

The Galician entrepreneurship internationalization matrix: A regulatory framework

A matriz de internacionalización do emprendemento galego: un marco normativo

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Abstract

This study examines the internationalization strategies of Galician entrepreneurs and SMEs, focusing on early internationalization trends. The main objective is to develop a regulatory framework that enables entrepreneurs and established SMEs to approach foreign markets effectively. From a qualitative approach, the research analyzed data from Galician firms to construct the Galician Entrepreneurship Internationalization (GEI) matrix. Data were collected through surveys and supplemented from the Vigo Free Trade Zone database, covering exporting companies founded between 1999 and 2021. Qualitative analysis and matrix modeling were applied to categorize firms into distinct internationalization stages, considering factors such as market breadth, export intensity, and speed of entry. Four company profiles emerged from the analysis. The findings reveal that newer companies, influenced by technological advances and favorable public policies, tend to internationalize within a year of inception. The GEI Matrix offers valuable insights for public policymakers and business managers aiming to promote early internationalization.

Keywords: Entrepreneurship; Internationalization; Cultural context; Early Internationalization; Galicia.

Resumo

Este estudo examina as estratexias de internacionalización dos emprendedores e pemes galegas, centrándose nas tendencias de internacionalización temperá. O obxectivo principal é desenvolver un marco normativo que permita aos emprendedores e ás pemes consolidadas achegarse aos mercados exteriores de forma eficaz. Utilizando un enfoque cualitativo, a investigación analiza os datos das empresas galegas para construír a matriz de Internacionalización do Emprendemento Galego (IEG). Os datos recompiláronse mediante enquisas e complementáronse coa base de datos da Zona Franca de Vigo, que abarca ás empresas exportadoras fundadas entre 1999 e 2021. Aplicáronse análises cualitativas e modelos matriciais para clasificar as empresas en distintas etapas de internacionalización, tendo en conta factores como a amplitude do mercado, a intensidade das exportacións e a rapidez de entrada. Os resultados revelan que as empresas máis novas tenden a internacionalizarse nun ano desde a súa creación, influenciadas polos avances tecnolóxicos e as políticas públicas favorables. Xurdiron catro perfís de empresas. A Matriz IEG ofrece información valiosa para os responsables de políticas públicas e os xestores de empresas co obxectivo de promover a internacionalización temperá.

Palabras chave: Emprendemento; Internacionalización; Contexto cultural; Internacionalización temperá; Galicia.

JEL: M13; M16; Z18.

1. INTRODUCTION

International entrepreneurship is situated at the intersection of entrepreneurship and business internationalization in the academic literature (Keupp & Gassmann, 2009). As a field of study, international entrepreneurship has evolved through various theoretical and methodological perspectives which are often static and lack elements that capture complex processes or account for factors such as firm size to maintain greater uniformity (Coviello & Jones, 2004; Keupp & Gassmann, 2009). While the literature on business internationalization tends to describe the process as linear, orderly, and gradual, the reality of venture internationalization is much more dynamic and chaotic, with entrepreneurs' skills, experience, and social networks playing significant roles (Keupp & Gassmann, 2009; Casillas & Acedo, 2013; Leite et al., 2016). Turcan and Carter (2003) highlight the importance of resource-based theory and entrepreneurial cognition for understanding this phenomenon, while Fletcher (2004) emphasizes the role of proactive intermediation and risk-taking behavior in small firms. Zucchella and Magnani (2016) further underscore the need for proactive and innovative responses to global competitive pressures. Wach and Wehrmann (2014) provide an overview of international entrepreneurship, emphasizing the need for unique methodologies to advance the field.

The term international entrepreneurship emerged in the 1990s (Acevedo et al., 2020; Etemad, 2021), following McDougall's (1989, p. 388) definition of the concept as *"the development of international new ventures or start-ups that, from their inception, engage in international business"* with *"strategy and industry structure profiles of international new ventures are significantly different from domestic new ventures"*. At that time, research dedicated to the internationalization of entrepreneurship was scarce (Acs et al., 2003) and existing internationalization studies focused more on large corporations, which faced fewer trade barriers than smaller firms (Fletcher, 2004; Keupp & Gassmann, 2009; Steinhäuser et al., 2021).

In 1994, Oviatt and McDougall introduced the term International New Ventures (INV) to describe companies seeking significant competitive advantages and aiming to sell products internationally from inception. By 1997, Gary Knight had established the concept of Born Global Firms (BGF) to describe companies that began international operations immediately upon founding. As technological advances and the rise of the Internet greatly simplified internationalization, Virtual Instant Global Entrepreneurship (VIGE) companies emerged (Katz et al., 2003). Entrepreneurs could establish companies online in minutes and enter international markets through virtual platforms—something that would have been inconceivable a few decades earlier.

While entrepreneurship can occur in companies of any size (Hitt et al., 2001; Keupp & Gassmann, 2009), Fletcher (2004) argues that the complex process of internationalizing entrepreneurship defies traditional categorizations of entrepreneurial behavior. Rather than viewing internationalization as a process within which entrepreneurship occurs, what truly matters is entrepreneurship occurring alongside internationalization. While small companies that enter foreign markets later in their development face additional entrepreneurial challenges in the international sphere, Fletcher sees internationalization as inherent to entrepreneurial ventures born as BGFs or INVs.

Since those early definitions by Oviatt and McDougall (1994) and Knight (1997), the concept of entrepreneurship internationalization has gained popularity in academia (Fletcher, 2004). However, it is important to differentiate between entrepreneurship

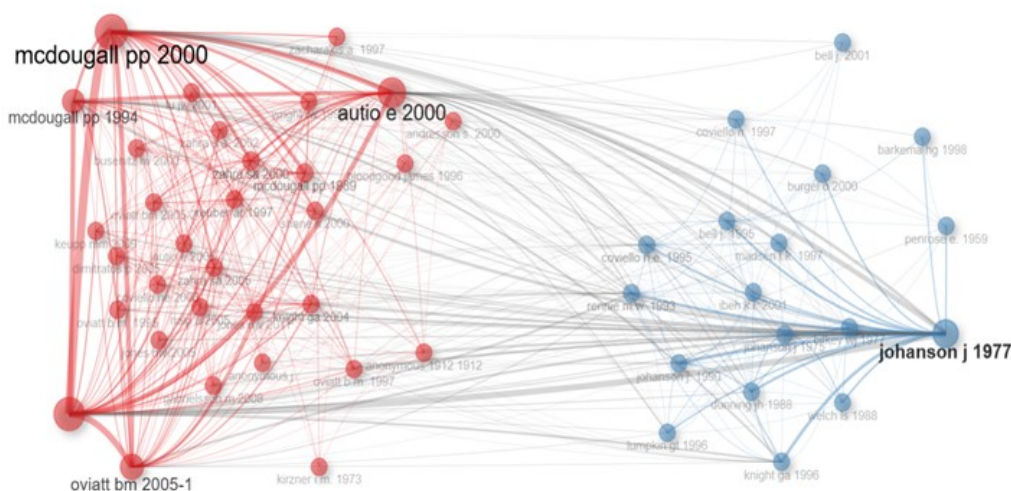
internationalization and SME internationalization, which is often treated as a subcategory within broader entrepreneurship internationalization research (Jones et al., 2011; Steinhäuser et al., 2021).

As a topic, the internationalization of entrepreneurship has attracted a great deal of interest in the last decade (Acevedo et al., 2020). According to Web of Science, the oldest research database (Birkle et al., 2020) and widely used scientific information platform (Fernández et al., 2010; Birkle et al., 2020) with an international and multidisciplinary bibliographic database that measures production and citation data in scientific disciplines (Delgado et al., 2009, Birkle et al., 2020), the annual number of articles on entrepreneurship internationalization has grown from around ten in 2010 to nearly thirty in recent years.

To further develop this idea and map scientific activity, we analyzed the relevant literature using the Bibliometrix tool (Aria & Cuccurullo, 2017), with data imported from the Web of Science platform. Articles were located using the words “international entrepreneurship” in the search box. These words had to appear in the title, and the search period was specified as January 1, 2011 to January 1, 2024. Of the 312 articles found, only 4 were in Spanish.

The citation network was then constructed using the intellectual structure function of the Bibliometrix tool. The two sub-areas with the most research results were identified (Figure 1).

Figure 1. Articles on Internationalization of companies



Source: Author’s own based on Bibliometrix

Sub-area 1 (red) includes foundational articles by McDougall and Oviatt (2000) and Oviatt and McDougall (1994, 2005). These examine the internationalization of entrepreneurship and New International Ventures (INV). Another key study by Autio et al. (2000), rather than focusing on entrepreneurship internationalization speed, addressed company age, knowledge intensity, and technology imitation ease in the internationalization process. In contrast, Sub-area 2 (blue), represented mainly by the Johanson and Vahlne article (1977), explores why firms that initiate and gradually pursue internationalization often remain domestic unless a specific event triggers international engagement.

These two sub-areas can be distinguished by their focus on when internationalization occurs (Fletcher, 2004):

- 1) From the beginning (Sub-area 1).

2) More gradually, after the company has established a domestic market presence (Sub-area 2).

2. LITERATURE REVIEW

The 2008 global financial crisis significantly impacted international initiatives by SMEs and entrepreneurs, especially in the technology sector, prompting shifts in product innovation and internationalization strategies (Colombo et al., 2016). Giotopoulos and Vettas (2018), who analyzed the post-financial crisis years in the Greek market, found that necessity-driven entrepreneurship led to new firms being less likely to become export-oriented during the crisis. During economic downturns, many individuals turn to entrepreneurship out of necessity rather than opportunity, which can hinder the potential of an entrepreneurial venture for international growth. In contrast, Gravel's (2019) research in Spain, using data from the SEPI Foundation Survey of Business Strategies, found that companies with early internationalization performed better than those limited to the domestic market during crises, partially due to risk diversification. However, the study concluded that new companies generally benefit most from initiating internationalization during stable economic periods rather than waiting for a recession.

Similarly, the COVID-19 pandemic deeply affected both the internationalization of entrepreneurship and the operations of small companies with international presence (Etemad, 2021). Lockdowns forced many small businesses to close (Lorenzen et al., 2020) and widespread logistical and operational disruptions ensued (Kilic & Marin, 2020; Zahra, 2021). These challenges will likely affect international entrepreneurship for years to come (Zahra, 2021), as epidemics change the way people live, think, and organize themselves as a society (Wright, 2020). The internationalization of entrepreneurship has become more challenging due to logistical disruptions, trade network issues, and increased government protectionism. Entrepreneurs now face greater demands in terms of time, resources, and effort required to enter foreign markets (Zahra, 2021).

Despite these setbacks, the research by Zahra (2021) suggested that the health crisis may also present significant opportunities for international entrepreneurship, notably:

- 1) Confinement boosted online business, although digital entrepreneurship had been growing during the pre-COVID years (Nambisan, 2017). For many new international entrepreneurs, increased consumer use of technologies implied expanded access to purchase possibilities, better coordination, lower costs, greater agility, and increased productivity. In the COVID-19 crisis, the internationalization of entrepreneurship tended more towards a digital strategy (Crespo et al., 2023).
- 2) Companies introduced more innovative products to remain competitive and resilient (Crespo et al., 2023). They also became more innovative about distribution, and more collaborative with local entrepreneurs.
- 3) Many businesses have become more resilient, agile, and proactive, emphasizing the importance of continuous learning and adaptation.
- 4) International entrepreneurship now demonstrates stronger alignment with social and economic goals.

2.1. International entrepreneurship in Galicia

The concept of international entrepreneurship, first introduced by Oviatt and McDougall (1994), brought with it the notion of internationalization speed (Casillas & Acedo, 2013). Oviatt and McDougall initially defined the speed of internationalization as the time from a company's incorporation to its first international sales. However, internationalization speed is actually more closely linked to the initial "pre-internationalization" phase, which subsequently influences the time it takes to reach international markets (Casillas & Acedo, 2013). Internationalization is not a series of sequential stages (Johanson & Vahlne, 1990) but rather a trajectory shaped by observations and strategic choices (Mathews & Zander, 2007).

In Galicia, despite cultural traits that favour entrepreneurship (Bouzas & Portela, 2023), entrepreneurial activity levels tend to be lower in this region than in nearby countries (Global Entrepreneurship Monitor (GEM) Galicia, 2023). This may be influenced by the entrepreneurial ecosystem – comprising factors such as policy, finance, culture, support, human capital, and markets (Isenberg, 2011) – and digital technology (Zhang et al., 2023). The technological advances, economic shifts, and health crises of recent years have also impacted the internationalization of entrepreneurial ventures and SMEs (Bouzas & Portela, 2024).

Given these dynamics, the primary objective of this article was to establish a regulatory framework (Oosterlaken, 2009; Autio, 2017) that entrepreneurs and companies can use as a legitimizing value system for their practices and policies. This framework draws upon the internationalization trends of Galician businesses and the main variables of the region's entrepreneurial ecosystem to map its evolution and establish parameters for classifying internationalization types, whether entrepreneurial or SME-based. This model is designed to be adaptable across regions and longitudinal studies.

3. MATERIALS AND METHODS

The research for this study was conducted using a descriptive and qualitative approach (Maxwell & Reibold, 2015; Hunter et al., 2019) to analyze the business context, marked by economic cycles of boom and recession, and better understand internationalization processes.

The data come from statistics developed by the Vigo Free Trade Zone (ZFV, Spanish acronym) and General Services – Ardán Unit (Consorcio de la Zona Franca de Vigo, 2024). This database contains all the companies created in Galicia since 1919 and listed as exporters. Data on company incorporation was taken from the Commercial Register, the primary source, while a company's status as an exporter came from the regular studies carried out by the Vigo Free Trade Zone. However, one ZFV representative clarified, that "these are the companies we know are exporters, but there could be other Galician companies in our database that are exporters and we do not have them identified as such". Thus, while all companies in the database are exporters, not all exporting companies are necessarily reflected.

Using the annual structure of the database, we established three company incorporation periods: for companies created from 1999 to 2003, from 2007 to 2011, and from 2017 to 2021 (the latest available data). The lack of data for 2022 and 2023 represents a limitation, as it prevented us from studying post-COVID early internationalization. The years not covered in this study were deliberately omitted, as the primary objective was to analyze the behavior of Galician SMEs during periods of economic and health crisis. By observing how these companies responded to scenarios of instability, we hoped to gain key insights into their adaptation and resilience strategies.

Because the database does not track the first year of international sales, this research relies on cross-sectional data collected through semi-structured questionnaires that were validated to ensure data quality (Alcaraz et al., 2006; Cerón, 2006) and completed online directly by entrepreneurs and export managers in small businesses. The questionnaires were sent to companies in May 2023 and non-respondents were followed up as many as three times. Telephone follow-ups were also conducted to increase the sample size.

Before distributing the questionnaires, a pilot test was conducted, and the feedback was used to refine the questions and improve response clarity and accuracy (Muñoz, 2003). The ethical principles of scientific research were respected in the data collection stage (Gagñay et al., 2020), including confidentiality and respect for participant autonomy. The questionnaire developed for this study (Appendix I) was crafted to analyze the unique characteristics and barriers that Galician SMEs encountered in their internationalization efforts. Each question was designed to capture the contextual factors relevant to Galician companies, such as inclination toward foreign markets, institutional support available, and the cultural and linguistic challenges they faced. Unlike standardized questionnaires, this tool did not draw from pre-existing validated questions, as no such instrument fully addressed the specialized information requirements of this study.

This customized approach allowed the questionnaire to cover a broad range of factors that influence the internationalization of Galician SMEs. Each question explored distinct dimensions, such as institutional support and technological adaptation, which as independent facets may not exhibit direct correlation with one another. This multidimensional design is characteristic of instruments that seek a comprehensive view rather than uniformity across variables. To enhance reliability in future research, a test-retest method (Matheson, 2019) would be applied to assess response stability over time.

The qualitative data were analyzed via conventional content analysis (Hsieh & Shannon, 2005). After collecting the information, framework codes were defined to assess company internationalization experiences. Each set of information was given a code and grouped into one of the four existing categories: Compostela, Peregrina, Feirante and Paseniño (see Table 1).

Table 1. Company classification

Compostela Company	Precocious companies in which internationalization occurred in the entrepreneurial phase (first international sale made within three and a half years from the year of company creation), with high-intensity presence in foreign markets (coefficient higher than 0.7).
Peregrina Company	Latecomers to internationalization, (first international sale made more than three and a half years after the year the company was created) and high-intensity presence in foreign markets (coefficient higher than 0.7).
Feirante Company	Precocious companies in which internationalization occurred in the entrepreneurial phase (first international sale made within three and a half years from the year of company creation), with low-intensity presence in foreign markets (coefficient lower than 0.7).
Paseniño Company	Latecomers to internationalization, (first international sale made more than three and a half years after the year the company was created) and low-intensity presence in foreign markets (coefficient lower than 0.7).

Note: Categories were established and named for important symbols of Galician culture.

4. RESULTS

The sample universe of the survey consisted of 459 Galician companies created since 1999 that appear as exporters in the Ardán databases of the Vigo Free Trade Zone consortium. The survey was sent to 438 of these companies; the remainder were either in liquidation, had gone out of business since the most recent ZFV database update, were part of a foreign multinational that had opened a company in Galicia strictly for legal and tax purposes, or had incorrect data (i.e., were non-exporting companies). A total of 52 companies responded to the survey but only 51 responses were considered valid, because one company that appeared as an exporter in the database stated in the questionnaire that it had never exported. Of the 51 valid respondents, 45.1% had been created during the first study period (1999-2003), 29.4% during the second (2007-2011) and 25.5% during the third (2017-2021). All the other companies either expressly declined to participate in the study or did not answer any of the three emails or phone calls. To increase the sample size, we decided to access the public database of the Compañía Española de Seguros de Crédito a la Exportación (CESCE, Spanish Export Credit Insurance Company), which lists exporting companies that have contracted credit and internationalization insurance (CESCE, 2024). However, the sample universe did not increase because the database for Galicia is relatively small. Most of the relevant companies had been created in periods outside the study frame, or the data did not adequately reflect reality (i.e. a small workshop was listed as an exporter for having applied for insurance to buy a specific part from a country outside the EU, but had never exported any product or service).

The final sample was selected using non-probabilistic convenience sampling (Etikan et al., 2016), given the difficulty of access to some companies and their unwillingness to participate in this type of study. Classification of the companies according to size and employee turnover revealed that the companies studied closely reflect statistics compiled by the Directorio Central de Empresas (DIRCE, Central Business Directory) (2023), indicating that that SMEs make up 99.9% of the Spanish business landscape. In this study, 19.6% of the sample were micro-enterprises, 54.9% were small companies, 21.6% were medium-sized companies and only 3.9% were large companies. Going by creation dates, 4.3% of the companies created in first period (1999-2003) were micro, 65.3% were small, 26.1% were medium-sized and 4.3% were large enterprises. For the second period (2007-2011), 13.4% were micro, 46.6% were small, 33.4% were medium-sized and 6.6% were large companies. For the third period (2017-2021), 53.8% were micro and 46.2% were small enterprises; there were no medium or large companies in this period.

In terms of international presence, the average number of foreign markets for companies created in the first period was 9, then 15 for those created in the second period and 5 for those created in the third period. Portugal was the foreign market *par excellence*, followed by other EU markets such as France, the United Kingdom, Germany and Switzerland, then markets in America and lastly, Asia. Notably, while the companies from the first period had been internationalized longest – an average of 20 years – companies from the second period, with an average internationalization of 12 years, had greater international presence in terms of the number of foreign markets entered.. Regarding difficulty of internationalization, 7.8% of the companies surveyed classified the process as very difficult, 51% as difficult, 33.3% as normal, 5.8% as not very difficult and only 2.1% as not difficult at all. Furthermore, 25.5% of the companies confirmed that technology had been very helpful in the internationalization process, 53% described it as somewhat helpful, 15.7% were neutral about the importance of

technology in internationalization, and only 5.8% said that technology had helped them little or not at all.

The overwhelming majority (92%) of companies indicated that their main reasons for internationalization were to find new customers, diversify, increase sales and increase turnover. The rest either sought to gain prestige, or to meet sector requirements without explicitly seeking internationalization (i.e., international transport company). The main difficulties reported by the companies in the internationalization process were quite diverse and highlighted lack of financial support from public institutions, excessive bureaucracy in matters of labeling and customs documentation, cultural differences that made it difficult to reach customers and find the right commercial agents, language barriers or international payment conditions.

Table 2 summarizes the characteristics of the companies surveyed across the three periods.

Table 2. Company characteristics for the three time periods studied

Characteristics	1st period		2nd period		3rd period		
	Frec.	%	Frec.	%	Frec.	%	
Nº Employees	<10	5	21.7%	3	20%	7	53.85%
	11-50	10	43.5%	7	46.6%	6	46.15%
	51-200	7	30.4%	4	26.7%	0	0%
	>200	1	4.4%	1	6.7%	0	0%
Turnover (M€)	<1	0	0%	1	6.7%	5	38.45%
	<2,5	3	13%	1	6.7%	7	53.85%
	>2,5	20	87%	13	86.6%	1	7.7%
% Export	<25%	7	30.5%	4	26.7%	10	76.9%
	<75%	7	30.4%	5	43.3%	3	23.1%
	75%+	9	39.1%	6	40%	0	0%
Company age	<10	0	0%	0	0%	13	100%
	<20	0	0%	15	100%	0	0%
	20+	23	100%	0	0%	0	0%
International years	<5	1	4.3%	1	6.7%	8	61.55%
	5-10	0	0%	2	13.3%	5	38.45%
	>10	22	95.7%	12	80%	0	0%

Source: Author's own based on information from company surveys.

4.1. Regulatory framework and development of proposals

Using the data from Galician companies, a two-by-two matrix model was developed to present in a visually simplified way (Madsen, 2017) a comparative analysis of three distinct time periods with varying ecosystems. Each period reflects unique technological and economic conditions, including a boom phase (1999-2003) and a recession (2007-2011). The Galician Entrepreneurship Internationalization (GEI) Matrix presented is patterned after the BCG Matrix (Henderson, 1970), which also known as the Share/Growth Matrix (Morrison & Wensley, 1991) or Growth-Share Matrix (Hindle, 2008).

In this Entrepreneurship Internationalization Matrix, the multidimensional nature of international behavior encompasses a broad spectrum of decisions and events (Casillas & Acedo, 2013) that are categorized as three key factors (see Zahra and George, 2002): breadth, degree and speed of internationalization. Breadth is measured as relative intensity (the total number of current international markets divided by the number of years of internationalization, multiplied by 100). Degree is defined as export intensity relative to turnover (exports divided by turnover, multiplied by 100). Speed is determined by the time scope (the number of years between company creation and entry into first international market).

Table 3. Comparison of Zahra's Internationalization Model and the GEI Matrix

Zahra (2002)	IEG Matrix
Breadth: Measured by the number of countries to which the company exports products or services.	Relative Intensity (RI) = Total no. of current international markets / No. of years internationalized x 100
Degree: Measured as export intensity divided by turnover and by the level of resources the company dedicates to internationalization.	Global Intensity (GI) = Export / Turnover x 100
Speed: Measured by the rate of change (rapidity) in the dimensions of breadth and degree.	Temporary Scope (TA) = Year of first international entry - Year of creation

Source: Author's own based on Zahra's Internationalization Model

The GEI Matrix is a descriptive model that draws on historical data and variable analysis to guide future policy decisions. It enables public policymakers to draw conclusions about how to approach the future (Guerra et al., 2020). The GEI Matrix can be used to evaluate the current state of business internationalization and take steps to promote early internationalization, especially in companies with lower levels of internationalization. This model is also designed to be universally applicable (Madsen, 2017); it can be replicated in other regions and used to assess the internationalization readiness of diverse entrepreneurial ecosystems.

The GEI Matrix (see Figure 2) incorporates dimensions from benchmark studies in the field (ARDÁN Galicia, 2023), with "intensity type" on the horizontal axis (high vs. low intensity) and "temporal scope" on the vertical axis (very early vs. not early). Intensity rates calculated as the combined score of global intensity and relative intensity, weighted towards the number of operations over the number of countries, where:

- Global Intensity (GI) = Exports / Turnover x 100
- Relative Intensity (RI) = Total no. of current international markets / No. of years internationalized x 100
- Intensity Rate = 0.7xGI + 0.3xRI

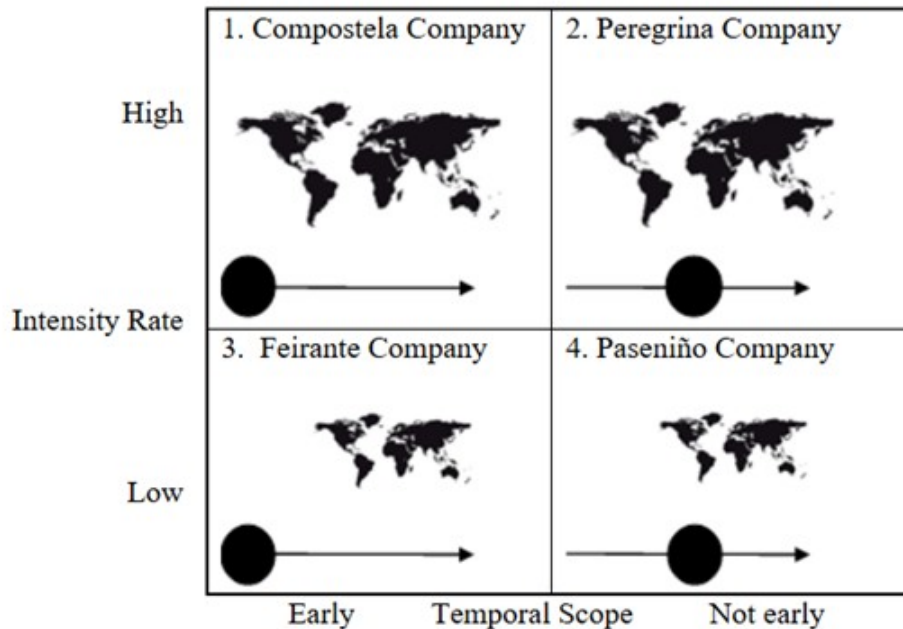
The temporal scope, meanwhile, measures the speed of internationalization based on the period in which certain objectives are achieved (Casillas & Acedo, 2013):

- Temporal Scope = Year of first international entry - Year of creation

Unlike Zahra's model, this framework excludes variables related to committed resources, export intensity, and number of international markets, focusing instead on a time-based

parameter that aligns more closely with the Total Early-stage Entrepreneurial Activity (TEA) metric from the Global Entrepreneurship Monitor. In this model, companies that internationalize within three and a half years are considered early internationalizers; those that take longer are classified as non-early.

Figure 2. GEI Matrix



4.2. Technology in the entrepreneurial ecosystem

The GEI Matrix revealed that companies from the 2017-2021 period had internationalized earlier after incorporation, which may partially be due to advances in technology that simplified foreign sales. On average, Galician companies from that period internationalized one year after inception, compared to 3 years and 9 months for companies from the 1999-2003 period, or 3 years and 4 months for companies from the 2007-2011 period.

Technology plays a crucial role in the ecosystem, as a digital element (Zhang et al., 2023) or a sub-element of ecosystem support (Isenberg, 2011). It drives innovation (Yoo et al., 2012) while also allowing entrepreneurs and small companies to access new markets and generate new opportunities (Loane et al., 2004; Silva et al., 2023). New technological tools allow companies to operate more efficiently by optimizing resources and costs (Björkdahl, 2020; Porter & Heppelman, 2014), use new platforms for accessing different financing options (Mollick, 2014) and reach many potential buyers without the need for large investment in traditional advertising (Kaplan & Haenlein, 2010).

Technological changes that have accompanied the rise of the Internet, which has permanently altered the international trade landscape by allowing companies to access vast amounts of data about international markets, competitors and trends are primarily responsible for the emergence of early internationalization companies. Over the past few decades, the volume of entrepreneurial activity has increased dramatically, thanks in part to

technologies and infrastructures that have facilitated the internationalization of very small entrepreneurial firms (Knight & Cavusgil, 2004).

While technological changes have influenced the internationalization of companies regardless of their size, in smaller companies Barbosa and Ayala (2014, p.177) argue that “the adoption of technologies is even more determinant within their internationalization process because it allows them to overcome certain limitations that they must face in the global market”. They went on to emphasize how information technologies (IT) facilitate foreign trade for small and medium-sized enterprises (Barbosa & Ayala, 2017). IT has become a tool for overcoming limiting factors, making it possible to obtain greater commercial opportunities, boost economies of scale and improve access to information, with all that this entails (collaborations with other companies, improvements in administrative and production management, etc.).

Proposition 1: Encourage the development and use of technologies to promote the early internationalization of companies.

4.3. Willingness to sell outside national borders

As expected, the highest global intensity was found in companies from the second period (55.31%) followed by those of the first period (52.98%), while companies from the third period had the lowest intensity (12.88%).. However, in terms of average relative intensity (RI), companies from the third period had the highest value (235.20%), followed by those from the second period (229.13%) and those from the first period (75.70%). This suggests that younger companies are attempting to launch themselves earlier into more international markets than older companies, which are more cautious about expanding.

These findings indicate that business practices, like national cultures, vary slowly over time (Dore, 2000). In the article “A roasted duck can still fly away”, Zhang and Dodgson (2007) analyze, through a case study on the Korean company Avaro, the importance of specific national and cultural factors that limit the early internationalization of companies. They highlight how national culture influences the behavior of organization managers. Thus, in more risk-averse cultures, firms are more likely to internationalize earlier, as are managers with international experience or knowledge of foreign markets (Zhou, 2007). The influence of national culture on the entrepreneurial activities (George & Zahra, 2002), entrepreneurial mindset and business orientation (Ciravegna et al., 2018) of a society varies from one culture to another (Dore, 2000) and a company in a given country at a given time might not take the opportunity to internationalize (Zhang & Dodgson, 2007).

An entrepreneur’s orientation toward growth and risk directly influences their company’s level of internationalization. However, this orientation is also shaped by the size and dynamics of the domestic market, potentially prompting entrepreneurs to seek profits abroad (Ciravegna et al., 2018). While firms in small economies may not always internationalize quickly, entrepreneurs’ perceptions of market conditions often determine whether they pursue international opportunities (Lu et al., 2010). International entrepreneurship is highly dependent on opportunities (Lu et al., 2010), and founders or senior managers of early internationalizing firms respond to an “internationalization premium” (Cavusgil and Knight, 2015, p. 9). This premium is made possible by the ubiquity of information, lower costs, efficient logistics or international social networking. It allows early internationalization firms to outperform organizations that concentrate solely on the domestic market.

Proposition 2: A positive predisposition toward internationalization among process managers is positively associated with an early internationalization strategy.

4.4. The importance of institutional support

The data collected indicate that older Galician companies generate a higher proportion of revenue from international sales than newer companies, despite targeting fewer markets. Table 4 provides a summary of the responses from the survey participants.

Table 4. Model comparison

	1999-2003	2007-2011	2017-2021
Average time scope	3.78	3.38	1.00
Average global intensity	52.98%	55.31%	12.88%
Average relative intensity	75.70%	229.13%	235.20%
Average intensity rate	0.6	1.07	0.8

The GEI Matrix, with the X-axis representing the time scope and the Y-axis representing type of intensity, classifies companies based on their internationalization phase. According to the Global Entrepreneurship Monitor’s TEA guidelines, companies are defined as early-stage internationalizers if they enter foreign markets within 3.5 years of creation. Similarly, internationalization intensity rates of 0.7 or more were considered high, indicating that most production is exported.

Figure 3. 1st period (1999-2003)

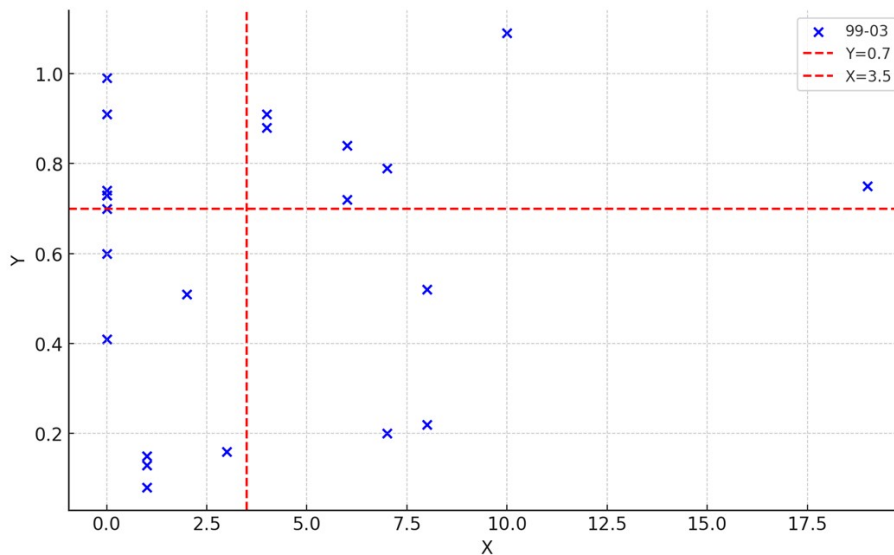


Figure 4. 2nd period (2007-2011)

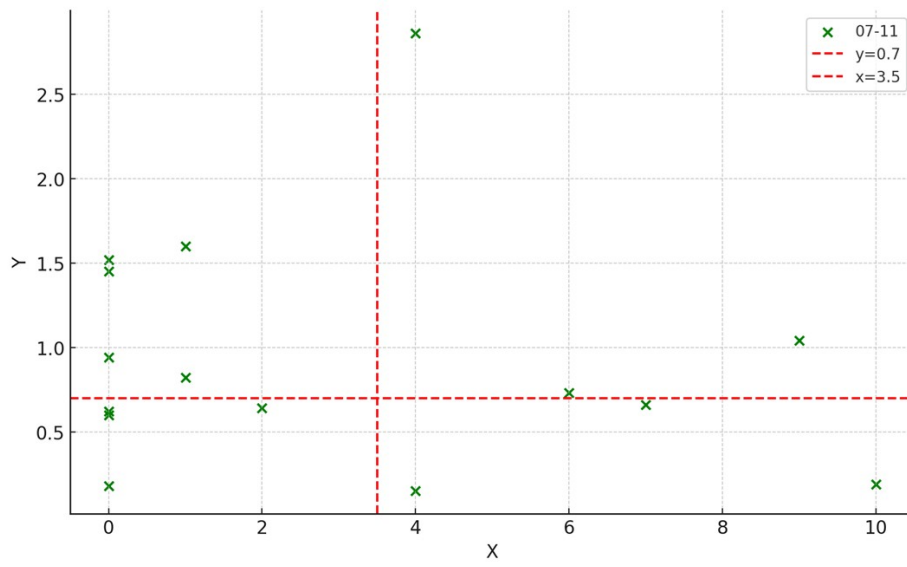


Figure 5. 3rd period (2017-2021)

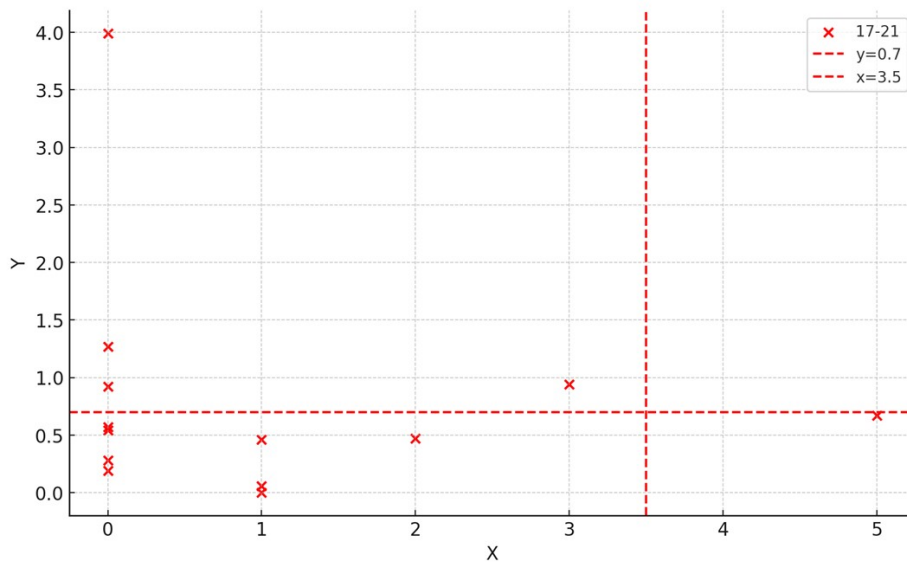
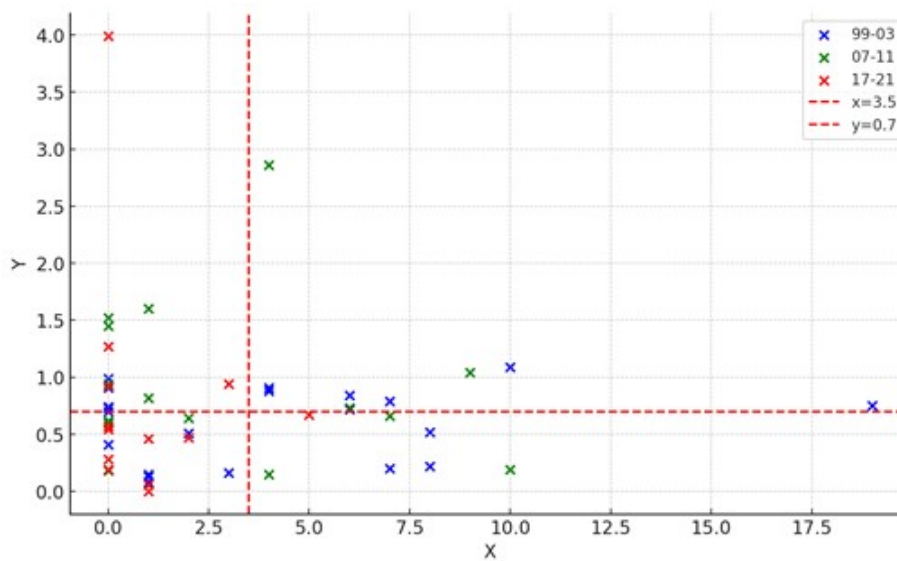


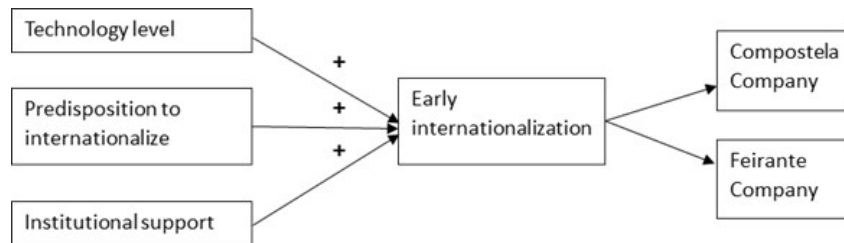
Figure 6. Aggregated internationalization metrics across all study periods



was also positive, implying the need to continue improving support measures and evaluating their effectiveness (Costa et al., 2017; Ivanova, 2021).

Proposition 3: Public support for company internationalization processes encourages early internationalization.

Figure 7. Analytical framework



5. DISCUSSION

The relationship between entrepreneurship and internationalization has garnered increasing academic interest, particularly when approached as the ‘internationalization of entrepreneurship’ (Acevedo, 2020). Although in recent years it has become more common for new firms to internationalize from inception, small and medium-sized enterprises (SMEs) that choose to do so in later stages must essentially engage in entrepreneurship again when entering new markets (Fletcher, 2004).

Throughout the internationalization process, the business ecosystem – including technological advances, public support policies, and the economic situation – impacts firms regardless of their age or maturity (Zhang and Dodgson 2007; Escandón et al., 2017; Costa et al., 2017; Ahmed & Brennan, 2019; Nuruzzaman et al., 2020; Ivanova, 2021). The results of this study show that institutional support and technological advances are key factors in the early internationalization of Galician companies. Recent data from Galicia indicates that exports account for approximately 43% of the Galician GDP and have grown at a rate of just over 4% in the last ten years (Instituto Galego de Estatística, 2024; Ministerio de Industria, Comercio y Turismo, 2024; Instituto Nacional de Estadística, 2024). The internationalization ecosystem continues to improve in terms of export dynamism. Based on concepts of relative intensity, global intensity and temporal scope, this study proposes a classification of Galician entrepreneurial companies and SMEs into four groups according to their internationalization profile: Compostela, Peregrina, Feirante and Paseniño. Compostela companies are characterized by a rapid and deep integration into international markets, while Paseniño companies exhibit a slower, less intense process. Peregrina companies have a slower process with high export intensity, while Feirantes companies internationalize rapidly at lower intensity.

In Galicia, the average internationalization time for newly created companies is one year from inception, compared to more than three years for companies founded at the beginning of the century. This data, together with the GEI Matrix analysis that classifies only half of the companies in the first period as Peregrinas, suggests that internationalization of entrepreneurship in the region follows the trends described in the academic literature: the most recent companies tend to internationalize earlier than those incorporated two decades ago.

Given the limited sample size of the study, universal patterns could not be identified. Data collection was hindered by the difficulty of accessing reliable information during the research process. Galician public agencies for foreign economic promotion denied access to the requested databases, citing confidentiality reasons. Participation was also low, representing less than 20% of the companies in the sample universe. Despite efforts to encourage collaboration, many companies refused to participate due to distrust, lack of time, lack of personnel to attend to the request or because the research did not seem relevant to their short-term interests. Additionally, although the GEI Matrix could benefit from greater representativeness involving a larger number of organizations, especially recently created ones, the lack of updated databases impeded this objective. As a recommendation, these companies and their export management personnel could be monitored annually to observe variations reflected in the matrix.

The lack of recent data from 2022 and 2023 also prevented analysis of the impact of the COVID-19 pandemic on the internationalization of companies, which is a highly relevant issue in today's rapidly changing business environment. This precluded any assessment of how Galician companies responded to the crisis and the potential impact of such events on their internationalization strategies. To address these limitations in future research, an annual tracking system could be implemented to analyze variations in internationalization over time. Expanding data sources through agreements with institutions that record SME exports and international activities would also enhance future studies and provide a more representative sample of the Galician business ecosystem.

Furthermore, in the data collected from established SMEs, especially those from the first and second periods, the individuals who completed the questionnaire were generally not the entrepreneurs who had started the company. These companies generally were large enough to have international sales departments and managers. This could affect the reliability of data related to the predisposition towards internationalization, since these managers did not initiate the process but actively manage it. Therefore, in future studies based on the GEI matrix, it will be crucial to identify the right people in SMEs – the entrepreneurs – who can provide a direct link between predisposition and internationalization.

It is important to note also that the GEI Matrix model does not accommodate cases of geographic proximity. For example, it is easier for Galician companies located close to Portugal, such as those in Porriño or Verín, to make their first international sale in Portugal without any significant effort at internationalization. This is not the case for other regions of Spain. There should be an indicator that reflects the proximity variable and differentiates among types of international markets. Finally, the model does not consider the degree of international experience, understood as the result of years of international experience in relation to the age of the company (ARDÁN-Galicia, 2022). Incorporating this aspect in a future line of research could improve the GEI Matrix.

6. CONCLUSIONS

Despite these limitations, this research on the internationalization of Galician entrepreneurship reflects trends in the academic literature and provides a normative framework for the first time. The model can be replicated in future research on Galicia and applied to other territories. The findings of this study can inform specific actions that policymakers and supporting entities could implement to enhance the internationalization of Galician entrepreneurship. First, creating targeted support programs for young firms and

SMEs would foster early internationalization. These might include subsidies to ease entry into foreign markets, internationalization consultancy services, and financing schemes designed to support initial overseas operations. Policies aimed at strengthening technological and logistical infrastructure are also essential. Enhancing digital and logistical networks would enable Galician companies to access tools that optimize operations, reduce trade barriers, and facilitate faster, more efficient expansion abroad, benefiting smaller firms particularly. Additionally, promoting training programs focused on intercultural skills and international market knowledge would significantly improve SME manager and entrepreneur readiness for internationalization. Such training would equip these individuals with essential competencies for navigating and succeeding in foreign markets by aligning their skillsets with the demands of an increasingly interconnected global economy.

The GEI Matrix framework is adaptable to other geographic contexts. It can serve as a valuable tool for regions similar to Galicia, with economies primarily composed of SMEs and traditional sectors. Applying the matrix to other settings would involve evaluating factors such as technology infrastructures, institutional support, and entrepreneurial predisposition toward internationalization. Indicators could then be adapted to align with regional specifics. Furthermore, in regions with cross-border proximity and/or strong cultural ties, such as Galicia and Portugal, the model could include a variable to account for the relative ease of expanding into neighboring or culturally aligned markets. Incorporating this element would better capture internationalization dynamics, as geographic and cultural proximity may significantly reduce the time required for firms to enter new international markets.

AUTHORS CONTRIBUTION

Conceptualization, J.B.; Methodology, J.B.; Software, J.B.; Data acquisition, J.B. and M.P.; Analysis and interpretation, J.B.; Writing-Preparation of the draft, J.B.; Writing-Revision & Editing, J.B. and M.P. All authors read and agree with the published version of the manuscript.

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References

- Acevedo, J., Robledo, S., & Sepúlveda Angarita, M. Z. (2020). Subáreas de internacionalización de emprendimientos: una revisión bibliográfica. *Económicas CUC*, 42(1), 1-19.
- Acs, Z., Leo-Paul, D., & Jones, M. V. (2003). Toward new horizons: the internationalisation of entrepreneurship. *Journal of International Entrepreneurship*, 1(1), 5.
- Ahmed, F. U., & Brennan, L. (2019). An institution-based view of firms' early internationalization: Effectiveness of national export promotion policies. *International Marketing Review*, 36(6), 911-954. <https://doi.org/10.1108/IMR-03-2018-0108>
- Alcaraz, F. G., Espín, A. A., Martínez, A. H., & Alarcón, M. M. (2006). Diseño de Cuestionarios para la recogida de información: metodología y limitaciones. *Revista Clínica de Medicina de Familia*, 1(5), 232-236.

- ARDÁN-Galicia (2022). *15.000 empresas de Galicia, Informe económico y de competitividad*. Consorcio de la Zona Franca de Vigo.
- ARDÁN-Galicia (2023). *Informe económico y de competitividad*. Consorcio de la Zona Franca de Vigo.
- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959-975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Autio, E. (2017). Strategic entrepreneurial internationalization: A normative framework. *Strategic Entrepreneurship Journal*, 11(3), 211-227. <https://doi.org/10.1002/sej.1261>
- Autio, E., Sapienza, H. J., & Almeida, J. G. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of management journal*, 43(5), 909-924. <https://doi.org/10.5465/1556419>
- Barbosa, D. M. E., & Ayala, A. H. (2014). Factores que influyen en el desarrollo exportador de las pymes en Colombia. *Estudios Gerenciales*, 30(131), 172-183. <https://doi.org/10.1016/j.estger.2014.04.006>
- Birkle, C., Pendlebury, D. A., Schnell, J., & Adams, J. (2020). Web of Science as a data source for research on scientific and scholarly activity. *Quantitative Science Studies*, 1(1), 363-376. https://doi.org/10.1162/qss_a_00018
- Bouzas Arufe, J. & Portela, M. (noviembre, 2023). Emprendimiento y dimensiones culturales de Galicia. Comparativa con las pautas de Hofstede para los españoles. [Paper presentation]. Conferência sobre Educação para o Empreendedorismo, Universidade de Évora, Portugal.
- Bouzas Arufe, J., & Portela, M. (2024). The Cultural Context in the Internationalization of SMEs in Galicia and Spain. Available at SSRN 4885214.
- Björkdahl, J. (2020). Strategies for digitalization in manufacturing firms. *California management review*, 62(4), 17-36. <https://doi.org/10.1177/0008125620920349>
- Casillas, J. C., & Acedo, F. J. (2013). Speed in the internationalization process of the firm. *International Journal of Management Reviews*, 15(1), 15-29. <https://doi.org/10.1111/j.1468-2370.2012.00331.x>
- Cavusgil, S. T., & Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. *Journal of international business studies*, 46, 3-16. <https://doi.org/10.1057/jibs.2014.62>
- Canales Cerón, M. Metodologías de la investigación social. Santiago: LOM Ediciones; 2006. *Sotomarinero Cáceres*, 57-64.
- CESCE (s.f.). Seguros de crédito y caución. Retrieved on July 17th, 2024 <https://exportadores.cesce.es/>
- Consorcio de la Zona Franca de Vigo. (2024). *ARDÁN Información Empresarial*. <https://www.zfv.es/ardan/index.html>
- Colombo, M. G., Piva, E., Quas, A., & Rossi-Lamastra, C. (2016). How high-tech entrepreneurial ventures cope with the global crisis: changes in product innovation and internationalization strategies. *Industry and Innovation*, 23(7), 647-671. <https://doi.org/10.1080/13662716.2016.1196438>

- Coviello, N. E., & Jones, M. V. (2004). Methodological issues in international entrepreneurship research. *Journal of Business Venturing*, 19(4), 485-508. <https://doi.org/10.1016/j.jbusvent.2003.06.001>
- Ciravegna, L., Kuivalainen, O., Kundu, S. K., & Lopez, L. E. (2018). The antecedents of early internationalization: A configurational perspective. *International Business Review*, 27(6), 1200-1212. <https://doi.org/10.1016/j.ibusrev.2018.05.002>
- Costa, E., Lucas Soares, A., & Pinho de Sousa, J. (2017). Institutional networks for supporting the internationalisation of SMEs: the case of industrial business associations. *Journal of Business & Industrial Marketing*, 32(8), 1182-1202. <https://doi.org/10.1108/JBIM-03-2017-0067>
- Crespo, N. F., Crespo, C. F., Silva, G. M., & Nicola, M. B. (2023). Innovation in times of crisis: The relevance of digitalization and early internationalization strategies. *Technological Forecasting and Social Change*, 188, 122283. <https://doi.org/10.1016/j.techfore.2022.122283>
- Delgado-López-Cózar, E., Jiménez-Contreras, E., & Ruiz-Pérez, R. (2009). La ciencia española a través de la Web of Science (1996-2007): las disciplinas. *Profesional de la información*, 18(4), 437-444. <https://doi.org/10.3145/epi.2009.jul.13>
- DIRCE (2023). *Estructura y dinámica empresarial en España*. https://industria.gob.es/eses/estadisticas/Estadisticas_Territoriales/Estructura-Dinamica-Empresarial-2022.pdf
- Dore, R. (2000). Stock Market Capitalism: Welfare Capitalism: Japan and Germany Versus the Anglo-Saxons. <https://doi.org/10.1093/acprof:oso/9780199240623.001.0001>
- Barbosa, D. M. E., & Ayala, A. H. (2017). El uso de las TICs en las PYMES exportadoras. *Dimensión Empresarial*, 15(1), 184-205.
- Etemad, H. (2021). The evolutionary trends of international entrepreneurship in the past two decades: The state of the field in the face of COVID-19's global crisis. *Journal of International Entrepreneurship*, 19(2), 149-163. <https://doi.org/10.1007/s10843-021-00299-3>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. <https://doi:10.11648/j.ajtas.20160501.11>
- Fernández, M. I. E., Barbosa, P. L., & Guerrero, A. P. (2010). Web of Science vs. SCOPUS: un estudio cuantitativo en Ingeniería Química. In *Anales de Documentación*, 5, 159-175. Facultad de Comunicación y Documentación y Servicio de Publicaciones de la Universidad de Murcia.
- Finchelstein, D. (2017). The role of the State in the internationalization of Latin American firms. *Journal of World Business*, 52(4), 578-590. <https://doi.org/10.1016/j.jwb.2017.04.003>
- Fletcher, D. (2004). International entrepreneurship and the small business. *Entrepreneurship & Regional Development*, 16(4), 289-305. <https://doi.org/10.1080/0898562042000263267>
- Gagñay, L. K. I., Chicaiza, S. L. T., & Aguirre, J. L. (2020). Ética en la investigación científica. *Revista Imaginario Social*, 3(1). <https://doi.org/10.31876/is.v3i1.10>

- GEM Galicia (2023). *Informe Ejecutivo GEM Galicia 2022-2023*. <https://www.gem-spain.com/wp-content/uploads/Informes-Regionales-Galicia/Informe-GEM-Galicia-2022-2023.pdf>
- George, G., & Zahra, S. A. (2002). Culture and its consequences for entrepreneurship. *Entrepreneurship Theory and Practice*, 26(4), 5-8. <https://doi.org/10.1177/104225870202600401>
- Giotopoulos, I., & Vettas, N. (2018). Economic crisis and export-oriented entrepreneurship: Evidence from Greece. *Managerial and Decision Economics*, 39(8), 872-878. <https://doi.org/10.1002/mde.2976>
- Gravel, J. D. V. (2019). *La internacionalización de las pymes como vacuna contra las crisis económicas* (Doctoral dissertation, Universidad de Sevilla).
- Guerra, L., Rivero, D., Díaz, E., & Arciniegas, S. (2020). Tendencias en modelos informativos sobre la retención-deserción universitaria. *Revista Ibérica de Sistemas e Tecnologías de Informação*, (E26), 55-68.
- Henderson, B. (1970). The product portfolio. BCG perspectives 66.
- Hindle, T. (2008). *Guide to Management Ideas and Gurus*. Profile Books.
- Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic entrepreneurship: Entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22(6-7), 479-491. <https://doi.org/10.1002/smj.196>
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288. <https://doi.org/10.1177/1049732305276687>
- Hunter, D., McCallum, J., & Howes, D. (2019). Defining exploratory-descriptive qualitative (EDQ) research and considering its application to healthcare. *Journal of Nursing and Health Care*, 4(1).
- Instituto Galego de Estatística. (November 7th, 2024). *Contas económicas de Galicia*. https://www.ige.gal/web/mostrar_seccion.jsp?codigo=0307
- Instituto Nacional de Estadística. (November 7th, 2024). *Producto interior bruto regional*. https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736167628&menu=ultiDatos&idp=1254735576581
- Isenberg, D. (2011). *The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy: Principles for Cultivating Entrepreneurship*. Institute of International and European Affairs.
- Ivanova, A. K. (2021). Internationalization of SMEs: Analyzing institutional support in Germany. *Terra Economicus*, 19(3), 78-92. <https://10.18522/2073-6606-2021-19-3-78-92>
- Jones, M. V., Coviello, N., & Tang, Y. K. (2011). International entrepreneurship research (1989–2009): a domain ontology and thematic analysis. *Journal of Business Venturing*, 26(6), 632-659. <https://doi.org/10.1016/j.jbusvent.2011.04.001>
- Johanson, J. & Vahlne, J. E. (1977). The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(Spring/Summer), 23-32.

- Johanson, J. & Vahlne, J. (1990), The Mechanism of Internationalisation, *International Marketing Review*, Vol. 7 No. 4. <https://doi.org/10.1108/02651339010137414>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Katz, J. A., Safranski, S. R., & Khan, O. (2003). Virtual instant global entrepreneurship. *Journal of International Entrepreneurship*, 1, 43-57. <https://doi.org/10.1023/A:1023238301590>
- Keupp, M. M., & Gassmann, O. (2009). The past and the future of international entrepreneurship: a review and suggestions for developing the field. *Journal of Management*, 35(3), 600-633. <https://doi.org/10.1177/0149206308330558>
- Kilic K and Marin D (2020) How COVID-19 is transforming the world economy. VoxEU.org. <https://voxeu.org/article/how-covid-19-transforming-world-economy>
- Knight, G. A. (1997). *Emerging paradigm for international marketing: The born global firm*. Michigan State University.
- Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35, 124-141. <https://doi.org/10.1057/palgrave.jibs.8400071>
- Leite, Y. V. P., Moraes, W. F. A. de, & Salazar, V. S. (1). International entrepreneurship in agribusiness. *Revista Galega De Economía*, 25(1), 151-162. <https://doi.org/10.15304/rge.25.1.6480>
- Loane, S., McNaughton, R. B., & Bell, J. (2004). The internationalization of Internet-enabled entrepreneurial firms: evidence from Europe and North America. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 21(1), 79-96. <https://doi.org/10.1111/j.1936-4490.2004.tb00324.x>
- Lorenzen, M., Mudambi, R., & Schotter, A. (2020). International connectedness and local disconnectedness: MNE strategy, city-regions and disruption. *Journal of International Business Studies*, 51(8), 1199. <https://doi.org/10.1057/s41267-020-00339-5>
- Lu, Y., Zhou, L., Bruton, G., & Li, W. (2010). Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy. *Journal of International Business Studies*, 41, 419-436. <https://doi.org/10.1057/jibs.2009.73>
- Madsen, D. O. (2017). Not dead yet: the rise, fall and persistence of the BCG Matrix. *Problems and Perspectives in Management*, 15(1), 19-34.
- Matheson, G. J. (2019). We need to talk about reliability: making better use of test-retest studies for study design and interpretation. *PeerJ*. <https://doi.org/10.7717/peerj.6918>
- Mathews, J. A., & Zander, I. (2007). The international entrepreneurial dynamics of accelerated internationalisation. *Journal of International Business Studies*, 38, 387-403. <https://doi.org/10.1057/palgrave.jibs.8400271>
- Maxwell, J. & Reybold, L. (2015). Qualitative Research. *International Encyclopedia of the Social & Behavioral Sciences*. <https://doi.org/10.1016/B978-0-08-097086-8.10558-6>
- McDougall, P. P. (1989). International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *Journal of Business Venturing*, 4(6), 387-400. [https://doi.org/10.1016/0883-9026\(89\)90009-8](https://doi.org/10.1016/0883-9026(89)90009-8)

- McDougall, P. P., & Oviatt, B. M. (2000). International entrepreneurship: the intersection of two research paths. *Academy of Management Journal*, 43(5), 902-906. <https://doi.org/10.5465/1556418>
- Ministerio de Industria, Comercio y Turismo. (November 7th, 2024). *Datacomex*. <https://datacomex.comercio.es/>
- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1-16. <https://doi.org/10.1016/j.jbusvent.2013.06.005>
- Morrison, A., & Wensley, R. (1991). Boxing up or boxed in?: A short history of the Boston Consulting Group share/growth matrix. *Journal of Marketing Management*, 7(2), 105-129. <https://doi.org/10.1080/0267257X.1991.9964145>
- Muñoz, T. G. (2003). El cuestionario como instrumento de investigación/evaluación. *Centro Universitario Santa Ana*, 1(1), 1-47.
- Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029-1055. <https://doi.org/10.1111/etap.12254>
- Nuruzzaman, N., Singh, D., & Gaur, A. S. (2020). Institutional support, hazards, and internationalization of emerging market firms. *Global Strategy Journal*, 10(2), 361-385. <https://doi.org/10.1002/gsj.1365>
- Oosterlaken, I. (2009). Design for development: A capability approach. *Design Issues*, 25(4), 91-102. <https://doi.org/10.1162/desi.2009.25.4.91>
- Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 25(1), 45-64.
- Oviatt, B. M., & McDougall, P. P. (2005). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory and Practice*, 29(5), 537-553. <https://doi.org/10.1111/j.1540-6520.2005.00097.x>
- Porter, M. E., & Heppelmann, J. E. (2014). How smart, connected products are transforming competition. *Harvard Business Review*, 92(11), 64-88.
- Sendra-Pons, P., Comeig, I., & Mas-Tur, A. (2022). Institutional factors affecting entrepreneurship: A QCA analysis. *European Research on Management and Business Economics*, 28(3), 100187. <https://doi.org/10.1016/j.iedeen.2021.100187>
- Silva, P. M., Moutinho, V. F., & Paço, A. (2023). Examining the relationships between Entrepreneurship, Intrapreneurship, and e-Commerce. Evidence from Iberian and Scandinavian Countries. *Revista Galega De Economía*, 32(2), 1-17. <https://doi.org/10.15304/rge.32.2.8679>
- Steinhäuser, V. P. S., Paula, F. D. O., & de Macedo-Soares, T. D. L. V. A. (2021). Internationalization of SMEs: a systematic review of 20 years of research. *Journal of International Entrepreneurship*, 19(2), 164-195. <https://doi.org/10.1007/s10843-020-00271-7>
- Turcan, R. V., & Carter, S. (2003). International entrepreneurship: A review of existing literature. http://www.dmu.ac.uk/Images/aibpressched3.4_tcm6-7105.pdf
- Wach, K., & Wehrmann, C. (2014). Entrepreneurship in International Business: International Entrepreneurship as the Intersection of Two Fields. In: Gubik, A.S. & Wach, K. (eds),

International Entrepreneurship and Corporate Growth in Visegrad Countries. University of Miskolc, 9-22.

Wright, L. (2020). How pandemics wreak havoc—and open minds. *The New Yorker*, 13.

Yoo, Y., Boland Jr, R. J., Lyytinen, K., & Majchrzak, A. (2012). Organizing for innovation in the digitized world. *Organization Science*, 23(5), 1398-1408. <https://doi.org/10.1287/orsc.1120.0771>

Zahra, S.A. and George, G. (2002). International entrepreneurship: the current status of the field and future research agenda. In Hitt, M.A., Ireland, R.D., Camp, S.M. and Sexton, D.L. (eds), *Strategic Entrepreneurship: Creating a New Mindset*. Oxford, 255–288.

Zahra, S. A. (2021). International entrepreneurship in the post Covid world. *Journal of World Business*, 56(1), 101143. <https://doi.org/10.1016/j.jwb.2020.101143>

Zhang, M. Y., & Dodgson, M. (2007). “A roasted duck can still fly away”: A case study of technology, nationality, culture and the rapid and early internationalization of the firm. *Journal of World Business*, 42(3), 336-349. <https://doi.org/10.1016/j.jwb.2007.04.005>

Zhang, J., van Gorp, D., & Kievit, H. (2023). Digital technology and national entrepreneurship: An ecosystem perspective. *The Journal of Technology Transfer*, 48(3), 1077-1105. <https://doi.org/10.1007/s10961-022-09934-0>

Zhou, L. (2007). The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization. *Journal of World Business*, 42(3), 281-293. <https://doi.org/10.1016/j.jwb.2007.04.009>

Zucchella, A., & Magnani, G. (2016). Theoretical foundations of international entrepreneurship. *International Entrepreneurship: Theoretical Foundations and Practices*, 4-36. https://doi.org/10.1057/9781137520036_2

Appendix

APPENDIX I

QUESTIONNAIRE

Thank you very much for taking the time to respond to this survey. The purpose of this survey is to analyze the time it takes for a company to internationalize from the moment it is created, as well as the factors that drive this action, in order to determine whether Galician entrepreneurship now begins internationalization earlier than it did a few decades ago.

This is a simple survey that can be completed in less than 10 minutes. Your participation is very important for the research being conducted as part of a doctoral project at the University of Santiago de Compostela.

The questionnaire is anonymous and confidential. It is crucial that you complete the entire questionnaire.

Thank you very much for your collaboration. If you have any further questions, please contact: javier.bouzas.arufe@usc.es

Email:

1. In what year did your company begin internationalization?
2. In how many international markets is the company currently present?
3. What percentage the company's total revenue does exportation represent?
4. What motivated the company to internationalize?
5. To what extent has technology helped your company internationalize its products/ services?
 - 5-A great deal
 - 4-A lot
 - 3-Neutral
 - 2-A little
 - 1-Not at all
6. How difficult was it to start selling abroad?
 - 5-Very difficult
 - 4-Dificult
 - 3-Neutral
 - 2-Slightly difficult
 - 1-Not difficult at all
7. Describe the biggest challenge when starting operations in foreign markets.
- 8 - Has the company received any financial, legal, training, or commercial support for internationalization efforts from public institutions ?
 - Yes
 - No