internationalization of a region performs an important role in encouraging innovation by incorporating ideas from outside the region and deploying sustainable technological development. Advanced knowledge, driven by means of foreign investment and partnerships with TH actors and the regional innovation system, acts as a driver of regional innovation (Leydesdorff, 2013b). Furthermore, the TH literature has evolved in direction of the N-Tuple of helices, thereby including social and international helices, developing the capacity to proactively enact beneficial regional innovation and thereby attaining a regional system of sustainable innovation (Leydesdorff & Smith, 2022).

From the internationalization perspective, overcoming geographic restrictions in the era of globalisation enables knowledge based products and services to undergo local development, enabling innovative actors in regional systems to access international innovations, provide an opportunity for the respective region to become a centre for global knowledge (Lew & Park, 2021; Tomasi *et al.*, 2022). Internationalization transformed the TH model of innovation across different facets in accordance with the levels of openness of countries (Lawton & Leydesdorff, 2022).

The growing complexity arising from incorporating new dimensions into the model reflects the rising challenges around developing robust regional ecosystems and highlights the importance of adjusting them to specific local and global characteristics (Leydesdorff, 2012). According to Leydesdorff (2022), whenever not able to operationally apply and demonstrate development in the relatively simple case of the three dimensions making up the TH model, there should be great caution over generalising to any N-Tuple of helices.

The research findings of Park & Stek, (2022) warn that the higher order helices raise a series of scientific difficulties, including both conceptual and practical questions and making it essential to implement a set of flexible methods adapted to ensuring the governance model for high order helices becomes still more agile in order to be able to keep up with the swift changes taking place in society (Xue & Gao, 2022).

5.3. Models of International Collaborative Networks

Internationalization expands the boundaries of A-I-G cooperation, producing new opportunities for innovation and economic development (Calabrò *et al.*, 2019). For this to happen, the effective planning and implementation of internationalization policies and strategies accounts for a crucial input (Ferreira *et al.*, 2018).

By integrating this global perspective, it becomes possible to maximise the benefits accruing from inter-institutional collaboration, developing more robust knowledge networks and strengthening the innovative solutions required to deal with global challenges (Barbosa-Gómez *et al.*, 2024). Co-opetition, therefore, requires consideration as a driver able to boost TH networking but implying that decisions on the specific content of cooperation and competition always take place in accordance with the specific context of the respective project (Carayannis & Campbell, 2009).

Hence, these national and international A-I-G collaborative projects need approaching as an extension of the TH, which involves transnational cooperation for the development of research and innovation and innovation focused policies (Etzkowitz, 2003a; Harris *et al.*, 2020). The addition of this international dimension to the model enables the examination of just how knowledge networks and innovation policies expand across borders, influencing and influenced by the prevailing global contexts (Wang *et al.*, 2024).

The synergies prevailing among the A-I-G spheres enable the development of robust ecosystems that facilitate growth and innovation within the global context. The sphere of academia performs a vital role in the internationalization of companies within the collaborative *multi-helix* models of interaction, facilitating innovation, knowledge and technology transfers and the building of global networks (Battaglia & Neirotti, 2022). Research institutions here emerge as catalysers of internationalization, enabling local companies within the objective of thriving in increasingly competitive global markets, developing viable business models and producing innovations returning improvements to the level of competitiveness and internationalization (Lysenko *et al.*, 2020).

The company sphere within the models of *multi-helix* collaborative interaction may boost the internationalization of companies through strategies and initiatives leveraging the support and collaboration of academia and government, participating in research and development (R&D) projects, helping to develop global talents, deploying technology transfers, taking advantage of government incentives for acting in global networks that enable the expansion of international operations while raising competitiveness (Turkina, Van Assche & Doloreux 2021).

The government sphere may play a decisive role in company internationalization through establishing and nurturing favourable environments within the scope of facilitating the efforts of company owners and managers to acquire strategic resources, providing financial and logistical support, negotiating commercial trade agreements and incorporating the knowledge from inter-organisational networks (Wang & Turkina, 2018). Through these measures, governments implement their economic development agendas, fostering innovation, strengthening the national economy and, correspondingly, its global competitiveness (Shu *et al.*, 2019).

5.3.1 Synergies in Collaborative Projects

The role of collaboration and networking in innovation focused decision-making processes has long been subject to debate in the academic literature that especially emphasises the need for the synergies arising from the collaborative projects run by research centres, clusters, CoLabs, technology centres and parks, DIHs and public institutions (Farinha *et al.*, 2016). Clusters are geographic concentrations of companies but also including any government institutions, universities, professional groups and commercial associations that supply training, education and information (Epede & Wang, 2023).

These clusters aggregate the value of the actors involved and the respective economy, fostering collaborative knowledge and synergies that enable companies to engage with global markets (Osarenkhoe & Fjellström, 2022), thereby overcoming eventual barriers to penetrating international markets where they do not otherwise hold relevant networks (Kumar *et al.*, 2022). The strategy behind the European Union industrial policy defines clusters as a powerful tool for advancing with innovations (Lysenko *et al.*, 2020). The competitive advantages generated by clusters facilitating efficient supply chain management demonstrates the relevance of implementing cluster strategies, particular focusing on the triple helix model (Ikram, Su, Fiaz, & Rehman, 2018), thereby driving regional and international development (David, Dorn & Hanson, 2016).

The relationship between Collaborative Laboratories (CoLabs) and internationalization highlights the overwhelming importance of innovation to international business contexts (Qiao & Ao, 2024). Therefore, the CoLabs mission involves facilitating innovation and leveraging the importance of internationalization through innovation, enabling business models to boost the competitiveness and growth of companies (Qiao & Ao, 2024). Thus, CoLabs serve as facilitators for the development of communities, fostering environments favourable to innovation, and promoting the sharing of values and collaboration around common projects (Georgescu *et al.*, 2022).

There is increasing recourse to innovation laboratories as the organisational means of driving innovation and supporting the capacity for organisational innovation (Adamovský, 2024), making companies already at more advanced stages in their life cycles more innovative and returning significant increases in terms of product innovation to the extent that these companies advance with their internationalization processes (Wang & Chen, 2024).

The technology centres represent the public and private organisations carrying out applied research and market focused innovations, specialising in digital, green and other advanced technologies (Lew *et al.*, 2023). Technology centres support businesses in laboratory experiments for developing and producing new products based on technology subsequently put on sale in global markets (Bolzani & Scandura, 2023). Technology centres help companies reduce the time to market of innovative ideas, provide access to technological knowledge, laboratory demonstrations and testing, development, prototypes and their testing, pilot products and product certification (Lew *et al.*, 2023). These technology centres have been generating a rising proportion of new patents over the course of time, promoting tacit knowledge about technology in keeping with market trends around remaining competitive (Chattergoon & Kerr, 2022).

The DIHs are collaborative networks that include digital skill centres set up by the European Union to assist firms and businesses in adopting digital technologies through developing, testing and experimenting with these technologies (Hervas-Oliver *et al.*, 2021).

DIHs thereby strengthen the innovation ecosystem, fostering synergies among partners with competences and dynamically boosting the regional reference poles (Queiroz *et al.*, 2020). They generate opportunities for adjusting business strategies, accessing funding for digitalisation and disruptive technology and improving automation and levels of efficiency (Plečko & Bradač Hojnik, 2024). DIHs support business ecosystems

for entrepreneurial actors striving to develop businesses in the digital era, serving as platforms for companies to construct their digital infrastructures (Kalpaka *et al.*, 2020).

5.4. Methodology

5.4.1 Research Methodology

The goal of this research involves highlighting the synergies generated by the diverse and different entities driving internationalization and their contribution towards implementing collaborative projects focused on internationalization. Hence, we adopted the multiple case study qualitative methodology as this enables the aggregation of data from a broad range of key information sources that minimises the scope for data bias (Eisenhardt & Graebner, 2007). Case studies return contextually valuable data, perceptions and knowledge that would not be attainable by any other means given how this approach facilitates the identification of differences in implementation processes, producing insights into the factors leading to their implementation (Aguinis & Solarino, 2019).

Furthermore, this qualitative methodology ensures more precise responses to research questions (Bliese *et al.*, 2024) which, in our study, was the following: how do collaborative interactions (*N-Tuple of Helices*) enable the contributions and drivers of company internationalization.

Such qualitative approaches mean academics learn about complex and specific phenomena (Zaefarian & Tasavori, 2016) based on the findings of multiple case studies, which aligns with the “how” and “why”, providing researchers with adaptability in their data collection process that may correspondingly follow up ideas and with the answers rigorously examined and analysed (*Delios et al.*, 2023).

5.4.2 Key Participants

Data collection made recourse to a total of twenty semi-structured interviews, characterized by a script (Appendix D) to help the interviewer develop the interview, that break down as follows: i) industry with six interviews of company chairmen, specifically the CEOs of Riopete, Capgemini, Solancis, Conservas Ramirez, Mecalbi and Glartek; ii) entities managing collaborative projects with seven interviews of the executive directors of Inovcluster, Aeronáutica, AED – the Space and Defence Cluster, IAPMEI – the Institute of Support for Small and Medium Sized Companies, the

Business Association of Minho, Centimfe, MoreColab, Connect 5 (DIH) led by the TICE.PT cluster and one interview with an adviser to the executive president of PACT – the Alentejo Science and Technology Park, iii) academia, with two interviews, the Pro-Rector of the University of Coimbra and the Director of the Polytechnic Institute of Leiria and iv) government, with the collection of four accounts, specifically with an ex-Minister of the Economy, an ex-Secretary of State for Internationalization, the Secretary of State for the Economy and the President of the National Supervisory Commission for the PRR – the Restoration and Resilience Plan. We selected in-person, semi-structured interviews to collect data in our multiple case studies to ensure personal contact with the interviewees (Zhang, 2023).

In keeping with the semi-structured interview approach, we carried out each interview with a mix of open and closed questions and followed up with 'why' and 'how' type questions (Delios *et al.*, 2023) to delve deeper into the responses. We recorded the twenty interviews that took place between January and October 2024. The data processing and analysis procedures included rigorously coding the data collected, this thus identified interview excerpts with an identity number (ID), following the order of the interviews and the respective spheres I-A-G (I₁, I₂..., A₁, A₂..., G₁, G₂...) and so forth, identifying the identity by participant as set out in table 5.1. The study compiled a sufficient quantity of data to understand the phenomena under analysis (Aguinis & Solarino, 2019).

Table 5.1 General Overview of Interviewees

| Spheres | Entity | ID | Duration (min) | Position | Experience in position (Years) | Activity Sector | International Collaborative Projects (Helix Model) | Project relevance | Relevant topics raised |
|----------|------------------------------------|----------------------|----------------|------------------------------------|--------------------------------|----------------------------------|--|---|--|
| Industry | Riopele (Company) | I₁ | 55 | Chairman of the Board of Directors | 14 | Textile | Lusitano Project (TH) | Explained the internationalization, expansion and cooperation project. | Project opportunities and market expansion |
| | Capgemini (Company) | I₂ | 50 | Chairman of the Board of Directors | 6 | Consulting , technology services | Route 25 Project (qH) | Explained the internationalization and innovation project. | |
| | Solancis (Company) | I₃ | 55 | Chairman of the Board of Directors | 25 | Stone extraction | Sustainable Stone by Portugal (NH) | Explained the internationalization and innovation project. | |
| | Conservas Ramirez (Company) | I₄ | 60 | Chairman of the Board of Directors | 23 | Canned preserves | F2F Project (TH+Reg) | Explained the internationalization and innovation project. | |
| | Mecalbi (Company) | I₅ | 50 | Chairman of the Board of Directors | 15 | Cars | Route 25 Project (qH) | Internationalization process, accelerators, opportunities and government support. | |
| | Glartek (Company) | I₆ | 45 | Chairman of the Board of Directors | 5 | Artificial Intelligence | European Bauhaus Ventures Project (TH) | Explained the internationalization and innovation project. | |

| Spheres | Entity | ID | Duration (min) | Position | Experience in position (Years) | Activity Sector | International Collaborative Projects (Helix Model) | Project relevance | Relevant topics raised |
|--|--|-----|----------------|------------------------------------|--------------------------------|----------------------------------|--|---|---|
| Entities managing collaborative projects | Inovcluster R(Cluster) | E 1 | 60 | Executive Director | 9 | Food | F2F Project (TH+Reg) | Internationalization process, accelerators, opportunities | Project development and synergies |
| | AED (Cluster Regional / Mobilising Agenda) | E 2 | 60 | Executive Director | 9 | Aeronautics, Space industries | All-In (TH+Reg) Aero.Next Project (qH) | Internationalization process, accelerators, opportunities and government support. | |
| | IAPMEI (Public) | E 3 | 60 | Executive Director | 3 | Support Companies | European Bauhaus Ventures Project (TH) | Internationalization process, accelerators, opportunities and projects. | |
| | AE Minho Association (Public) | E 4 | 45 | Executive Director | 1 | Support Companies | Internationalization via E-Commerce (NH) | Explained the barriers and the success of the company's international expansion. | Support companies in innovation and international markets |
| | Centimfe (Private) | E 5 | 45 | Executive Director | 2 | Support Mold Companies | Internationalization via E-Commerce (NH) | Explained the international expansion. | |
| | CONNECT 5 (DIH) | E 6 | 60 | Executive Director | 3 | Digital Skills | Internationalization via E-Commerce (NH) | International expansion opportunities. | Project Development and synergies |
| | PACT R | E 7 | 60 | Advisor to the Executive President | 3 | Digital Skills | Aero.Next Project (qH) | Internationalization process, opportunities | |
| | More Colab (Collaborative Laboratory) R | E 8 | 60 | Executive Director | 1 | Collaboration Public and private | Internationalization via E-Commerce (NH) | Internationalization process, barriers, accelerators, | |

| Spheres | Entity | ID | Duration (min) | Position | Experience in position (Years) | Activity Sector | International Collaborative Projects (Helix Model) | Project relevance | Relevant topics raised |
|------------|--|----------------|----------------|--|--------------------------------|------------------|--|---|---|
| Academy | University of Coimbra (Public) | A ₁ | 45 | Pro-Rector | 2 | Academy Projects | Inov C+ Project (QH+REG) | Explained the project and the success of the company's international expansion. | Project Development and synergies |
| | Polytechnic Institute of Leiria (Public) | A ₂ | 45 | Director | 2 | Academy Projects | Inov C+ Project (QH+REG) | Explained the project and the success of the company's international expansion. | |
| Government | Ex-Member of Government | G ₁ | 50 | Economic Minister | 4 | | | Explained the economic context in Portugal | Drivers and barriers in international markets |
| | Ex-Member of Government | G ₂ | 55 | Secretary of State for Internalisation | 2 | | | Explained the barriers and the success of the international expansion of companies. | |
| | Member of Government | G ₃ | 55 | Secretary of State for the Economy | 1 | | | Explained the barriers and improvements that need implementing in projects. | |
| | President of PRR Monitoring Committee | G ₄ | 60 | President of the Board of Directors | 4 | | | Explained the plan and the importance of international expansion for companies and the country. | |

5.4.2.1 Industry

In the industry sphere, we interviewed the chairmen of six companies: Riopete, Capgemini, Solancis, Conservas Ramirez, Mecalbi and Glartek. Riopete belongs to the textile sector with the company, after 96 years in business, employing 1,189 members of staff and began its internationalization process in the 1980s by targeting European markets. Riopete current exports to 30 countries and is a partner in the Lusitano project and its mobilising framework of 18 members for business innovation in the textile industry. Hence, the objectives include the acceleration of structural transformation, sustainable and energy efficient solutions for revolutionising the sector and internationalising the Portuguese sustainable label, with estimated investment in the region of €111.5 million euros.

Capgemini is a French multinational consumption and technology service firm that began its activities in 1997 and now employs around 30,000 staff.

Project Route 25 receives financing from PRR with the objective of promoting Portugal as one of the leading players in autonomous mobility in Europe. Capgemini leads this project that involves a 28 partner consortium set the mission of designing and developing over 50 new products with the objective of cutting 85% of CO₂ emissions.

Solancis first began operations in 1969 in the stone quarrying sector and currently has 150 employees. The company is the leader of a PRR financed project entitled Sustainable Stone by Portugal that seeks to both raise the level of exports and the added value, boosting investment in research and innovation as the means of contributing towards decarbonising this sector.

Conservas Ramirez is the longest established fish preserve producer with its activities beginning in 1853. The company currently employs 240 members of staff and has a presence in 50 international markets, prioritising innovation and sustainability.

The company took advantage of the opportunity to participate in the “F2F” project that received financing from the European Program for Competitiveness under the auspices of European Strategic Partners, an accelerator for the internationalization of agro-food companies.

In 2006, Mecalbi launched as a mechatronic firm serving the automobile sector and now employs 180 staff, constructing machinery that assists in producing electric cabling and developing client tailored solutions.

The firm is currently undertaking the Route 25 project as the partner entity for developing solutions and continuous improvement.

Glartek is a business that launched in 2017 and currently has 31 employees engaged in developing augmented reality solutions designed to raise efficiency and security in industrial processes.

The company participated in the European Bauhaus Ventures project, which was a strategy initiative launched by the European Commission to foster the green and digital transitions, promote innovation, creativity in fields such as design, sustainability and social inclusion uniting the sciences, arts and technology, with a special focus on making this more sustainable and accessible to all.

5.4.2.2 Entities That Manage Collaborative Projects

This study incorporates eight interviews held with entities involved in collaborative projects, specifically: Inovcluster, AED cluster, the Business Association of the Minho, Centimfe, More Colab, IAPMEI, Connect 5 (DIH) and PACT – the Alentejo Science and Technology Park.

Inovcluster supports the agro-industrial sector providing tools enabling companies to obtain economies of scale, fostering partnerships and encouraging cooperative dynamics for international markets. This institution collaborates with partners in the European clusters participating in the “F2F” project financed by the European Union.

The AED Cluster works on behalf of the Aeronautics, Space and Defence industries and currently has 140 associated members, positioned as a driver for national and international actors within its mission of promoting Portugal as an international benchmark in global markets.

Within the scope of the mobilising agenda of the PRR, the cluster leads the “Aero.next” project that spans 36 partners with competences for the development of the aeronautical ecosystem, leveraging deep knowledge about the global markets and incorporating the digital and climate transition paradigms. The cluster dynamically runs the “All-in” project designed to empower and internationalise this business sector through strengthening relationships between cluster partner companies that thereby gain the opportunity to collaborate with the leading global players.

Interviews also took place with the President of the Minho Business Association, which is a non-profit public association that supports the internationalization, via e-

commerce and innovation, of mold manufacturing companies in the region, and the executive director of Centimfe that represents businesses in another region that commonly operate in international markets for innovation and implementing a project providing benefits to companies engaging in e-commerce, thus dynamically boosting the online exports of Portuguese products and/or services.

We also gained the perspective of the director of More Colab that strives for the development of Portugal's mountainous regions through innovation and the creation of highly qualified employment and is also in partnership with an internationalization via e-commerce project.

Furthermore, we interviewed the Director of IAPMEI, which supervises and dynamically manages internationalization and innovation projects, representing a strategic partner for the growth of companies, fostering competitiveness and business expansion. We also included the Director of CONNECT 5, a DIH that promotes collaborative networks, contributing to deepening the competitiveness of processes, products and/or services. Finally, we interviewed the Director of PACT, founded in 2016 and located in a region of low population density, with this infrastructure set up as a centre for global benchmark innovation, interconnecting the academic and business worlds to create value for the market and the region.

5.4.2.3 Academy

As regards academia, we carried out two interviews, one with the Pro-Rector of the University of Coimbra and the Director of the Polytechnic Institute of Leiria. The University of Coimbra runs the Inov C+ project, which received 90% of its financing from the EU and the remaining 10% from the Portuguese state and aims to value scientific and technological knowledge in implementing a pilot project that, within a networking context, stimulates competitiveness and business growth, striving to strengthen innovation, internationalization and the strategic investment of companies. In the Inov C+ project, the Polytechnic Institute of Leiria, through the respective business plan, evaluates and awards projects developed with an international component. The objective involves stimulating internationalization, innovation and boosting recourse to self-employment.

5.4.2.4 Government

In the government sphere, we carried out four interviews: a former Minister of the Economy, the Secretary of State for Internationalization, the Secretary of State for the Economy and the President of the Supervisory Commission for the PRR – the Recovery and Resilience Plan. These government figures were able to explain the context around export activities, innovation and the importance of national and international collaborative projects for boosting national competitiveness. The President of the PRR Commission provided insights into how this plan is to drive economic growth and convergence with Europe.

5.5. Data Analysis

In keeping with the empirical research defined and the data structure identified by our analysis, we are able to approach the collaborative networks based on the TH, QH, qH, and N-tuple of Helices models that drive internationalization through nine collaborative projects that fall under the auspices of the aforementioned models in accordance with the evidence put forward by the interviewees.

The unit of analysis stems from the position of each interviewee within their respective organisation with the structure incorporating the six spheres that emerge from the empirical analysis: support for international development, strengthening innovative capacities, sustainable development, political decisions, stimuli and threats. These construction blocks serve to consolidate the analytical dimensions that interrelate with the general concepts of relevance to the theoretical framework of this article and in accordance with an authenticity based perspective.

This enables the understanding of the synergies developed among the entities participating in the collaborative projects, deploying knowledge to dynamically boost national companies ensuring better levels of preparedness and robustness for achieving results in international markets. Figure 5.2 sets out the data structure in accordance with a broad vision of the citations representing the interview data, that empirically support our interpretation of the second order themes and the aggregated dimensions in the theoretical framework that empirically depict how the collaborative projects subject to analysis promote the facets of the aggregated collaborative dynamics, strategic empowerment, competitiveness and resilience.

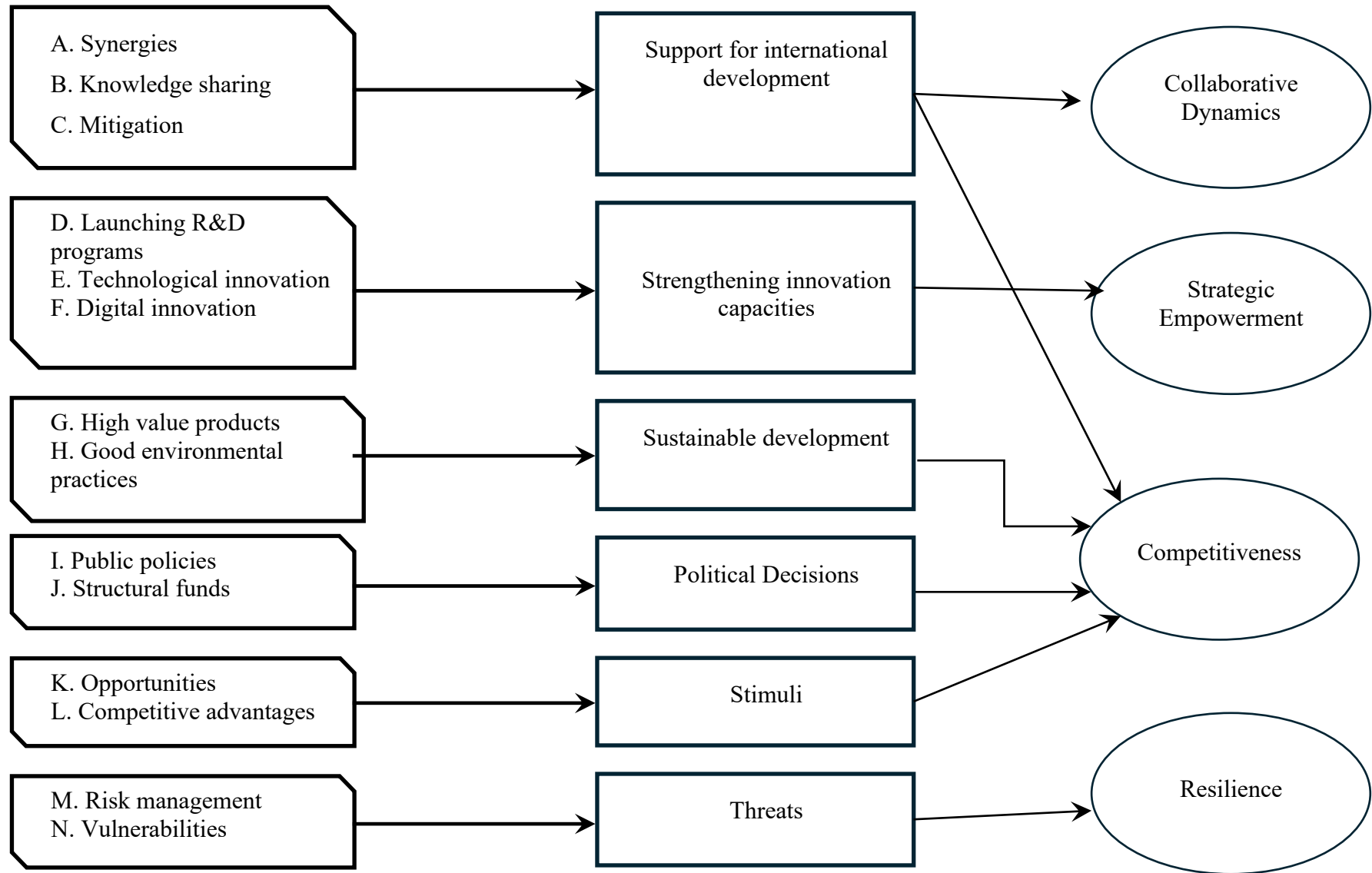


Figure 5.2 Data Structure

5.6. Findings

5.6.1 Collaborative Dynamics

The dynamics arising from collaboration perform a determining role in setting up networks, promoting strategic interactions that, in turn, generate synergies and competences that favour the outcomes of collaborative internationalization projects and thereby guaranteeing a better integrated and more effective approach for companies facing global challenges. Knowledge sharing enables companies to access the information and experience that drive their capacities for adaptation to international markets in keeping with the unavoidable need to mitigate the existing barriers, such as the regulatory and technological challenges that restrict and hinder companies from entering international markets. Support for international development represents the second order theme that consolidates the aggregated dimension.

5.6.1.1 Support for International Development

In recent decades, we have witness the development of projects that seek to improve the innovation and internationalization performances of companies (Midler, 2019). As (E₂) highlights *“the All-In project allowed us to strengthen the internationalization of companies, promoting the strengthening of relationships ongoing among AED members through involvement and collaboration with some of the leading global players”*, while (I₄) explains how *“we carried out a partnership with a consultancy firm specialising in collaborative projects for producing an internationalization plan focused on international markets and we can currently see some very encouraging results”*.

Furthermore, the role played by institutions in receipt of government support is determinant to ensuring training and the development of international collaborative efforts through staging events and projects backed by the government (Zhang, 2023). This received recognition by (E₃) *“IAPMEI is a national contact point for projects developed by the EU with responsibility for promoting initiatives and supporting Portuguese participation. We have already invested five million euros in 160 internationalization support actions for companies targeting over 40 countries”* while (E₇) also states *“that there were training programs for managers, which focused on international markets within the objective of achieving growth in the internationalization of regional companies”*. However, the path to internationalization displays a great deal of risks, uncertainties and inherent scope for failure (Dong, 2022). Indeed, (E₄) warns that *“in internationalization, we have a problem with scale. We have many micro and small*

companies that lose a lot of relevance when they try to penetrate external markets on their own. Therefore, we incentivise companies to unite through clusters or partnerships". (G₃) also expresses another relevant concern: *"the appropriate utilisation of funds represents a crucial strategy capable of alleviating the weight of bureaucracy for the overwhelming majority of companies."*

5.6.2 Strategic Empowerment

Strategic empowerment is fundamental to strengthening the innovative capacities of companies and ensuring they develop the technological and digital competences necessary to competing in international markets (Vosman *et al.*, 2023). Leveraged by the Helix models, this has driven the launching of R&D programs, the adoption of technological and digital innovations as the key drivers for company internationalization. Strengthening innovative capacities is the second order theme that consolidates the aggregated dimension.

5.6.2.1 Strengthening Innovative Capacities

The phenomena around internationalization and innovation through R&D represents an emerging research stream in business science (Vrontis & Christofi, 2021) as indeed (A₁) highlights: *"Inov C+ is a system that articulates science, technology and companies to contribute towards a more innovative private sector in the region and fosters the dynamics of higher education business institutions, deploying their technological and research potentials."*

Companies are making increasing recourse to R&D networks in order to promote innovation even while there are still challenges as regards the means of successfully orchestrating such projects (Faccin *et al.*, 2020). (I₂) corroborates that *"preparing companies for the future with innovation and development projects that involve all the partners generates technological developments to be better able to compete in international markets"* with (I₁) highlighting *"the essential nature of preparing for the future with projects that are innovative in terms of Industry 4.0 and sustainability"*.

Hence, this perceives networking activities as rewarding, allocating the resources necessary and sharing valuable innovation related knowledge (Elvekrok *et al.*, 2018), with (G₁) affirming *"the CoLabs are drivers of new innovations and highlight the importance of creating scientific and qualified employment in Portugal through the implementation of research and innovation with the objective of adding economic and social value"*. DIHs perform an active role in supporting companies in overcoming the barriers to

innovation (Sassanelli & Terzi, 2022) just as (G₂) refers: *“the support provided to companies, such as the opportunity to access advanced digital skills, specialist training and access to the financing necessary to the digital transition, collaboration with larger scale companies and entities from the research and innovation system”*.

5.6.3 Competitiveness

The competitiveness of companies in international markets results from a combination of intrinsically interconnected factors. Support and stimuli for international development provide opportunities for companies to expand their global presence. Sustainable development enables the meeting of market demands with differentiated solutions. The political decisions shape the regulatory environment and channel structural funds into those areas deemed priority. Support for international development, sustainable development, political decisions and stimuli are the second order themes consolidating the aggregated dimension.

5.6.3.1 Support for International Development

Competitiveness stands out as the capacity for national economies to attain economic growth sustained through the efficient allocation of the available resources (Carayannis & Grigoroudis, 2016) with (E₃) highlighting that *“the role played by IAPMEI underpins new business, contributing towards accessing international markets and boosting the visibility of the national range through business missions and participating in promotional campaigns”*. Furthermore, (E₁) points out how *“companies benefit from support for internationalization projects, including financial grants, travel expenses, training and coaching sessions”* while (E₆) attributes importance to the *“DIHs in promoting digital transformation and innovation, modernising the Portuguese economy and nurturing the competitiveness of national businesses”*.

In turn, (G₃) praises how *“the export sector improved its results and the post-pandemic evolution demonstrated strong resilience and the capacity for recovery of the export sector. In a conjuncture of uncertainty and the slowdown of our main markets, exports grew at above the global average and have continuously gained in weighting in terms of GDP. Companies are more competitive due to their investment efforts and the policies for raising qualifications, strengthening the incentives for innovation and support for companies in external markets. This strengthening of the export capacity is a clear indicator of the improvement to competitiveness and that the country is raising its income in a sustainable way”* in keeping with (G₄) emphasising *“the importance of the Aero.Next project as the state makes incentive instruments available to innovative*

companies so that they may be more internationally competitive and create more value for the economy and contribute towards boosting the weighting of exports in GDP terms.”

5.6.3.2 Sustainable Development

Sustainable development is essential to strengthening company competitiveness in global markets, promoting innovative and responsible solutions that take international needs into account, such as providing high value products and implementing best environmental practices, factors that broaden the acceptance of companies in international markets and ensure their long term competitiveness. Sustainable development is the second order theme consolidating the aggregate competitiveness dimension.

In order to study sustainable development, Carayannis *et al.*, (2017) propose studying the patterns of interactions as described by (I₂): *“The Route 25 project defines the future of mobility and aims to position Portugal in the vanguard of intelligent transport technologies, creating a new chain of value in high technology intensive activities and in territorial cohesion with the goal of developing over 50 new products within the objective of cutting CO₂ emissions by 85% and reducing the number of accidents by 30%.”*

The qH model posits synergies between the economy, society and democracy (Carayannis & Barth 2012), as (I₂) reports: *“The Oporto council has been bringing about improvements to urban mobility within the framework of Route 25, encouraging the usage of public transport, the expansion of cycling and walking networks. These initiatives demonstrate the commitment of the city to creating a more secure and accessible environment for pedestrians and cyclists.”* Furthermore, (G₂) affirms that *“the Route 25 project takes R&D as its anchor but catapulted through technological and energy focused measures as well as solutions for the management of resources and the environmental challenges that generate a significant impact on internationalization, innovation and regional development”*.

5.6.3.3 Political Decisions

The political decisions interconnect with public policies and the structural funds that deepen the level of acceptance of companies in international markets and ensure their long term competitiveness. Political decisions account for the second order theme that consolidates the aggregated dimension. Political connections may help companies, foster internationalization in global markets and facilitate the acquisition of financial resources (Chen *et al.*, 2024) just as (I₃) maintains: *“the support provided for the internationalization of companies takes place through the diversification of markets, promoting exports, raising the profile as an innovative and sustainable country. The globalisation dynamic of the national economy involves the attraction of new productive investment to Portugal”*. (G₄) furthermore praises how *“the structuring of this economic development program with structural funds guaranteed the latter are used to develop the country and based on compliance with the goals and targets associated with implementing reforms and advancing with investments”*.

The last decade saw a change in the attitude of governments towards their economies and becoming increasingly assertive in their economic control not only in situations of crisis but also as a matter of political principle (Cuervo-Cazurra & Li, 2021), with (G₂) emphasising the extent of government commitment *“such as the support made available by AICEP, whether information, empowerment, support for networks, promotional actions, supply chain actions, business matchmaking and support for insurance credits (for exports, investments, deposits, financing for importers and conventions)”*.

Furthermore, (G₄) also highlights the importance *“of the capacity to submit good projects, be quick to analyse and accompany them financially that all feature as essential to developing the country and the compliance with the targets associated with implementing reforms”*.

5.6.3.4 Stimuli

Expanding into international markets inherently stimulates companies to explore new growth opportunities, strengthen their strategic position and obtain competitive advantage through support, market diversification, innovation and globalising.

These stimuli represent a second order theme that consolidates the aggregated dimension.

Academia undertakes one aspect to the internationalization of solutions for company problems, with the inclusion of players, such as political decision-makers and other actors in the business world, fundamental to discovering solutions and working in networks through financed projects (Veltri *et al.*, 2022). (A₁) stresses “*establishing the potential for improvement and knowledge transfers and I&TD activities for the regional economy*”, while (E₅) assumes that “*internationalization, and the triple helix, are undergoing constant change, if the objective is good for the companies, it shall certainly be good for academia and the government as otherwise we shall continue to lag at the back of Europe. We have to fully invest in qualifications as otherwise, if we lose these good assets to abroad, we are facing an increasingly complicated situation.*” This aligns with the research findings by Silvano *et al.*, (2018) that highlight how human capital has become ever more critical to economic growth and business competitiveness and hence raising the question as to just how to retain this talent, especially professionals qualified in the international field in order to resolve such situations. In practice, (G₄) identifies how “*various legislative change have taken place to enable the attraction of more students, in the capacity to hire these human resources*”.

There are also the stimuli highlighted by (G₂), such as “*the support granted to strengthen companies, promoting initiatives and strategies that aim to involve society, institutions and economic sectors to implement the measures fundamental to ensuring the post-pandemic recovery is inclusive and sustainable, focusing on the areas of the digital transition, environmental sustainability and social cohesion*”.

5.6.4 Resilience

Entering international markets poses diverse and significant threats to companies that correspondingly have to manage the risks and their weaknesses to mitigate the impacts. Threats and resilience make up a second order theme that consolidates the aggregated dimension. Managers need to adopt strategies for dealing with adverse situations and display the capacity for resilience in dealing with them (Chowdhury *et al.*, 2022). Within this framework, (I₅) lists the main barriers as *“arising from wars, geopolitical tensions that impact on logistics, energy flows, that damage the business environment and may impact on Portuguese companies operating in international markets”*, even while (G₃) warns *“that the management of risks is a fundamental process for identifying, evaluating and mitigating the potential risks that may threaten the company, carrying out thorough analysis of the internal and external environments by which companies need to map their weak points and vulnerabilities and develop actions plans for internationalization that minimise their risks”*. Within this scope, (G₄) points to the importance *“of adjusting the legislation to promote the simplification and the acceleration of administrative and legal procedures while not ignoring the need for transparency required by such processes with an urgent need for a regime pact on these core questions. In this sense, the capacity to submit good projects, speed in analysis and financial support stand out as essential”*.

Finally, (G₁) notes that *“in terms of financing, what would be very beneficial would be running far more simplified processes as one of the difficulties for companies is managing their applications, the technical financial management of projects. Therefore, simplifying this situation might also see support tailored to the realities prevailing in these territories and the scale of their companies both in terms of the eligibility criteria and also in the contractually agreed impact criteria as large scale companies clearly have more opportunities to be successful”*.

5.7. Integrative Framework of Collaborative Networks For Company Internationalization

The perspective of the *multi-helix* collaborative network models underpins a new approach to collaborative networks based on the *N-Tuple of helices* model that drives internationalization through means of collaborative projects. By applying the multiple case study methodology, we grasp how the successful viability of these projects is crucial to economic progress at both the national and international levels. The empirical research carried out explains the cooperation in national and/or international projects even while this needs to analyse the respective regional context and subsequent extension to international markets.

Academia dynamically produces technological innovations in projects with a business vocation (Lombardi *et al.*, 2019) just as (A₂) reiterates: “*at the regional level, we promote a selection of the best projects and solutions for industries, business plans and give awards to the best. The objective is to make a major contribution to society and the economy through establishing innovation focused companies and operating at the regional/international levels*”. (E₃) observes that “*the investment in expanding beyond European markets enables greater diversification in national exports*” while (I₄) highlights how “*we joined the F2F project to gain the opportunity to explore new markets, such as North America, for example. This mission involved different companies but which enabled us to sound out the market, expand partnerships, explore the agreement between Portugal and Canada and the resulting advantages.*”

Our research question served as our guide during the analysis and interpretation of the data, more specifically, just how might collaborative interactions (*N-Tuple of Helices*) be able to contribute towards driving the internationalization of companies. Figure 5.3 displays the integrated structure alongside the respective research propositions (RPs).

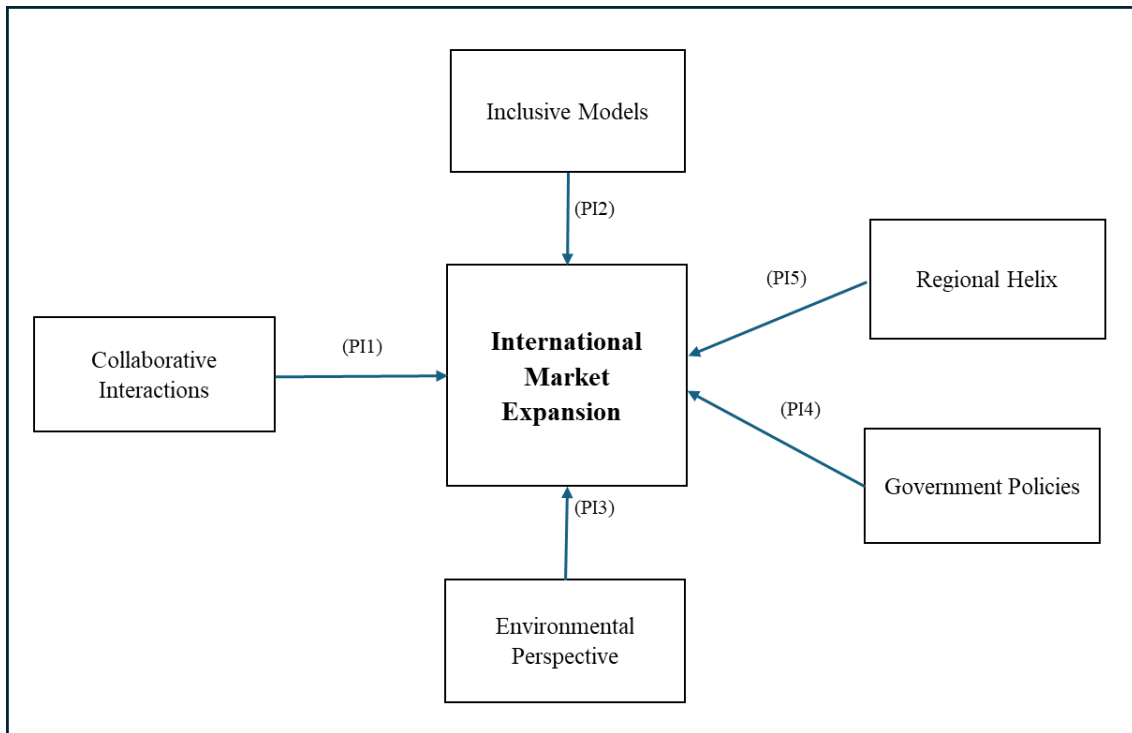


Figure 5.3 An Integrated Collaborative Network Structure for Company Internationalization

5.7.1 Collaborative Interactions

The increase in internationalization and research activities are, therefore, clearly advantageous to companies (Lamine *et al.*, 2018), as (I₁) stresses: “*investing in innovation and in vanguard products through the support provided by collaborative laboratories has led to a significant rise in sales to international markets.*” (E₃) affirms how “*the AED cluster is an aggregating entity and supports companies in their transitions to greater sustainability.*” According to (I₄), the supports leveraged “*were the green energy, the solar panels enabling 100% autonomy in electricity, sources of green energy as our boiler produces steam, is fed by biomass, that’s a question of thinking about the forests where there is so much biomass. Our company uses this biomass to feed the boilers, it’s practically free, and we take advantage of collaborative projects to proceed with investments. This project is going to ensure that the factory gets its entire surface area covered with solar panels.*”

Academia increasingly gets called upon to collaborate with other actors that support their internationalization activities and promote economic growth (Rantala *et al.*, 2021), as referred to by (A₁): “*the Inov C+ mission is to consolidate an Intelligent Innovation Ecosystem, open and inclusive, incorporating a complete range of resources,*

infrastructures and dynamics, with transversal and sector oriented initiatives, thus contributing to competitiveness.”

Based on our discussion, we may propose the following research proposition P1:

(RP1): Collaborative interactions act as facilitators for companies striving to enter international markets.

5.7.2 Inclusive Models

The technological opportunities emerge out of the means of applying developments in industrial business contexts (Islam *et al.*, 2022), as (E₅) duly highlights: *“Mold companies hold the capacity to interpret a design by the client and transform the idea into a productive process, economically and ecologically sustainable”*. Analysing complex systems, modelling results and impacts is vital to strategic decision-making and technological forecasting (Musso & Francioni, 2020) just as (E₇) affirms how *“we are the link with the companies and make the bridge between the scientific and technological system and the universities.”* Technology centres enable companies to reduce the time taken to reach international markets for the development of innovative ideas (Lew *et al.*, 2023) just as (E₆) recognises: *“the technology centres hold the mission of offsetting the needs of companies as they are entities that listen to their clients.”*

Carayannis *et al.*, (2024) affirm the importance of setting out road maps and received corroboration from (E₅) who stresses how *“technology centres articulate the A-I activities with the research centres and define road maps, validated at the European level and then brought back refined to Portugal. We are the connecting link with companies and make the bridge between the scientific and technological system and the university. We are an integral component of the scientific and technological system”*. In turn, (I₃) identifies how the *“Sustainable Stone by Portugal project seeks to develop new products, technologies and techniques with definably sustainable characteristics”*. Finally, (E₂) points out *“the importance of strengthening the position of Portugal in the aeronautical chain of value through means of complete, complex and high added value products.*

Based on the discussion above, we arrive at the research proposition RP2:

(RP2): The most inclusive models result in global products that provide integrated responses to the demands of international markets.

5.7.3 Environmental Perspective

Therefore, the contemporary economy underlines the relevance of digital innovation as a core driver for innovation and business renovation (Cortellazzo *et al.*, 2020) just as identified by (I₃): *“the Sustainable Stone by Portugal project aims to develop and implement a new specialist ecosystem, with an international profile, that enables the effective valuation of technological knowledge, implementing the industrial processes necessary to a digital and sustainable transition, equally deploying new technologies and techniques with definable sustainable characteristics”*. Furthermore, (E₂) emphasises *“the importance of strengthening the positioning of Portugal in the aeronautical chain of value and consolidating the AED, to this end, we are going to turn the country into a relevant centre of decision-making in aeronautics, reducing its external dependence and triggering strong push effects throughout the national economy, such as strengthening the national aeronautical chain of value, enabling the drivers of environmental sustainability”*.

Furthermore, (I₃) highlights how *“the Sustainable Stone by Portugal project seeks to enable the relevant aggregating work carried out within the sector context by Pedra Natural for the creation of a new generation of productive products and processes, highly disruptive and innovative, that strengthen the capacity of the sector to grow internationally, thereby contributing to the consolidation of the strategic sector for the sustainable development of the Portuguese economy.”* In accordance with this discussion, we may put forward the following research proposition RP3:

(RP3): The addition of the environmental perspective into collaborative relationships facilitates the entrance of companies into international markets, especially in sectors with high levels of environmental regulations.

5.7.4 Support Policies

The European Union adopted the economic governance Recovery and Resilience Mechanism (Ladi & Tsarouhas, 2020), overseen by political decision-makers as a strategic instrument for national public policies. This results in national PRRs, concerted efforts to provide responses to the impacts of the Covid-19 pandemic with (G₂) highlighting how *“in this phase, the funding has gained added importance, hence the launching of the PRR.”*

To overcome the pandemic crisis in the world economy and not compromise the future of all business activities, this channelled support to the most affected sectors, protecting employment and industries (Liu *et al.*, 2020) as recognised by (G₁): *“the main difficulties*

companies experienced were the closure of markets and distribution chains, nevertheless, through state support for liquidity, we were able to mitigate the most devastating effects of this pandemic. Subsequently, with the PRR, we were able to advance with various research, development and innovation projects at the international level.”

These national and international collaborative projects have driven a structural transformation in the Portuguese economy with the mobilising agendas serving to consolidate and expand synergies in the private sector and the scientific and technological system of Portugal, contributing towards boosting the competitiveness and resilience of the Portuguese economy in international markets as (E₄) accepts: *“Portugal is a pioneer in the dual energy and digital transition with competitive advantages for attracting heavy decarbonised industry, green and circular products. These investments drive the economic growth and competitiveness of Portugal.”* As Galdino *et al.*, (2019) references, knowledge about markets and internationalization positively interrelate with international opportunities, an opinion corroborated by (I₃) who explains how *“the capacity for growth over the years enabled the company to invest in projects that have catapulted it into leadership in Portugal in the natural stone sector and making the company one of the strongest at the European level”*.

In accordance with this discussion, we may propose the following research proposition RP4:

(RP4): Government incentive policies for innovation boost the probability of companies embarking on internationalization processes through their focus on the A-I-G spheres.

5.7.5 Regional Helix

In the case of innovation ecosystems, whenever universities adopt leadership roles, the benefits of projects extend beyond the actors in the networks and contributing to the international development of the region (Thomas *et al.*, 2021). This facet was the focus of (A₁): *“INOV C+ is a Special Strategic Program for the valuation of scientific and technological knowledge”*. Nevertheless, overcoming the collaborative barriers around R&D+I may take place to a certain extent through beginning with TH projects and gradually deepening their complexity and becoming N-Tuple of Helices projects (Rossoni *et al.*, 2023) as (A₁) also emphasises *“The project strives to ensure its partners are able to strive to turn the region into a national reference, with an international profile, for the creation of new products and services resulting from R&D+I activities, implementing a*

strategy planning framework based on the Regional Ecosystem of Intelligent Innovation with the goal of generating and creating an important number of business initiatives incorporating these R&D+I activities". To this end, academia promotes strategic programs for valuing the scientific and technological knowledge, implementing projects within a networking context involving non-business entities from the regional system, such as technology centres, science and technology parks and firms and companies (Farinha et al., 2020). (I₅) backs this idea: "sure, the company has participated in projects involving companies, entities from research and innovation systems with the role of guaranteeing the application of the science, thus facilitating an approximation between A-I and ensuring constant evolution in the sector, enabling us to boost the installed production capacity by around 25%. By implementing the factory of the future concept, we boosted automation and combined various technologies for the integration of all production activities for the same products while respecting the premises of lean management, doing more with less, in less time and better."

The knowledge acquired by universities, both in terms of innovation and regional ecosystems, has been primarily subject to a perspective based on technological knowledge transfer processes from academia to international markets (Schaeffer et al., 2021).

Hence, we arrive at our final research proposition (RP₅):

RP₅: The Regional Helix model enables local ecosystems and drives company internationalization through innovation processes.

5.8. Discussion

The structure and contextual configuration of company internationalization processes require an appropriate level of aptitude to cope with the demands of international markets hence the relevance of collaborative networks, ranging from the Triple Helix model to the N-Tuple Helix model. All the Helix models integrate the A-I-G spheres to generate the synergies that facilitate innovation and internationalization in different sectors of activity.

The TH conveys how the A-I-G interactions drive knowledge transfers and boost overall competitiveness, especially standing out as a facilitator of innovation policies (Etzkowitz & Leydesdorff, 1995). Furthermore, the models evolved into the Quadruple Helix (QH), which incorporated the civil society sphere to encapsulate the role of citizen focused innovation, and then subsequently becoming the Quintuple Helix (qH), which introduced the environmental sustainability sphere as a crucial factor for balanced innovation. These holistic structures aid in shaping business policies and strategies that reflect social,

economic and environmental issues, enabling the internationalization of regional economies and the building of robust innovation ecosystems (Carayannis & Campbell, 2010). Interrelated with this research perspective, the importance of these models emerges through their articulation with projects designed to stimulate the economy with the objective of companies prevailing in international markets a fundamental goal. Hence, we made recourse to multiple case studies in order to grasp the different contributions made by collaborative laboratories, clusters, tech centres, digital innovation hubs, technology parks and public institutions that enable collaborative projects across different spheres.

This collaborative governance model played a pivotal role in overcoming the global challenges caused by the pandemic, thereby demonstrating its adaptability and resilience for supporting the economy and enabling differentiated company projects for reaching out to international markets.

5.8.1 Theoretical Contributions

All the helix models contribute towards developing the innovation and internationalization literature and practices, setting out a robust conceptual base for future studies. The TH model, initially focused on the A-I-G interactions, nurtures the knowledge and innovation structure adopted by various different economies over recent years, demonstrating how the synergies arising among actors may drive the growth of regional economies (Etzkowitz, 2003a; Farinha *et al.*, 2016).

However, the models subsequently expanded to the QH and qH after beginning to consider other factors such as civil society and the surrounding environment. The inclusion of these new factors in the TH led to the QH model that also incorporates the interests of civil society, fostering the creation of social value through citizen focused innovation (Carayannis & Campbell, 2009). In turn, qH extends its scope to the environmental impact, recognising sustainability as an essential dimension to long term innovation (Carayannis & Campbell, 2010).

These approaches provide a more integrated understanding of innovation in response to the challenges of competitiveness and sustainability in modern economies. The study of interactions among the different spheres has contributed to the literature highlighting the role of innovation centres and DIHs that provide support for the internationalization and digitalisation of companies, guaranteeing their alignment with the social and environmental values advocated under the qH (Liao *et al.*, 2024). Thus, these models are

essential to designing public policies and business strategies able to guarantee the sustainable and inclusive growth of economies.

Our research makes significant contributions to the literature in highlighting the role of government support for dynamically boosting and launching companies into international markets. This has been the main focus of collaboration projects where we may highlight the PRR enacted to ensure the means of coping with the consequences caused by the pandemic.

The Resilience dimension received the largest financial allocation under the Portuguese PRR and concentrates on a set of initiatives that involve interconnections among companies, higher education institutions, technology centres and systems, national and local government entities and alongside other types of organisations. These initiatives, all competitive in nature, incorporate projects developed through co-creation with a strong emphasis on R&D and with significant potential for fostering entrepreneurial innovation and raising the Portuguese business participation in global chains of value, sophisticated products and services, in terms of both knowledge and design while simultaneously seeking answers to challenges around qualification both in the younger generations and through life-long learning.

Approaches to international markets require a great deal of consideration, effective analysis, study of the risks and advantage to be able to take consistent and strategic decisions, especially in the case of small and medium sized companies. There are Portuguese companies with highly differentiated products and services, based on vectors such as innovation, quality and/or service but only those that head down the path of internationalization in a strategically organised approach will attain success. Product and/or service quality and innovation represent essential facets to attract and maintain clients in highly competitive global markets.

Operating efficiency, especially in logistics, represents another dimension for taking into account. Currently, compliance with the criteria of sustainability may return additional competitive advantages. The major failures among companies undertaking internationalization arise due to weaknesses in their risk management, a fundamental process to identifying, evaluating and mitigating the potential risks that may threaten companies. Hence, carrying out profound analysis of the internal and external environments is essential and extending to companies mapping their strengths and weaknesses before advancing with action plans capable of minimising the risks as many companies still lack the means of meeting the demands of international markets, coupled with the prevailing geopolitical instability, the demands of the green and digital

transitions and the shortages in qualified labour, the risks of extended periods of warfare, political instability, inflation, disruptions to supply chains, and fluctuations in energy prices account for some of the challenges looming over the horizon.

5.8.2 Managerial Implications

Clearly, in the early phases of internationalization, facing barriers and obstacles, managers and owners may experience fears and expectations over getting through this period with government and European Union support enabling them to overcome such difficulties and advance within the objective of establishing ambitious targets for companies to improve their competitiveness and that of their surrounding society in international markets.

Complementing the contributions of this study, our discoveries hold various practical implications, especially in terms of the level of government intervention for nurturing the internationalization of companies.

Support from government programs provides a fundamental leverage for companies developing networks through which they obtain valuable resources for promoting their products in conjunction with support for the innovation of company products and processes.

The implementation of multi-helix collaborative networks through business initiatives and public policies was fundamental to the robustness of company internationalization processes. The TH model has now been subject to implementation in various regions with the objective of strengthening internationalization and establishing regional innovation networks. The national and international collaborative projects, staged under the auspices of the mobilising PRR agendas, highlight the direct impact of inter-institutional cooperation on developing strategic sectors and boosting the competitiveness of companies which, in turn, highlights the “Lusitano” project with its technology centres and DIHs attaining great efficiency in the promotion of digitalisation and strengthening the chains of value, especially in the textile sector with high aggregated value, in accordance with the findings of study by Kalpaka *et al.*, (2020) who highlight how DIHs support business ecosystems and the actors engaged in developing the digital era by providing platforms on which companies can build their digital ecosystems. The interactions nurtured by the THs and science and innovation technology parks enable companies to engage in “all-in” projects, accessing technology and programs tailored to their needs and therefore enhancing their competitiveness and substantially reducing the barriers to internationalization.

We may frame the INOVC+ project within the QH model given its promotion of scientific and technological knowledge in the regional economy, involving academia, companies and government in addition to including society through initiatives that benefit the local community. Another project, entitled “F2F”, primarily focuses on internationalization through dynamically nurturing European clusters. This project involves A-I-G and society through the agro-food sector while encouraging international collaboration.

The qH model encapsulates the “Route 25” project given its focus on sustainability and environmental impacts through reducing CO₂ emissions as well as integrating A-I-G, clusters, technology centres, DIHs and society for the promotion of autonomous mobility.

The “Aero.Next” project is another dynamic deriving from the mobilising agenda of the PRR, including a broad range of partners such as higher education institutions, technology centres, clusters, PACT and DIHs with the objective of boosting the aeronautics sector in Portugal and subsequently competing with the entire global market with this model including the ambience necessary to developing sustainable and high added value aeronautical technologies. The N-Tuple of Helices model dynamically underpins the “Internationalization Via E-Commerce” model with the PRR facilitating company access to the funding necessary to developing sustainable technologies and enabling their more efficient adaptation to the ESG criteria that have become fundamental to global competitiveness (Queiroz *et al.*, 2020).

This program provides an opportunity for the internationalization of Portuguese companies given its ability to promote innovation and the development of products and services adapted to the demands of international markets, thus serving as a model for other economies seeking to undertake green and digital transitions. Another project adopting an N-Tuple of Helices approach is European Bauhaus Ventures that reaches beyond the A-I-G spheres to include science, art, sustainability and social inclusion in the development of sustainable cities in a wide reaching initiative under the supervision of the European Commission.

The future development of company internationalization processes depends on an articulated combination of collaborative projects and the financial support systems that enable the acquisition of top of the range technology capable of promoting company innovation. Collaborative entities, such as CoLabs, clusters, tech centers, DIHs, public institutions and mobilising agendas, backed by EU and PRR funding, perform crucial roles in nurturing internationalization and, beyond leveraging the A-I-G synergies, provide robust ecosystems that promote innovation and the capacity to compete in international markets. Thus, internationalization only gains strength from collaboration and the

resources available, promoting an environment favourable to the sustainable growth and competitiveness of companies within a global scenario. Without these support systems, the long term survival of companies in competitive positions is simply not possible, thus compromising the internationalization strategy and efforts to boost competitiveness in international markets.

5.9. Conclusions, Limitations and Future Lines of Research

This study contributes to our understanding how the different institutional spheres nurture the foundations for the development and expansion of companies in international markets. Each "helix" sustains growth and contributes to improving the results, whether in terms of innovation or the internationalization of companies. We provide empirical evidence highlighting the value of multi-helix models for internationalization. As put forward by Etzkowitz & Leydesdorff, (1995), the TH model enables structured A-I-G interactions, fundamental to regional development and continuous innovation and thereby assisting companies striving to expand their operations into international markets. With this expansion of the QH and qH models, initially posited by Carayannis & Campbell (2009), innovation began to include social and environmental dimensions, which are crucial to responding to contemporary sustainability related pressures. This structure integrates all the helix based models and demonstrates the critical importance of inter-sectorial cooperation to the competitiveness of companies and their dynamic capacities for entering international markets.

Firstly, we provide empirical evidence on the interactions at the industry level in driving the internationalization of companies where we highlight the *N-Tuple of Helices* model combined with insights from the TH, QH and qH models originally analysed in research by Cai (2022) but only in relation to the Academia sphere. Secondly, we provide empirical evidence that the collaborative networks are essential to internationalization, providing a healthy environment in which companies may explore international markets with support from state institutions and the other entities driving internationalization, such as CoLabs, clusters, technology centres and DIHs. These collaborative entities integrate specialist resources and knowledge to create ecosystems for innovation and technology that enhance regional competitiveness and facilitates businesses spilling over into international markets. Thirdly, we provide empirical evidence of how government stimuli, promoted through the PRR, an internationalization strategy that interacted with various actors and enabled the national economy to better position itself in the global marketplace, boost economic growth, favour qualified job creation within the scope of constant efforts to obtain greater added value.

The research findings of Lawton & Leydesdorff, (2022) emphasise how the implementation of models of inter-institutional interactions serves as a robust strategy for designing regional innovation policies, helping to create ecosystems of regional innovation that support internationalization and adaptation to global changes.

Our study provides guidelines on internationalization processes within the context of the TH model: the government provides the stimuli and support essential to internationalization but the international strategies of managers define just how companies go about expanding in international market all the while collaborating with academia, as Cal (2022) corroborates, ensures the ongoing access of managers to innovations and scientific knowledge that they previously lacked. Hence, while government support supplies managers with the financial and regulatory resources necessary for the internationalization of their businesses, these managers need to take well-justified strategic decisions as they are decisive to whether companies are able to compete and prosper in international markets, investing in integrating into global networks and promoting sustainable economic development.

This study responds to the research question through analysing how the collaborative interactions ongoing in the TH model apply to driving the internationalization of companies. We may correspondingly observe how institutional cooperation boosts internationalization alongside the incentives provided by projects such as the PRR, that drive the synergies among the A-I-G spheres. The companies benefit from the infrastructures made available by all these models, which enable not only innovation but also the effective integration of internationalization and global markets as also highlighted by Leydesdorff *et al.*,(2016). Collaborative interactions are determinant to companies seeking to undertake internationalization processes.

Through the infrastructures provided by technology centres, DIHs, and CoLabs, companies are able to accelerate their technological adaptation and boost their overall competitiveness. This study points out the sheer importance of continuous investment in innovation networks, such as science and technology parks, technology centres and DIHs, which integrate the efforts of academia and government to support companies in every stage of their internationalization processes based on pillars designed for the resilience of the Portuguese economy, advancing with the environmental and digital transition, leveraging improvements to research and development that culminate in the better positioning of companies, regions and the country and that serve to reduce the asymmetries existing with competitor countries and within the global objective of boosting the economic development of the Portuguese private sector.

In conclusion, while internationalization may foster high levels of uncertainty and destabilise company routines, this also demands innovative and specific responses to the respective context. This study is certainly not exempt from limitations despite all the efforts to render the approach objective and wide reaching and still requires further empirical study to fully underline our discoveries here.

The study limitations also stem from the restricted number of interviews, resulting in constraints in terms of diversity and their representative of the respective multiple helix spheres. As happens with all studies, this also displays these limitations arising from the lack of sample scale that hinders any generalisation to each institutional sphere. Hence, this considers the relevance to expand the study to a wider universe and thereby obtain greater diversity and representativeness of each sphere.

We may also set out paths for future research. Given that this study focuses on only a single country (Portugal), this suggests broadening the study and making comparisons with other countries with such different research realities capable of supplying other highly relevant information for the scientific community.

Furthermore, studies might examine, and for example, the impact of the digital transformation on traditional sectors and just how collaborative networks may encourage swifter and more sustainable energy and green transitions.

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PART III

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Chapter 6. General Conclusions

6.1 Conclusions

This chapter summarises the main conclusions of this thesis, including the theoretical and practical implications for managers and policy decision-makers. Furthermore, this highlights the limitations of the study as well as putting forward suggestions for future lines of research.

The departure point for this research was the persistence of gaps in the literature on business internationalization, especially in terms of the absence of any integrated understanding of the barriers/obstacles and stimuli in internationalization processes taking place in contexts of crisis, such as the Covid-19 pandemic. Furthermore, this focuses on the literature's limited exploration of the concepts of de-internationalization and re-internationalization and explains how the barriers, planning and the motivations interact dynamically throughout internationalization processes and influence the success or failure of companies in international markets.

We also evaluate the role of government, specifically in the post-Covid-19 period as regards the support provided to companies in international markets, thus, to what extent these supports contributed towards creating new market oriented solutions and hence undertaking deep analysis of the ongoing collaborative interactions under the auspices of the N-Tuple of Helices conceptual model (introduced by Leydesdorff, L. (2012)), exploring its contribution towards driving internationalization processes and strengthening company competitiveness in the face of global market complexity.

Given the scope and relevance of business internationalization, we here contributed towards deepening our understanding of the dynamics established among the themes under study. Thus, the thesis integrates four studies to respond to the research questions defined, firstly, the research question states the need for a systematic overview of the literature existing on company internationalization. Hence, in Chapter 2, we undertake an SLR entitled "Analysing stimuli and barriers, failure and resilience in Company Internationalization: a systematic and bibliometric review", which established solid foundations for the remaining thesis chapters in analysing the state-of-the-art of the literature on this theme. This SLR and the subsequent analysis of the articles broadly characterised the existing literature in accordance with the methodology put forward by Denyer & Tranfield (2009), with bibliographic coupling thereby identifying five clusters:

(1) Strategy, (2) De-internationalization and Re-internationalization, (3) Barriers, (4) Motivations, (5) Survival.

Subsequently, in Chapter 3, this thesis advances with a study entitled “The calvary of internationalization: from success to insolvency, from brand rebirth to re-internationalization”, which delves into the second research question approaching the factors of success and failure associated with the calvary of SME internationalization during the pandemic period with this research featuring the multiple case study methodology. In this chapter, we conclude that strategy is a central facet to every dimension of business internationalization, reflected in both business development and the attention paid by researchers. The markets here perform a crucial role in re-internationalization in conjunction with business learning and the capacity of managers to correct the failings in the original process. However, aggravated errors, inappropriate entrance and exit costs and financial or health crises may produce devastating effects and directly leading to the de-internationalization of companies. Furthermore, changes in leadership, with the recruitment of new managers, more experienced and aware of the international context may drive business re-internationalization making recourse to more sustainable networks.

However, the lack of market knowledge, decision-making errors and other factors may negatively impact on de-internationalization processes and resulting in the loss of competitive advantage whether in target markets or in all markets. In this chapter, we also conclude that, right from the outset, successful companies gather robust information on the respective markets, thereby identifying the key opportunities for their growth, seeking to improve their performance and competitiveness through market oriented behaviours.

The main causes of SME failure are financial difficulties, the lack of capital and uncertainties as regards recovering following poor experiences in international markets. While financial factors may display a variable weighting, no factor in itself determines the success or failure of SMEs. In the SME re-launching process, we may highlight the crucial role of new entrepreneurs who, with their experience, seek to recover companies through identifying opportunities, strengthening the brand and its profile, improving product quality and investing in technology while fostering substantial and wide reaching transformations.

In Chapter 4, this thesis presents the “Challenges of Internationalising Companies: Barriers, Planning and Motivations” study that analysed the role of the main barriers and obstacles that companies face with internationalization, the planning carried out within the scope of entrepreneurial decision-making and the motivations for internationalising

the business. We also evaluate the role of government in the wake of the Covid-19 pandemic in terms of the support provided to companies operating in international markets and, to this end, adopting a mixed approach with the application of multivariate techniques which, in a first study, resulted in a theoretical model tested against a sample of 402 companies. In study 2, we opted for qualitative analysis based on multiple case studies incorporating interviews with CEOs, business association presidents and members of the government.

This chapter concludes how planning, barriers and motivations are all fundamental factors for managers and entrepreneurs engaging in internationalization processes. Planning, in anticipating the eventual risks, facilitates the adaptation to international contexts, while the barriers, obstacles such as high customs duties and strong competition, require innovative solutions coupled with government support. The motivations, such as prospects for profits, the growth in sales and the ambition to raise the brand profile all drive the global expansion of companies, deepening the need for a solid business model, with the integration of digital technologies to optimise operations and reduce costs.

The customs duties imposed by non-European Union member states have become a more challenging issue in the post-Covid period and significantly affecting company logistics due to the restrictions place on free trade and the closing of some international markets. However, companies that swiftly adopt advanced technology and digital platforms not only survived but also prospered during the pandemic.

Government support was a crucial factor in providing the stability necessary for companies to concentrate on their adaptation and growth processes, protecting both industries and employment in the short term and paving the way for more strategic and robust planning of the internationalization process. Finally, we would highlight the importance of European funding through the PRR program and establishing both reforms and mobilising agendas that have encouraged companies to move into international markets within the scope of their own sustainable growth.

This thesis furthermore explored the impact of different types of collaborative interaction to better grasp how such networks may facilitate the internationalization of companies. These objectives are not only complementary but also seek to return a wide reaching and practical approach to dealing with the challenges of internationalization in global markets with Chapter 5 presenting a study entitled “What is the Role of Collaborative Networks in the Internationalization of Companies? An N-Tuple Helix Qualitative Approach”. This responds to the final research question seeking to understand how collaborative

interactions, within the N-Tuple of Helices perspective, contribute and drive the internationalization of companies. Hence, we carried out a qualitative multiple case study based on semi-structured interviews with the sample drawn from actors involved in the dynamics of these collaborative models. This study thereby enabled the exploration of these complex and specific phenomena before concluding that the different institutional spheres provide the foundations for the development and expansion of companies into international markets. Each "helix" sustains growth and contributes to improving the results in terms of innovation and the internationalization of companies.

We thereby stress the value of the multiple helix innovation models to internationalization processes as all the helix models demonstrate the critical importance of inter-sectorial cooperation to strengthening the competitiveness of companies. Thus, collaborative networks may drive internationalization through fostering an environment for companies to explore international markets with recourse to institutional support and other entities positioned to enable internationalization, including CoLabs, clusters, technology centres and DIHs. These collaborative entities integrate specialist resources and knowledge that amounts to an ecosystem for innovation and new technology that boosts regional competitiveness and facilitates proliferation into international markets.

We also put forward empirical evidence that government stimuli, rendered through the PRR program, enabled internationalization strategies through articulating various actors to better position the national economy in the global marketplace and thereby stimulating economic growth, progressively creating qualified posts of employment and henceforth constantly attempting to obtain greater added value. We would also point to the importance of continuous investment in innovation networks, such as technology parks and DIHs, to deepen the technological adaptation and boost the competitiveness of companies.

Finally, we would warn that business internationalization processes may produce high levels of uncertainty and destabilise the ongoing company routines and correspondingly requiring innovative and context specific solutions.

6.2 Implications and Contributions

This thesis contains valuable insights into the theoretical advances and the practical applications, attracting major interest among the scientific community. The study detailed in Chapter 2, in identifying various thematic groups (clusters), enabled the proposition of a conceptual structure for the connections among the key dimensions to the internationalization of companies and their understanding, summarising the existing

literature and reducing the fragmentation hitherto prevailing in this particular field. This systematic approach to the research areas reflects a valuable practical contribution enabling the decision-makers on company internationalization processes to arrive at pondered outcomes in keeping with relevant information that ensures they may prevail in international markets. Furthermore, this SLR enabled the identification of gaps in the literature and familiarity with the different lines of research developed in the subsequent chapters.

Chapter 3 contributed to understanding the calvary of internationalization in three significant ways as well as how the accumulated experiences shape the decisions of SMEs throughout this process. Firstly, the study returned empirical evidence portraying the financial variables of greatest relevance when analysing the international market success of companies interrelate with the liquidity of assets and the growth in sales. Our findings point to successful SMEs remaining attractive over the long term, strengthening their recognition in reliable networks, receiving government support and robust information about international markets. Therefore, the appropriate management of the financial resources of SMEs depends on the competences/abilities/experience of their owners/entrepreneurs, which may be of value to discovering and exploring the entrepreneurial opportunities that generate company success.

On the other hand, unsuccessful SME are unable to overcome the different barriers facing international development processes, such as customs duties and the obstacles arising from political, social and exchange rate instability. We also put forward empirical evidence that suggest that SME insolvencies occur when the potential stakeholders perceive a good deal out of the abrupt failure of the respective SME, enabling them to take over control of company decision-making processes to the extent of replacing specific staff in key positions within the company. The interest rate is another relevant factor for predicting the likelihood of insolvency as SMEs get into financial difficulties that only deepen and worsen over time and choking the company before culminating in its insolvency and bankruptcy.

In chapter 4, the theoretical implications highlight how validating and strengthening internationalization is no uniform process and companies correspondingly face different challenges such as customs duties and the lack of government support for entering developed markets. These findings emphasise the pertinence and appropriateness of the incremental theory of internationalization put forward by Uppsala, which highlights the importance of gradual experience and already acquired knowledge to international expansion processes (Johanson & Vahlne, 1977). In addition, this study highlights the

relevance of digital strategies and innovation to adaptation and constantly evolving as the means of leveraging success in international markets and complementing the theoretical discussions around the relevance of government support and public policies that are crucial to overcoming barriers and boosting company competitiveness within the currently prevailing globalised scenario.

The practical implications of this study may assist company managers and policy makers to take decisions within the scope of this study field. Firstly, the study recommends companies designing specific strategies for each target market taking into consideration the tariff barriers, culture difficulties and the need to swiftly adapt to changes in the marketplace. The capacity for innovation and the adoption of digital technologies are essential to boosting the competitiveness and resilience of companies operating in international markets.

This study highlights the importance that managers should attribute to robust strategic planning focusing on empowerment and with the adoption of new technologies, such as digitalisation, and innovation representing key factors that not only enable the overcoming of barriers but are also drivers of company success in international markets. These strategies not only help in dealing with the obstacles faced but also in leveraging the emerging opportunities, especially in the post-Covid-19 environment in which digital transformation has become crucial to the survival and growth of companies.

For policy makers, the results emphasise the need to foster support environments favourable to companies seeking to internationalise. This includes the provision of financial resources, empowerment programs and innovation incentive policies. Appropriately structured public policies may facilitate the entrance of companies into international markets, nurturing competitiveness and sustainable economic growth. Companies adopting proactive approaches, investing in digital technologies and implementing innovation strategies are therefore more capable of swiftly adapting to changes in the marketplace and overcoming the barriers encountered. Furthermore, collaboration between companies and the policy decision-making entities may result in significant support, facilitating access to new markets and enhancing private sector competitiveness. These activities are crucial to improving company competitiveness and guaranteeing the sustainability of internationalization processes into the long term. The study also points to the need for companies to continue investing in digitalisation and innovation to maintain their competitive advantages and to prosper in the dynamic and constantly changing international business environment.

Chapter 5 portrays the interactions ongoing at the industry level, highlighting the drivers of company internationalization that tested the N-Tuple of Helices model, which combines with the insights produced by the TH, QH and qH models subject to analysis in the work by Cai (2022) but only in the Academia sphere. However, our study sought to go far further in approaching each of the A-I-G spheres to produce a better understanding of N-Tuple of Helice interactions (Leydesdorff & Lawton, 2021; Lawton & Leydesdorff, 2022) that underpin internationalization actions in still poorly explored ways.

We also add the dynamic role played by collaborative projects for incentivising the internationalization of companies. Furthermore, the projects attributed government stimuli and financed by the European Union, supply companies with incentives to enter international markets, boosting the dynamics of collaborative networks and generally assisting companies in overcoming the barriers and obstacles to internationalization. Finally, we may highlight the stimuli to internationalization provided through means of co-creation and technological innovation in which DIHs and Tech Centers take on determining roles in digitalisation and raising the competitiveness for international markets, which together enable companies to integrate more efficiently into global chains of value.

In summary, as the main thesis contributions, we may highlight to policy makers the sheer relevance of nurturing support environments favourable to companies with ambitions to enter international markets. To this end, it is necessary to make financial resources available, implement innovation and internationalization incentive policies, fostering competitiveness and sustainable economic growth.

Internationalization also requires strategic planning and innovation to overcome the barriers and obstacles encountered along the way. Participation in collaborative networks and the adoption of digital technology are challenging factors that facilitate companies aiming to expand into international markets. The N-Tuple of Helices model promotes inter-sectorial collaboration leveraged by collaborative networks and robust ecosystems that facilitate the innovation, internationalization and competitiveness of companies seeking to provide answers to the global demands of international markets.

6.3 Limitations and Future Research Agenda

The current thesis displays the limitations identified over the course of the research and specifically within the scope of the respective chapters. In Chapter 2, the SLR carried out demonstrated some of the natural limitations that researchers in this field need to take

into account when interpreting the results presented here. This literature review incorporated only articles from a single database - *Web of Science* out of a question of ease of accessing and the reproducibility of the information. Even while incorporating a vast range of articles and periodicals spanning the most diverse fields, nevertheless there are other databases (e.g., EBSCO, Google *Scholar* and Scopus) that might have served for the same purpose. As future lines of research, this SLR demonstrates the relevance of studying the non-avoidable barriers and obstacles that force companies to opt for de-internationalization and retreating from international markets and as well as how international markets may be a means of ensuring the survival of companies.

In Chapter 3, the selection of the case studies analysed took place via convenience and spans only a significant minority of Portuguese SMEs. Secondly, the adoption of the case study methodology means that these conclusions are not susceptible to generalising for all Portuguese SMEs. To overcome some of these limitations, we would suggest a broader range of interviews and involving different sectors of activity to ensure a more representative sample as well as a comparison between different countries with different cases.

In Chapter 4, the dimension of the sample may bring about constraints in terms of its overall representativeness given the study focuses on only a limited number of Portuguese companies. Furthermore, as a transversal study, which only describes the characteristics of the phenomenon under analysis at a single point in time, this limits our analysis in terms of determining cause and effect. Thus, we would consider it relevant to undertake future studies that may replicate this study, with larger scale dimensions, featuring other contexts and a longitudinal approach.

In Chapter 5, the study limitations derive from the limited number of interviews resulting in constraints in terms of diversity and representation of the respective spheres of the multiple helices. Hence, we consider the relevance of expanding to a larger universe in order to obtain greater diversity as regards the representative nature of the different N-Tuple of Helices spheres. We may define other paths for future research studies and, given this study took place only within the national context, this inherently suggests the approach be expanded and compared with other countries, which may generate other relevant information for the scientific community. For example, future studies might examine the impact of the digital transformation on traditional sectors and how collaborative networks may incentivise a swifter and more sustainable green energy transition.

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Appendix A – Interview Guide – Chapter 3

As entrevistas consistiram em estudar em profundidade o calvário da internacionalização das PME, o sucesso nos mercados internacionais, a insolvência e posteriormente o renascimento e a re-internacionalização da empresa.

Efetuamos duas entrevistas aos CEO das PME Alfa, Beta e Delta com insucesso e uma entrevista aos CEO das PME, Ómega, Psi e Zeta com sucesso internacional. O guião da entrevista foi organizado em quatro tópicos relevantes: i) sucesso; ii) insolvência; iii) Renascimento; iv) re-internacionalização da empresa. Esta abordagem permite-nos, portanto, explorar de uma forma ampla os tópicos e temas relevantes, onde destacamos os diferentes percursos das empresas.

Empresas com Sucesso

As entrevistas permitiram analisar os fatores que impulsionaram o sucesso das empresas na expansão para os mercados internacionais. Realçamos os tópicos abordados, como o desenvolvimento, a implementação de estratégias adequadas na internacionalização, a capacidade de superar as barreiras no processo de internacionalização e a capacidade de obterem aceleradores de crescimento que lhes permitiram consolidar a sua posição nos mercados internacionais onde estão inseridas. A atratividade da marca e a resiliência durante a pandemia de Covid-19, também foram examinadas como contribuindo como elementos essenciais para o êxito.

Questões:

- Como conseguiram obter uma vantagem competitiva que permitiu até aos dias de hoje terem sucesso ininterrupto nos mercados internacionais.
- Como é que as tomadas de decisão podem contribuir para o sucesso nos mercados internacionais.
- Que apoios governamentais considera fundamentais para a sua empresa e que serão aceleradores para o desenvolvimento do negócio nos mercados internacionais.
- Qual o segredo do sucesso da empresa ao longo do tempo nos mercados internacionais.
- Quais foram as maiores barreiras e oportunidades que vislumbraram na COVID-19 nos mercados internacionais.
- Como a empresa conseguiu responder às adversidades da COVID-19 nos mercados internacionais.
- A sua empresa recorre a parcerias para entrar nos mercados internacionais?

Empresas com Insucesso

Estas empresas que enfrentaram insucesso nos mercados internacionais representam uma oportunidade de entender quais os principais fatores que levaram ao fracasso num contexto global. Os tópicos explorados nas entrevistas abordaram as principais razões que determinaram e culminaram na insolvência da empresa, as barreiras mais difíceis de ultrapassar na expansão para os mercados internacionais e a ausência de estratégias que fossem capazes de superar os desafios enfrentados nos mercados internacionais, culminando num contexto de pandemia que agravou a débil situação em que as empresas se encontravam devido primordialmente às falhas de planeamento.

Questões:

- Como conseguiram contornar as barreiras alfandegárias na entrada nos mercados internacionais.
- Quais foram as maiores barreiras que foram determinantes no contexto da COVID-19 nos mercados internacionais.
- A empresa perante as adversidades da COVID-19 quais foram as maiores quebras que teve nos mercados internacionais.
- Quais os principais motivos que determinaram a insolvência da empresa.

Re-birth and Re-internationalization

Destaca-se nestas entrevistas o papel determinante dos novos empreendedores que vislumbraram nestas empresas, além de uma oportunidade de negócio, o ressurgimento de marcas que outrora foram ícones no panorama nacional.

Determinados foram capazes de superar as barreiras no período da pandemia bem como tiveram engenho através da inovação de tornar os produtos competitivos em Portugal e posteriormente alcançarem sucesso além fronteiras.

Questões:

- Que oportunidades vislumbraram para dar uma nova vida à empresa.
- Como conseguiram contornar as adversidades em tempo de pandemia.
- Como conseguiram dar uma 2^a vida à empresa apostando nos mercados internacionais.
- Quais foram os primeiros mercados internacionais onde tentaram a re-internacionalização da empresa?
- Quais foram as maiores barreiras que tiveram de ultrapassar nos mercados internacionais.
- Quais foram os aceleradores para atualmente granjearem de grande sucesso mercados internacionais.

Appendix B – Questionnaire – Chapter 4

Caro(a) participante

Esta investigação está inserida no âmbito da tese de Doutoramento em Gestão subordinada à temática da Internacionalização das empresas, pelo aluno Rui Manuel Centeno Martins, sob orientação do Professor Doutor João José Matos Ferreira e do Professor Doutor Luís Manuel do Carmo Farinha, a qual consiste num trabalho meramente académico e sem quaisquer fins comerciais.

O principal objetivo passa por compreender a internacionalização das empresas incluindo o planeamento, desenvolvimento internacional, a implementação da estratégia das empresas nos mercados internacionais, bem como as barreiras e os estímulos decorrentes deste processo.

O preenchimento do questionário demorará sensivelmente 10 minutos. Por favor, responda com sinceridade, pois não existem respostas corretas ou incorretas, não existindo nenhum implícito associado à participação neste estudo.

Queremos desde já agradecer a sua participação nesta investigação!

O presente questionário respeita totalmente a liberdade de escolha de cada participante. A sua participação voluntária, existindo a possibilidade de, a qualquer momento, o participante deixá-lo sem qualquer consequência.

Todos os dados recolhidos são estritamente confidenciais, assegurando a proteção dos seus dados, assegurando o cumprimento na íntegra do Regulamento Geral de Proteção de Dados (RGPD), estando assegurando a segurança, proteção, anonimato e confidencialidade de todos os dados facultados pelo intervenientes nesta investigação. A informação solicitada, serve apenas e só ao objeto da investigação e serão acedidos pelo investigador do estudo.

Caso tenha alguma dúvida, poderá entrar em contacto através do email:
rui.centeno.martins@ubi.pt

Caracterização da Empresa

Nome da Empresa *

Setor de Atividade. *

Escolha uma das seguintes respostas

Por favor, selecione **apenas uma** das seguintes opções:

- Primário
- Secundário
- Terciário

Em que ano foi fundada a empresa? *

Escolha uma das seguintes respostas

Por favor, selecione **apenas uma** das seguintes opções:

- 1990
- 1991 a 2000
- 2001 a 2010
- 2011 a 2020 >2021

Quantos funcionários tem a empresa atualmente? *

Escolha uma das seguintes respostas

Por favor, selecione **apenas uma** das seguintes opções:

- 10 Funcionários
- 10 Funcionários < 50 Funcionários
- 50 Funcionários < 250 Funcionários
- 250 Funcionários

Em que ano iniciou a empresa o processo de internacionalização? *

Escolha uma das seguintes respostas

Por favor, selecione **apenas uma** das seguintes opções:

- <1990
- 1991 a 2000
- 2001 a 2010
- 2011 a 2020
- >2021

Qual foi o continente escolhido pela empresa, para iniciar o processo de internacionalização?

Escolha uma das seguintes respostas

Por favor, selecione **apenas uma** das seguintes opções:

- África
- América
- Ásia
- Europa
- Oceânia

Qual a quota de mercado que a empresa tem atualmente, nos mercados internacionais?

Escolha uma das seguintes respostas

Por favor, selecione **apenas uma** das seguintes opções:

- <= 10%
- < 11% e >=25%
- < 25% e >=50%
- < 51% e >=75%
- > 75%

Barreiras

As afirmações foram elaboradas para que cada empresa se possa classificar numa escala de 1 a 5. Na escala, 1 representa a pontuação mais baixa e 5 a pontuação mais alta. Uma opção 'não aplicável' (n / a) também está disponível.*

Por favor, selecione a posição apropriada para cada elemento:

| | N/a | 1 | 2 | 3 | 4 | 5 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. A maior barreira na internacionalização foram as diferenças culturais. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. A maior barreira na internacionalização foram as taxas alfandegárias. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. A maior barreira na internacionalização foi a concorrência. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. A maior barreira na internacionalização foi a falta de apoio governamental. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Planeamento

As afirmações foram elaboradas para que cada empresa se possa classificar numa escala de 1 a 5. Na escala, 1 representa a pontuação mais baixa e 5 a pontuação mais alta. Uma opção 'não aplicável' (n/a) também está disponível.

Por favor, selecione a posição apropriada para cada elemento:

| | N/a | 1 | 2 | 3 | 4 | 5 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. A empresa tem um modelo de negócios delineado para os mercados internacionais. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. A empresa tem um plano de internacionalização implementado para os mercados. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. A empresa tem uma estratégia para abordar os mercados internacionais. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Motivações

As afirmações foram elaboradas para que cada instituição se possa classificar numa escala de 1 a 5. Na escala, 1 representa a pontuação mais baixa e 5 a pontuação mais alta. Uma opção 'não aplicável' (n/a) também está disponível. *

Por favor, selecione a posição apropriada para cada elemento:

| | N/a | 1 | 2 | 3 | 4 | 5 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. O principal motivo que levou a empresa a internacionalizar-se foi aumentar os lucros. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. O principal motivo que levou a empresa a internacionalizar-se foi o reconhecimento da marca. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. O principal motivo que levou a empresa a internacionalizar-se foi a saturação do mercado doméstico. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Muito Obrigado por ter contribuído e concluído este questionário!

Appendix C – Interview Guide – Chapter 4

No estudo 2 adotamos uma análise qualitativa baseada em estudos de caso múltiplos mediante a realização de dez entrevistas que se encontram repartidas por três entrevistas aos gestores de topo das empresas, duas entrevistas aos diretores da área de internacionalização, uma entrevista ao presidente de uma associação empresarial privada, obtivemos o testemunho da diretora de uma associação setorial agroalimentar, e finalmente obtivemos os últimos três testemunhos na área governamental, onde entrevistamos um ex-ministro da economia, um secretário de estado da internacionalização e o presidente do plano de recuperação e resiliência.

Empresas e associações Empresariais

As entrevistas permitiram analisar as maiores barreiras que surgiram no contexto da pandemia covid-19. Realçamos os tópicos abordados, como o desenvolvimento, a implementação de estratégias adequadas em tempo de pandemia, a capacidade de superar as barreiras no processo de internacionalização e a capacidade de obterem aceleradores de crescimento que lhes permitiram consolidar a sua posição nos mercados internacionais. Esta abordagem permite-nos, portanto, explorar de uma forma ampla os tópicos e temas relevantes, pelo que efetuamos as seguintes questões aos entrevistados.

Questões:

- Quais foram as maiores barreiras que sentiram na pandemia Covid-19.
- Quais foram as estratégias utilizadas para contornar as adversidades dessa época?
- Que apoios governamentais considera fundamentais para a sua empresa e que serão aceleradores para o desenvolvimento do negócio nos mercados internacionais.
- Que sinergias foram utilizadas com as entidades governamentais para superar a Pandemia?
- Sentiram a necessidade de se reinventarem, para responder à pandemia covid-19, efetuaram alterações no planeamento para os mercados internacionais.
- As empresas saíram mais fortes e mais competitivas após o período de pandemia covid-19.
- Quais os apoios disponibilizados pela associação às empresas em tempo de pandemia Covid-19.
- Como é que as associações conseguiram catapultar as empresas associadas para apostarem nos mercados internacionais.

Governo e Presidente do PRR

As entrevistas permitiram obter o contributo de membros do governo e do presidente do PRR, analisar as maiores barreiras que surgiram no contexto da pandemia covid-19. Realçamos os tópicos abordados, como a implementação de estratégias adequadas em período pós-pandemia covid-19, a capacidade de gerar novas oportunidades no processo de internacionalização e finalmente a capacidade de obterem aceleradores de crescimento através do PRR que irá permitir consolidar a competitividades das empresas nacionais nos mercados internacionais. Esta abordagem permite-nos, portanto, indagar os entrevistados com as seguintes questões.

Questões:

- Que meios disponibilizaram às empresas para fazer face às adversidades da pandemia Covid-19.
- Que medidas foram tomadas imediatamente para evitar o colapso das empresas nacionais?
- Que apoios governamentais foram fundamentais para impulsionar as empresas e quais foram os aceleradores para os mercados internacionais.
- Qual a discriminação positiva que o PRR concede às empresas localizadas em regiões periféricas do interior do País para alavancar os seus negócios na área da internacionalização?
- O PRR constitui, um elemento facilitador, um conjunto de investimentos e reformas que visam promover uma dinâmica económica, o que ambicionam alcançar para a melhoria da competitividade das nossas empresas.
- Que medidas são imprescindíveis e cruciais serem implementadas com sucesso com base no reforço da resiliência e no aproveitamento das oportunidades decorrentes da dupla transição climática e digital.
- A economia nacional está mais bem preparada e mais competitivas para responder ao período de pandemia covid-19.

Appendix D – Interview Guide – Chapter 5

No estudo 5 efetuamos uma análise qualitativa baseada em estudos de caso múltiplos mediante a realização de vinte entrevistas semi-estruturadas aos agentes que integram as dinâmicas das múltiplas hélices. Seguimos uma abordagem de entrevista semiestruturada e entrevistámos um entrevistado de cada vez com uma mistura de perguntas abertas e perguntas fechadas. As vinte entrevistas foram gravadas e realizadas presencialmente entre Janeiro e Outubro de 2024 e encontram-se repartidas por: i) indústria, em que foram feitas seis entrevistas aos *chairmans* das empresas, pelo que doravante são designadas por Riopete, Capgemini, Solancis, Conservas Ramirez, Mecaldi e Glartek; ii) entidades impulsoras de projetos colaborativos, em que foram efetuadas entrevistas a sete diretores executivos repartidas pelo Inovcluster, Aeronáutica, do Espaço e da Defesa Cluster (AED), Instituto de Apoio às Pequenas e Médias Empresas e à Inovação (IAPMEI), associação empresarial do Minho, Centimfe, MoreColab, Connect 5 (DIH) liderado pelo cluster TICE.PT e uma entrevista a um assessor do presidente executivo do parque do Alentejo Ciência e tecnologia (PACT), iii) academia, onde foram efetuadas duas entrevistas ao Pró-Reitor da Universidade de Coimbra e à diretora do Instituto Politécnico de Leiria ligadas à área da academia e iv) governo, onde foram recolhidos quatro testemunhos, nomeadamente de um ex-ministro da Economia, um ex-secretário de estado da internacionalização, um secretário de estado da Economia e o Presidente da Comissão Nacional de Acompanhamento do Plano de Recuperação e Resiliência.

Indústria

A internacionalização e a inovação são pilares essenciais para as empresas que procuram expandir a sua atuação para os mercados internacionais, pelo que os aceleradores desempenham um papel crucial no intuito do ambicionado sucesso no processo de internacionalização, contudo também existem barreiras que tem de ser analisadas. As entrevistas permitiram analisar as maiores barreiras que surgiram no contexto da pandemia covid-19. Realçamos os tópicos abordados, como o desenvolvimento, a implementação de estratégias adequadas em tempo de pandemia, a capacidade de superar as barreiras no processo de internacionalização e a capacidade de obterem aceleradores de crescimento que lhes permitiram consolidar a sua posição nos mercados internacionais. Esta abordagem permite-nos, portanto, explorar de uma forma ampla os tópicos e temas relevantes, do qual salientamos as seguintes questões.

Questões:

- Quais são as barreiras mais significativas com que as empresas se deparam nos mercados internacionais.
- As sinergias entre as universidades/empresas/ governos como conseguem acrescentar valor para as empresas.
- Como podemos melhorar em termos da triangulação entre as esferas A-I-G, para catapultar as PME's e as grandes empresas para os mercados internacionais.
- Que contributos é que as entidades com projetos colaborativos disponibilizam às empresas para o acesso aos mercados internacionais.
- Quais são os pontos que necessitam de melhorias e que são determinantes para as empresas Portuguesas, na esfera da academia e na esfera governamental para alavancarem o negócio das empresas nos mercados internacionais.
- A sua empresa utiliza redes para desenvolver as competências tecnológicas e digitais para competir nos mercados internacionais.
- O desenvolvimento de projetos colaborativos, visa melhorar o desempenho da inovação e da internacionalização das empresas, como a sua empresa tem melhorado nestas duas vertentes.
- No âmbito dos projetos colaborativos, como dinamizaram a sua empresa para os mercados internacionais.

Entidades com projetos colaborativos

As entidades que promovem projetos colaborativos desempenham um papel crucial no fortalecimento das empresas nacionais e na ambição da melhoria da competitividade nos mercados internacionais. Nos projetos colaborativos, estas entidades fornecem às empresas ferramentas que permitem compreender as últimas tendências e desafios que ocorrem nos mercados internacionais, proporcionando uma melhoria significativa no apetrechamento de ferramentas essenciais para o sucesso das empresas nacionais.

A inclusão de aceleradores nos projetos colaborativos é, portanto, essencial para potencializar o crescimento das empresas nacionais. Estes projetos são dinamizados por disponibilizar programas de mentorias especializadas, acesso a redes colaborativas e à disponibilização de recursos em investigação e desenvolvimento de produtos e procurando soluções inovadoras que respondam às necessidades globais, melhorando assim a qualidade dos produtos e/ou serviços.

Questões:

- Qual é o contributo dos centros tecnológicos em matéria de transferência de tecnologia e propriedade industrial, tendo em vista a aproximação das empresas aos mercados internacionais.
- Como é que os clusters fomentam uma maior competitividade do nosso tecido empresarial nos mercados internacionais.
- Qual é o papel dos Colab na dinamização dos projetos colaborativos?
- Quais são os programas em vigor que as entidades com projetos colaborativos disponibilizam às empresas para conseguirem penetrar nos mercados internacionais.
- Que medidas fundamentais considera serem cruciais no PRR para articular ainda melhor o papel do governo, entidades com projetos colaborativos, universidades e empresas para fomentarem a internacionalização das mesmas.
- Ainda no âmbito do PRR, qual(is) o(s) contributos e dinamização que os laboratórios colaborativos podem disponibilizar na promoção da inovação digital para as empresas que ambicionam a entrada nos mercados internacionais.
- Quais são os principais objetivos do projeto colaborativo e como está a ser promovida a sua dinamização.

Academia

A academia desempenha um papel fundamental no sucesso de projetos colaborativos, especialmente quando o foco principal é fomentar a expansão internacional das empresas nacionais. As sinergias desenvolvidas entre A-I-G permite criar um ecossistema de inovação, aprendizagem e de desenvolvimento estratégico que é fundamental para as empresas competirem nos mercados internacionais. Os projetos colaborativos são iniciativas que reúnem diferentes atores e que permitem enfrentar desafios e aproveitar oportunidades, numa combinação de competências, recursos e de conhecimentos especializados, que permite implementar soluções inovadoras e adaptadas à procura global. As sinergias criadas entre a academia e o setor empresarial nos projetos colaborativos traz inúmeros benefícios, pois permite academia ampliar o impacto das suas pesquisas em contexto real e fortalece vínculos com a sociedade civil, proporcionando às empresas acesso a conhecimento científico a superar barreiras que sozinhas não conseguiram ultrapassar e permite posicionar-se em melhores condições competitivas para aceder aos mercados internacionais.

Questões:

- Academia quando participa em projetos colaborativos, como é que dinamiza as suas competências com os parceiros envolvidos no projeto.
- Que contributos é que as universidades atualmente disponibilizam às empresas no âmbito dos projetos colaborativos.
- Que contributos é que as universidades atualmente articulam com as entidades com projetos colaborativos na promoção da internacionalização.
- Como foi implementado o projeto INOV C+?
- Como foi articulado o projeto INOV C+, com os restantes parceiros envolvidos no projeto.
- Quais foram os resultados mais significativos neste projeto?
- Como é que a academia desenvolve na vertente de internacionalização soluções para as problemáticas das empresas.

Governo e Presidente do PRR

As entrevistas permitiram obter o contributo de membros do governo e do presidente do PRR, analisar as maiores barreiras que surgiram no contexto da pandemia covid-19. Realçamos os tópicos abordados, como a implementação de estratégias adequadas em período pós-pandemia covid-19, a capacidade de gerar novas oportunidades no processo de internacionalização e finalmente a capacidade de obterem aceleradores de crescimento através do PRR que irá permitir consolidar a competitividades das empresas nacionais nos mercados internacionais. Esta abordagem permite-nos, portanto, indagar os entrevistados com as seguintes questões.

Questões:

- Que apoios governamentais foram fundamentais para impulsionar as empresas para os mercados internacionais.
- Quais são os incentivos fiscais disponíveis para a internacionalização das empresas Portuguesas.
- Quais são as contribuições fulcrais que o IAPMEI, centros tecnológicos, clusters e agendas mobilizadoras, em termos de transferência de conhecimento, tecnologia e propriedade industrial, com vista alavancar as empresas para os mercados internacionais, tendo por base as dinâmicas da *N-Tuple of Helices*.
- Como é que o governo tenciona reforçar a capacidade exportadora para permitir a melhoria da competitividade das empresas Portuguesas nos mercados internacionais.
- Que mecanismos estão a ser utilizados para catapultar o desenvolvimento sustentável nas nossas empresas.
- Na sua perspetiva o modelo da *N-Tuple of helices*, através de projetos colaborativos contribui para o progresso da economia a nível nacional e internacional.
- Existem dificuldades em restituir o reembolso do investimento financeiro suportado inicialmente pelas empresas.