



**FAMILY BUSINESS PROCESS OF INTERNATIONALIZATION
THE MEDIATION ROLE OF THE INTERNET: AN EXPLORATORY
APPROACH IN THE CONTEXT OF INDUSTRIAL PORTUGUESE SME.**

by

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BIOGRAPHIC NOTE

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RESUMO

O objetivo principal do estudo é compreender o papel da internet na mediação do processo de internacionalização das empresas familiares. Três grandes objetivos foram definidos:

→ Compreender o uso da Internet na empresa familiar para promover negócios internacionalmente.

→ Avaliar os desafios das empresas familiares na implementação da internet, relações geracionais e influencia dos órgãos de gestão.

→ Analisar as oportunidades das empresas familiares ao explorarem a internet internacionalmente.

Assim como as seguintes “Research Questions”:

RQ1: Qual o impacto da internet na internacionalização das empresas familiares?

RQ2: Como as empresas familiares utilizam a Internet para promover negócios internacionalmente?

RQ3: Quais são os desafios que as empresas familiares enfrentam ao implementar a internet e/ou outras tecnologias digitais?

O estudo envolve a recolha de dados qualitativos e quantitativos em abordagem sequencial de métodos mistos:

Numa primeira fase, o estudo envolveu uma recolha de dados qualitativos, em que foram realizadas entrevistas pessoais com seis gestores/proprietários de diferentes PMEs industriais familiares, por meio de entrevistas semiestruturadas. Os resultados das entrevistas foram então cruzados com dados documentais para enriquecer a qualidade dos dados recolhidos e analisados com o apoio do software NVIVO.

Numa segunda fase, foi realizada uma análise quantitativa com um grupo específico de empresas em estudo. “As pequenas e médias empresas industriais portuguesas”. A análise foi realizada por meio de um questionário para medir três aspetos: grau de *familiaridade*, internacionalização e uso da internet. As premissas foram validadas, agrupadas e

estruturadas de acordo com os modelos desenvolvidos. Os dados recolhidos foram analisados por meio de análise estatística utilizando os softwares SPSS e SMART PLS.

As conclusões deste estudo permitem afirmar que a Internet mudou a forma de atuação das empresas familiares. Direta ou indireta é uma “nova forma” de promover, desenvolver e expandir a empresa internacionalmente. Conclui-se também que a influencia da Internet como mediadora da internacionalização, varia significativamente em função do papel da família e os objetivos da empresa, como sejam: aumento de vendas, novos mercados ou abertura de novas filiais.

Em termos teóricos, três novos fatores ganharam uma nova dimensão ao analisar a influencia da internet nas empresas familiares, “Involvement”, “Intensity e “Social Media”, estando relacionados com a forma de sentir e viver a empresa por parte da família no primeiro caso, com o empenho e dedicação no segundo e com o efeito e influencia das redes sociais no terceiro.

Estas conclusões abrem um leque de perguntas para a família, para os gestores, e os desafios são inúmeros, mas esta tese dá um bom ponto de partida para associar todas estas variáveis e tentar entender quais serão os resultados de algumas ações e estratégias que visam a internacionalização das empresas familiares.

ABSTRACT

The main objective of the study is to understand the role of the internet in enhancing the internationalization process of family businesses. Three major objectives were defined:

- To comprehend the family firm's Internet usage to promote business internationally.
- To assess family firms' challenges while implementing the internet and other digital technologies.
- To analyze the barriers that family firms face while exposing their business in overseas markets.

As well as the following “Research Questions”:

RQ₁: What is the impact of the internet on the internationalization of family firms?

RQ₂: How do family firms use the Internet to promote business internationally?

RQ₃: What challenges do family firms face while implementing the internet and other digital technologies?

The study involves the collection of both qualitative and quantitative data in mixed methods sequential approach:

Firstly, the study involved collecting qualitative data, wherein personal interviews were performed with six managers/owners in different family-owned manufacturing SMEs, using semi-structured interviews. The results from the interviews were then crossed with documental data to enrich the quality of the collected data and inserted in the NVIVO.

Secondly, a quantitative analysis was performed with a specific group of companies under study. “The Portuguese manufacturing small and medium companies”. The quantitative analysis was conducted using a questionnaire to measure three aspects: degree of familiness, internationalization, and use of the internet. The assumptions are validated, clustered, and structured as per the models developed. The data collected is then analyzed through statistical analysis using software SPSS and SMART PLS.

In conclusion, this study allows us to state that the Internet has changed the way family businesses operate. Directly or indirectly, it is a “new way” to promote, develop and expand the company internationally. It is also concluded that the influence of the Internet as a mediator of internationalization varies significantly depending on the role of the family and the company's objectives, such as: increased sales, new markets or the opening of new branches.

In theoretical terms, three new factors gained a new dimension when analyzing the influence of the internet on family businesses, “Involvement”, “Intensity and “Social Media”, being related to the way the family feels and experiences the business in the first case, with commitment and dedication in the second and with the effect and influence of social networks in the third.

These conclusions open up a range of questions for the family, for managers, and the challenges are varied, but this thesis gives a good starting point to associate all these variables and try to understand what the results of some actions and strategies that will aim the internationalization of family businesses.

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1. INTRODUCTION

The current study aims to comprehend the impact of the internet on the Family Business process of internationalization. For this purpose, an exploratory approach was developed using a mixed sequential approach. Therefore, the current chapter of the introduction aims to deliver the background of research, the statement of the problem, the aims and objectives, the research questions, and the significance of the current research study to formulate a base for the research undertaken.

1.1. Background of the research

Academics and professionals believe that seeking global expansion improves performance owing to a range of benefits like scalable economies, improved accessibility to resources, higher market strength, expertise upgrades, or enhanced entrepreneurial prospects (Marano *et al.*, 2016). While there is general agreement that family companies are hesitant to internationalize, studies have discovered that once the choice to penetrate overseas markets is decided, the plan is followed, internationalization may result in significant performance gains. Thus, on average, family and non-family companies have an equal aversion to risk, which translates into the fact that both are intensely concerned with the organization's success (Cerqueira & Meneses, 2021). Nonetheless, several family company studies produce equivocal results regarding the impact of internationalization on different outcomes, including organizational effectiveness (Fernandez-Olmos *et al.*, 2016).

It has been identified that many variables separate family firms from non-family firms. Due to “familiness,” family firms have distinct risk-taking activities, organizational goals, and financial choices contrasted to nonfamily competitors (De Massis *et al.*, 2018; Kotlar *et al.*, 2014; Memili *et al.*, 2015). Family firm managers are often cautious and risk-averse, believing that internationalization will lead to a loss of corporate influence, considerable wealth, family prestige, social position, and an increase in the likelihood of family problems (Arregle *et al.*, 2012; Carney *et al.*, 2015). Firms can gain significantly from internationalization by utilizing current resources, generating economies of scale and scope, controlling swings in income creation, and becoming better domestically.

Nevertheless, it also necessitates a significant investment in resources, overcoming different hazards and difficulties connected with foreign areas, and increased expectations on management competencies (Hsu *et al.*, 2013).

1.2. Statement of the problem

Given the importance of internationalization to enhance the competitiveness, efficiency, productivity, and profitability of family businesses, it is essential to enter the overseas market. In this context, the internet can play a vital role in improving the process of internationalization. Advances in communication technology, like the Internet, have transformed how international commerce is done (Glavas & Mathews, 2014). By gradually lowering the obstacles to global entrepreneurship, key technological breakthroughs have enabled smaller enterprises to launch and participate in internationalization (Glavas & Mathews, 2014).

Moreover, the Internet is universally acknowledged as a critical instrument in contemporary international commerce. The Internet has been discovered to have a role in various worldwide events, meetings, and interactions (Dillon *et al.*, 2017). Moreover, it has increased the effectiveness of global market exchanges, reinforced global business connections, allowed quick and much more comprehensive entry to the economy and competitive landscape knowledge, and increased a company's chance to leverage prospects in the global marketplace. In other words, the Internet serves as a conduit for various internationalization-related encounters. Furthermore, the Internet improves learning throughout the internationalization process by allowing the acquisition of international information through practical learning (Dillon *et al.*, 2017). However, most family businesses are reluctant to adopt the internet or other digital technologies and portray the fear of entering the foreign marketplace. This is mainly due to a lack of expertise and knowledge, which gradually deprives these businesses of the benefits that internationalization and digital technologies hold, it also can happen that the higher the level of family participation within family firms the lower the levels of entrepreneurial orientation, innovativeness, risk-taking and proactiveness (Pimentel *et al.*, 2017).

Thus, the current study aims to highlight the impact of the Internet on Family Businesses' internationalization process. Also, the study emphasizes the challenges that family firms

face while implementing the internet and other digital technologies, barriers faced while exposing their business in overseas markets and assesses the critical management and organizational changes that made the Internet an essential tool for Family Businesses

1.3. Aims and Objectives

The main objective of this study is to analyze the impact of the internet on the internationalization of family firms and business promotion internationally. To understand challenges while implementing the internet and other digital technologies while exposing business in overseas markets, and to contribute to the family business with valuable information to be shared with managers and researchers in this field of study.

The research questions are:

RQ₁: What is the impact of the internet on the internationalization of family firms?

RQ₂: How do family firms use the Internet to promote business internationally?

RQ₃: What challenges do family firms face while implementing the internet and other digital technologies?

The above questions arise from the extended literature review as presented in chapter 2 of this thesis.

1.4. Research Methodology

The current study collects both qualitative and quantitative data. Initially, the study collected qualitative data through personal interviews with six managers/owners of the diverse family-owned manufacturing SMEs utilizing semi-structured interviews. The findings of the interviews were then cross-referenced with documentary material to improve the quality of the acquired data before being entered into the NVIVO. Furthermore, a quantitative analysis was carried out on a specific set of organizations, namely "Portuguese manufacturing small and medium companies." A questionnaire was used to conduct the quantitative study, which attempted to analyze three aspects: the company's characterization, degree of familiness globalization, and internet usage.

According to the models produced, the assumptions are validated, grouped, and organized, using a statistical analysis to validate the formative and reflexive variables (SPSS).

Based on an exploratory approach, all family dimensions were connected directly and indirectly via internet potential usages to all internationalization indicators. Regression (path Loadings) and bootstrapping analyses (p-value) were performed to validate the statistical significant connections (Smart PLS).

1.5. Significance of the research

This study will help establish and present meaningful insights regarding the impact of the internet on the Family Business process of internationalization, thereby highlighting the intervening relationship between the variables selected. The entrepreneurs, young generation managers of family firms, and family business owners can gain crucial insights regarding how incorporating digital technologies like the internet can help them compete in foreign markets. Moreover, these stakeholders may gain imperative solutions for enhancing their profitability, efficiency, effectiveness, and challenges while adopting the internationalization process. Furthermore, the study will be beneficial for future researchers who wish to undertake research in the field of the internet for family businesses' internationalization processes. The present study will provide a solid foundation for future research of this type, which is required to achieve and develop effective family firm's internationalization processes. By seeking to provide new insights into the current study situation, the research study will add to the existing literature.

1.6. Chapter Division

The introduction, literature review, research technique, results, discussions, and conclusion are all thesis chapters. The introduction chapter summarizes the current research project, covering the study's backdrop, the research issue under consideration, the study's aims and objective and explains the research methodology. The Literature Review section emphasizes earlier research studies undertaken by various scholars relevant to the setting of the family company, internationalization, and internet use, and builds a relation between them. The research methodology chapter covers the study strategy, population and sample processes, instrumentation and data collection techniques,

data processing and interpretation approaches, and data presentation and interpretation strategies. In this phase, the data gathered from the interview and the questionnaire survey will be tallied and examined using various analytic techniques. The findings will be summarized and compared to the previously researched literature. This section will provide a summary of statistical data analysis. The section will combine the study's findings and demonstrate the significant outcomes gained after finishing the research, validating the planned objectives, and drawing the entire investigation to a close. Additionally, the study will conclude by stressing crucial ideas and the weaknesses of the current study.

2. LITERATURE REVIEW

This section, the literature review, analyzes the three important concepts (Family Business, Internet, and Internationalization) on the different dimensions that characterize each one to understand the phenomena and the problem to be studied thoroughly.

Globalization, extensive competitive rivalry, technical advances, and emerging growth opportunities around national boundaries are forcing family companies to pursue their competitive edge in the international markets and withstand economic downturns. The international expansion enables these companies to have economies of scale, reduce labor, and product prices, acquire skilled and less expensive human resources and comprehend the clusters of multinational business and local innovation opportunities (De Massis *et al.*, 2018). Internationalization has been widely recognized as a significant determinant of family enterprises' sustainable success within the world economy. Regardless of the scale, these firms have experienced foreign expansion to a great extent through increased foreign direct investment, exports, joint ventures, contractual agreements, and a conglomeration of these foreign markets' entry tactics. On a global level, several leading multinational corporations have family influences. Moreover, many SMEs have been internationally appreciated for their globalization efforts.

On the other hand, the Internet promotes information sharing and establishes international and domestic relationships regularly to produce possibilities. It has a favorable cross-border influence on global success via e-commerce and internet sales. Latest technological systems, such as the Online platform, introduce administrators and institutions to people from different nations, which may inspire a desire to learn and the capacity to adjust to other cultures, both of which are essential attributes and characteristics of global strategic planning (Hagsten & Kotnik, 2017). The Internet may greatly enhance interactions, engagement, contentment, credibility among participants, and the efficiency of corporate networks through connection and availability of information. Business networks are critical for Web-based small businesses to assist their worldwide efforts. The Internet helps the formation of global business connections, which leads to the establishment and development of foreign market possibilities (Mathews *et al.*, 2016).

Additionally, Internet marketing allows businesses to access business partners and customers irrespective of how far away the nation is. The Internet's simplicity of using it, easy accessibility, low price, and standardization make it easier to integrate and coordinate marketing initiatives, exchange intelligence, and improve consumer relations. Through cross-border inter-organizational functionality and procedures, the Internet's interoperability, and interactive elements, as well as the ease of access to data, facilitate interaction, dedication, contentment, and belief among the stakeholders, has enhanced the effectiveness of company social connections among SME providers and MNCs (Hagsten & Kotnik, 2017). As a result, the Internet is critical for preserving global business network ties with the company's existing client base and building and sustaining international partners with prospective consumers (Mathews *et al.*, 2016).

2.1. Family Business

Family companies are significant because of the presence of the family that owns and controls them, and it is called "the essence of the family business." It is essential, but it is hard to describe and define the family business in its true sense. The persistence of family capitalism as an organizational type is a defining characteristic of business worldwide. Many family businesses have exceptional long-term survival capacity through continued adherence to rigid policies, processes, and governance, while others live by transition and adaptation. It remains understudied how diverse governance systems develop within the family businesses and what influences the heterogeneity of family management. Due to this reason, there are no proper definitions of family businesses, and defining the family businesses has become a difficult task.

2.1.1. Models of family business/Categories

According to Ramadan and Hoy (2015) there are six types of family business: captain, emperor, family teams, professional family, family corporation, and family investment group.

The captain model of a family business is identified with low business and family complexity. These are referred to as small firms that simple family members generally own. The firms associated with the captain model are observed to be revolving around a

single person. This single individual, referred to as the captain, develops orders in both the business and the family. This model asserts that the business and family are units that require the appointment of a leader in order to perform and grow. The decision-makers and scholars often sum up this model as if two individuals are riding a horse, one must be seated behind. Also, the majority of the family-based SMEs follow and adopt the Captain Model (Ramadani & Hoy, 2015).

In the emperor model, the complexity of the business is much more adverse than in the Captain Model, since as the name suggests it governs an empire rather than a small firm. Here, the complexity of the family is also relatively high. The complexity parallels the passage of time. In this model, two generations work in partnership, but an individual who leads the firm and the family simultaneously has the leading power. Here, many family members from different generations can own shares. The family business' failure and success depend in large part on an individual's capabilities who owns a primary discretion over the company. The first two styles are explained as follows: a captain is an individual who possesses a simple unit, while an emperor is someone who controls a vast variety of social structures. The emperor model differs from the captain model based on two broad factors that are the resources and time of the family leader. The emperor tends to have better competencies and is more oriented towards the growth of the firm than the captain. On the other hand, the complexity of a family enhances with time, and also the business complexity increases as it grows (Ramadani & Hoy, 2015).

In the family team model, the family's complexity is relatively high as compared to the low complexity of the business. These families are responsible for both work and operations within the businesses. The families following this business model form a part of the business workforce and are not only limited to the management of the business. It includes simple business prototypes like professional services (dentists, lawyers) and service businesses like (hotels and restaurant shops). The mental framework within such families is to serve the firm and contribute to the growth of the business. The company is the foremost priority of the family members. The family considers that its priorities are subordinated to company needs. The effort of the family leads to the success of the firm and eventually leads to the success of the family. Altogether, this model is suggested to operate as long as the family members enjoy working together and the family develops higher self-accountability levels (Gimeno, *et al.*, 2010).

In the Professional Family Model, a family runs the business in a professional manner. The driver in this case is professional conduct. The corporation has to have a low complexity to make management a prerequisite. If the company is very limited and small, the catalyst is the day-to-day operation of the enterprise rather than real management. Again the mental model decision, in this case, is that the family is altogether self-accountable and the best family members must work for the business. The structures of such family businesses are well developed in accordance with family-business differentiation, governance practices, communication, succession, and management practices (Ramadani & Hoy, 2015). The family complexity in the professional family model is relatively low, since this model clasp under the high complexity of the family. The two foremost requirements of this model are: a) the capability to work as a team, and b) the family members professionalism (Ramadani & Hoy, 2015).

The most advanced of all business models is the family corporation model. This model generally dominates the family corporations wherein complexity exists in terms of business and family. Here, the mental model followed by the families is that they are the company owners and thus are responsible for the competitive development of the company. However, here the family does not necessarily play the role of leaders, instead hire professionals that work for the family business. The CEOs and the managers are considered as employees. This perception of the family businesses allows them to develop their structures as per the competencies. In this family business structure, since the managers and the CEOs are observed as the employees, even though they are family members or not, the structure of the institution works well. The challenges associated with this model are (1) simultaneously maintaining the presence of the family within a business without hampering the management of the firm, (2) channelling the entrepreneurial spirit of the family, and (3) fostering entrepreneurial business behaviour (Suess-Reyes, 2017). In numerous dimensions, this system is one of the most evolved. It is distinguished by more sophistication, both as a community and a company, as well as the highest possible level of implementation. In some circumstances, the involvement of members of the family in senior management is 'context - dependent.' Firms operated by family members can readily transition into companies run by non-family individuals (Ramadani, & Hoy, 2015).

The Family Investment Group model implements a specific financial procedure to the family businesses. Family members aim to protect the economic value that has already been developed previously. The family members observe themselves accountable for investing in the best assets and companies but do not hold the responsibility of managing them. The Family Investment Group deals with all sorts of family complexities, although the business is barely complex despite the investment's value.

With this simple typology, it is evident that when we talk about family businesses we can be speaking about very different realities. However, there are always two dimensions that combine: the family and the business. Thus, family businesses result from this combination and the combination of interests and agendas of each one, which makes finding a single definition of family business a process that tends to be impossible.

Family businesses are unique, and it is almost impossible to find one definition (Afredo *et al.*, 2014; Agbim, 2019; European Commission, 2008). When determining if those family businesses and non-family companies are distinct, one of the key issues that family business experts have is defining what a family business is. As defined by Afredo, *et al.* (2014) family companies are organizations in which close relatives linked by blood, inheritance, or relationship have a substantial impact on all or crucial organizational choices made by the organization, which has ramifications for the performance of companies, innovation, existence, and development. While Agbim (2019) affirms that family companies have several characteristics: they are governed by a single household, they employ non-family individuals, and they have autonomous board members. A particular number of group members are employed by the family firm. A family company is one that is owned by members of the same family, and family ties influence the firm to realize the family's goal across multiple generations. While the European Commission (2008) defines a family business venture as one in which the significant proportion of decision-making privileges are in the hands of the primary individuals who founded the company, or in the hands of the innate individuals who have accumulated the company's current shareholding, or in the hands of their partners, family members, children, or children's direct heirs; secondly, the large percentage of judgement privileges are implicit or explicit; and thirdly, a listed business fits the criteria of family enterprise if the individual who founded or purchased the firm (shareholding), or their families or successors, own 25% of the judgement call powers specified by their shareholding. Thus,

finding a single definition of family business is almost impossible and thus, the next section is dedicated to analyze definitions of family businesses.

2.1.2. Definitions of Family Business

There is no concise, measurable, agreed-upon definition of a family business. Researchers in the field use many different criteria to distinguish these businesses, such as the percentage of ownership (Douckels & Fronlich, 1991), strategic control (Chrisman *et al.*, 2008), presence of many generations (Donnelley, 1964), and the intention for the business to remain in the family (Barnes & Hershon, 1976). The family business area of research typically investigates the antecedents, mechanisms, and implications associated with the role of families in business ventures. Centered on this simple statement, it becomes understandable that several questions exist about who and what falls within the purview of family business. The area is essentially defined as existing at the intersection of two interdependent, multifaceted, and evolving institutions that are nested within each other. The ambiguity of the area becomes much clearer as one begins to break down the different connections and constructs that form the intersection between family and enterprise (Payne, 2018). The family business definitions have evolved drastically in the current times.

Family businesses are characterized by a distinctive management style as compared to non-family firms. A narrow sense of the term ‘family’ suggests biological partnership and is often identified as a nuclear family (Kraus *et al.*, 2011). The degree of familial interest in management and corporate operations determines a family business. Family companies contribute particularly in terms of employee and social involvement to economic growth (Ramadani & Hoy, 2015). Family enterprises are run by families belonging to several socio-economic backgrounds and communities who aspire to accomplish the interest of the family and enhance the future of the family enterprise (Seaman *et al.*, 2016). The entrepreneurship levels within a family business are influenced by the degree of family participation in a company. Family businesses have unique aspects which influence their ability to internationalize. This is because families usually do not have external constituents that oversee a company's decisions. This suggests that family enterprises lack external influences that lead to greater independence and willingness to concentrate on favorable ventures (Ratten *et al.*, 2017).

Year	Definition	Dimensions	Author(s)
1964	When it has been closely identified with at least two generations of a <i>family</i> and when this link has had a mutual influence on company policy and on the Interests and objectives of the family	Management Generation Culture	Donnelley
1976	Controlling ownership is rested in the hands clan individual or of the members of a single family	Management Ownership	Flames & Hershon
1982	A profit-making concern that is either a proprietorship, a partnership, or a corporation... If part of the stock is publicly owned, the family must also operate the business	Management Ownership	Alcorn
1983	Are those whose policy and direction are subject to significant influence by orbe or more family units. This influence is exercised through ownership and sometimes through the participation of family members in mnement	Management Ownership	Davis
1987	The kind of small business started by one or a few individuals who had an idea, worked hard to develop it, and achieved, usually with limited capital, growth while maintaining majority ownership or the enterpriser	Management Ownership	Babicky
1989	An organization whose manor operating decisions and plans for leadership succession are influenced by family members serving in management or on the board	Management	Handler
1990	Are economic enterprises that happen to be controlled by one or more families (that have) a degree of influence in organizational governance sufficient to substantially influence or compel action	Management Ownership	Dreux
1991	If family members own at least 60 per cent of the equity	Ownership	Donckels & Frohlich
1993	One in which ownership is concentrated, and owners or relatives of owners are involved in the management process	Management Ownership	Welsch
1996	Pointed out that, operationally, family firms can be defined narrowly (family is involved in the day-to-day management of the business) or broadly (family sets the strategic direction for the business" implying that there is a range of families	Management	Shanker et al,
1998	Family owned businesses, by definition, have a controlling share in the equity of the Firm	Ownership	Brap.aiah

2002	There is no clear demarcation between family and nonfamily businesses and that no single definition can capture the distinction between the two types of entities	Ownership	Astrachan <i>et al.</i>
2002	Propose that the extent to which a firm is a family business should be determined by how family involvement is used to influence the business	Management Culture	Klein & Smyrnios
2002	Show that it is possible to statistically differentiate family firms from non-family firms based on ownership, management, and intention for family succession without the use of arbitrary cut-off points	Management Generation Culture	Chrisman Chua Steier
2005	Family involvement in ownership, governance and management makes family businesses different from non-family businesses	Management Generation	Klein <i>et al.</i>
2008	An important distinction between family and nonfamily firms and among different types of family firms is the manner in which strategy is formulated and implemented	Culture	Chrisman <i>et al.</i>
2014	“Family companies are organizations in which close relatives linked by blood, inheritance, or relationship have a substantial impact on all or crucial organizational choices made by the organization, which has ramifications for the performance of companies, innovation, existence, and development.”	Management	Afredo, Kotler, Chua and Chrisman
2014	“A family business is a commercial organization in which decision-making is influenced by multiple generations of a family, related by blood or marriage or adoption, who has both the ability to influence the vision of the business and the willingness to use this ability to pursue distinctive goals.”	Management Generation	De Massis, A., Kotlar, J., Chua, J. H., & Chrisman, J. J.
2015	The evolution of ownership and control management results in four possible types of firms. In the first type of firms, closely held family firms, majority owners and managers are all family members. The second type of firms, delegated family firms, is majority owned by family members, but firm decision rights are delegated to non-family professionals. In the third type of firms, family-driven, diffusely held companies, ownership is diffusely held by the public; family members own minority stakes, but they	Management	Bennetsen, <i>et al.</i>

	continue to manage the firms. The fourth type of firms is professionally managed, diffusely held public companies whose founding families have exited the businesses they have created		
2016	“The field of a family business is based on the family's wish to keep the firm family-owned (reflected in ownership, leadership, and management participation) and to lead it through the future generations”	Management Generation	Goel and Jones
2017	“The family business can be comprehended as a company regulated and/or run with the goal to mold and follow the vision of the business shared by a controlling coalition dominated by members of the same family or a limited number of families in a manner that is easily sustainable through generations of the family or several families.”	Management Generation	Samara and Arenas

Table 1. Definitions of Family business

This section of the literature review highlights the Dimensions of the Family Business Concept. From Table 1, four main dimensions of family business have had special attention in the literature: management, generation, ownership, and culture.

2.1.3. Management/Ownership/Generation/Culture

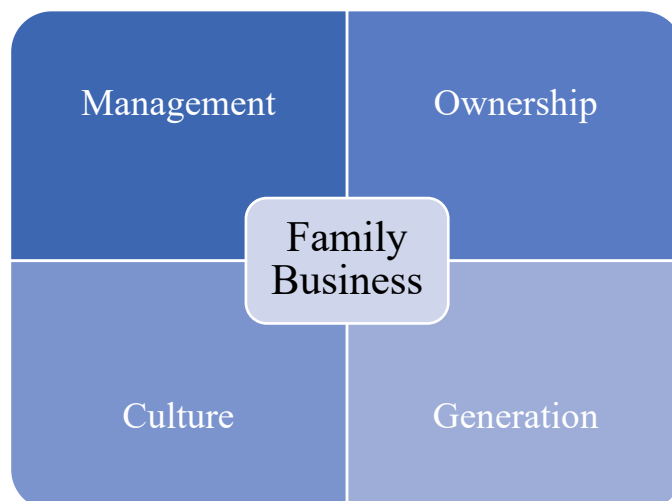


Figure 1. Dimensions of Family Business Concept

Ownership

Ownership and management are the most common dimensions used by researchers (Donckels & Fröhlich, 1991; Barnes & Hershon, 1976; Welsch, 1993; Handler, 1989). Ownership is the ratio of the number of shares of all classes held by the family to total shares outstanding. The numerator includes all shares held by family representatives (e.g., co-trustees, family designated directors). It includes all shares over which any family member has shared investment or voting power with a family member (which are only counted once), but none of the shares over which the investment or voting power is shared with a non-member of the family (Villalonga & Amit, 2006). Since owners play a vital role in the family company, it is more appropriate to think of ownership as a job that must be done successfully instead of an inheritance that members of the family are inherently given. Businesses may establish solid performance mindsets and produce exceptional long-term achievements when their owners believe in their firm's objective, ensuring the long-term initiatives and performance-oriented administration, and are content with sustained rewards. When shareholders are divided on a purpose and/or want significant short-term financial incentives, management would become disoriented and concentrated on short-term and secure profits. Thus, ownership plays a vital role in family businesses. Pongelli *et al.* (2016) confirms that familial institutional ownership diversity influences a company's strategic choices on the overseas market entrance methods. Researchers concur that the ownership model has an impact on organizations' key choices towards internationalization, especially in small and medium-sized family businesses where owners have a large equity stake. However, it is not usually selected independently by the company, the entrance method is one of the most important considerations in internationalization (Hennart & Slangen, 2014). Numerous studies have discovered that ownership structure influences entry strategy selections and that varying sorts of proprietors have varying risk perceptions and decision-making timeframes (Pongelli *et al.*, 2016). Moreover, since it is more objective and, consequently, easier to measure, it is sometimes even used as a single criterion, but it has its limitations.

Management

Management is an amalgamation of power, sentiment, and emotional issues of the family owning the business, which can have a profound impact on management affairs (Fletcher,

2000). For instance, CEOs in family firms may be deterred from having outside directorships in other companies because their main objective is to protect the family wealth in the family business (Westhead *et al.*, 2001).

Considering the current family businesses, balancing the business activities and family within the family firm is a huge challenge (Zachary, 2011; Karataş-Özkan *et al.*, 2011; Zareie, 2011). This balancing in terms of power, sentiments, emotional issues, and succession is referred to as management. Furthermore, the management of family firms also involves the resolution of conflicts, among the family members and between the family members and the non-family members. The family managers are faced with the dilemma between a balance of family and family company commitments. In modern years, most family owners and managers believe that this balancing has grown even harder. Also, where family circumstances vary, the general concerns pertinent to the management of family and the family business require energy, time, and relationships (Leaptrott & McDonald, 2010). According to the viewpoint of management, the conflict of interest among the family, other family members, and the members not belonging to the family often results in tension within the firm (Frank *et al.*, 2011; Chrisman *et al.*, 2012). Moreover, whenever the conflict takes place, it detrimentally impacts both the business as well as the family (Laffranchini & Braun, 2014). Therefore, maintaining a balance between family and business issues involving the adoption of governance tools and instruments.

It is widely assumed that family-owned firms are more complicated than non-family-owned enterprises. This is especially true when two or even more generations are employed by a company since the interaction of familial relationships has an influence on decision making. Decisions are invariably impacted by company, familial, and owner factors, which have an influence on the business orientation and judgement. Integrating the family's psychological, ownership, and business components inside the organization may be an ongoing issue. Thus, while family companies can be small, moderate, or huge, they are distinct in that they must balance the distinctive trinity of familial administration and control (Collins & O'Regan, 2011). The family management can lead to competition and conflicts among the family members as some may be risk averse and some may be risk-takers, for example, depending on the percentage of participation and the emotional connection.

Other phenomenon that appears in the family business is the stewardship phenomenon. The philosophy of stewardship uses social and psychological viewpoints to research relationships in firms where members are collectivists and prioritize cooperative activities rather than self-interested behaviors. Therefore, the individual's needs are in line with the welfare of an organization, which indicate that the collectivist conduct of the group is of greater benefit than the self-serving individualistic behavior. Applying stewardship paradigm in the study of firms, proves to be imperative for family businesses, where family members prioritize the family goals, like entrepreneurship, higher than their individual goals (Eddleston *et al.*, 2012). In line with the expectations for management, family company analysis indicates that representatives of family organizations display high levels of confidence and unity that are important for mutual entrepreneurship and can contribute to superior success and competitive benefits (Eddleston *et al.*, 2012).

Thus, applying the stewardship theory to the family run businesses can to a great extent assist in analyzing the root cause of the problem and thus provide and implement solutions to resolve any sort of conflict among the family members.

The conventional paradigm of agency theory has considerably highlighted the minimization of opportunistic behavior within the agents, focusing on the type 1 agency problem (i.e., the conflict of interest among the managers and shareholders, that portrays the agent/ managers as a primary reason for inefficiencies). This type 1 agency problem is also applicable for family businesses regarding an enormous gap between control and ownership. Although, several nations (for instance Latin America, Asia, and Continental Europe) are characterized by a small gap between control and ownership and the existence of large shareholders that are generally involved in direct firm management (Calabro *et al.*, 2017). Such firms lack any sort of agency problem and are considered in the organizational form. While the control and ownership gap can pose severe threats to organizational profitability, it can also lead to differences in the expectations of the family members who participate in the property but not in the management (Calabro *et al.*, 2017).

Furthermore, the application and extension of the proposed agency theory to the family businesses highlight the principal-principal conflicts among the minority and majority shareholders. This is often referred to as the type 2 agency problem. The theory asserts that the principals can be the primary source of inefficiency (Dalziel *et al.*, 2011). Also, the theory suggests that controlling principles can seize other shareholder's value due to

their control of the governance structure of the firm (Calabrò *et al.*, 2013). Connelly *et al.*, (2010) reveal that such principal-principal conflicts can be addressed by comprehending the heterogeneous interests of different principals. These heterogeneous interests may include future expansion intentions, risk preferences, and investment decisions. Within the context of family businesses, the family owners expect not only to gain a financial reward on their investment but also expect an emotional reward or a psychic income from the other members of the family for controlling and owning the business. Several researchers investigated the principal-principal conflicts pertaining to family businesses and found that family owners tend to be homogeneous or monolithic and display similar interests. However, the interest conflict occurs in cases where there exist diverse norms and distinct goals that can undermine family unity and the business' competitiveness (Basco, 2017; Kotlar & De Massis, 2013). These diverse goals and norms can impact the family firm detrimentally due to the principal-principal conflicts (Gu *et al.*, 2016).

Generation

Dimension Generation defines the association with the founders, which as first-generation family managers, are entrepreneurs with the capacity of developing and evolving a business. This is not always the case for founder descendants, who face different challenges, and do not have the same level of identification, influence, and personal investment in the firm as the firm advances with time (Schulze *et al.*, 2003).

The continuity and vitality of a family business can be ensured if owners encourage a deserving individual to take up the CEO position. In many instances, the succession transition can be organized with a gradual transfer of power to a selected and trained successor. This can also be done by accommodating the needs and aspirations of potential successors, as well as by providing appropriate training (Handler, 1991).

New generations need to find new ways to revitalize and further expand the business they have inherited while at the same time deal with the shadow of the founder. A founder's legacy includes imprinting forces that leave the firm with strongly defined internal characteristics (Schein, 1983).

The businesses influenced by family tend to be as unique as the families that own them. Such businesses have one characteristic in common that is their progressive slowdown

once the founder of the business steps down. This fact was tested by PwC, wherein it was revealed that approximately 42% of the firms display double digit sales in the first generation and until the business reaches the fifth generation, only 22 % of the businesses retain the double-digit sales, while 48% experience their sales in single digits. The most probable reasons for the decrease in growth are market changes, the problem of succession, and risk aversion.

First, the owner, then the children which saw the effort of the father and are usually owners in equal parts, then the grandchildren (cousins among them) did not see the sacrifices and commitment of building the company, they were already born with its existence, so they often have a much smaller effective bond and the participation of each one is smaller and often different between them.

However, the most prominent reason behind the downfall of the businesses is the misalignment of family business culture and leadership. Thus, another important dimension for family businesses is culture.

Culture

Organizational culture is the compilation of values, aspirations and fundamental concepts held by the participants of an organization. These attitudes and perceptions contribute to strong behavioral norms that form the behaviors of individuals and communities within a firm and which differentiate it from other competitor firms (Marín *et al.*, 2016). The OCAI (Organizational Culture Assessment Instrument) is a verified instrument that measures organizational culture that was created at the University of Michigan by Robert Quinn and Kim Cameron. It is founded on the framework of Competing Values, which has been employed by over ten thousand businesses over the last three decades. As per the OCAI framework (Sanchez-Marín *et al.*, 2015), organizational cultures can be classified into four types namely, clan culture, adhocracy culture, market culture, and market hierarchy. Clan culture is in line with an organizational philosophy paradigm of human relations where the concentration is on versatility and transition, and which is marked by good human relations, association, and orientation to internal organization associations. The culture of adhocracy reflects the model of an open system, with a focus on external direction and flexibility. Its emphasis is on development, the acquisition of resources, innovation, and environmental adaptation. The market culture refers to a logical objective

paradigm and is often externally oriented and control oriented. Its emphasis is on competitiveness and success, with well-identified goals and external driving motivation. Lastly, the culture of hierarchy is consistent with internal structures and emphasizes stability. On the opposite to the rational culture, this culture is distinguished in coordination, uniformity, rules and regulations preference, and internal efficiency (Marín *et al.*, 2016). Several researchers have indicated that family businesses are highly influenced by clan culture (Sanchez-Marin *et al.*, 2015), this is because a family-owned business or company is willing to share a portion of its traditions and culture.

Tradition and devotion are hallmarks of clan culture. The major characteristics of the clan that is teamwork, mentoring and loyalty helps in enhancing trust. It enables individuals to accept the company's beliefs and aims by emphasizing cohesiveness and teamwork. In such an environment, success is characterized by internal culture and compassion for the individuals, and the company prioritizes cooperation, involvement, and agreement. Furthermore, clan family businesses are often limited and are frequently operated and maintained by household members of the founders. This form of the family company has a low layer of difficulty and a high level of trust, which improves cooperation and interaction among relatives and creates empathy with company managers (Cherchem, 2017). Family members try to address both corporate and family demands, contributing their talents, expertise, information sharing, and dedication to acquiring resources to ensure the firm's existence (Cherchem, 2017). The major characters of clan that is teamwork, mentoring and loyalty helps in enhancing trust which in turn results in less tendency to risk, such us new technologies, and internationalization (Figure 2).

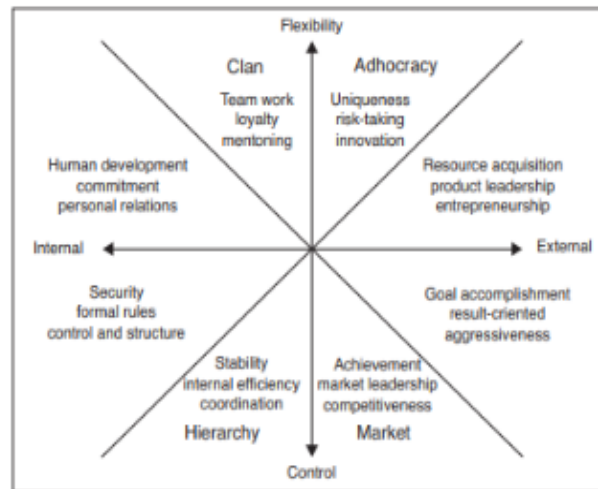


Figure 2. Organizational cultural typology framework. Source: Stock *et al.* (2007) adapted from Cameron and Quinn (1999).

Habbershon and Williams (1999) go further; they claim family firms have a specific kind of culture – the familiness. According to the perspectives of familiness, the culture of the organization may differ as per the extent to which the family is involved within the business (Merino *et al.*, 2015). The family businesses can be classified into three types according to the extent of family presence within the business assessing the management and the family ownership dimensions. These three types are family-owned and managed businesses (that is the majority of the management and ownership lies in the hands of the family), non-family businesses (management and ownership lie in the hands of the members not belonging to the family), and professionally managed family businesses (where the family members own the businesses, whereas the business is managed by non-family members). Since the goals, incentives, behaviors, and interests are different for different family and non-family enterprises, a particular cultural setting is likely to also vary in terms of family participation in the enterprise (Chua *et al.*, 2012; Chrisman *et al.*, 2012).

2.1.4. Familiness

Chrisman *et al.*, (2005) remarked that “researchers continue to disagree over the definition of a family business” (p 555). This may be explained, in part, by the theoretical ambiguity

as to whether the firm or the family should be the focal unit of analysis. This ambiguity likely contributes to the virtual absence of family business measures beyond the relatively simplistic measures that involve categorization schemes where firms are said to be family businesses or not (Holt *et al.*, 2010). One notable exception is the construct known as ‘familiness,’ which has emerged as a concept uniquely related to family business research (Pearson *et al.*, 2008) identifying the behavioral and social resources that result from family interaction and involvement in the business.

Habbershon and Williams (1999) first introduced the term ‘familiness,’ describing it as “the idiosyncratic firm level bundle of resources and capabilities resulting from the systems interactions”. Chrisman *et al.*, (2003) later described the concept as “resources and capabilities related to family involvement and interactions” (p. 468). Familiness has been also identified and defined as resources and capabilities that are unique to the family’s involvement and interactions in the business (Pearson *et al.*, 2008).

The concept of familiness can be described through three broad approaches: (i) the family involvement within the business; (ii) the approach of essence pertaining to family influence, the aspirations of the family and the family involvement within the analysis center (Sharma *et al.*, 2012), and (iii) the organizational identity recognition (Zellweger *et al.*, 2010). Researchers believe that familiness is a promising idea which underlines the unique nature, and unique characteristics of family businesses (Weismeier-Sammer *et al.*, 2013; Chua, *et al.*, 2012; Nordqvist *et al.*, 2014).

The concept of familiness was conventionally approached from the perspective of a resource-based view, although, to deal with the limitations of RBV (Weismeier-Sammer *et al.*, 2013), the researchers implemented the hypothesis related to the new system theory to comprehend the complexity and multidimensionality of familiness in an effective way (Frank *et al.*, 201). Integrates the above mentioned familiness approaches, viz, identity, essence, and involvement (Ingram *et al.*, 2020).

To develop this richer conceptualization of family business, Astrachan *et al.*, (2002) suggested that the extent to which any firm is a family business is reflected, in part, in how the family’s involvement influences the business and its operation. The researchers developed a scale to address this fundamental issue. This multidimensional measure was dubbed, the Family Influence on Power, Experience, and Culture (F-PEC) Scale. The F-PEC scale can prove to be an imperative innovation in this domain, putting a theoretically

grounded method to gauge the extent to which the family influences the business (Cliff & Jennings, 2005; Klein *et al.*, 2005).

Frank *et al.*, (2017) created a familiness scale to examine the influence of a family on the firm through the decisions undertaken that display familiness. The researchers evaluated the familiness concept using quantitative and qualitative approaches on three different studies based on the theory of new systems. The exploratory and confirmatory analyses led to the development of a Familiness Scale based on multiple dimensions namely: 1. control, management, and ownership, 2. Information sharing among the active members of the family, 3. Active family members proficiency levels; 4. Family-employee bond 5. transgenerational orientation and 6. Identity of the family business.

2.1.5. F-PEC Scale

Family business is likely not dichotomous anymore, there exist certain degrees of “familiness” and it is likely, not helpful to categorize firms as “family” or “not family.” Like many constructs, this construct is more complex than a binary measure could provide. This instrument assessed three factors of family influence on a continuous scale rather than a categorical scale. The scales measured power, the influence the family has on governance and management of the firm; experience, the information knowledge, judgment, and intuition that comes through successive generations; and culture, the alignment of the family’s goals with the firm’s goals. Each dimension was measured with an adaptation of the original F-PEC (Figure 3), a measure presented by Astrachan *et al.* (2002), tested by Klein *et al.* (2005), and subsequently validated by Holt *et al.* (2010).

Power - Ownership, Governance, and Management

Power reflects the influence the family has on the governance and management of the firm. This is manifested in the proportion of family ownership and the proportion of family representatives (either by relationship or appointment) on the firm’s governing board. It is measured with two items: the percentage of family members who share ownership and the percentage of family members on the firm’s board along with the legal, political, and economic considerations associated with different cultures (Holt *et al.*, 2010). The F-PEC’s power subscale includes three elements namely: Ownership, Governance, and

Management. This suggests the family influence that is a consequence of power distribution can be used in decision making processes through the involvement of management, governance, and ownership. This justified the power element as one of the most imperative segments of the F-PEC scale. The subscale of power evaluates the shares proportion that a family holds, the percentage of top management positions that the family holds, and the proportion of seats held by the family on the board (Oner *et al.*, 2019).

Experience - Generation in Control

Experience refers to information that is laden with knowledge, judgment, and intuition that an individual owns and develops over time. In the family business setting, this longitudinal knowledge base and family-focused memory orientation are brought to the business through leadership succession. Three items measuring experience include the generation of the family owning the company, the generation of the family managing the company, and the generation active on the governance board. As suggested by Astrachan *et al.* (2002) and Klein *et al.* (2005), these items are weighed where the greatest experience of family succession was gained between the first and the second generations and the benefits of experience diminished with each successive generation.

The experience subscale covers the number of family members related to the business and the generation that is in charge. Several researchers believe that the experience subscale within the F-PEC is associated with succession and the number of family members who are associated with the business entity as managers, owners, employees, and board members. Succession results in adding immense experience to the business as well as the family. The F-PEC scale further believes that the family influence within the company increases with every generation associated with and taking part in the business processes.

Culture - Family versus Business Values

Family business culture is measured in items that reflect the family's commitment, loyalty, and pride toward the company. It is formed by the values rooted in an organization (Klein, 1991), and demonstrates what the family and their business perceive to be important. Klein, in 1991, also said "Although anchoring values in an organization takes time, it is the core values of key people that usually form a critical part of the organizational culture"

(p.197). Values of significant individuals can be seen embedded in internal political matters, in the style of communication, in the ways in which conflicts are handled, and in the degree of business centralization versus decentralization.

Organizational culture has been described as the pattern of fundamental assumptions that a particular community creates, discovers, or develops to address its problems of internal and external adaptation. The organizational culture of family businesses is impacted by the behavioral beliefs, characteristics, and values of the founders. The family businesses are known to run as per the family considerations, values, and patterns (Oner *et al.*,2019).

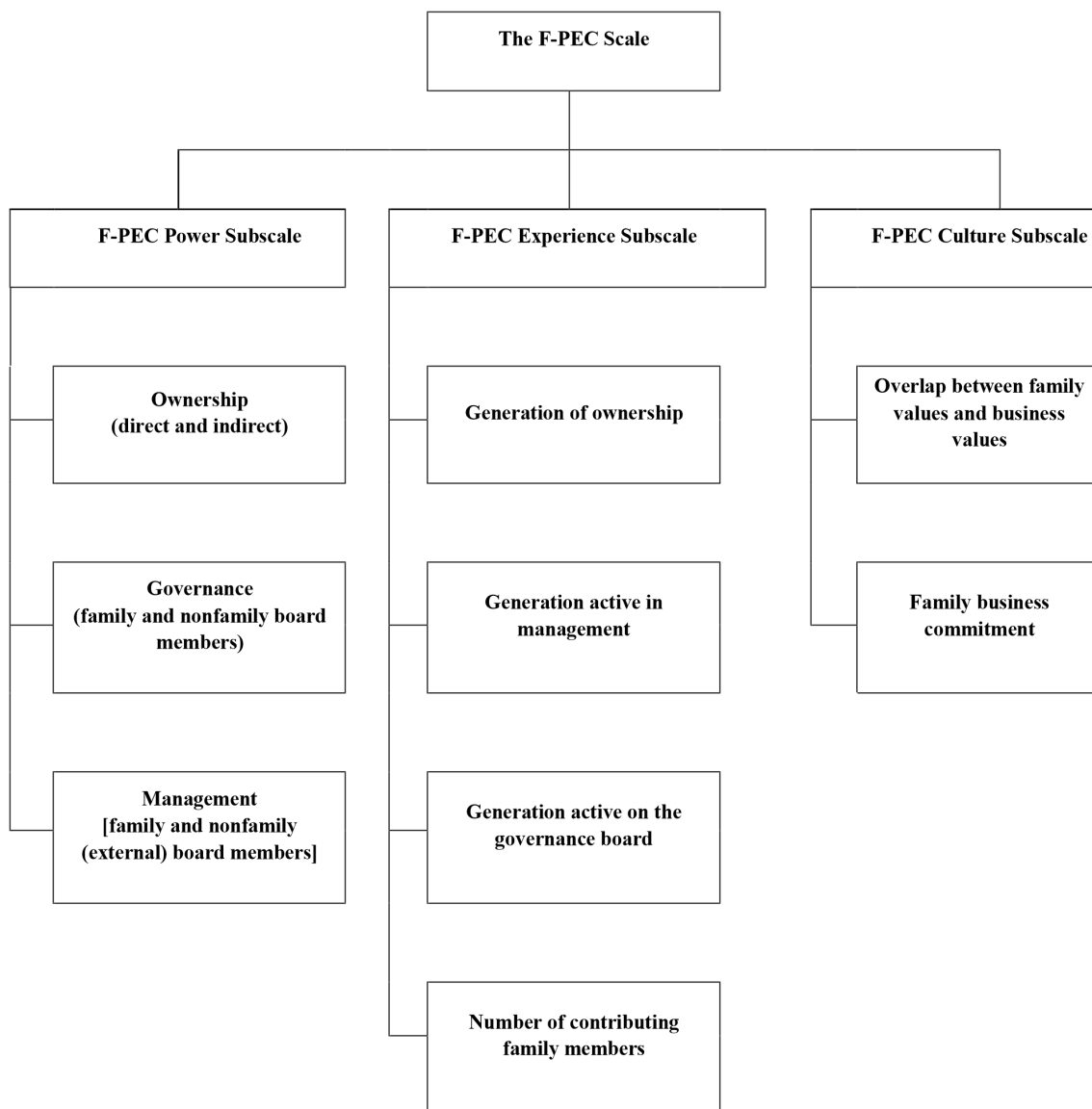


Figure 3. F – PEC Scale (Astrachan *et al.*, 2002)

The F-PEC Scale, Figure 3, will be the base of the questionnaire structure we will work on in this thesis. Both for the qualitative and quantitative approaches.

2.2. Internationalization

The internationalization strategy of Family Businesses has received limited consideration in the previous literature, and only recently has it grown into a major research field. The way the family controls the decision processes in the company impacts the firm's ability to deal with the uncertainty resulting from its foreign activities. There is widespread proof that family ownership itself can lead to contradictory outcomes within the domain of internationalization. Different experiments in distinct countries have shown that ownership of a family can either improve or hinder the internationalization process (Calabrò et al, 2013; Arregle et al, 2012; Pukall & Calabrò, 2014).

With this being the case, the family enterprises have rethought their tactics and positioned themselves on the world market to remain successful. For both their essential position in the national economies, family business cases are particularly critical for their traditional propensity to be close to external realities and prospects because of the greater risk aversion (Marletta & Vescovi, 2020).

While evaluating the internationalization of family businesses (Yeoh, 2014), different researchers use distinct measures like Foreign direct investments (Liang *et al.*, 2014); exports (Merino *et al.*, 2015; Majocchi *et al.*, 2018; Scholes *et al.*, 2016); international involvement and internationalization (Shi *et al.*, 2019); and foreign sales. Additionally, the other methods involve the internationalization level, internationalization, multinationalism, internationalization extensiveness, and export intensity. As a result, internationalization can be defined as the process of competing outside a family firm's home nation, which may entail entry modes like equity modes gripping FDI (for instance establishing partially or wholly owned subsidiaries) or non-equity-modes (licensing and direct and indirect exports) (Lahiri *et al.*, 2020).

Internationalization can allow potential returns to a firm (Gande *et al.*, 2009) as it opens doors for new opportunities that enable value creation by giving way to novel resources, overseas stakeholders, new organizations, and the prospect to acquire exceptional knowledge (Hitt *et al.*, 2006).

The internationalization of companies is one of the most critical issues of the modern global economic scenario since it has profoundly changed the dynamics and the policies pursued by the firms and, in a large sense, it has affected both the consumers' behavior and the everyday lifestyle of billions of individuals, allowing them access to endless new opportunities and possibilities. The internationalization process is not only concerned with larger businesses but is also gaining immense popularity among small and medium-sized enterprises. Naturally, it wasn't an overnight change: at first, only businesses with significant market influence had the ability to expand their range, but today all companies are open to access foreign opportunities.

In other words, initially, the theories of internationalization saw internationalization as a process reserved for large companies, because it depends on several dimensions (as explained by the OLI paradigm), which may include ownership, location, and internationalization or because it takes a long time and is incremental (Upssala's model). According to the OLI model, specific benefits of ownership relate to the core competencies of firms wanting to participate in Foreign direct investment (FDI). The stronger the participating enterprises' competitive edge, the more inclined they are to participate in international operations. While locational incentives are alternate nations or places for multinational corporations to conduct value-added operations. The more immovable, inherent, or produced resources that businesses must employ in conjunction with their very own competitive edge favor a business in a foreign place, the more the businesses will seek to increase or utilize their own capabilities through FDI. Moreover, the internationalization benefits affirm that the firms can plan for the development and utilization of their key strengths. The larger the overall benefits of internalizing cross-border intermediate goods marketplaces, the more probable it is that a company will opt to participate in overseas manufacturing internally rather than licensing the ability to do so. While on the other hand, the Uppsala model is defined as per four definite aspects viz Commitment to the market, market information, present activity, and strategic decisions. These four notions are then subdivided into two categories: state characteristics and change elements. The two-state components are market commitment, which refers to the firm's dedication to overseas marketplaces, and market information, which is the firm's understanding of external trade and processes at any given moment. Current actions and strategic decisions are the two dimensions of transformation. The latter are judgments to

allocate assets to international activities (Hansson *et al.*, 2019). However, nowadays, with the role attributed to networks (Network approach) and undertaking, there is already a more inclusive vision of internationalization. At the same time, the international entrepreneurship recognizes the role of the decision-maker in the international process. Therefore, the next section is dedicated to theories of internationalization, to give a clearer insight into the internationalization dynamics in the traditional and modern world

Theories on Internationalization

1. The eclectic paradigm (OLI Framework)

The eclectic theory given by John H. Dunning (Dunning, 1980) is basic but profound, a construction describing the reasons for the international growth of the organization, suggesting that the relationship between three interdependent variables defines geographical degree and the industrial component of foreign development of Multinational enterprises (Dunning, 2015). The first, Ownership, concerns the comparative advantages of companies – their strategic influence over real ownership of tangible assets (for instance inventories, physical structure, machinery, and technology) and intangible assets (for instance organization, management skills and brand image). The second sub-paradigm, Location, relates to the benefits of the location of the operations of multinational enterprises in a specific region. This location benefit displays the advantages of exploiting a company's presence in a particular international country (for instance: economic, social, and political stability, production costs, cultural diversity, labor force, salary level, infrastructure, natural resource availability, government benefits, market dynamism, and tariff barriers). The third paradigm, Internalization, suggests the internalization advantages that the company can receive by exploiting its ownership edges internally better rather than through other companies as per the decision variable viz resources, return, control, and risk (Ribau *et al.*, 2015).

2. Uppsala Theory Evolution

2.1 Traditional

The Uppsala model has its basis in the behavioral philosophy of the firm and in Penrose's theory of the development of the business. This behavioral hypothesis explains the

internationalization of the organization as a mechanism in which its international participation steadily increases, which the Uppsala model communicates by establishment chain and psychic distance (Johanson & Vahlne, 1977). Johanson and Vahlne (1977) proposed the model based on behavioral theory and the theory of the growth of a firm and the model argues that the incentive to internationalize increases following domestic expansion to explore new customers and prospects overseas. The mechanism develops the interaction between the expertise creation on international markets and transactions and the increased capital allocation to these markets. The primary issues of the model highlight the way businesses learn and the impact of this learning on investment behavior. The Uppsala model is considered a dynamic model that expresses the internationalization of a business as a process (Vahlne *et al.*, 2011).

The model states that firms usually begin expanding in a psychologically close market. Once they have improved their industry awareness and increased control of resources and once businesses have gained more expertise and stronger resource control, they tend to expand to more distant markets. Moreover, often before establishing the international distribution subsidiary or foreign manufacturing, businesses reached a new market through export. The model suggests the interdependence of consumer awareness and market commitment and creates a matrix model to show that the knowledge of the market and commitment decisions is positively correlated with the sequential growth of the market and its positive relationship with the engagement of the marketplace. The main reason for the model is that improved awareness of the industry would lead to increased commitment to the market and vice versa (Yamin & Kurt, 2018).

2.2. Network internationalization theory

Johanson and Mattsson (1988) affirmed internationalization as an ongoing activity in which ties are built, cultivated, preserved, and destroyed with the goal of accomplishing the organization's objectives.

The network theory tries to comprehend and analyze the system of the industry with the assistance of three variables that are resources (physical resources like equipment, material, financial resources, building, intangible resources, and human resources); activities and actors (groups, firms, and individuals). The actors tend to perform activities when they use, combine, develop, consume, create, and exchange resources, since the

SMEs industrial markets are seen as a network of firms, according to the resource dependence theory. The core assumption of this theory asserts that the firms/actors are dependent upon the resources that are further controlled by the other parties. Building relationships and accessing resources represent the resource consumption process. Since the objective of any firm is to survive, internationalization enhances the probability of survival both in long term and short term (Ribau *et al.*, 2015).

The internet can play a key role here in transmitting information and connecting different actors in different parts of the globe.

The network theory now relates to the Uppsala model, which has been revisited in various publications produced during the 1990s (Johanson & Vahlne, 2006). From foreignness exposure to outsider liability, Johanson and Vahlne (2006) propose a reformulation of the paradigm that is fundamentally different from the paradigm of 1977, particularly in terms of internationalization as an entrepreneurial activity in a business network setting.

2.3. International Entrepreneurship

The effectuation processes viewpoint on entrepreneurial behavior proposed by Sarasvathy (2001) is relevant to the research on internationalization because of a company's attempts to better its place in its web or connections. While Sarasvathy concentrates on entrepreneurs' judgement procedures during the formation of new enterprises, she also indicates that the basic picture of effectuation may be extended to business owners and entrepreneurship executives trying to enhance operations, whether via expansion or increased efficiency. Sarasvathy (2004) observes that the business and management research views procedures connected to business endeavors as causation mechanisms, in which a certain outcome is assumed, and the emphasis is on choosing between several ways to achieve that outcome. As per the network concept, Johanson and Mattsson (1988) affirmed internationalization as an ongoing activity in which ties are built, cultivated, preserved, and destroyed with the goal of accomplishing the organization's objectives. According to Johanson and Matsson (1988), there are 4 stages of internationalization: the early beginner, the late beginner, the lonely international, and the international. The Uppsala internationalization process model was introduced in a study by Johanson and Vahlne and has since been utilized as a framework for additional research on the

internationalization process of enterprises by many experts. The model has been revisited in various publications produced during the 1990s (Johanson & Vahlne, 2006). From foreignness exposure to outsider liability, Johanson and Vahlne (2006) propose a reformulation of the paradigm that is fundamentally different from the paradigm of 1977, particularly in terms of internationalization as an entrepreneurial activity in a business network setting. The updated Uppsala model appears to be welcomed as a more acceptable technique to analyze businesses' internationalization behavior in subsequent papers by the researchers and other experts. During 2009, the Johanson & Vahlne have extended the Uppsala model to a variety of International Business topics, most prominently the globalization process, which we feel is better described as a catalyst of the expansion of the multinational commercial firm. The researchers believe that the model may be enhanced further by understanding the broad personality characteristics of executives, such as what causes them to avoid extreme change in favour of a gradual approach (Johanson & Vahlne, 2020).

Schweizer, Vahlne, and Johanson (2010) affirm that internationalization occurs when enterprises transcend boundaries. The researchers believe that internationalization is frequently viewed because of a company's attempts to better its place within its connection or partnerships, rather than as the outcome of an entrepreneurial endeavor. As a preliminary step, the researchers analyzed three different theories and give them life with a comprehensive case study. To emphasize the entrepreneurship parts of the process, they propose changes to Johanson and Vahlne's corporate network internationalization process paradigm, an upgrade of the Uppsala internationalization process framework, if firms with different decisors will have a different international presence. So, the presence of family in decisions will not be innocuous.

2.3.1. Analysing the four dimensions on the internationalization

According to these theories we can look to internationalization as a phenomenon including different dimensions (Figure 4).

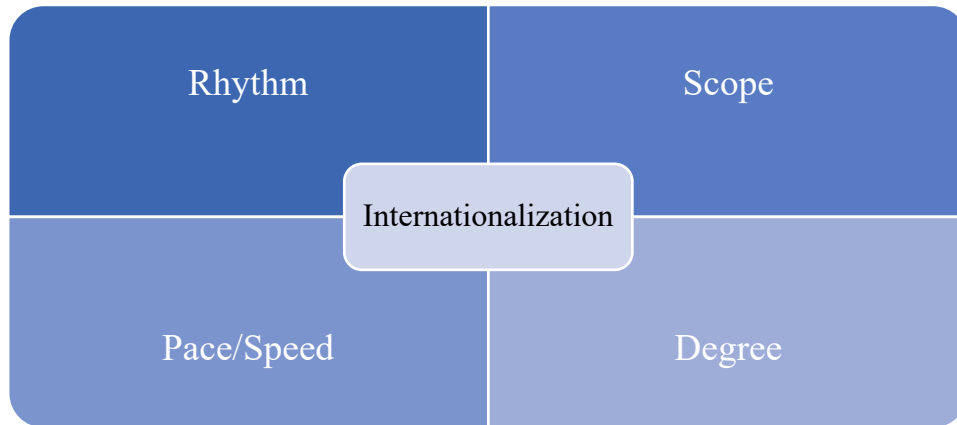


Figure 4. Dimension of Internationalization

Thus, definitions of Internationalization have varied enormously with time, but in general are supported by four dimensions that try to explain the result of foreign expansion related to firm performance: pace, referring to the speed of the internationalization process; scope, referring to the geographical and product dispersion related to internationalization; rhythm, regarding the irregularity of the foreign expansion pattern; and degree, examining the evolution, structure, and processes of relationships among its demographic, strategic, market, organizational, product, and attitudinal characteristics of the international expansion.

Pace/Speed

Pace is a time-based measure and is indicative of how much time passes before achieving a specific target or a specified level of performance (Hurmerinta Peltomaki, 2003; Jones & Coviello, 2005). Examples include the number of foreign countries a firm undertakes within a certain period or the changes in the degree of internationalization during a certain period (Wagner, 2004).

It is proved that when firms expand into foreign countries at a high pace, perhaps even with several subsidiaries at the same time, they will have little time to evaluate their foreign experience, assimilate it, and apply it to commercial ends (Cohen & Levinthal, 1994).

At a high pace, it is also less likely that the firms will realize the full profit potential of these new expansions (Birkinshaw, 1997; Birkinshaw & Hood, 1998).

Scope

Scope is the geographical extent of a firm's expansion process. It is usually indicative of the number of countries in which the company operates or with which the country trades or invests; or the degree of the spatial concentration of firm activities.

When foreign expansion coincides with product diversification, it becomes more likely that a firm makes suboptimal choices when setting up new subsidiaries, or when screening, selecting, and implementing acquisitions, due to causal ambiguity and information overload (Huber, 1991; Haleblan & Finkelstein, 1999).

Similar reasoning applies to expansion into multiple countries, i.e., the geographic scope of a firm's expansion process. Placing ventures into many different countries is a complicated process compared to concentrating on a limited number of geographic markets.

Rhythm

Rhythm (as observed in Figure 5) is defined as 'the regularity of the process', or the rhythm at which new subsidiaries are established, influencing the firm's expansion result. It is accepted that firms that follow a constant, rhythmic pace are better able to benefit from foreign expansion than firms that expand in an irregular, ad-hoc fashion.

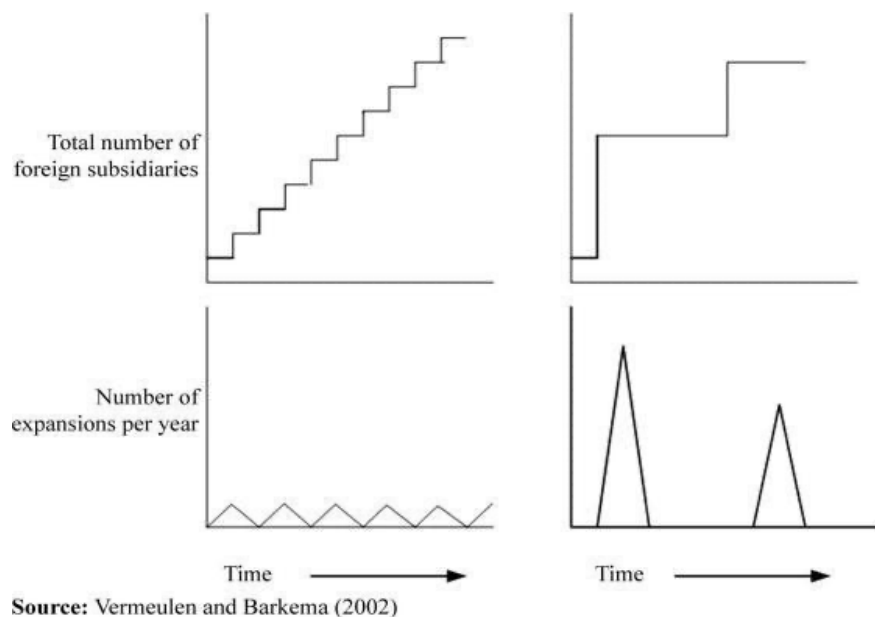


Figure 5. Rhythm of Internationalization

Regular expansion patterns are beneficial for businesses because if foreign entry is predictable and constant, the MNCs are not only better able to develop their strategy and to successfully adapt to incoming foreign competition, but they can also better absorb the knowledge created by foreign firms since it relates to their own experience in coping with the foreign entry and in acquiring foreign knowledge. In contrast, peaks of rapid foreign build-up led to sudden and unpredictable increases in foreign competition, which, in turn, makes it difficult for local firms with limited absorptive capacity to decode, interpret, or assimilate the foreign knowledge. Firms are not always well prepared for such peaks of foreign entry, thus resulting in a negative effect on internationalization (Vermeulen & Barkema, 2002).

2.4. Internet Concept

In the present scenario, the family businesses have to a great extent realized the associations between the utilization of unique marketing tools and the success of a business. The family firms have comprehended that the use of successful marketing tools must be at the forefront of a business strategy. Although the internet and related technologies have proved to be powerful tools in international business expansion due to its low cost, several family businesses have not utilized this dynamic practice to its full potential. In this context, the family businesses often lack behind in implementing common marketing tools like marketing plan development and comprehensive advertising campaign. The most prominent reason behind the low usage is the little economic base that covers the overall business-related activities. However, they tend to use e-marketing tools to some extent, this occurs only with the appearance of the second generation within the family firms which is a tech-savvy generation. Family firms demonstrate restricted skills pertaining to marketing tools used. The founders tend to have experience only related to marketing knowledge, the consumer base is considerably small and there exists a lack of resources that need to be used in the marketing operations. In such a scenario, the e-marketing tactics like e-procurement, e-commerce, e-communication, and e-connection can be used by second-generation owners. This can prove to be very promising

for future family businesses since internet technologies have a dynamic effect on international trade conduction (Vlachakis *et al.*, 2015).

The general understanding suggests that the internet is a powerful network which connects people, allows exchanging of information, creates business opportunities, allows research and more. SMEs frequently employ networks to obtain information pertinent to their international progress (Ellis, 2011; Manolova *et al.*, 2010; Ojala, 2009).

Transposing the ideas to a more Internet “language”, there are four main areas of the Internet approach (Figure 6).

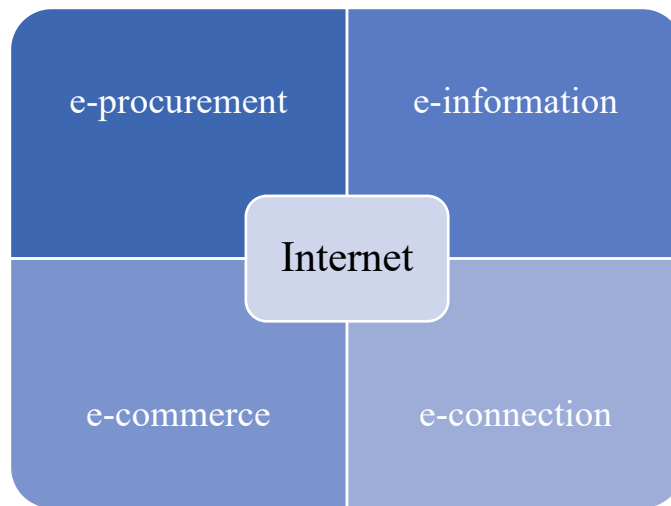


Figure 6. Internet Concept Dimensions

E-Procurement

E-procurement has been defined as the “use of integrated (commonly web-based) communication systems for the conduct of part or all of the purchasing process; a process that may incorporate stages from the initial need identification by users, through search, sourcing, negotiation, ordering, receipt and post-purchase review” (Croom & Brandon-Jones, 2007, p.10).

E-procurement can also be described as a process consisting of several steps right from the framing of the purchasing business strategy to the real execution of an Internet-supported purchasing system (Morris *et al.*, 2000). Additionally, e-procurement provides organizations with several advantages, which include cost savings due to a reduction in

order error percentage, reduced supplier costs, enhanced internal efficacy and more (Arbin, 2002). The possible advantages of e-procurement to the managers consist of effective managerial influence, highly controlled purchases, and availability of better management information in all areas of purchasing. Initiating a project in an exceptionally small risk yet high-impact area can be beneficial in testing a new e-procurement system and avoiding large-scale failure (Flemming, 2003).

E-procurement advantages

Despite the age, industry and size of the companies, the businesses that prefer to optimize and streamline their functions of procurements can accomplish several benefits from the e-procurement capabilities. Businesses adopting the e-procurement facilities can accomplish greater process efficiency and control, easily access the shared data, develop touchless procedures for all the imperative workflows, and associate procurement with the existing software to enhance the efficiency gains. Furthermore, e-procurement can assist in developing vendor catalogues associated with contract management to ensure every order of the service or good is made with an appropriate vendor, at an optimum price, with the best incentives and without risk related to invoice fraud. Additionally, e-procurement assists in optimizing processes resulting in rapid and long-term gains from both original and ongoing productivity enhancement. The workers can cease spending time and money on low-value tasks and focus on high-value tasks. Moreover, managers can save even greater costs by reducing overhead, hardware investments, headcount, and office supplies (Anthony, 2018).

E-procurement challenges

The challenges associated with e-procurement are cultural shocks and situation-specific integration problems. Cultural shock refers to the challenges in securing figurative and literal investment in digital transformations because of a lack of knowledge, perceived technological shortcomings or corporate culture resistance in looking beyond the conventional procurement models. Secondly, Situation-Specific integration problems are typically linked to a failure of planning, misunderstanding or incomplete comprehension of goals, or uncertainty and indifference about the features and functionalities of the chosen electronic procurement program (Anthony, 2018).

E-Commerce

E-commerce as another dimension is an expression used for denoting a business transaction that includes the transfer of products and services over the Internet. It can be conveniently adopted by nearly all small businesses, either in the form of easy solutions like email reservations or composite ones like an all-inclusive online store solution (Ali, & Majid, 2008).

E-commerce indicates the buying and selling of goods and services using electronic media. It consists of B2C, B2B and C2C.

E-commerce advantages

Firstly, e-commerce assists businesses in enhancing their customer base. Enhancing the customer base is the main concern of any business entity and when the business uses e-commerce and online platforms, they are free from the concerns of infrastructures and locations, since they have a global presence and individuals from all round the world can easily access the products of the businesses. This further leads to rise in the sales, since the businesses can save the costs from the infrastructure commitments and can use this money to provide more deals and incentives to the customers, thus raising their sales. Moreover, e-commerce assists in enhancing the reach of the businesses. By adopting the right marketing tactic, the businesses can reach each consumer around the world and can translate the potential customers into regular customers. Also, one of the most essential advantages of e-commerce is instant transactions. With the adoption of e-commerce, the transactions are immediately cleared through the banking system which enhances the liquidity of the business processes (Franco & BulomineRegi, 2016).

E-commerce Challenges

Apart from the opportunities of adopting e-commerce, there exist several disadvantages associated with e-commerce adoption. There are several security and privacy issues using e-commerce. Although businesses try to keep their transactions private, e-commerce sites are often hacked which leads to security and privacy breaches for both customers and businesses. Furthermore, even though e-commerce helps in saving costs associated with infrastructure, special expertise is required to develop a fully secured e-commerce platform. Additionally, there are some areas which are still deprived of internet facilities.

Thus, by adopting e-commerce facilities, targeting the customers belonging to these areas becomes difficult (Franco & Bulomine Regi, 2016).

E-connection

E-connection which is another dimension of the Internet has unified surroundings where every object can be regarded to possess a digital presence and has developed the capacity to interact with other people as well as objects. Through e-connection, firms can interact with a person anywhere in the world. This allows the global interaction with potential customers (Evans, 2015).

Technology has rapidly transformed the way people today interconnect with the outside world. Nowadays, products are being developed keeping in mind the consumer market that seemed unbelievable a few decades ago.

Bell *et al.* (2003) claim that e-connection connects a firm with human capital, information, finances, etc. Any firm that is efficient enough to obtain appropriate information through its network can easily boost up its competitiveness and successfully diversify its activities into international markets (Johanson & Vahlne, 2009).

The Internet is a communication-centred arena that has the capacity to produce and obtain information, without any restriction of place or time. Today, information can be transferred in real-time from one corner of the world to the other using interactive and multimedia channels making it appear quite dynamic and appealing (Junqueiro, 2000).

E-connection Advantages

The fast exchange of information offers the biggest benefit of electronic communication. One can transmit information within a few seconds with the aid of electronic media to a remote receiver. The conversation in electronic media takes just a few seconds as it facilitates fast transmission. Using electronic technology, individuals can submit a vast amount of material online. Company owners can easily handle operations worldwide because of the advancement of electronic media. Teleconferencing, video conferencing, telecommunications and emails can assist managers in developing a wide coverage in a short period of time. E-communication has further led to a considerable decline in the cost of communications; for instance; the conventional process of posting a letter is more

expensive than dropping an email. Managers can take crucial decisions immediately or quickly with the aid of electronic communication. They can retrieve information from anywhere in the world by clicking on the computer. This encourages them to decide quickly and allows effective business management. Also, electronic devices can store an enormous amount of information to be used later (Tchoubar, 2019).

E-communication Challenges

The challenges associated with e-communication in businesses are loss of information, due to the breakdown of machinery, hacking and virus, and the loss of secrecy, since anybody can copy the information through electronic channels and can use it for their purpose. Electronic connectivity is electronic device dependent. This dependence may have a negative impact on people's productivity. The day-to-day operations of a company will stop due to a technical breakdown. For installing electronic communication systems, heavy investment is needed. Each corporation therefore cannot afford modern electronic communication devices. Moreover, technology contributes to innovative destruction. In other words, modern technology introduces new forms of evolution and often renders old technologies outdated over the course of time. Electronic communications systems therefore must be replaced regularly.

E-Information

E-information, the fourth dimension, enables firms to interact with distant-region markets and encourages the participation of the consumers in content creation and development of applications to benefit from collective intelligence over the Internet, with an immense increase in the volume of Internet users. It is a superior option for the currently operating traditional systems in the market, and even for family businesses (Junqueiro, 2000).

Attainment of proper information is essential to successfully enter an international market, especially for firms with limited resources (Craig & Douglas, 1996). As per Eriksson *et al.* (1997) lack of appropriate knowledge affects the awareness amongst managers that may result in wrong perception about the expenditure over internationalization.

E-Information Advantages

Gaining information is essential for the internationalization of a business. The provision of e-information assists the managers in gaining knowledge without being physically present at the location. Thus, enterprises can gain brief knowledge about a product, service, and location without physically being at the place, which further helps avoid wasting resources and time.

E-Information Challenges

Since information can be procured from several online platforms, the information gained for the firm may or may not be relevant. Sometimes, the information retrieved from non-authentic sources may misguide and mislead the enterprise and the managers.

2.5. Relations between the 3 Concepts: Family Business, Internet, and Internationalization

Traditionally, most family firms commence internationalization because of unsolicited orders, but rarely monitor the international marketplace (Okoroafo, 1999), into countries with low psychological and geographical distance, and then incrementally, as knowledge and resources accumulate, expand into more remote markets (Pukall & Calabro, 2014), and have a low awareness of government-sponsored export assistance programs.

Family's management style and values may significantly influence the ability of family firms to enter strategic alliances with overseas firms (Gallo, 2002; Harris *et al.*, 1994). Additionally, many times family firms lack the managerial capabilities required to manage a growth process. The founders are usually reluctant to make changes in the organizational structures and professional management systems that favors decentralization of the decision-making process (Fernández & Nieto, 2005).

While analyzing the different studies, Zahara (2003) concluded that family ownership and involvement in the firm are significantly and positively associated with internationalization. While Fernández and Nieto (2005) identified the succession to the second generation as a key attribute for internationalization.

The family business area of research typically investigates the antecedents, mechanisms, and implications associated with the role of families in business ventures. Centered on this

simple statement, it becomes understandable that several questions exist about who and what falls within the purview of the family business. The area is essentially defined as existing at the intersection of two interdependent, multifaceted, and evolving institutions that are nested within each other. The ambiguity of the area becomes much clearer as one begins to break down the different connections and constructs that form the intersection between family and enterprise (Payne, 2018).

The Internet presents a fundamentally different environment for international marketing and new paradigms will have to be developed to take account of internationalization processes in an electronic age (Hamill, 1997). The internet is commonly accepted as a platform that allows smaller firms to perform in areas where only the larger firms perform, because it reduces barriers and boundaries, not only regarding the reach of international markets at a low cost but also facilitates access to quality and valuable information (Porter & Michael, 2001).

Managers of firms with higher levels of technology usage perceived costs associated with internationalizing to be significantly lower than managers of firms with lower levels of technology usage (Eriksson *et al.*, 2015).

The process of increasing adoption, diffusion, and deployment of internet-based technologies increasingly serves as the backbone of internationalization, especially in innovative entrepreneurial firms (Etemad *et al.*, 2010). This process is also named internetization and may be compared to the firm's adoption and use of the internet and the internet-based processes in transforming the firm to a hybrid network internally and externally within the firm's home and international markets.

Kim (2020) evaluated and presented a framework to analyze the impact of internet technologies including web capabilities and platforms on the capabilities of export marketing and SMEs performance within developing markets. The study also analyzed the contingencies within this association. The study was conducted on Chinese SMEs and the results revealed that the web capabilities and the platforms positively impact export performance and marketing capabilities. Also, the competitive intensity and the product complexity were found to moderate the influence of web capabilities and platforms on the capabilities of export marketing.

Information technology and innovation are essential for knowledge management. The study conducted by Lecerf and Omrani (2020) assessed the impacts of innovation on the internationalization of SMEs and comprehended the impacts of knowledge and information circulation during the adoption of information technology. For this purpose, data was gathered from 612 SMEs in Germany. The study tried to comprehend the extent to which the German SMEs used companies' resource planning and e-CRM and the level to which the SMEs valued the export turnover. The study recommended that SME internationalization can be improved by enhancing and improving IT as well as innovation.

The research conducted by Guercini and Runfola (2015) discussed the international growth of companies through the online distribution platform. While problems in internationalization strategies are becoming increasingly relevant, the literature in this domain has not received much attention. The document provided an overview of a database of 20 luxury online fashion retailers, which have been explicitly created. The research underlines the international aspect of these players and sheds light on the internationalization of luxury mode retailers by e-commerce. The paper notes that E-commerce can be associated with several brand luxury retailers with a variety of degrees of internationalization and that the internationalization of e-commerce luxury retailers in several brand stores is not related to physical stores abroad.

The Internet provided responses to some of the obstacles to internationalization in SMEs and challenged the internationalization models available. Recently, virtual worlds have emerged as a popular forum for numerous commercial and marketing operations. Hassouneh and Brengman (2011) aimed to analyze the role of virtual worlds and the internet in the process of internationalization. The study suggested that businesses must use internet technologies to advance and develop strategic businesses which can survive in the international markets. Many authors have studied those effects since the last quarter of 20 century. Cavusgil and Knight, in 1997, conclude that many entrepreneurial firms, including family businesses, can overcome the disadvantage of small size through their use of technology, such as the Internet. However, it is important to note that in some contexts the use of the internet is still an innovation, and family businesses have a very special relation to innovation.

Braga *et al.*, (2017) aimed to analyze the role of innovation in the internationalization of family businesses. The findings of the study revealed that there existed a relationship between the internationalization processes and innovation within the family businesses. The family businesses' success purely depends on the current scenario, where within the current economic situation, economic agents fail to recognize and exploit the opportunities in hand and are required to consider the risks pertaining to the internationalization domain and the processes of innovation. The innovation and internationalization processes may lead to the development of conflicts and resistance in the family businesses due to their low risk-taking capacity and failure to invest in industries that are not within the domain of their core business activities.

A similar study was conducted by Marin *et al.*, (2017), which aimed to assess the influence of ownership structures and financial features regarding the internationalization process of family and non-family businesses. Additionally, the influence of these determinants and the determinants related to family generation and ownership was perceived in the internationalization process of the firm.

Despite the influential position of family companies (Cerqueira & Meneses, 2021) in economies worldwide, not many studies have been dedicated to their internationalization process. Therefore, the study conducted by Mitter *et al.*, (2014) examined the effect of the internationalization of family control and different management influences, based on a sample of Austrian companies. From the findings obtained from the study, it was deduced that the association between the internationalization process and the family suggested that the family businesses that had a moderate family influence tended to be successful in their internationalization process. This finding further suggested that with respect to the process of internationalization, the benefits of the existence of family businesses are the largest when the involvement in governance and management boards and the ownership shares of the family are not much extensive. Also, the impact of the supervisory board, management board, and incumbent generation are not much significant on the internationalization strategy of the family firm. However, the advisory boards can play a crucial role in assisting the family firms with necessary competencies, the businesses' know-how, and procuring essential resources and contacts to internationalize successfully. So, all these different concepts, dimensions, and attributes, reviewed in the literature related to Family Business, Internationalization and Internet make a complex net to

understand the influences of each one on them the result, but among family businesses internationalization has become a strategy for growth, and sometimes even for survival (Kontinen & Ojala, 2010).

Investment in information technologies positively affects the growth of the entrepreneur-led family businesses (Davis & Harveston 2000), and this impact is even more relevant for smaller firms, where there exists a shortage of resources (Pezderka & Sinkovics, 2011). ‘The information superhighway- the Internet’ has the potential of resolving some long-standing problems associated with exporting. Information acquisition, market access, export promotion and the costs associated with these activities have been identified as critical impediments to export market entry and export volume growth for many firms (Samiee, 1998). Despite these advantages, family firms have some concerns about what is new and are less prone to invest in it.

Ratten *et al.*, (2017) analyzed the aspect of internationalization strategies with special reference to family entrepreneurship. The primary areas of research were associated with the family business and were assessed in terms of societal trends and socio-emotional wealth. For this purpose, a literature review was conducted that focused on the emerging themes pertaining to the family businesses’ decision to internationalize. The study emphasized how the internationalization of family enterprises requires an entrepreneurial mindset. While more family companies grow globally, the positive implications of internationalization, including new markets and the development of essential business expertise, needs to be focused upon. Moreover, the study suggested that the response of families to internationalization must be more creative and risk-taking to improve their prestige and results.

The Literature review suggests a mediation effect for the Internet between Family Business and Internationalization.

2.6. Conclusion – Literature Review

Based on the literature review, the MODEL A was created (Figure 7), as previous discussed and presented on Figure 3, Figure 4 and Figure 6.

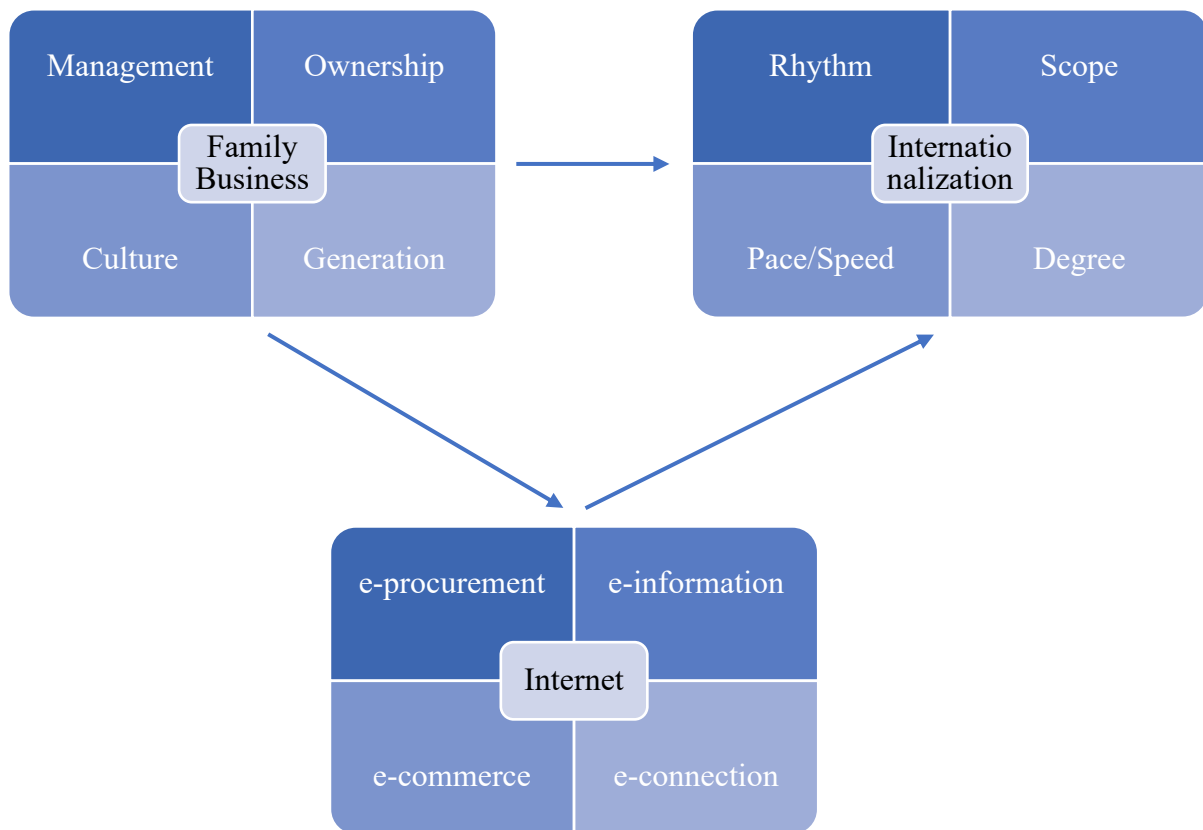


Figure 7. Model A – Theoretical Model – Literature Review

Family companies are defined as enterprises that fulfil a goal set by members of the family, and the domain of a family business is defined by the family's desire to retain the company family-owned (mirrored in possession, administration, and management participation) and to guide it through subsequent generations (Goel & Jones, 2016). While Internationalization is the opportunity to get larger, more profitable, and durable in time (Gande, *et al.*, 2009; Hitt *et al.*, 2006). Furthermore, the Internet is a new and easy ‘tool’ to access to this process, it is affordable, and allows small and medium firms to enter new markets inaccessible under the traditional form of internationalization (Bell & Loane, 2010; Prasad, *et al.*, 2001; Gabrielsson & Manek, 2004). The current study aims to comprehend the role of the Internet in the internationalization process of family businesses, considering that as different attributes with different behaviors and consequences. The literature pertaining to the concerned topic suggests that the progress and broad use of the Internet offer companies’ great ways to use their data processing

capabilities and global networking capacity. In this respect, the Internet has created a whole new debate on export promotion, accelerated internationalizing opportunities and interactive customer service, which would increase business processes and intensify competition, not just for domestic or major international companies but also for family-based businesses and family-based SMEs. The Internet and IT developments have changed foreign business activities. Not only does the Internet provide opportunities like increasing cross-border cooperation for big companies, such as multinationals, but it also presents major advantages for family businesses in foreign markets. Family businesses traditionally relied on their export intermediaries, including marketing, logistics, finance, and credit, for some roles in their export operations. The Internet is an especially interesting means of internationalization for small and medium-sized enterprises and family businesses as it provides new avenues of expansion for these risk-averse business entities. Internet, particularly the websites of businesses, may help customers find goods and prices and allow companies to reach potential international buyers; this functionality can replace some roles that export intermediaries traditionally perform.

Online portals like LinkedIn and Facebook, provide cheap platforms for businesses to communicate with overseas customers and encourage internationalization. Thus, family businesses can utilize these platforms to establish their grip over foreign markets without any actual investments. Traditional family businesses are more conservative and internet usage in these family businesses is more problematic. Family companies with a vital position in all economies often have several issues with modern ways of marketing and the use of new marketing instruments in the changing industry. Relationship Marketing is an effective means of reaching consumers and ensuring that they are committed to companies under current competitive conditions, and the internet plays an important role in enhancing the capabilities of the firm. Although, several family firms are reluctant to use of new tools and technologies due to the risks associated with them (Yıldırım, 2015; De Massis *et al.*, 2015).

Internationalization has become one of the main elements in a company's successful functioning and prospects. It is important to be competitive at the international level to thrive in the global market dynamics. In contrast, if the business is not successful within its own region, internationalization rarely occurs. The dilemma of competition before foreign companies seems closely linked to the internationalization process. For this

reason, the family enterprises have revised their tactics and positioned themselves on the world market to remain successful. However, the emerging world economy is much more diverse and globally established. For this reason, entering the global market needs an in-depth study of the role of the own country and other national firms as regards international competition. In this context, the internet can play a crucial role in the internationalization of family businesses. The four major dimensions of the internet that is e-procurement, e-connection, e-information, and e-commerce can prove to be immensely imperative in the internationalization process of family businesses. Moreover, due to the risk-averse nature of the family businesses, the internet can play a safe option to enter the international markets since it requires little availability of resources and investments. The current study, therefore, aims to analyze the role of internet technologies in the internationalization of family businesses. This topic of research helps in formulating an unbiased picture of the state of the adoption of internet technologies and strategies to enhance family business practices. It proves to be significant for family businesses that aim to enhance their performance in foreign markets. This study gives insight into the mediation of the internet on the different dimensions of family businesses. It will further aid the IT professionals in recognizing the issues faced by the businesses while implementing the internet technologies to enhance the reach of their products and services in the international markets and suggest strategies that can be implemented to address the same. The study will provide a significant foundation to influence the research of similar kinds that need to be pursued to make progress and address various issues and challenges associated with the implementation of internet technologies in family businesses' operations.

Research Gap

From the current analysis of the literature review, it has been observed that there exist several studies pertaining to the internationalization process, the use of the internet, and the aspect of family businesses, however, as per the researcher's knowledge, no such study has been conducted which aims to analyze the role of the internet in enhancing the internationalization process of the family businesses. Thus, the current study will try to address this research gap and will try to add more literature to the current research domain. Concluding, the literature review allowed building the first model that contextualizes the first study of dimensions and concepts, generating some connections to be analyzed.

3. METHODOLOGY

Research methodology can be defined as the systematic techniques and procedures that assist in selecting, identifying, analysing, and processing information regarding a research topic. The research methodology section permits the researcher to evaluate and analyse the overall reliability and validity of the research. Research methodology can also be defined as the scientific method of problem-solving. It is an intensive, formal, and systematic process that assists in carrying out appropriate analyses using scientific methods. Therefore, the current chapter highlights the research approach, research design, research paradigm, data collection, data analysis, and ethical considerations used in the present study.

3.1. Research Paradigm

The research paradigm or philosophy is a group of notions and beliefs that a researcher finds true. It is regarded as how the researcher comprehends, adapts, and perceives knowledge, truth, and reality. It represents the convictions, principles and instincts that drive the research. It also focuses primarily on the strategic approach to which data collection and analysis can be conducted. Thus, the research paradigm can underline the basic fundamental concepts upon which the thesis is concentrated. Interpretivism and positivism are the two major research paradigms (Zukauskas *et al.*, 2018).

Science is the only foundation for information acquisition in a positivist research paradigm. The most crucial research philosophy aims to analyse a perspective or phenomena through analytical tactics such as statistical analysis and scientific analyses. It is essential to have a quantitative nature of the data obtained. Since quantitative data is used in the positivism research philosophy, the study's reliability and validity are improved considerably. Additionally, positivists believe that human behaviours and individual actions must also be tested through scientific and technical means (Park, Konge, & Artino Jr, 2020). While on the other hand, the interpretivism philosophy is employed within the research study to examine the research elements keeping the interests of the individuals under consideration (Manary *et al.*, 2013). The interpreters believe that the individuals' natural surroundings are not evident in human contact terms (Goldkuh,

2012). The interpretivism research paradigm recognises that fact, truth, or intelligence is contextual and varies according to personal views or insights. It also describes the details that are inscribed in cultural and historical values. The knowledge, therefore, continues to change depending on the perceptions and viewpoints of the individuals about the deciphering truth.

The positivism philosophy in the present context involves rational tests, controlled experiments, and statistical and mathematical research reproducibility. Information is therefore considered an objective entity that tolerates no adaptation or alterations.

The positivism paradigm is helpful for the current study since it is implied to the structured idea of research. Moreover, this paradigm is essential for the present study since it determines the dependent variables, and their association with the independent variables, and guarantees that they obey the methodological test criteria and the essential logic guidance (Hovorka & Lee, 2010).

3.2. Research Approach

The research approach depends on the methodology used to record, present, and gather the data relevant to the current study. The research approach defines the whole scope of the process, which identifies the data processing procedure and acquired knowledge interpretation (Alase, 2017). As per Buckley (2016), the research approaches are of three types viz: qualitative, quantitative, and mixed approaches.

The qualitative design can be considered the most flourishing examination to explore and collect data regarding the inquiry with contrasting conditions. This approach analyses and explores the opinions of the individuals regarding the problem of the study. Qualitative research is mainly called exploratory research, which helps a researcher obtain insight or detailed information about the underlying views or causes (Neuman & Robson, 2012).

The qualitative methodology intends to understand a complex reality and the meaning of actions in each context. On the other hand, quantitative methods seek to obtain accurate and reliable measurements that allow a statistical analysis (Queirós *et al.*, 2017).

Qualitative research is therefore concerned with aspects of reality that cannot be quantified, focusing on understanding, and explaining the dynamics of social relations. Maxwell (2013) advocates that qualitative research works with the universe of meanings,

motives, aspirations, beliefs, values, and attitudes, which corresponds to a deeper space of relationships, processes and phenomena that cannot be reduced to the operationalization of variables.

The quantitative research approach includes the empirical and systematic investigation using mathematics and statistics and assessing the numerical data. In short, in quantitative research, data is crucially selected and analyzed in numbers (Basias & Pollalis, 2018). The researcher investigates variables using a narrow lens in the quantitative design. A finely tuned method based on more static and less reflexive technical inputs is used in the quantitative tradition. As the name implies, this design determines the amount and explores the relations between the variables in the analysis (Brannen, 2017), because the samples are generally large and considered representative of the population, the results are taken as if they constituted a general and sufficiently comprehensive view of the entire population (Martin & Bridgmon, 2012).

Quantitative research focuses on objectivity and is especially appropriate when there is the possibility of collecting quantifiable measures of variables and inferences from samples of a population. Quantitative research adopts structured procedures and formal instruments for data collection. The data are collected objectively and systematically. Finally, the analysis of numerical data is performed through statistical methods, often using software such as SPSS, R or Stata, for example.

A mixed research approach can be justified as the mixture or amalgamation of the qualitative and quantitative research approaches as it possesses the orientation and ideas of both systems. Thus, this approach is generally used in research studies that focus on both in-depth and objective information. This data is usually collected via different sources and samples (Wagner *et al.*, 2019). For analytical evidence, both numerical and verbal meanings prove helpful, and a hybrid analysis technique or methodology is being applied. In addition, data collected from many networks and sources will improve the reliability and validity of the findings.

Another form is the mixed methods, which is a procedure for collecting, analyzing, and “mixing” or integrating both quantitative and qualitative data at some stage of the research process within a single study to gain a better understanding of the research problem (Tashakkori & Teddlie 2003; Creswell 2005).

When used in combination, quantitative and qualitative methods complement each other and allow for more robust analysis, taking advantage of the strengths of each (Green *et al.*, 1989; Miles & Huberman 1994; Green & Caracelli 1997; Tashakkori & Teddlie 1998). Moreover, data obtained from many sources or channels are also known as data triangulation (Cohen *et al.*, 2013). This technique is used explicitly in case studies that explore the same phenomenon and prove it with various forms of data. However, it also proves to be useful in other cases. A mixed research approach or methodology is implemented to collect empirical data consisting of both numerical and verbal values.

These mixed approaches are also united by a shared commitment to understanding and improving the human condition, a common goal of disseminating knowledge for practical use, and shared responsibility for rigor, conscientiousness, and critique in the research process (Reichardt & Rallis, 1994). Casebeer and Verhoef (1997) argue that qualitative and quantitative methods should be part of a research continuum with specific techniques selected based on the research objective.

All these studies found that both the quantitative and qualitative research approaches have specific pros and cons. Therefore, combining the qualitative and quantitative methods, the hybrid system can combine the positive aspects of both directions.

Management research asks a large variety of questions, draws on numerous theoretical paradigms from a range of disciplines, and is characterized by investigations involving multiple levels of analysis; there is benefit in combining the complementary strengths of quantitative and qualitative approaches (Currall & Towler, 2003).

Choy (2014) compares the strengths and weaknesses of qualitative and quantitative studies. He concludes that both methodologies can be appropriate according to different contexts and goals. Still, he advocates that a complementary approach between qualitative and quantitative methods for the same research topic may provide better results than just one isolated methodology.

The current study involves the collection of both qualitative and quantitative data in mixed methods sequential approach. Firstly, the study involved collecting qualitative data, wherein personal interviews were performed with six managers/owners in different family-owned manufacturing SMEs, using semi-structured interviews. The results from the interviews were then crossed with documental data to enrich the quality of the

collected data and inserted in the NVIVO. Secondly, a quantitative analysis was performed with a specific group of companies under study. “The Portuguese manufacturing small and medium companies”. The quantitative analysis was conducted using a questionnaire to measure three aspects: degree of families, internationalization, and use of the internet. The assumptions are validated, clustered, and structured as per the models developed. The data collected is then analyzed through statistical analysis and thematic analysis using software SPSS and SMART PLS. Finally, conclusions and inferences are drawn from the analyzed data.

3.3. Research Design

A research study is comprehended to be valid when the study’s findings are true and accurate. The research design can be defined as the conceptual blueprint that monitors the conduct of appropriate research. Any researcher prepares a pre-determined action plan that includes the collection outline, the analysis of the data, and the data's measurement. The research design is not related to any specific data collection technique or any specific type of data. Thus, when designing the research process, it is imperative to recognise the evidence type to address research questions in a contextual way (Akhtar, 2016). Riddler (2017) suggested four significant research designs, mainly attributing Exploratory, Experimental, Descriptive, and Explanatory research designs.

Snyder (2019) revealed that the descriptive research design addresses the issues, trends, situations, and population systematically and accurately. This design answers the how, where, and when queries pertinent to the research context. Although, it is unable to answer the why queries. This design proves to be highly suitable for investigating research studies with more than one variable. Moreover, the researchers use an experimental research design to accomplish the survey’s goals through statistical analysis and scientific approaches. The researchers use the experimental research design to assess the pre-defined hypothesis generated via variables identified from the previous literature review (Gray, 2019). Rahi (2017) believes that an explanatory research design assists in identifying the relationship between two or more two variables. It aims at outlining the rationale behind the relationship and its resulting impact on a third variable. Finally, the experimental

design is generally used when the researcher is previously aware of the association between two or more two variables. Gupta and Singh (2020) suggest assessing an issue, domain, or subject in depth. It is generally helpful for the researcher while handling the why queries. This research design helps decipher or explore the information and facts that are still not revealed. The plan addresses issues pertinent to managerial and social research.

In the qual-quant version, the current study adopts a mixed-method sequential exploratory design. This is because it will explore the course of events and issues encountered by the family businesses during the internationalization process. They happen independently in nature without any manipulation or interference. Moreover, it will help outline the perspectives of family-run firms regarding internationalization through internet techniques. Further, as priorly discussed, it is more conducive to answering.

The critical goal of the exploratory study is to determine the limits of the setting in which the challenges, possibilities or circumstances of concern are likely to reside and identify the significant factors or variables that may arise and be critical to the research. The analysis is typically defined by a high degree of versatility and lacks a structured framework (Van Wyk, 2012).

In the first phase, the current study adopts a systematic combining strategy to accomplish the study's goals. Systematic Combining is a qualitative research technique used to establish hypotheses deriving from scientific evidence through a comparative coding method, holding a primary position within the study domain. "Systematic combining' as a non-linear, in contrast to the mainstream perspectives on case research (Dubois & Gadde, 2014).

A new validation process, a quantitative analysis, is launched to the specific group of companies understudy in the second phase to validate the further information from the above method.

Table 2 presents a scheme of this study research. From top to bottom are indicated the different investigations done, and on the horizontal, the actions implemented and the other steps towards the conclusions.

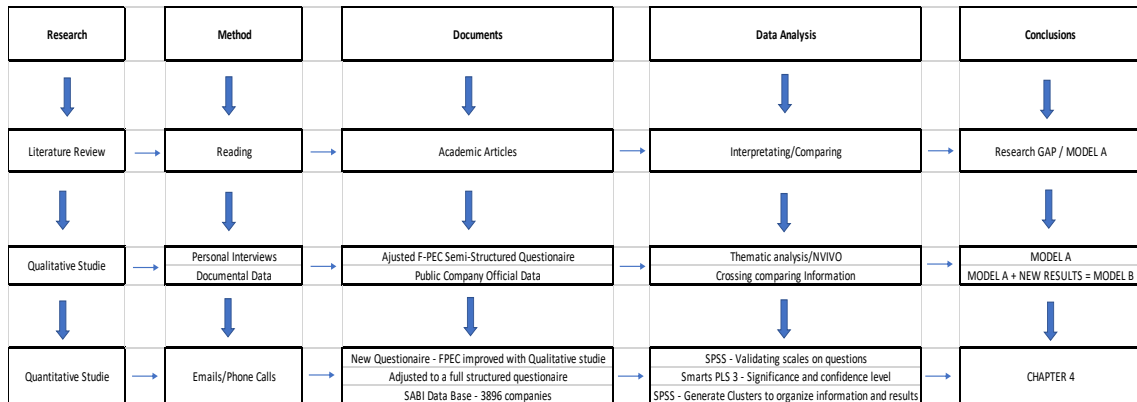


Table 2. Research Design

3.4. Sample

Before the sample is chosen, it is essential to highlight the research questions to justify the sample selected. The questions of the research study are as follows:

- What is the impact of the internet on the internationalization of family firms?
- How do these firms use the Internet to promote business internationally?
- Which barriers do the family firms face while using this new resource?

Based on these questions, a suitable sample frame is selected that can assist in answering all the research questions and help accomplish the study's goals.

3.4.1. Sampling Techniques

The sampling technique is essential for the research study because the entire analysis results depend on the sample frame chosen by the researcher (Landreneau & Creek, 2009). It is the method used to represent the whole population and evaluate its traits by selecting a subset of individuals. There are two sampling techniques, probability sampling and non-probability sampling. Probability sampling is a perfect data collection technique that guarantees that the outcomes for the broader population are generalizable and involve the least external and internal factor interference. Each population participant is equally likely or certain to be chosen to collect the requisite data in the probability sampling method (Etikan & Bala, 2017). Probability sampling can be classified into- Systematic sampling,

Random sampling, Cluster sampling, and Stratified sampling. While in the non-probability sampling technique, every member of the population does not hold an equal probability of being selected (Bacher, 2019). There are five non-probability sampling methods: convenience sampling, consecutive sampling, quota sampling, judgemental sampling, and snowball sampling.

3.4.2. Chosen Sampling for the Qualitative Approach

Integrating procedural strategies in qualitative research enhances the study’s reliability (Noble & Smith, 2015). The first stage of current research involves a judgemental or non-probability sampling technique. There is a particular explanation for the individuals included in the chosen survey. In this respect, the researcher believes that some units are more suitable than the other units for analysis. As the name implies, the subjects are deliberately selected. This sample is chosen as per the researcher’s needs, and the model chosen is also subject to certain biases since the demographic and structure are not similar (Etikan *et al.*, 2016).

The selected six companies are family-owned businesses, all industrial, located in different regions of Portugal, and have different dimensions in terms of sales, human resources, and production capacity. So, the companies selected for the study followed some rules, such as being family-owned with manufacturing activities and a significant international business level. The selection was made together with the “Associação Industrial do Porto”. In Table 3, some public data is presented to understand better, which will be enriched with the interview’s information.

The objective is to have a broad spectrum of companies and managers in the field of study under analysis, to have a more successful result on the interviews that allow having valuable results.

Company's	WWW	SME	Manufacturing	Family Owned	Managed by Family	Sales International	Products
Tupai	www.tupai.pt	yes	yes	80%	50%	Yes	Handles
Atz	www.atz.pt	yes	yes	100%	100%	Yes	Locks
Jaben	http://www.jaben-sa.com/	yes	yes	100%	100%	Yes	Showers
Arbo	https://www.arbo.pt/pt/	yes	yes	50%	50%	Yes	Oils
Tormel	https://www.tormel.pt/	yes	yes	100%	100%	Yes	Knobs
Copefi	www.copefi.com	yes	yes	100%	100%	Yes	Car Components

Table 3. Companies’ identification

TUPAI:

TUPAI, established in 1976, is a family-owned company that operates in the metalworking sector, producing door handles as a core business (70%), and metallic products in brass, Zamac, and Stainless Steel for many other applications as luxury bags and car industry (ladies bag accessories, and car keys).

commitments and respect for legal and environmental norms. With the Mission of being a global company that involves people and partners in the continuous search for success, TUPAI is an organization that combines the knowledge of generations with professionalism and good management practice.

For more than 40 years, it has extended its presence in Portugal and several countries worldwide, operating in two different business segments, standard products (hardware for building construction) and OEM products (according to customer specifications).

To expand its international business has a branch in Poland to distribute to all East European countries. In the last decade, new construction is emerging at a high growth with potential business opportunities. Due to this important presence, TUPAI is the market leader in Poland, Slovakia, Romania, the Check Republic, and Lithuania.

TUPAI is also present at the most important exhibitions in the World, from China to the USA, Europe, national shows, and distributors in local exhibitions supporting the growth and development of the network worldwide. TUPAI is a reference brand with architects, designers, distributors, installers, and final consumers.

ATZ:

ATZ™, also a family business, was founded in 1990 with the initial goal of manufacturing locks for the North American Market. Since then, and because the market demanded other products, ATZ™ has developed and added new lines to its catalogue. Today it has over 9.000 references. The company's mission is to manufacture high-quality hardware and bathroom accessories for domestic, commercial, and industrial purposes. ATZ™ is an international brand with middle to high-market products. It is present in the following markets: Europe, North America, South America, Africa, and the Middle East.

ATZ is a regular presence on the most important exhibitions in the markets, supporting local distributors and agents, helping with international business relations, and promoting the brand internationally.

JABEN:

Jaben is a family-owned company devoted to producing shower cabins, bathroom accessories and domestic utilities in Agueda - Portugal.

Jaben exports 60% of its production. Its success is due to the quality, prices, and good services, which are always very appreciated by customers and are the main reason for their preference. The main markets are Central Europe, Benelux, and Germany, and a significant position in the Middle East.

ARBO:

Arbo is a family business established in 1979, specializing in parts for the auto, bike, and moto, including cleaning liquids, oils, and accessories. Located in Santo Tirso, Portugal exports to European countries, mainly Spain, with a specific range of products. Arbo buys most of its components from the international market: Asia and Europe.

TORMEL:

Tormel is a family company established in 1980, operating in the metalworking sector, producing machined parts with different metal materials. Exports to various European countries regularly since the early stages of the company. Spain is their most important market, but their sales are very technical, involving engineering and long-term relationship with the client. Every product is produced based on client requirements and specifications.

COPEFI:

For almost two decades in the automotive industry, the COPEFI Family Group has grown steadily and consistently and been a TIER2 OEM provider since 2001.

Employs over 250 people and enjoys global recognition, which is reflected in its sales to the significant TIER 1 company. With four production facilities, located in strategic locations in the European and NAFTA markets, COFEPI caters for the world market of injected plastic components in the automotive industry.

COFEPI has four factories and two international offices. Factories are in Portugal, Romania, Mexico and France, and offices in Germany and USA.

COFEPI production is based on long-term contracts with car manufacturing brands with very specialized products, involving engineering and specific requirements by the clients in terms of product manufacturing and quantities produced during the time.

3.4.3. Chosen Sampling for the Quantitative Approach

The objective is to study manufacturing SMEs (small and medium enterprises) in Portugal. In total, the SMEs account for over two-thirds (68.4 %) of overall value-added and over three quarters (78.0 %) of employment, against an average of 56.8 % and 66.4 % respectively in the EU (2020 SBA Fact Sheet, European Commission). They represent the essential form of enterprise in Portugal.

Working with the SABI Data Base, selected every manufacturing company in Portugal, following the Portuguese rules for PME's status (not including the micro companies). So, the population consists of 3.986 companies. All these companies were contacted, and 230 answered, corresponding to the study sample.

In the sample, all companies that had at least 1% of family capital were considered at some level family businesses, this being the selection factor, and naturally fulfilling the characteristics of SMEs as defined in Recommendation 2003/361/EC:

The medium enterprise employs between 51 and 250 people; the annual turnover does not exceed 50 million euros, and the annual balance sheet total does not exceed 43 million euros. Small business employs between 11 and 50 people and the annual turnover or annual balance sheet total does not exceed 10 million euros.

3.5. Data Collection

Maxwell (2013) suggested that data collection is collecting information from different means to answer the research questions and accomplish the study's goals. The procedure of data collection plays an essential role in research analysis. Additionally, the statistical tools for any research analysis are dependent on the type of data that the researcher gathers. The data is collected from several sources, which involves the collection through primary and secondary means. The data is then analyzed to address the research questions and objectives.

3.5.1. Primary data collection techniques

The primary data involves gathering raw data for the very first time. The most appropriate technique for collecting relevant information is the primary collection method (Miller *et al.*, 2011). This data is generally collected through the questionnaire approach and the interview technique. Additionally, qualitative, and quantitative methods may be applied together to manage the primary data. The researchers can disseminate the questionnaires through online or offline surveys in a quantitative primary data collection approach and hold face-to-face interviews in a qualitative approach (Neuman & Robson, 2012). Several methods can be adapted to collect the primary data.

Firstly, the study involved collecting qualitative data. Personal interviews were performed with six managers/owners in different family-owned manufacturing SMEs, based on an adjusted F-PEC (Family-Power, Experience and Culture), a semi-structured interview.

Secondly, a quantitative analysis was performed with a specific group of companies under study, viz "The Portuguese manufacturing small and medium companies". The quantitative data collection was conducted using a questionnaire that aimed to measure four aspects viz, company characterization, degree of familiness, internationalization, and use of the internet.

Interviews

In this method of data collection, two groups of individuals are involved. These two groups are the interviewee and interviewer. The interviews are generally conducted via three prominent means: telephonic, virtual, and in-person interviews. The interviewer asks

the questions to the interviewee in a face-to-face manner. This interview technique helps in collecting in-depth information and assists in detecting any bias from the respondent's end. Although this technique is more expensive, time-consuming, and can be subject to researcher bias (Roulston & Choi, 2018). As suggested by Stuckey (2013), three prominent types of interviews exist narrative interview, semi-structured interview, and structured interview. Semi-structured questions have a goal but are adjustable in sequence depending on the angle of the individual's replies, whereas structured interviews have a predefined goal but are not flexible and have a defined order or sequence. Furthermore, Alsaawi (2014) suggests that a structured interview is a regulated method of gathering information from interviews. In other terms, it is a pre-planned survey in which the investigator disparages the interview questions prior to the interview. This structure is a good method to maintain the interview concentrated on the main issue. It moreover makes the interviewers' responses consistent. Unfortunately, the uniqueness of this form of interview is lacking, and the accessibility of in-depth information is limited. Because of the tight interview structure, the variety of replies is restricted.

Moreover, Alsaawi (2014) further proclaims that the unstructured interview is the absolute antithesis of the last one in that it has a lot of leeway. Interviewees have the ability to expound, which might go in unexpected paths. This style is akin to a discussion wherein the interviewer may ask one straight query and afterwards, the respondent has the option of answering whatever comes to their mind. The interviewer's disruptions are kept as low as possible. As a result, the respondents would be in a more comfortable environment, prompting some to refer to it as an "anthropological interview." However, this type of interview may yield a large quantity of data, it is suitable for investigators who wish to focus in detail on a single problem. These are also called narrative interviews as they are informal and often commence with a broad open-ended question regarding an interviewee's experience, during which the subject is seldom disrupted while narrating their tale.

Questionnaires and Surveys

Questionnaires and surveys are two related technologies used for primary data collection. They are a series of questions prepared or typed and given to the research sample for collecting their responses and answers. The survey is returned to the researcher after the

necessary answers are recorded for the purpose of analysis. Pilot research must be carried out where the questionnaires are answered by experts and potential respondents the weakness of the questions or methodologies utilized can be assessed. Mainly offline and online surveys are used for the collection of data. This technique is almost free from bias and cheaper; however, it is a slow process and involves non-response bias to a large extent (Rahi *et al.*, 2019).

3.5.2. Secondary data collection

Padgett (2016) suggested that in the secondary data collection technique, the information is collected from past studies that were conducted by scholars previously. The data collected from secondary sources include a wide range of evidence. The focus of this technique is to collect data to acquire accurate knowledge of the subject. The information from the secondary sources is collected from several publications, reports, essays, and websites relating to educational concepts and books related to the topic of research (Johnston, 2014).

Topics of Interviews with Industrial Companies – PHD Thesis

A - Type of company and management model.

1 - Identification

- Company:
- Name:
- Position:
- Age:
- Education:

2 - Property

- Family business:
- % Family capital:

3 - Management Model

- Does the company have a "Governance Board" (Advisory Board)?
 - Yes: How many members?
 - How many family and non-family members?
- How does the "Board" decide Majority or consensus? Or influence from the Leader?
- Is the leader a member of the family? Was nominated by the "board"?

4 - Family Generation

- Which generation owns the capital of the company?
- Which generation is active on the "Governance Board"
- Which generation manages the day-to-day business of the company (executive board, CEO)?
- How many family members are active in the company in executive roles? Majority, Minority?
- Is the succession being prepared? Will you be a family member of what generation, next, current, previous?
- Are the family's culture and objectives being passed on to the successor?

5 - Culture

- Do family members who are active in the company share the same values as non-active ones?
- Is there a loyalty between family members? Active and Non-Active?
 - Are family values compatible with those of the company?
 - Being part of the family has a positive influence on life.
 - Support of family decisions regarding the future of the company.

<p>6 - Involvement</p> <ul style="list-style-type: none"> - Does the leader/CEO's spouse have influence in the company? Is she involved in the company? - Influence and involvement of the son-in-law, daughter-in-law, brother-in-law? <ul style="list-style-type: none"> - Involvement of future generations? - Involvement of older generations? <p><u>B - Internationalization, process and method.</u></p> <p style="text-align: center;">1 - Internationalization</p> <ul style="list-style-type: none"> - Is the company present in international markets? <ul style="list-style-type: none"> - Marketing products or services? % of turnover? - Purchasing products or services? Subcontracting? % of purchase volume?
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Table 4. Interview Topics

3.5.3. Chosen Data Collection Approach for the Qualitative Study

With the objective of adapting the study to the Portuguese reality, personal interviews were performed with six managers/owners in different family-owned manufacturing SMEs, based on an adjusted F-PEC (Family-Power, Experience and Culture), a semi-structured interview (Interview Topics Table 4).

All these interviews were personal, done with each manager by the researcher at the companies' headquarters, with a maximum length of 60 minutes, and were recorded and later transcribed. The dynamic of the interview was controlled, and topics were being presented to be discussed in a continuous conversation.

The results from the interviews were crossed with documental data to enrich the quality of the collected information. However, the purpose of triangulation is not necessarily to cross-validate data but rather to capture different dimensions of the same phenomenon. The main point is to gain good understanding from different perspectives of an

investigated phenomenon. That should not necessarily mean cross-checking data from at least two sources or methods and confirming it is correct or not. It's more to increase the level of knowledge about something and to strengthen the researcher's standpoint from various aspects (Yin, 2005, p.126).

3.5.4. Chosen Data Collection Approach for the Quantitative Study

Exploring SABI Database every manufacturing company in Portugal was selected, following the Portuguese rules for SME's status (excluding micro-enterprises). A total of 3986 companies were contacted via email.

A questionnaire is necessary to contact these large number of companies improved with the themes obtained by the qualitative study and adjusted to a fully structured questionnaire to be sent by email to the selected companies. The construction of the questionnaire is also influenced by the experience and results of some important studies that successfully used the F-PEC questionnaire, internet and internationalization indicators both in Europe and the USA (Table 5, Table 6, and Table 7). A first trial was done with this quantitative questionnaire (Attachment I) on some company industrial managers and academic persons, to understand the potential for the possible replies. Some corrections were done to the length but, in general, questions were very well understood and answered in a reasonable time frame.

The final questionnaire has a total of 58 questions, divided into 4 parts (Figure 8)

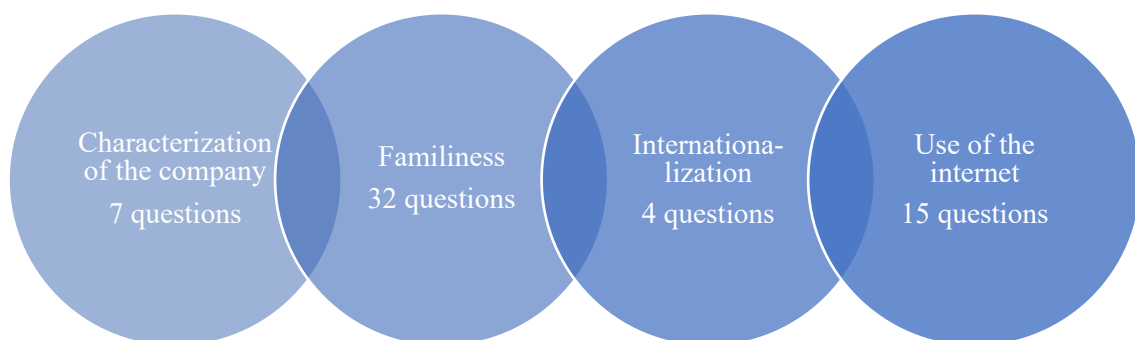


Figure 8. Questionnaire structure

Finally, the questionnaire was sent by email to every manager of the 3986 companies. It had to be resent to some of the companies, follow up by phone calls to be able to receive a significant number of replies. In 2 months, 230 acceptable questionnaires were received, a return rate of 5,77%, which for the population of 3986, gives a 95% confidence level with a margin of error of 6%.

F-PEC Scale	An index of family influence	Validation	Validation
Concept	<i>It enables comparisons across businesses concerning levels of family involvement and its effects on performance as well as other business behaviors.</i>	The principal aims of validating the F-PEC scale are: (1) to facilitate sound comparisons across investigations, (2) to determine the extent of family influence, and (3) to enable the application of family influence in model building as either dependent, independent, moderating, or mediating variables.	Unlike Klein et al, we test the construct validity in a unique sample of U.S. family businesses that considerably varied in size and revenue. This difference is critical because many have argued that context plays a critical role in organizational settings (Coviello & Jones, 2004; Johns, 2006), and common factors emerging when heterogeneous samples are used to develop measures tend to provide a more complete understanding of any phenomenon (e.g., Sutton, 1987)
Dimensions	<i>Power, experience, and culture. These three dimensions, or subscales, comprise the F-PEC</i>	Participants involved a random sample of 10,000 company CEOs from the German Hoppenstedt databank	Participants in this study were respondents to the 2002 American Family Business Survey conducted under the direction of the Loyola University Chicago Family Business Center, the Cox Family Enterprise Center at Kennesaw State University, and Babson College
Objective	<i>The F-PEC allows researchers to utilize data derived from subscales and total scores as independent, dependent, mediating, or moderating variables. The F-Pec will also herald objectivity and standardization of measurement across investigations.</i>	The statistical plan involved two main processes: Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).	We further refine the analysis presented by Klein et al. through our analytical steps (e.g., conducting the exploratory and confirmatory factor analysis with different subsamples) and by testing the convergent validity.
Method	<i>F-PEC development is based on main themes derived from an in-depth content analysis of various definitions of family business. Scales of the F-PEC provide an overall measure of family influence.</i>	Data were analyzed using SPSS 11.0 and AMOS (Arbuckle & Wothke, 1999). Prior to validating the F-PEC scale, data were screened for missing values and possible response sets (Tabachnick & Fidell, 2001).	Accordingly, we set out to make the F-PEC, a measure developed by Klein et al., more robust by further testing the factor structure of the scale and extending their findings to offer evidence of convergent validity
Results		The present findings demonstrate that the F-PEC has high reliability and assesses three domains of family influence (Power, Experience, and Culture) on a business. As far as research allows at the moment, we can conclude that the F-PEC scale is a reliable instrument measuring the overall influence as well as the different types of family influence on a business.	Our findings do suggest that the F-PEC offers family business researchers a valid and reliable scale with which to more finely classify family firms. Moreover, it measures several intangible factors that may be used as the dimensions of involvement and essence (a yet to be measured construct) are refined and converge.
Reference	Astrachan, J. H., Klein, S. B., & Smyrnios, K. X. (2002). The F-PEC scale of family influence: A proposal for solving the family business definition problem. <i>Family business review</i> , 15 (1), 45-58.	Klein, S. B., Astrachan, J. H., & Smyrnios, K. X. (2005). The F-PEC scale of family influence: Construction, validation, and further implication for theory. <i>Entrepreneurship Theory and Practice</i> , 29 (3), 321-339.	Holt, D. T., Rutherford, M. W., & Kuratko, D. F. (2010). Advancing the field of family business research: Further testing the measurement properties of the F-PEC. <i>Family Business Review</i> , 23 (1), 76-88.

Table 5. Successful implementation of F-PEC questionnaire on studies in Europe and USA

Table 6 presents a resume of the questions selected by topic and validate in different articles concerning Internationalization.

INTERNATIONALIZATION DEFINITION

Degree	Is the impact of the international business on the firm's evolution, structure, and processes of relationships among its demographic, strategic, market, organizational, product, and attitudinal characteristics of international expansion (Johanson and Vahlne 1977; Welch and Luostarinen 1988).
Rhythm	Rhythm is defined as "the regularity of the process", or the rhythm at which new subsidiaries are established, influencing the firms expansion result.
Pace/Speed	Pace is a time -based measure and is indicative of how much time passes before achieving a specific target or a specified level of performance (Hurmerinta Peltomaki, 2003; Jones and Coviello, 2005).
Scope	It is usually indicative of the number of countries in which the company operates or with which the country trades or invests; or the degree of the spatial concentration of firm activities.

INTERNATIONALIZATION DIMENSIONS

REFERENCES

DEGREE

Total Revenues __ Revenues outside Portugal __	De Clerq <i>et al.</i> , (2005)
Percentage of employees who spend significant time in activities pertaining to international markets __ %	McGovern, P. (2002)
Percentage of International Assets versus company global assets __ %	Hejazi and Santor, (2005)
In which international countries are company subsidiaries operating?	letto - Gillies, (1998)

SPEED

How much increase the sales since the beginning of internationalization? __ %	Bonacorsi (1992)
How much increase the level of assets abroad since the beginning of internationalization? __ %	(Johanson and Vahlne 1977, 2009)
How much increase the level of workers abroad since the beginning of internationalization? __ %	Zahra, S.A. and George, G. (2002)

RYTHM

How many subsidiaries were open per year in the international markets on the last 3 years Vermeulen, F, & Barkema, H (2002).

SCOPE

How many countries are the company's products sold? Vermeulen, F, & Barkema, H (2002).

How many different activities are performed /offered b the company on those countries? Vermeulen, F, & Barkema, H (2002).

Table 6. Questionnaire on the internationalization process of companies

INTERNET	DEFINITION	REFERENCES /SOURCE
E - Commerce	E - commerce is defined as the use of the Internet to facilitate, execute, and process business transactions	Delone, <i>et al.</i> , (2004)
E - Procurement	The use of integrated Internet communication systems for the conduct of part or all the purchasing process	Delone, <i>et al.</i> , (2004)
E - Connection E- information	enabling firms to interact with distant - region markets and encourage participation of the consumers in content creation and	Delone, <i>et al.</i> , (2004)
E - Commerce	development of applications to benefit from collective intelligence over the Internet	Forman, C. M., & van Zeebroeck, N. (2015)

INTERNET DIMENSIONS

REFERENCES

E- INFORMATION

The World-Wide Web (Internet) initiative is a practical project designed to bring a global information universe into existence using available technology. Forman, C. M., & Van Zeebroeck, N. (2015)

Does your company have a presence on the internet? Yes ___ No ___

If yes:

On-Line Web Site: Yes ___ No ___

On-Line E-commerce: Yes ___ No ___

Facebook: Yes ___ No ___

Instagram: Yes ___ No ___

Pinterest: Yes ___ No ___

Ebay: Yes ___ No ___

Amazon: Yes ___ No ___

Alibaba: Yes ___ No ___

Others: Yes ___ No ___

E-COMMERCE

E- commerce is a strategy for rapid growth, especially by small and medium sized businesses

K.C. Laudon, C.G. Traver (2011)

E- commerce activities provide alternative channels in which we can interact with our customers and enter new markets.

Falk, M *et al.*, (2015) Soto -Acosta *et al.*, (2016)
Santarelli , E., & D'altri, S. (2003)

E- commerce is a way to sell certain goods and services at prices potentially lower than those of traditional distributive channels By conducting e-commerce, manufacturers can eliminate distributors and wholesalers; optimize internal processes; reduce the production period, inventory and circulation ... and thus higher margins.

S.H. Chun,et al. (2011);
K.C. Laudon, C.G. Traver (2009)

E- commerce is a strategy for rapid growth, especially by small and medium sized businesses

K.C. Laudon, C.G. Traver (2011)

E - PROCUREMENT

E- procurement has a positive impact in terms of cost, time, satisfaction, quality, stock, and value in our company .

Quesada, G. (2010)

E- procurement allows a better management and control of suppliers, improving communication and easier access to market data and enhanced intelligence

Toktaş - Palut, P. *et al.*, (2014)

E-procurement systems requires a high investment cost in IT and skilled personnel, and lacks in security and confidentiality

Toktaş - Palut, P. *et al.*, (2014)

E- CONNECTION

Digital marketing and social media provide opportunities for our business attracting new customers and reaching existing customers more efficiently

Taiminen, H., & Karjaluoto, H. (2015)

Given the unprecedented reach of social media, firms are increasingly relying on it as a channel for marketing communication Digital presence by a company can be used for market research, customer support, brand building, buzz marketing, crowdsourcing ...

Kumar, A. *et al.*, (2016)

Digital marketing is not limited to the content of the message; it extends to links with represents a powerful tool for building, consolidate customers and maintaining brand awareness.

Whitla, P. (2009)

Digital marketing and social media provide opportunities for our business attracting new customers and reaching existing customers

Tiago *et al.*, (2014)

Table 7. Questionnaire on the internet process of companies

Table 7 presents the Internet topic, also based on the literature review, these were the selected questions for the questionnaire used in the quantitative approach.

Based on all these validated questions, below is the final questionnaire send to the 3986 companies, with the number and the question.

Identification

1. Sales Portugal %
2. International Sales %
3. Portugal in Euros
4. International Euros
5. Number of Employees
6. Type of Business - Sell Companies
7. Final customer

Family

8. Please indicate the division of shares in the company: Family
9. not familiar
10. Does the company have a board of directors/governance?
11. How many members are the family?

12. How many non-family members were nominated by the family?
13. Who has formal control?
14. Is the decision process influenced by the leader?
15. Does the company have a management body?
16. How many members is it made up of?
17. How many family members are there?
18. How many non-family members were nominated by the family?
19. Who has formal control?
20. Is the decision process influenced by the leader?

Generation/Experience

21. Which generation owns the company?
22. Which generation manages the company?
23. What is the active generation on the board of directors/governance?
24. What is the active generation in the management body?
25. How many family members actively participate in the company?
26. How many family members do not actively participate in the company?
27. Is the company preparing a succession strategy?
28. Is the successor being prepared inside or outside the company?
29. Is the company being prepared to receive the successor and future leader?

Culture

30. Does the family have an influence on the company?
31. Family members share similar values
32. The company and family members share similar values
33. There are family members who indirectly influence the company (former leader, wives, young children, daughters-in-law)
34. Most family members are available to work hard for the company's success
35. Family members strongly defend the company in discussions with friends, employees, and others
36. Family members are loyal to the company
37. The family is proud to be part of the company

38. Please rate the sentences on the scale Family members have much to gain from participating in the family business

39. The family agrees with the company's objectives, plans and policies

Internationalization

40. Value in percentage terms the time that the company's employees dedicate to the international market versus the national market.

41. In how many new markets is the company selling since the beginning of internationalization?

42. In how many international markets is the company present with subsidiaries?

43. How many subsidiaries have opened per year in international markets, on average in the last 3 years?

Internet

44. Does the company have a presence on the Internet (www)?

45. Selling products/services online?

46. Facebook?

47. Instagram?

48. Pinterest?

49. Ebay?

50. Amazon?

51. Alibaba?

52. Does the company use the Internet as a form of market research, customer support, brand appreciation, promotion, and fundraising?

53. Do you use digital marketing and "social media" to attract new customers and reach existing ones more efficiently?

54. Do you use e-commerce to generate a strong increase in sales?

55. Do you confirm that the use of electronic commerce allows the elimination of distributors and retailers, reducing the stocks and costs of the entire process?

56. The company uses the Internet to research and analyze suppliers, reducing costs, time and stocks and improving communication.

57. The company uses the Internet to study and analyze the technological, commercial, and competitive environment in the search for information that helps in the decision process.
58. The company shares and integrates information on the Internet with its various business partners in order to jointly develop improvements to its products and services.

3.6. Data Analysis

Data Analysis is a significant part of the investigation that selects and analyses the results acquired by the researcher. The researchers decided to use tools for data analysis, according to the data acquired (Panneerselvam, 2014).

3.6.1. Qualitative Data Analysis in this research

In the qualitative phase, thematic analysis was used. Thematic analysis is typically used for a range of texts such as interview transcripts. The researcher analyses the data in depth to define general themes – repeatedly occurring topics, concepts, and context trends (Gavin, 2008). Several steps are identified in the process of thematic analysis. The first step involves transcribing the data from the interview responses and arranging it into tables. The second step involves familiarizing with the data, wherein, the researcher reads and re-reads the data to comprehend the participant's responses in an effective manner. In theoretical coding, the codes are introduced. After familiarizing with the data, codification begins using previous codes or initial codes generated to concise the data into relevant codes. Once the initial codes are generated/used, themes are developed, and all the codes are segregated into relevant themes. Following this, the themes developed are then modified and edited as per the research objectives, and only the themes relevant to the topic of research are finalized at this stage. The next step is axial coding. In this step, the researcher tries to establish connections with the codes retrieved and created. While implementing the process of axial coding in the qualitative data collected, the codes are read and reread, and the relevant data is analyzed to group the appropriate codes into categories. The category can be developed based on an existing code or a unique code category can be generated that includes several codes. Once this coding is done several

code categories are retrieved that are underpinned by a set of cleaned-up supportive codes. The supporting codes whirl around different categories called axes. Finally, the last step in this process is selective coding, where all the retrieved categories are connected all around a single category. Here, a single unified theory is defined surrounding the research. The process of selective coding is done in later stages of research and assists in connecting the categories previously developed by applying axial coding to the qualitative data. In the stage of selective coding, the core category derived may be a completely new category or a category derived from the axial coding that is elevated (Richards, 1999).

NVIVO – Transcribe Interviews – New Nodes

Following the methodology chosen, the interviews were transcribed and inserted in the NVIVO software, NVivo, a Qualitative Data Analysis (QDA) computer software package produced by QSR International. It has many advantages and may significantly improve the quality of research (Hilal & Alabri, 2013). The software indeed reduces a great number of manual tasks and gives the researcher more time to discover tendencies, recognize themes and derive conclusions (Wong, 2008).

Bazeley (2007) mentions five important tasks in which NVivo ease analysis of qualitative data. These tasks include:

- Manage data: by organizing several muddled data documents. That includes interview transcripts, surveys, notes of observations and published documents.
- Manage ideas: to understand the conceptual and theoretical issues generated during the study.
- Query data: by posing several questions of the data and utilizing the software in answering these queries.
- Modeling visually: by creating graphs to demonstrate the relationships between the conceptual and theoretical data.

The process started by coding the data (gathering material by topic, theme, or case) following the MODEL A (structure defined by the literature review). Comparing on a

systematic form the responses of interviews. This system permits the identification of new and support factors that influence the theoretical MODEL A (Figure 9).

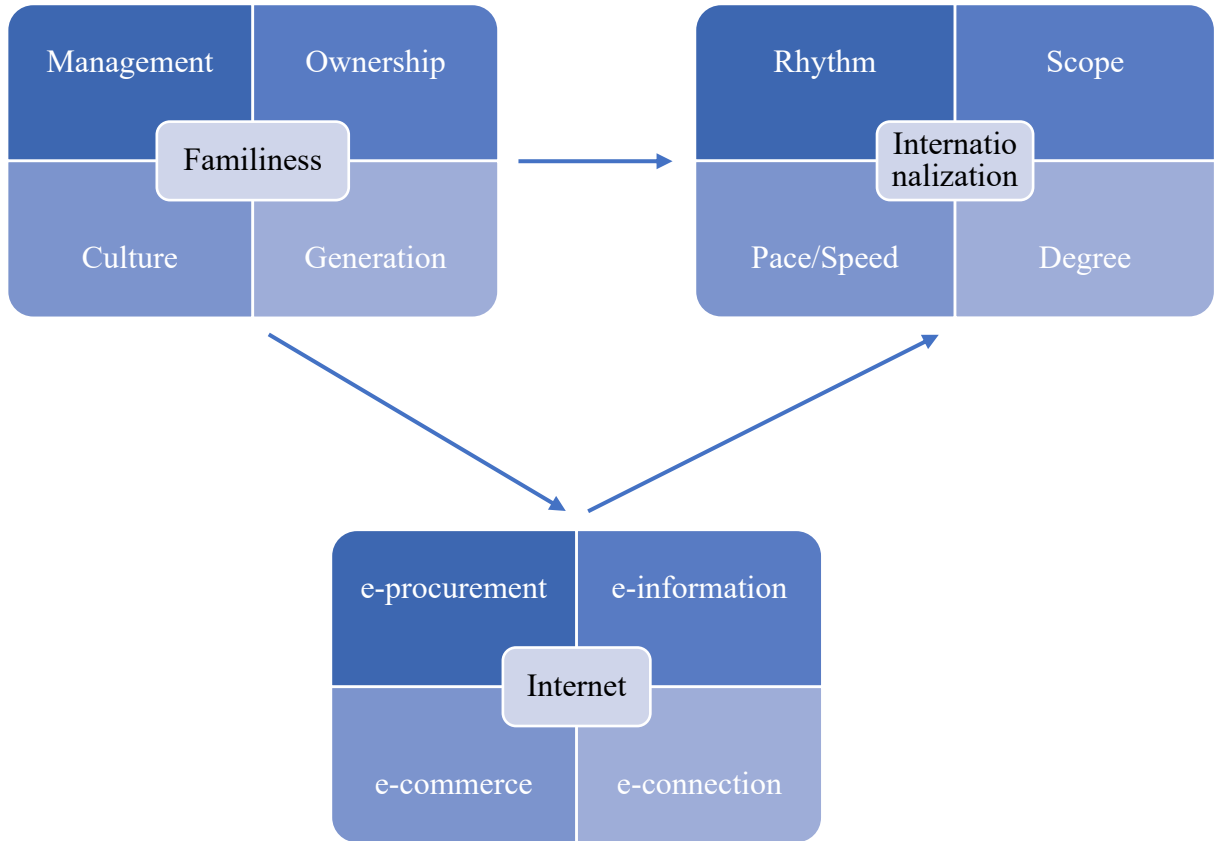


Figure 9. Model A

Nodes (containers for the codes that represent themes, topics, or other concepts) were created on the NVIVO software, to apply a rigorous and systematic analysis, assigning units of meaning to the descriptive or inferential information compiled during the research. Codes are chunks of words, phrases, sentences, or entire paragraphs (Welsh, 2002).

As more concepts are identified, the number of nodes created increases. To organize these, NVivo allows nodes to have more than one dimension (tree branch). Therefore, the system can identify where concepts may have more than one dimension or group them within a more general concept. Sorting concepts into branches in trees to identify common properties and make early comparisons (Bazeley, 2007).

So, the data analysis process employs a circular process that in the initial stage starts with data importing like picture or pdf, video, or interview transcripts (in this study interviews transcripts). Firstly, a mixed coding (based on theoretical codes from model A and open coding) is done in the process of analysis. The data collected is broken down into several distinct segments and then connected to existing codes or new codes are created to label new concepts. Here the researcher breaks open new theoretical possibilities once the researcher engages with the qualitative data collected. NVivo facilitates this because if at any time during the analysis, a new concept was identified in the data, we simply created an additional node to represent its structure (Hutchison et al, 2010).

As an example, a node was created for the Family Business and sub nodes were created for different factors such as culture, where all data regarding culture was gathered and referenced. At this stage, every Node was created following a tree logic and structure.

The process was done to the interviews, they were coded following the Nodes created during the literature review (model A), and some new were added as a result to the “individual” own interpretations, perceptions, experience, and practices of the interviewees. Figure 10 displays an example of NVIVO image.

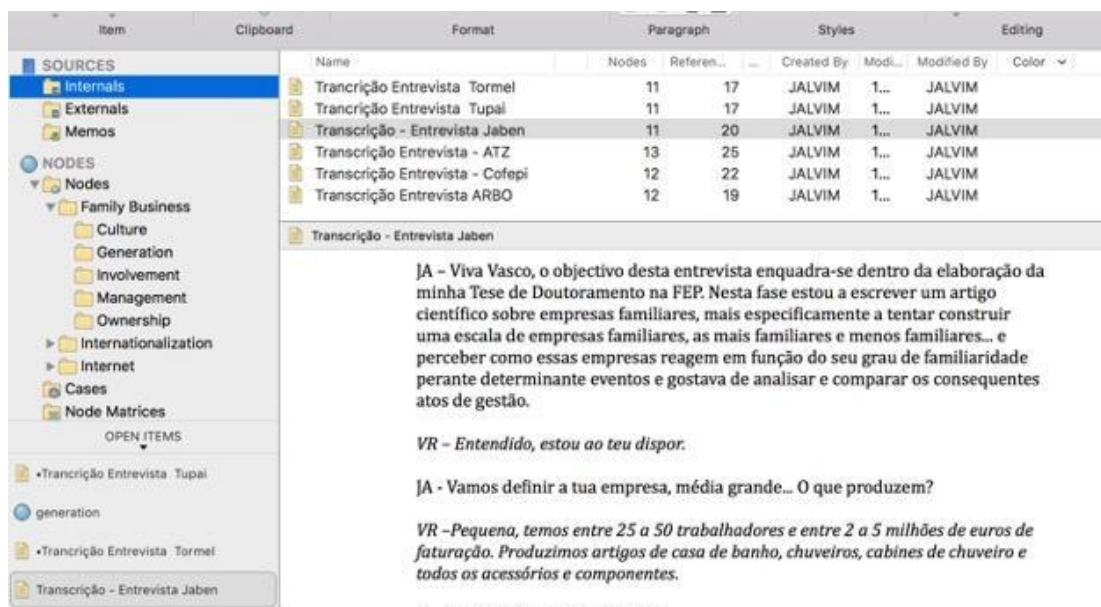


Figure 10. NVIVO image example

A new theoretical Model was created during the qualitative Data Analysis – MODEL B (Figure 11), where three new concepts gain a significant impact that was not so evident from the literature review, and the “Family Business” name was changed to “Familianness” that refers to the essence of the family business. It is a concept related only to research associated with these businesses (Pearson *et al.*, 2008).

The three new concepts are:

- Social Media on the Internet
- Involvement in Familianness
- Intensity at the Internationalization

A second literature review is now performed on these new concepts to have a better understanding of the relations and connections with the previous MODEL A.

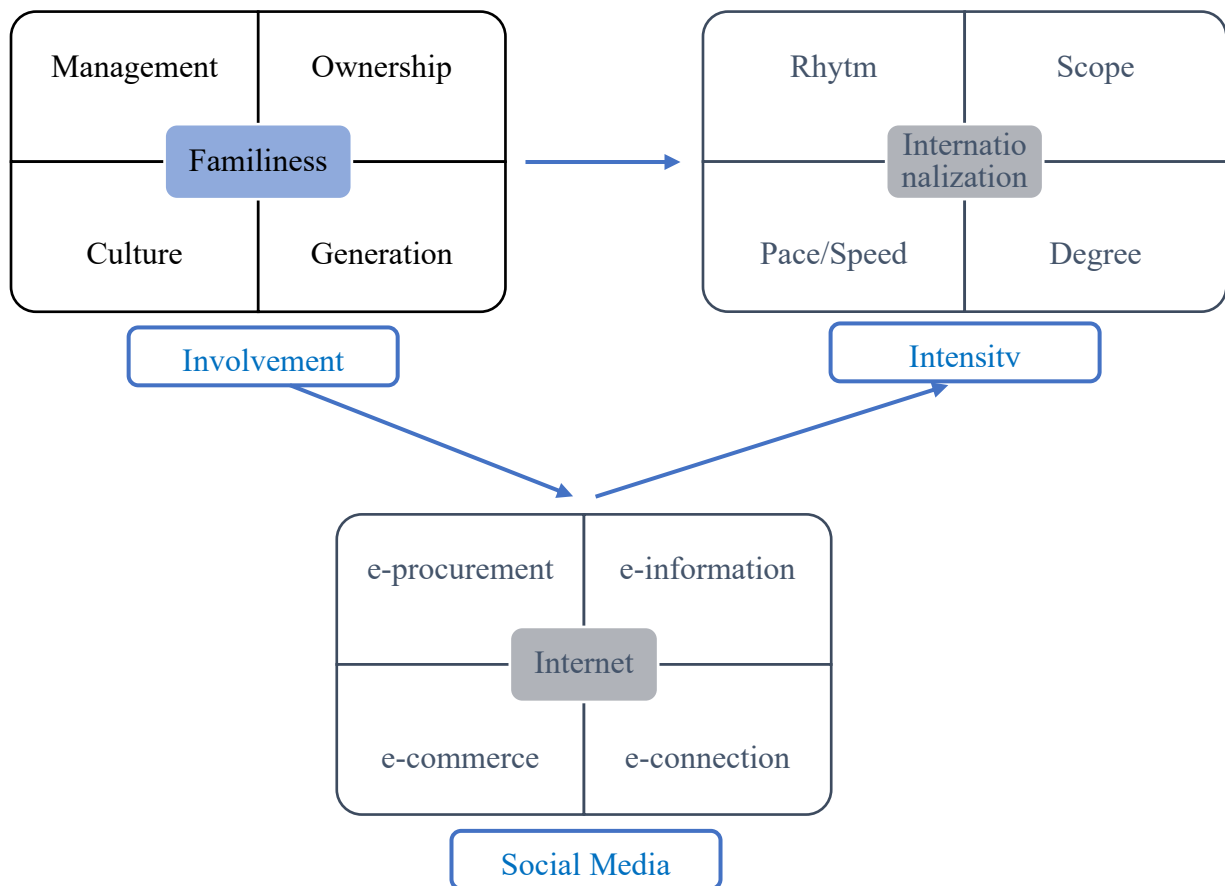


Figure 11. MODEL B – Result of Qualitative Study

These findings and their interpretation will be explained later in the Results Chapter.

3.6.2. Quantitative Data Analysis in this research

The quantitative data is analysed using different statistical methods as the information is gathered in numerical terms and turned into diagrams and charts so that it is plainly understood by the readers. The researcher chooses the most appropriate tests in order to examine the hypothesis, associations, relationships, and the impacts of different study variables on each other. Along with choosing a particular data analysis tool for the quantitative study, the researcher has to use the software packages like MS excel, SPSS and graph pad, etc. to quantify the data.

Validity may be defined as the extent to which any research study accurately measures a study's idea. Three main categories of validity, i.e., content validity, construct validity, and criteria validity may be differentiated. According to Heale and Twycross (2015) content validity is considered the level to which any instrument used in the research process accurately evaluates the features of a construct. Construct validity refers to the extent to which the employed instrument of research evaluates the intended construct, and criterion validity refers to the range to which an instrument of research is associated with other instruments that evaluate similar variables. Validity aims to check the legitimacy of the research undertaken. It identifies whether the research undertaken is believable, and trustworthy, and tends to examine the concept under study or not. Validity proves to be a significant aspect while testing the acceptability and quality of any research study.

The data organization was performed by joining factors that generate the variables we pretend to study on the different dimensions: Familiness, Internet, and Internationalization as presented in Figure 11, MODEL B (resulting from the Qualitative phase).

The quantitative analyses started with Descriptive Statistics, frequencies of the nominal variables, central tendency, quartiles, dispersion, and a Box Plot analysis using the SPSS software to display outliers. Finally, a Clusters analysis was performed, to have a better picture of the firms included in the study.

After, a PLS analysis was done using the Smart PLS3 software model the dependence relationship between one dependent variable and the independent (explanatory) variables, to validate the construct reliability, collinearity Statistics (VIF) and model Fit.

3.6.3. Describing the Variables and Validation – SPSS and PLS3

Following Model B (Figure 11) there are 15 Variables divided into 3 large groups, Familiness, Internet, and Internationalization. The objective is to validate all variables under analysis, Reflexive and Formative.

The reflexive variable defined is Culture. In reflexive constructs, latent variables are manifested or reflected in the items. The set of manifest variables - which are the manifestations of a latent variable - is coded in the same conceptual direction, the relationship between these variables being positive (Cadogan & Lee, 2013). The company's culture is reflected in these factors (Questions 35 to 39), when family members defend the company's positions in the social environment, loyalty, pride, and the importance of belonging to the company's clan.

The formative variable is the Internet, or the Digital Business renamed after the new factor of Social Media influence. A formative measurement model happens when the measured variables are the cause of the latent variable. As pointed out by Diamantopoulos and Winklhofer (2001), a formative measure is essentially a multiple regression with the construct representing the dependent variable and the indicators as the predictors. Ecommerce, Savings, Marketing and Social Media, (Questions 52-to 58). The usage of these business forms and tools by the family managers created a new management area in the company called Digital Business, where new ways of communicating with the market are implemented, whether at the business level through e-commerce, or through savings in the search for new suppliers and partnerships, communication with customers via social media and promotion of the company's products and services.

These variables are all represented in the questionnaire (attachment 1). The first 7 Questions are for Company Identification.

Family Business

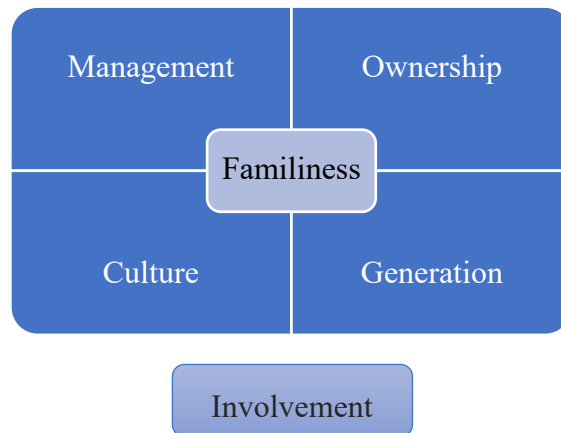


Figure 12. New Family Business (Familiness) structure

Ownership

Questions 8 - Please indicate the division of shares-shares in the company: Family

Question 9 – Non Family%

Question 9 is a control question. In the situation that they do not sum 100% all observation was eliminated.

Involvement

For a better understanding between the variables under analyze, and the importance of the involvement discovered during the qualitative analysis, and impact on the final decisions, a **Total Involvement** relation (Value) was deducted from these questions. **Total Involvement** measures several family dimensions and their relationship, in the **CA** and **CG** the presence of family members in numbers as well as the involvement of the family by its numbers which is called **Family Ativa**. The level of **FAtiva** is higher or lower depending on the total of family members, how many relate to the company. Below are the calculations of this new variable:

1st - Percentage of family members on the Governance Board - %CA

Question 10 - Does the company have a board of directors/governance?

Question 11 - How many members are family?

2nd – Percentage of the family members on the Management board - % CG

15 - Does the company have a management body?

16 - How many members is it made up of?

17 - How many family members are there?

3th – Percentage of Family members involved in the company - %FAtiva

25 - How many family members actively participate in the company?

26 - How many family members do not actively participate in the company?

Now it is possible to calculate the **Total Involvement** of the family in a company, being this value the association of %CA, %CG, and % FAtiva.

Total Involvement Calculation Resume

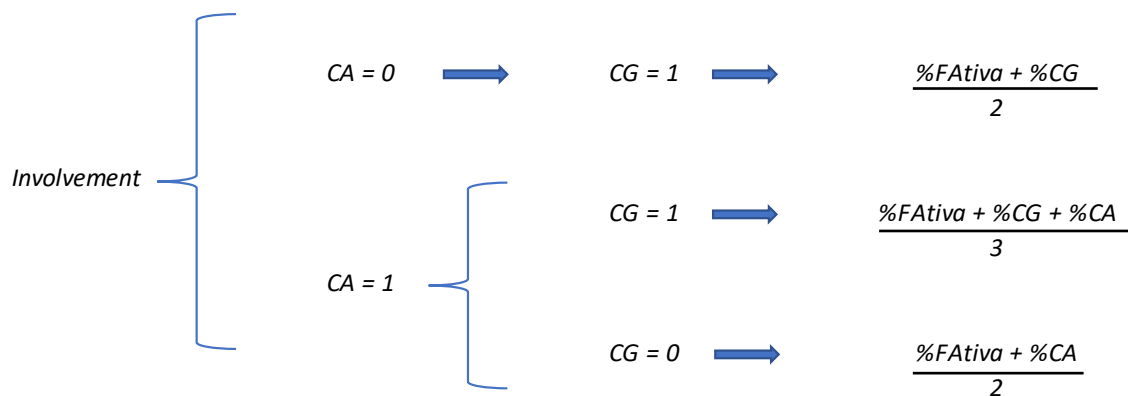


Figure 13. Involvement

Legend:

CA -> Governance Board

CA = (1,0) -> CA = (Has a Governance Board, doesn't have a Governance Board)

CG -> Management Board

CG = (1,0) -> CG = (Has a Management Board, doesn't have a Management Board)

%FAtiva – Percentage of Family members involved in the company

%CA – Percentage of family in the Governance Board

%CG – Percentage of family members in the Management Board

Resuming, the level of involvement depends on family participation on the Governance Board, on the family participation on the Management Board, of the relative number of Family members active on the company, and on the last through the time (generation) with the family active. This result is presented as a percentage, assuming that family members are at least involved in one of the boards and weighs and balances the final score depending on the family's participation and activeness in the company. If nobody from family is involved, it presents value 0

Management

The result of these questions defines the Family influence at the management boards in the company.

10 - Does the company have a board of directors/governance?

11 - How many members are the family?

12 - How many non-family members were nominated by the family?

13 - Who has formal control?

14 - Is the decision process influenced by the leader?

15 - Does the company have a management body?

16 - How many members are it made up of?

17 - How many family members are there?

18 - How many non-family members were nominated by the family?

19 - Who has formal control?

20 - Is the decision process influenced by the leader?

Generation

The result of these questions defines the generation involved in the company on the different boards.

This means that 1 is the first generation, 2 the second one (sons and daughters), 3 the third one (grandsons and granddaughters, resulting in brothers, sisters, and cousins), ...

21 - Which generation owns the company?

22 - Which generation manages the company?

23 - What is the active generation on the board of directors/governance?

24 - What is the active generation in the management body?

25 - How many family members actively participate in the company?

26 - How many family members do not actively participate in the company?

27 - Is the company preparing a succession strategy?

28 - Is the successor being prepared inside or outside the company?

29 - Is the company being prepared to receive the successor and future leader?

Culture

The result of these questions defines the culture of the family, how the family influences the company, and the new generations are influenced by the company.

30 - Does the family have an influence on the company?

31 - Family members share similar values

32 - The company and family members share similar values

33 - There are family members who indirectly influence the company (former leader, wives, young children, daughters-in-law)

34 - Most family members are available to work hard for the company's success

35 - Family members strongly defend the company in discussions with friends, employees, and others

36 - Family members are loyal to the company

37 - The family is proud to be part of the company

38 - Please rate the sentences on the scale Family members have much to gain from participating in the family business

39 - The family agrees with the company's objectives, plans and policies

To precisely observe attitudes, many types of rating systems have been devised. The Likert scale is by far the most used technique. The Likert scale, in its ultimate form, is an X-point magnitude that allows individuals to indicate how strongly they agree or disagree with a certain proposition. A Likert scale (usually) offers five alternative responses to a series of questions, allowing respondents to express their favourable level of agreement or sentiment about the set of questions.

This ‘scale’ is an ordinal variable, however, in many studies it has been accepted that it can be treated as a continuous quantitative variable if it has at least 7 points, so this was the option followed. Moreover, as proposed by Basol *et al.*, (2013), reflective thinking scales can be described as a multiple-item, 7-point Likert scale, and Culture is measured using a reflexive scale, Table 8. Manifestations are the consequence/symptoms of a family culture (Latent Variable) during the time of our Portuguese manufacturing companies. The causal actions flow from the latent variable to the indicators. Analyze used SPSS software to validate the scales only 6 questions had statically valid results (Edwards & Bagozzi, 2000).

Cultura	
<i>Por favor avalie na escala as frases abaixo no contexto da sua empresa:</i>	<i>Não concordo a concordo plenamente</i>
A família tem influencia na empresa	1.....2.....3.....4.....5.....6.....7
Os membros familiares partilham valores semelhantes	1.....2.....3.....4.....5.....6.....7
A empresa e os membros familiares partilham valores semelhantes	1.....2.....3.....4.....5.....6.....7
Há membros familiares que indiretamente influenciam a empresa (antigo líder, esposas, filhos jovens, noras)	1.....2.....3.....4.....5.....6.....7
Os membros familiares na sua maioria estão disponíveis para trabalhar afincadamente em prol do sucesso da empresa	1.....2.....3.....4.....5.....6.....7
Os membros familiares defendem veementemente a empresa em discussões com amigos, empregados e outros elementos	1.....2.....3.....4.....5.....6.....7
Os membros familiares são leais à empresa	1.....2.....3.....4.....5.....6.....7
A família tem orgulho em fazer parte da empresa	1.....2.....3.....4.....5.....6.....7
Os membros familiares têm muito a ganhar em participar no negócio familiar	1.....2.....3.....4.....5.....6.....7
A família concorda com os objectivos, planos e políticas da empresa	1.....2.....3.....4.....5.....6.....7

Table 8. Scale Questions based on the SPSS analyze

The reliability in SPSS can be checked using Chronbach’s Alpha test. Cronbach's Alpha is a reliability test conducted within SPSS in order to measure the internal consistency, i.e., reliability of the measuring instrument (Questionnaire). The acceptable reliability

value is 0.7 (Cortina, 1993). Cronbach's alpha is the most commonly used tool for determining internal reliability.

However, Hair (2010) draws attention to the fact that Cronbach's Alpha it is too conservative and therefore advises the calculation of Composite Reliability (Fornell's CR) to ensure reliability and Average Variance Extracted (AVE) to ensure internal consistency. Therefore, we chose to calculate these three indicators and ensure that the loadings were not lower than 0.5.

Internationalization

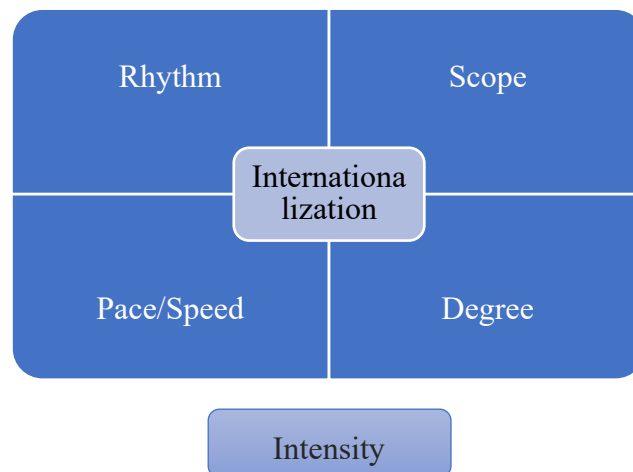


Figure 14. New internationalization structure

Speed

The objective of this question was to understand how fast/pace the company is going internationally.

41 - In how many new markets is the company selling since the beginning of internationalization?

Scope and Rhythm

The objective of these question is to understand in which countries and how many subsidiaries the company has in the international markets.

So, it splits in two variables – Scope and Rhythm

42 - In how many international markets is the company present with subsidiaries?

43 - How many subsidiaries have opened per year in international markets, on average in the last 3 years?

Degree

Very few companies replied to this question. The question was dropped.

Intensity

The objective of this question was concerning the time the company dedicates to the international markets.

40 - Value in percentage terms the time that the company's employees dedicate to the international market versus the national market.

Internet

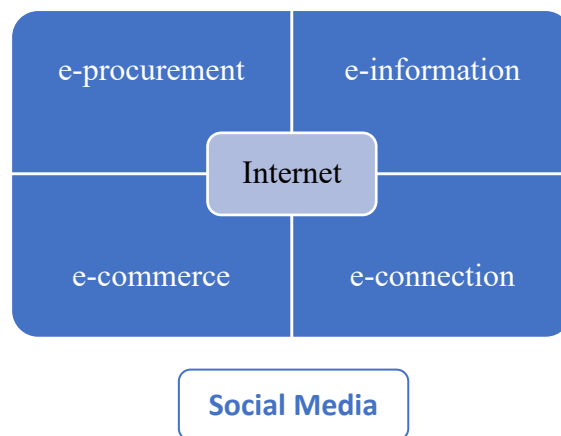


Figure 15. New Internet structure

e-procurement

The objective of this question was to analyze the impact in terms of cost, time, quality, and client satisfaction when using the internet for research and communication.

56 - The company uses the Internet to research and analyze suppliers, reducing costs, time and stocks and improving communication.

57 - The company uses the Internet to study and analyze the technological, commercial, and competitive environment in the search for information that helps in the decision process.

e-commerce

The objective of these questions was to understand the usage and impact of e-commerce in the company.

54 - Do you use e-commerce to generate a strong increase in sales?

e-information

The objective of these questions was to understand which platforms the company is using for communication. If uses, WWW, or other platforms for communication

44 - Does the company have a presence on the Internet (www)?

45 - Selling products/services online?

46 - Facebook?

47 - Instagram?

48 - Pinterest?

49 - Ebay?

50 - Amazon?

51 - Alibaba?

e-connection

The objective of these questions is to understand how far the company goes in terms of communication, with business partners.

58 - The company shares and integrates information on the Internet with its various business partners in order to jointly develop improvements to its products and services.

Social Media

The objective of these questions is to evaluate the usage of social media to promote the business: contact with clients, brand promotions, and product presentation.

52 - Does the company use the Internet as a form of market research, customer support, brand appreciation, promotion, and fundraising?

53 - Do you use digital marketing and "social media" to attract new customers and reach existing ones more efficiently?

Following these results of exploratory factor analysis, Internet category was reorganized. Three new were created:

- First: is **Digital Business**, that englobes e-commerce, e-procurement “Business Savings” question, e-connection “Marketing” and Social Media in terms of activities.
- Second: **Social Media** in terms of Apps, or type of Apps used for communication
- Third: **WWW**, to evaluate the usage or not of the internet.

Smart PLS Analysis

With Smart PLS 3 software (this software has the capacity to work simultaneously with Formative and Reflexive variables) validation was also done on the data in terms of significance and confidence level, to understand which factors and variables are influent, and can explain and predict consequences, behaviors, and results on the Family Business field of study.

In this model, we hypothesis that Familiness (FB) impacts Internet use (IT) and the Internationalization process (INT) and IT impacts INT. We are also saying that each of these variables is comprised of several factors.

Interpreting the causal model, de inner model in Figure 16, we start with a Consistent PLS Algorithm analysis to validate the constructs. Some factors were eliminated as explained in the previous point, they were not relevant to the analysis.

In the next Chapter, Results, all these interactions are analysed and explained.

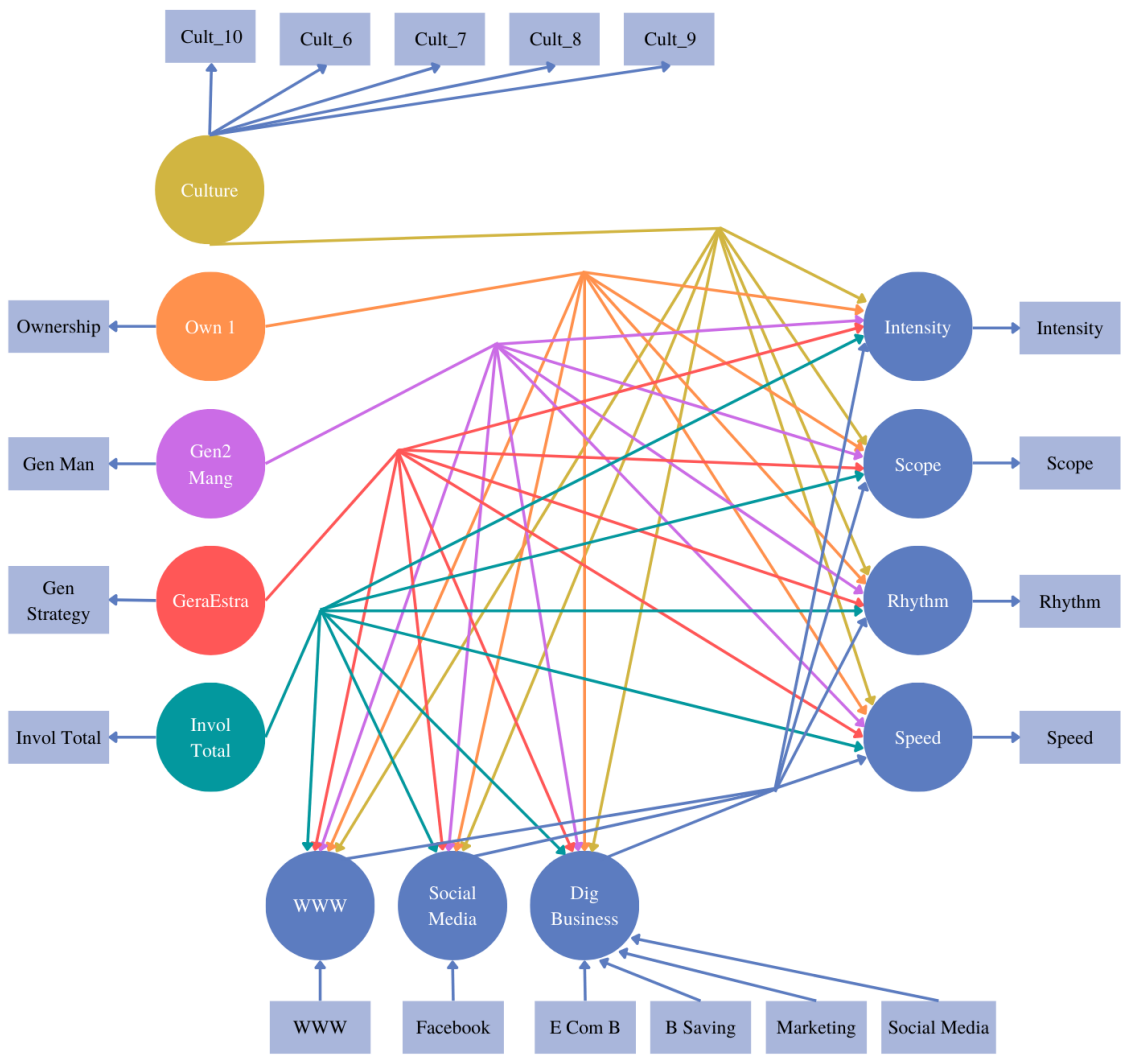


Figure 16. PLS Global Model

4. RESULTS

4.1. Major Findings

The study's primary objective is to understand the role of the internet in enhancing the internationalisation process of family businesses. For this purpose, three dimensions were generated as per the literature review, qualitative interviews and questionnaire surveys. The literature review produced a model from the variables procured, qualitative analysis brought new (sub)categories, and the quantitative analysis reinforced the importance of some of the sub(categories). The following relationships and variables were procured from the qualitative and quantitative analysis. From the literature review, it was possible to build the model that contextualises the first study of dimensions and concepts, generating some connections to be analysed, as presented in Figure 17.

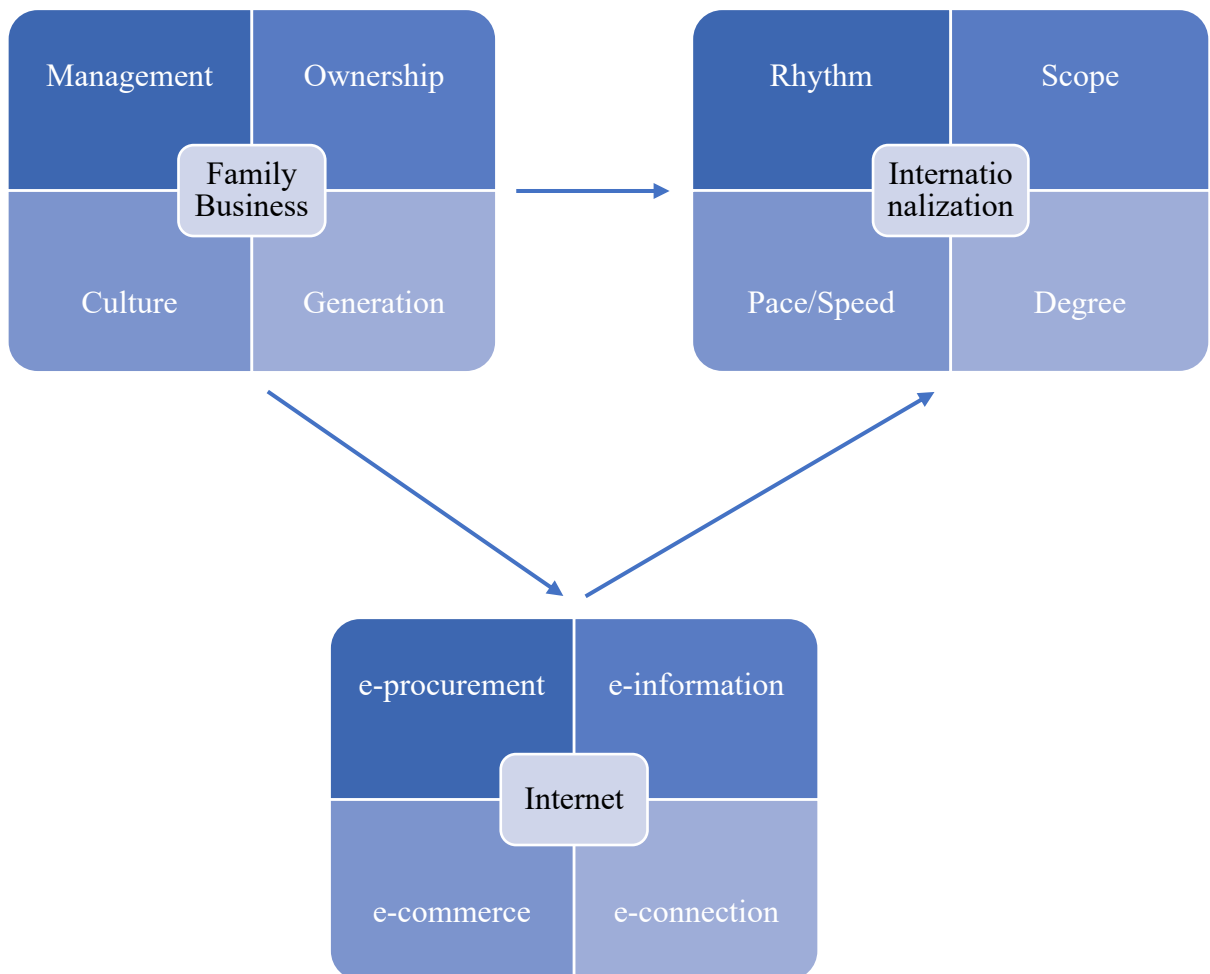


Figure 17. Model A – Literature Review Conception (Model A)

4.2. Qualitative Research

4.2.1. Results

Working from Model A, a new theoretical model was created by analysing the qualitative data. Personal interviews were done as described in the methodology chapter and analyse on the NVIVO a Qualitative Data Analysis (QDA).

Name	References	Files	...	Created...	N	A	Color
<input type="radio"/> Culture	13	6		JALVIM	J		
<input type="radio"/> Clan	4	4		JALVIM	J		
<input type="radio"/> Stability	5	5		JALVIM	J		
<input type="radio"/> Team work	4	4		JALVIM	J		
<input type="radio"/> Degree	15	6		JALVIM	J		
<input type="radio"/> e-commerce	13	5		JALVIM	J		
<input type="radio"/> e-connection	13	5		JALVIM	J		
<input type="radio"/> e-information	9	5		JALVIM	J		
<input type="radio"/> e-procurement	10	5		JALVIM	J		
<input type="radio"/> Generation	11	5		JALVIM	J		
<input type="radio"/> Intensity	13	5		JALVIM	J		
<input type="radio"/> Culture	6	6		JALVIM	J		
<input type="radio"/> Family Decision	5	5		JALVIM	J		
<input type="radio"/> Lider Strategy	6	6		JALVIM	J		
<input type="radio"/> Involvement	13	5		JALVIM	J		
<input type="radio"/> Commitment	5	5		JALVIM	J		
<input type="radio"/> Family Rules	5	5		JALVIM	J		
<input type="radio"/> Sons	2	2		JALVIM	J		
<input type="radio"/> Management	10	6		JALVIM	J		
<input type="radio"/> Ownership	9	4		JALVIM	J		
<input type="radio"/> Rythhm	5	4		JALVIM	J		
<input type="radio"/> Scope	6	3		JALVIM	J		
<input type="radio"/> Social Media	16	6		JALVIM	J		
<input type="radio"/> Facebbok	6	6		JALVIM	J		
<input type="radio"/> Instagram	4	4		JALVIM	J		
<input type="radio"/> PInterest	1	1		JALVIM	J		
<input type="radio"/> Speed	6	4		JALVIM	J		

Figure 18. NVIVO – Coding Map

Figure 18 is the result of the transcriptions of the interviews, where new inputs were identified. The new three inputs are: **family involvement in the management** of the family business, **the intensity of internationalization**, and the **social media factor on the internet**.

The qualitative work reinforced the ideas that came from the literature review. All the categories that were part of the initial model were maintained, although the family

business has changed to familiness. It is understood that the Family concept includes and involves very different realities and there is a special feature (which varies in degree depending on the other five dimensions) that results from the overlap between two spheres: the family sphere and the business sphere, which has implications for everything the company does and how it does it.

4.2.2. New from Qualitative

As mentioned, the interviews, in addition to supporting what was already included in the model, led to the creation of three new subcategories, one in each of the main categories

Family involvement in management (FIM)

Involvement is a key attribute distinguishing family firms from non-family firms. Family involvement in management mainly entails family participation in strategic decision making (Astrachan *et al.*, 2002; Le Breton-Miller & Miller, 2009; Sciascia & Mazzola, 2008). Although family firms are not a homogeneous group with the same sets of goals and motivations (Leenders & Waarts, 2003; Litz, 1997). The degree to which they support economic or non-economic goals such as a family's financial security, longevity, image, identity, and reputation differs. Accordingly, the variations in their focus on the financial and relational aspects of family members (Astrachan *et al.*, 2002; Lumpkin *et al.*, 2008; Reid *et al.*, 1999; Uhlaner, 2005) engender different degrees of collective identity and connections among families' managers.

These differences are discernable in their varying levels of loyalty and commitment to, and identification with, their organizations. So, it depends on the family's presence in terms of governance and in terms of management (Garcia-Castro & Aguilera, 2014), and all family members participate in the organization.

The presence of family members in the boardroom can positively also affect the behavior of nonfamily directors. First, the family directors will do their best to encourage the creation of strong effort norms favoring a positive commitment to the board from all directors (Bettinelli, 2011). Owner-directors and representatives of the family will elevate effort norms through a direct monitoring role of boardroom activities. Moreover, in family firms, the dominance of shareholders inside the boardroom provides them significant

influence over the appointment of nonfamily directors (Ng & Roberts, 2007). This involvement at all levels of the company leads to a greater sense of belonging and identification of the family with the company itself and of the company with its own family, the boundaries between what the family is and what the company is are blurred.

Some examples from the interviews regarding **Involvement**:

TUPAI

We are known and recognized in the local society for the company, for the number of jobs we create, for the value we generate, it is a very strong feeling that none of us can escape, not even our direct family children, etc. I'm known by Joaquim da Tupai, my brother is Paulo da Tupai, that's often how we introduce ourselves. It's pride!

ARBO

I am a full-time ARBO man. My daughter, who is 18 years old, always talks about the company with pride and is looking forward to coming here.

TORMEL

We are three brothers running the company. We try to keep the inheritance that our Father left us. We are very proud of our legacy. We also like to pass it on to our children. We will see...

ATZ

Since I was born, my father had this company. It was always part of my life. Today I am General Manager, and it has always been my objective to work here. This is where I feel good, and I intend to make it grow and bring even more joy to the family.

The Intensity factor, identified in the Internalization field

Intensity suggests the commitment of the company and its family and non-family members, the involvement in the project, and the definition of the goals.

The firm's disposition to entrepreneurship is a key element in businesses' internationalization process (Jantunen *et al.*, 2005). The literature has acknowledged that family firms differ in attitudes and behaviors when internationalizing (Graves & Thomas, 2006) and in internationalization strategies (Fernández & Nieto, 2006). These attitudes are important determinants of family SMEs' internationalization (Arregle *et al.*, 2012). Therefore, the family's involvement and Intensity in the firm offer a unique environment in which to analyze whether and to what extent a firm's family character affects the firm's internationalization.

Some examples from the interviews regarding **Intensity**:

TUPAI

We have more than 50 years of history, and we have always been an exporting company. It started with my grandfather, then my father, and now we are the ones who lead this process. It takes persistence and stubbornness because there is always a lot of resistance to entering these markets. But we are already at twenty-one.

COFEPI

We are already in several international markets, it requires a lot of negotiation, a lot of monitoring. We have already opened some branches and factories. It has been a slow but thoughtful journey. It requires a lot of personal effort.

ATZ

We work with various agents and distributors. Our contact comes preferably from international fairs and customers. It's been going well, but it has to be calm, I'm the only son in the company. I can't be everywhere.

TORMEL

We have a very technical product. It is always custom developed. We visited some international fairs, but we are already known. Every week we receive work proposals across borders.

ARBO

Spain is our preferred market, due to distance and accompaniment. We have many references and being close, we make deliveries within 24 hours. I follow developments closely. The level of service is essential.

JABEN

Fairs are our way of attracting customers. Also, there are customers who bring others, we have been in business for 40 years. We already sell to many countries, but Central Europe is traditionally our strongest market.

The Social Media Factor on the Internet

Social media are interactive computer platform that allows people to share ideas, opinions, and knowledge by creating virtual support systems (Dollarhide, 2021). Social Media allows people to freely interact with others and offers multiple ways for marketers to reach and engage with consumers. Social media is used by billions of people around the world and has fast become one of the defining technologies of our time. Facebook, for example, reported having 2.38 billion monthly active users and 1.56 billion daily active users as of March 31, 2019 (Facebook, 2019). Globally, the total number of social media users is estimated to grow to 3.29 billion users in 2022, which will be 42.3% of the world's population (eMarketer 2019).

Some examples from the interviews regarding the **Internet**:

TUPAI

Our marketing department has been promoting our products and events online for some years now. We have had good results; we have a company web page with many contacts. Our catalogues are there, as well as some videos on how to assemble and use them.

ARBO

We have an active and always updated website. As we have many references and a very active catalogue, it is the easiest way to update our customers and consumers. On social media, Facebook, and... we're not that active.

ATZ

We share a lot of information on Social Media. We have a lot of decoration items that need visibility. We also have a WWW page.

TORMEL

We are a technical company. My sisters are sharing something, but I don't know the impact or results.

JABEN

Every day we share something on the internet. I like to maintain a permanent connection with our clients and friends. We have a lot of contacts and views. I think it's a good way to promote the brand, the news and keep customers updated.

These results reinforce the family influence in the companies, Involvement, and Intensity, as well as the opening for new forms of communication with the various players in the market through Social Media. They are important factors that must be added to the results from the literature review. A new Model B (Figure 19) is now defined:

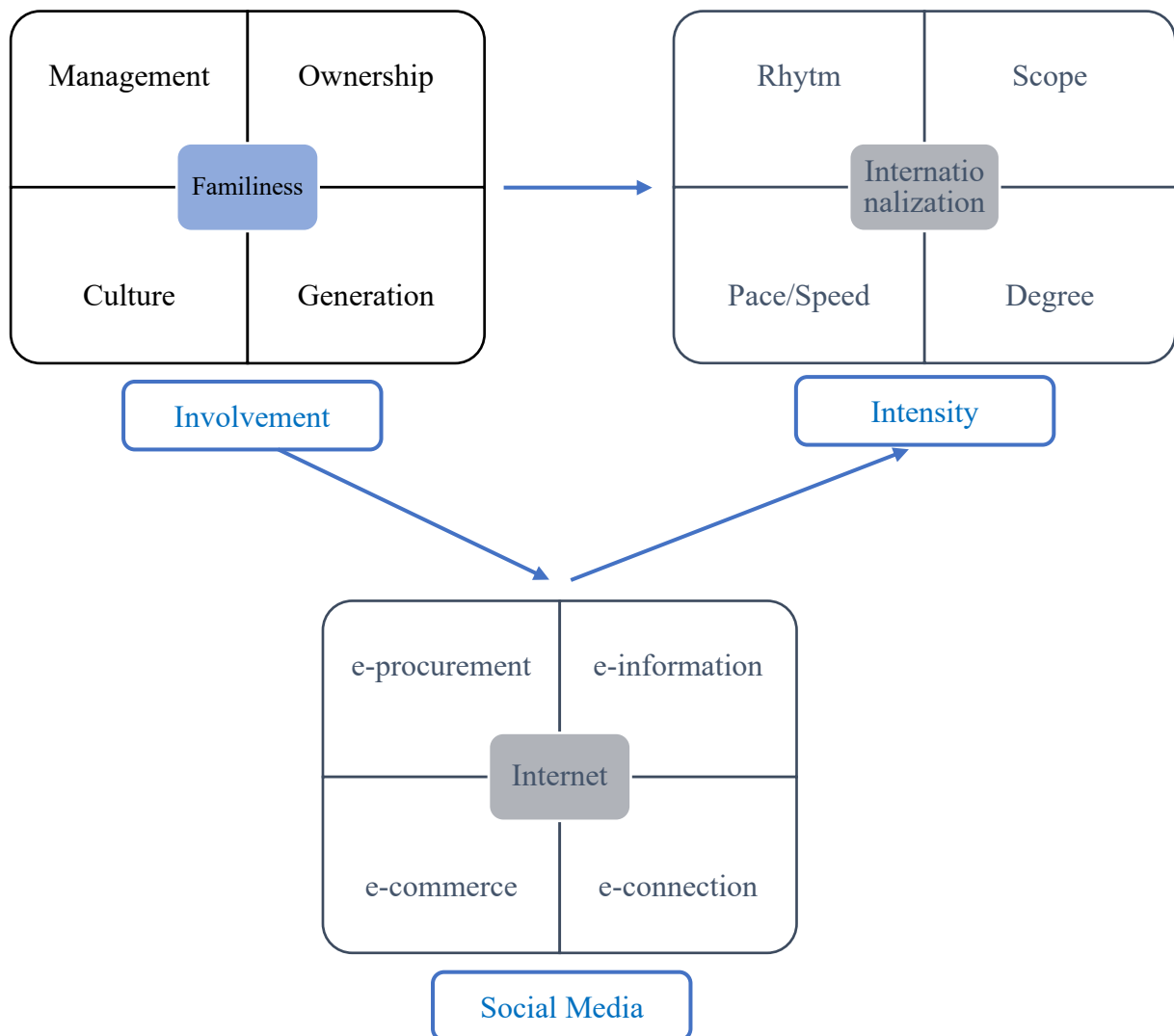


Figure 19. Model B – Result Qualitative Study

The Family **Involvement** in the company, the desire for growth through internationalization that requires a large **Intensity** from all family and non-Family members, and **Social Media** special futures that can help on the achievement of these goals, are the three new categories that will be under analyses.

It is important to note that, according to Nobles and Smith (2015), even in works of a qualitative nature, it is essential to adapt strategies to guarantee their credibility (internal consistency) and validity. Thus, in this work, to guarantee the validity, triangulation, and the member checks process "findings back to some of the participants" (Merriam &

Grenier, 2019, p25) were used. As for consistency, once again triangulation is a good strategy, which in this case was combined with peer discussion (Merriam & Grenier, 2019) with PhD colleagues and the supervisor regarding the coding process and the meaning of each category

4.3. Quantitative Analyse

The current study involves the collection of both qualitative and quantitative data in mixed methods sequential approach. Being so, now the study proceeded based on a quantitative methodology, in which data collection was carried out through an online questionnaire. They were sent to 3896 SME companies. The resulting database was carefully analysed, removing the observations that did not make sense (for example, the family and non-family ownership responses together did not make up 100%) or all the responses on the Likert scale were the same). This resulted in a sample composed of 230 observations.

4.3.1. Descriptive analysis of the sample

The sample of companies selected are SME's Portuguese industrial companies with international sales. From the 230 answers, Family owned (at least 1% of capital), 52% are in the first generation, 39% on the second and 9% on the third generation. Concerning the capital, in 80% of the companies most of the capital is owned by the family, and 65% of this 80% the Family owns 100% of the capital.

The generation in the Governance board is the 70% the time the same as the Management board. On the 30% is the oldest Generation is in the Governance and the youngest in the Management. A total of 3% of non-family members, on any of the boards.

Most of the companies, 97%, uses WWW as resource, for promotion and connection.

The internationalization figures in terms of volume of sales are very few, the company did not share values to make a significative evaluation.

The Cluster analysis performed to the data denotes 5 types of firms present in our sample (Table 9)

	1	2	3	4	5
%	16,60%	27,50%	10%	21,4%	24,50%
Culture	6	6	1	7	7
Gen. Management	2	1	1	2	1
Gen. Strategy	2	1	1	2	1
Involv. Total	78%	50%	20%	22%	78%

Table 9. Clusters present in the sample

Results show that 27.5% of the companies have a high level of family culture, and the founder stays in the decisions positions (management and strategy), resulting in a medium level of involvement. Almost a quarter of the sample (24.5%) have the highest possible family culture, and the founder is on the command, deciding the strategy and management, with very high involvement. 21.4% has the highest possible level of family culture, and the second generation is in decision positions (Management and strategy). 16.6% of the companies have a high level of family culture, and the second generation is on the management board and in the strategy, with big involvement. 31.4% of the companies have a lower involvement, mostly due to non-family members on the Governance and management boards. We can conclude that this is in accordance with the literature review, there is a very different business with families, and our sample is quite heterogeneous.

4.3.2. Measurement models

Following the statistical analysis performed on the formative and reflexive variables (as explained in the chapter Methodology), several factors were abandoned after the scale validation tests performed on the SPSS.

The measurement Model includes an assessment of the Quality of the Constructs including Reliability and Validity. Measurement starts with an assessment of the Factor Loading. Factor loading shows how well an item represents the construct. Normally, factor loading over 0,70 is recommended (Vinzi *et al.*, 2010),

Family Culture

Family Culture is a reflective scale; thus, reliability and internal consistency (Table 11) were validated as external loadings to each factor of at least 0.7 were assured (Table 10).

Cult_4 has an outer loading below 0.7 so it was dropped from the analysis because deleting this item significantly improved the Composite Reliability and Average Variance Extracted (AVE).

Outer Loadings	
	Culture
Cult_10	0.867
Cult_4	0.366
Cult_6	0.918
Cult_7	0.925
Cult_8	0.927
Cult_9	0.809

Table 10. Outer Loadings to Culture– Smart PLS

Apart from Factor Loading, the measurement model reports the Reliability, Cronbach’s Alpha and Composite Reliability. Cronbach’s alpha tests to see if multiple-question Likert scale surveys are reliable. Alpha will tell you how closely related a set of test items are as a group. Values above 0.7 are acceptable (Cortina, 1993).

Composite Reliability, a test correlation of 0.80 or greater is considered to indicate good reliability. Correlations make sense when the construct being measured is assumed to be consistent over time (Netemeyer, 2003).

The Average Variance Extracted explains how many variations in its items can be explained by the construct or latent variable. For adequate convergent, an AVE of at least 0.50 is highly recommended (Hair *et al.*, 2010).

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Culture	0.944	0.957	0.817

Table 11. Culture Scale Validation

In Table 11, the result confirms the internal consistency and reliability of the reflexive variable Culture.

Digital Business

For the Formative variable, a statistical analysed was performed, concerning the VIF (Table 12).

VIF	
B Saving	1.017
E Com B	1.319
Marketing	1.789
Social Media	1.697

Table 12. Digital Business Scale Validation

VIF tests the multicollinearity of the formative models. The variance inflation factor (VIF) quantifies the extent of correlation between one predictor and the other predictors in a mode. VIF is the reciprocal of the tolerance value. Small VIF values indicate low correlation among variables, under ideal conditions $VIF < 3$ (Knock & Lynn (2012)). In our model, all variables' VIF are below 3.

4.4. Structural Model

Based on an exploratory approach, the initial model connects all family dimensions directly to all internationalization indicators and indirectly via internet potential usages. Assuming an exploratory approach no hypotheses were built, not assuming any kind of constraints.

	Digital Business		Intensity		Scope		Rhythm		Social Media		Speed		WWW	
	Path Coef.	P Value	Path Coef.	P Value	Path Coef.	P Value	Path Coef.	P Value	Path Coef.	P Value	Path Coef.	P Value	Path Coef.	P Value
Culture	0,216	0,01	-0,102	0,105	0	0,997	-0,208	0,05	0,208	0,003	0,024	0,572	0,137	0,054
Dig Business			-0,316	0,005	0,027	0,716	0,156	0,062			0,279	0,041		
Gen_2Mang	-0,518	0,008	-0,368	0,135	-0,077	0,458	0,02	0,865	-0,397	0,031	-0,097	0,271	-0,626	0,107
GeraEstra	0,675	0	0,322	0,2	0,1	0,296	-0,097	0,448	0,514	0,003	-0,047	0,632	0,779	0,043
InvolTotal	-0,133	0,146	0,197	0,003	0,049	0,339	-0,033	0,474	-0,14	0,031	-0,078	0,25	-0,237	0,001
Own1	-0,176	0,001	-0,015	0,86	0,129	0	0,135	0,001	-0,07	0,308	0,155	0	0,153	0,096
Social Media			0,136	0,173	0,239	0	0,199	0,005			0,124	0,232		
WWW			0,377	0	0,092	0,008	0,009	0,862			-0,067	0,13		

Table 13. Direction and weights of the Significant Connections

Table 13 presents the results of OLS regression (path loadings) and bootstrapping analyses (p-value) performed on the Smart PLS. The connections not statistically significant are presented in black, the statistically significant positive in green, and the statistically significant negative in red.

So, 22 connections are significant, meaning a significant connection between our variables.

To reinforce the study, the model was analyzed a second time, in a cleaner way, applying only, the significative connection to the global model. There is a reduction in the number of connections between all the factors. Some are direct, others indirect between Family, Internet, and Internationalization (Figure 20).

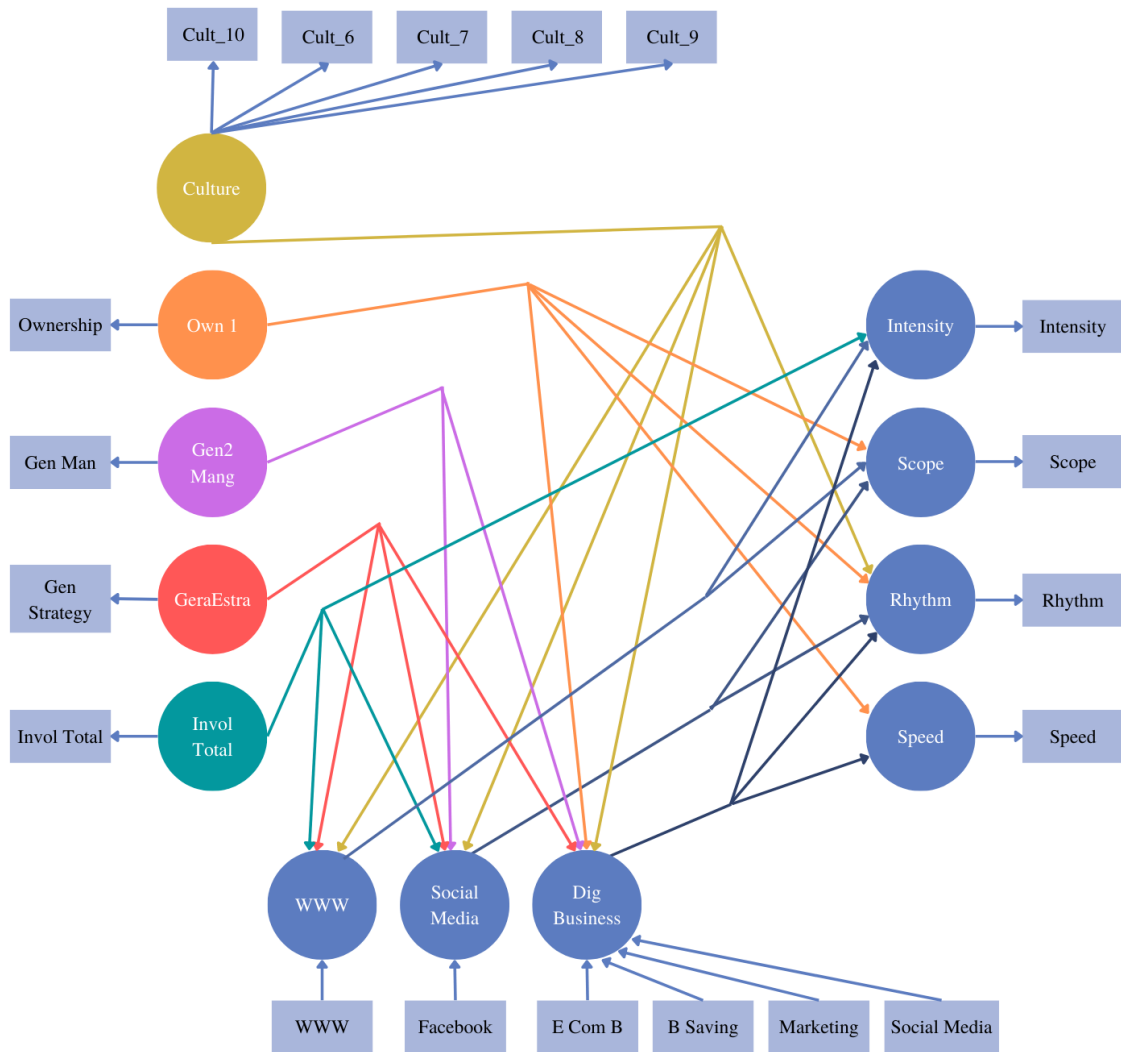


Figure 20. Significant Connections between Factors

Exploratory studies don't have concerns about their predictive capacity. However, we decided to present the R^2 . Table 14 presents R^2 . Note that all R^2 are above 0.1 (except for R^2 referring to social media), that is, they have an acceptable value for studies in social sciences (Falk & Miller, 1992), Cohen (1988) suggested R^2 values for endogenous latent variables are assessed as follows: 0.26 (substantial), 0.13 (moderate), and 0.02 (weak).

R Square	
Dig Business	0,139
Intensity	0,189
Scope	0,112
Rhythm	0,124
Social Media	0,094
Speed	0,134
WWW	0,159

Table 14. R Square

As for model fit, although PLS-SEM models do not have a true indicator, many studies have used the SRMR, as it can alert to model misspecifications (Hair *et al.*, 2010), considering a more conservative cutoff of 0.08 (Becker *et al.*, 2019) or 0.1 (Henseler *et al.*, 2015). The SRMR of the saturated model is 0.06 and the estimated model is 0.10, which demonstrates a good fit.

Direction and weights of the Significant Connections

The results of these connections (Figure 20) present the interaction between all the dimensions of the three variables Family Business, Internet, and Internationalization. To better understand these results, all the significant relations (direct and indirect) between familiness variables and internationalization variables will be present.

4.4.1. Culture to Intensity (Family commitment in the Internationalization)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Culture -> Intensity	Indirect Effect	-0.057	-0.058	0.025	2.336	0.020

Table 15. Familiar Culture Impact on Intensity of Internationalization

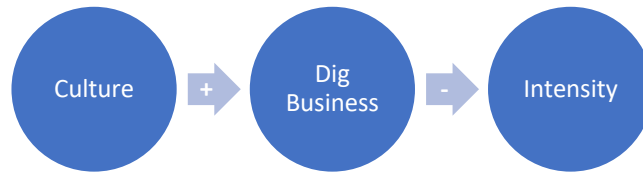


Figure 21. Culture to Intensity

Table 15 and Figure 21 present the relationship between **culture** and **intensity**. Culture has an indirect negative effect on the internalization factor Intensity by Digital Business. Family culture has a positive connection with Digital Business, which has a negative connection with the Intensity of Internationalisation, meaning that a higher familiar culture has a negative impact on the intensity of internationalisation. The family accepts the need to invest in the digital world but does not see the need for a special effort for the success of internationalization.

4.4.2. Culture to Scope (Number of international countries with subsidiaries)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Culture -> Scope	Indirect Effect	0.051	0.052	0.022	2.273	0.023

Table 16. Familiar Culture Impact on International Scope (number of markets)



Figure 22. Culture to Scope

Table 16 and Figure 22 present the relationship between **culture** and **scope**. Culture has an indirect positive effect on Scope 1, through social media. Indirectly family culture has a positive impact on international sales by using Social Media, since more family culture means more social media diffusion contributing for the expansion of subsidiaries.

4.4.3. Culture to Rhythm (Number of international markets)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Culture -> Rhythm	Direct Effect	-0.205	-0.205	0.104	1.971	0.049
	Indirect Effect	0.057	0.058	0.026	2.160	0.031
	Total Effect	-0.148	-0.142	0.111	1.335	0.182

Table 17. Familiar Culture Impact on International Scope

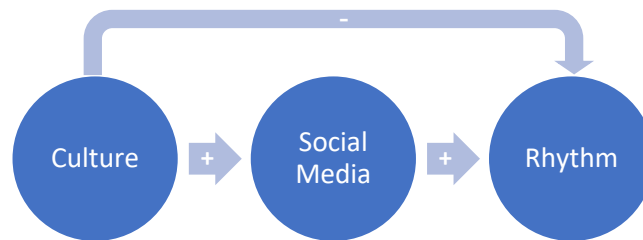


Figure 23. Culture to Rhythm

Table 17 and Figure 23 present the relation between **culture** and **rhythm**. Culture has a direct and an indirect connection with the rhythm of internationalization. Family Culture has a negative direct impact on opening new markets and a positive impact indirectly through digital media. It seems that the indirect positive effect doesn't compensate for the negative direct ones and the total effect is negative. However, we can't claim that since this total effect is not statistically significant. So, the total effect is undetermined.

4.4.4. Culture to Speed (Sales increase since the beginning of internationalization)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Culture -> Speed	Indirect Effect	0.084	0.090	0.035	2.387	0.017

Table 18. Familiar Culture Impact on International speed (increase sales)

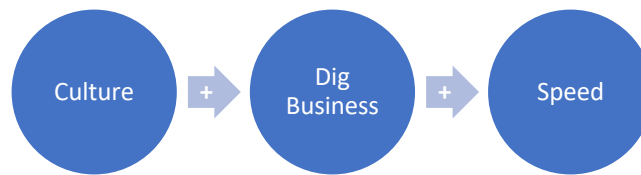


Figure 24. Culture to Speed

Table 18 and Figure 24 present the relation between **culture** and **speed**. Culture is connected indirectly with Speed. Family culture has a positive impact on international sales through Digital Business.

Summarizing Culture and internationalization, the relationship between the Culture of the family business and the determining factors in Internationalization, it is perceived the influence of the Internet in this connection. The company's culture behaves differently if evaluated directly with the internationalization decision or using the internet for this purpose. Here it is possible to see some prudence and risk analysis of family managers in these decisions that can significantly affect the future of the company.

4.4.5. Ownership to Intensity (Family commitment in the Internationalization)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Ownership -> Intensity	Indirect Effect	0.037	0.034	0.019	1.920	0.055

Table 19. Familiar Ownership impact on Intensity



Figure 25. Ownership to Intensity

Table 19 and Figure 25 present the relation between **ownership** and **intensity**. Ownership has an indirect positive effect on the Intensity of internationalization through Digital Business. Interestingly, ownership has a negative effect on digital business which has a negative effect on intensity. This means, that Family shareholders do not want to invest in and develop digital businesses, and as more Digital business firms have less commitment to other countries. Combining these two negative effects, it seems that ownership results in a positive relation to intensity. However, this indirect effect has p.value=0.055, so it is not statistically significant, so the impact of family ownership on international intensity tends to be positive, but this is not sure.

4.4.6. **Ownership to Scope** (Number of international countries with subsidiaries)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Ownership -> Scope 1	Direct Effect	0.128	0.130	0.034	3.726	0.000

Table 20. Familiar Ownership Impact on International Scope (number of subsidiaries)

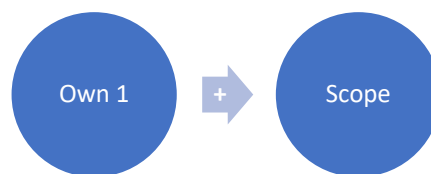


Figure 26. Ownership to Scope

Table 20 and Figure 26 present the relation between **ownership** to **scope**. Ownership has a direct positive influence on Scope (Increase on Sales) (0,128). This must reflect the family owners' desire for growth via internationalization

4.4.7. Ownership to Speed (Sales increase since the beginning of internationalization)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Ownership -> Speed	Direct Effect	0.123	0.118	0.026	4.768	0.000
	Indirect Effect	-0.054	-0.049	0.021	2.607	0.009
	Total Effect	0.069	0.070	0.014	5.075	0.000

Table 21. Familiar Culture Impact on International Scope (international subsidiaries)

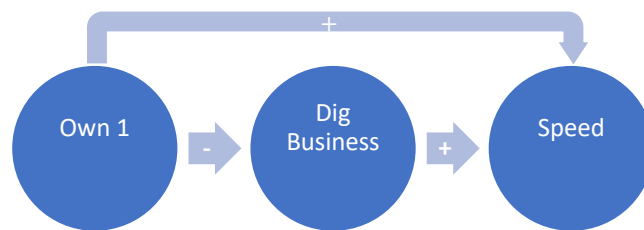


Figure 27. Ownership to Speed

Table 21 and Figure 27 present the relationship between family **ownership** and internationalization **speed**. Ownership has a direct effect and an indirect effect on the Speed of Digital Business. Family owners like to grow directly in the international market speeding the international process increasing sales; however, at the same time, they have a negative relation to digital business which has a positive effect on the international speed, so family ownership has a negative effect on speed on going international through Digital Business. In the end, the positive effects more than compensate the negative one, meaning that more family ownership more international speed.

Summarizing Ownership and internationalization, it is a vision of those who are not actively in management, they are the owners of the capital although they are a family member. Their vision and position is ambiguous, and depends on the factor under analysis, directly positive with scope, demonstrating the ambition of growth from the owners. Analysing under the influence of the internet as mediator role, negatively when

influencing the intensity and positively with speed, demonstrating two different positions in terms of company commitment.

4.4.8. Generation in Management to Intensity (Family commitment in the Internationalization)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Gen_2Mang -> Intensity	Indirect Effect	0.098	0.084	0.052	1.882	0.060

Table 22. Impact of Family on Governance and Management Board on International Intensity



Figure 28. Generation Management to Intensity

Table 22 and Figure 28 present the relation between Generation in Management and Intensity. Generation in Management takes many decisions that influence the present and future of the company. This Generation can be the owner generation or not, so decisions tend to be different to the same problems or situation. Our results present a direct relation between Generation in Management and Digital Business and there is a direct relation between Digital Business and International Intensity. So, it is expectable that, there is an indirect effect by the **Generation in Management** on the **Intensity** of Internationalization by **Digital Business**. However, this indirect relation is not statically validated.

4.4.9. Generation in Management to Scope (Number of international countries with subsidiaries)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Gen_2Mang -> Scope 1	Indirect Effect	-0.104	-0.109	0.055	1.906	0.458

Table 23. Impact of Family on Governance and Management Board on International Scope (number of subsidiaries)

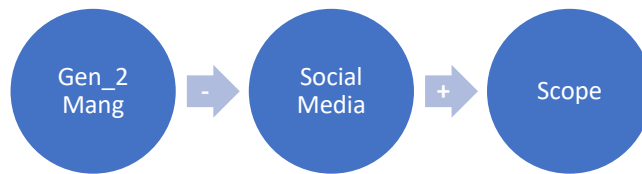


Figure 29. Generation Management to Scope

Figure 29 and Table 23 present the relation between generation in Management and Scope. Since Generation Management has a relation with social media and social media has a direct relation with scope, it is expected that **Generation Management** has an indirect effect in **Scope** through **Social Media**. Although generation in management does not see Social Media as an international tool, an increase on international markets is expect a positive final result. However, this is not validated.

4.4.10. Generation in Management to Rhythm (Number of International markets)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Gen_2Mang -> Rhythm	Indirect Effect	-0.116	-0.120	0.061	1.902	0.057

Table 24. Impact of Family on Governance and Management Board to International Rhythm (Number of Markets)

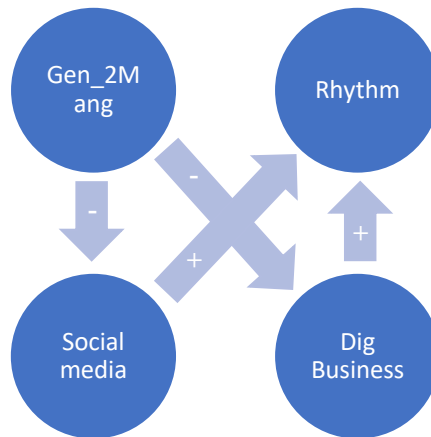


Figure 30. Generation in Management to Rhythm

Figure 30 and Table 24 present the relationship between generation in management and international markets. It is expected that **Generation in Management** has a double indirect effect on **Rhythm**. Combining all effects, it seems that **the** generation in management's indirect result is negative, not willing to develop new international markets through internet tools Social Media or Digital Business. These results towards the Social Media and Internet can represent the fear of investing in new forms for internalization, although the outcome from these variables has a positive result on Rhythm for opening new international markets, however, this indirect relation is not validated.

4.4.11. **Generation in Management to Speed (Increase on International Sales)**

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Gen_2Mang -> Speed	Indirect Effect	-0.143	-0.128	0.068	2.089	0.037

Table 25. Impact of Family on Governance and Management Board on Speed (increase on international sales)

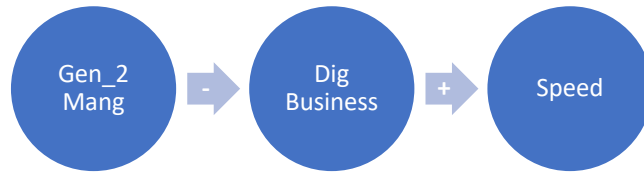


Figure 31. Generation in Management to Speed

Generation in Management has an indirect impact on **Speed** through Digital Business. The generation in management plays a significant role on the decision of not using Digital Business as a form to increase sales in the international markets. Generation in a family business has a defensive position in relation to internationalization, either directly or indirectly using the internet.

Summarizing Generation in Management and internationalization,

Generation in Management did not present any result directly with internationalization. There are negative direct results with the Internet which leads to positive results with internationalization. This position can demonstrate the traditional fear of taking risks from the family business managers, the familiness concept of not changing the “status quo” of the company, family, workers, etc. Avoiding risks and potential failure, reducing family problems, the social environment and family prestige.

4.4.12. **Generation in Strategy to Intensity (Family commitment in the Internationalization)**

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
GeraEstra - > Intensity	Indirect Effect	-0.051	-0.037	0.058	0.870	0.385

Table 26. Impact of Family on Governance and Management on Board on International Intensity

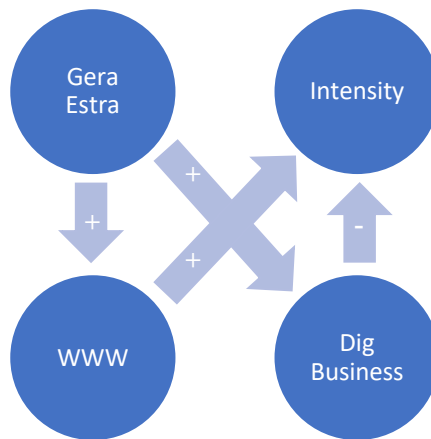


Figure 32. Generation Strategy to Intensity

Table 26 and Figure 32 present the relation between generation strategy and intensity. The **Generation Strategy** (the generation that chooses the company strategy) has two indirect effects towards **Intensity** of Internationalization. The Generations that define the strategy do not see the internet (WWW) and Digital Business as a form to increase the family commitment to the Internationalization Process. However, the indirect relation between generation strategy and intensity is not validated.

4.4.13. **Generation Strategy to Scope** (Number of International Subsidiaries)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
GeraEstra - > Rythm	Indirect Effect	0.153	0.159	0.056	2.724	0.007

Table 27. Impact of Family on Governance and Management Board Rythm

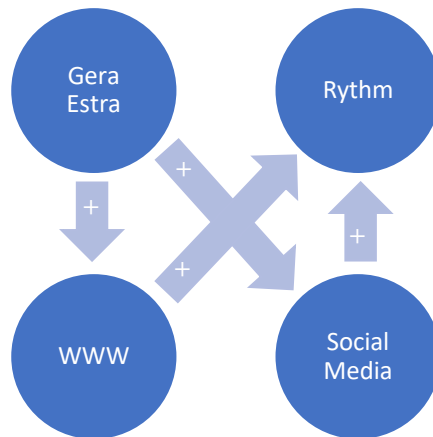


Figure 33. Generation Strategy to Scope

Figure 33, **Generation Strategy** has two indirect connections with **Scope**. The generation who defines the company strategy sees positively the internet (WWW) and Social Media (Facebook), and they are a form for going to the new international market. This positive attitude to internalizations using the mediator Internet demonstrates a clear position from these members and the influence of the internet on their future. Every connection is positive and contributes to the usage of these factors WWW and Social Media on the company expansion internationally.

4.4.14. **Generation Strategy to Rhythm** (Number of International markets)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
GeraEstra - > Rhythm	Indirect Effect	0.147	0.152	0.061	2.400	0.017

Table 28. Impact of Generation that defines the Strategy to Family on International Scope (international markets)

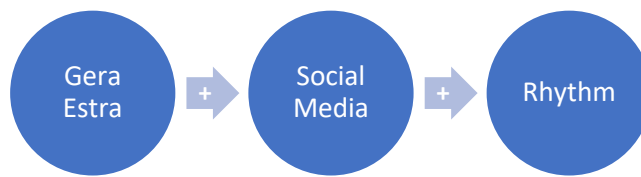


Figure 34. Generation Strategy to Rhythm

Figure 34, **Generation Strategy** has one indirect connection with **Rhythm**. Generation Strategy sees Social Media as a form of growing on the number of markets internationally.

4.4.15. **Generation Strategy to Speed** (Increase on International sales)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
GeraEstra - > Speed	Indirect Effect	0.190	0.172	0.065	2.940	0.003

Table 29. Impact of Generation that defines the Strategy to Speed (international sales)



Figure 35. Generation Strategy to Speed

Table 29 and Figure 35 present the relationship between generation strategy and speed. As we can see, **Generation Strategy** has one indirect connection with **Speed**. The Generation Strategy has a positive attitude towards increasing sales by using Digital Business tools.

Summarizing Generation in Strategy and internationalization, the Generation responsible for the strategy sees internationalization positively through the use of the internet, being solely defensive in terms of the intensity, and the number of resources allocated to this process, perhaps as a way of not spending too many resources on this process, putting the normal business operation.

4.4.16. Total Involvement to Intensity (Family commitment in the Internationalization)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Involvement -> Intensity	Direct Effect	0.197	0.193	0.062	3.167	0.002
	Indirect Effect	-0.074	-0.071	0.028	2.653	0.008
	Total Effect	0.122	0.124	0.070	1.738	0.083

Table 30. Family Involvement Impact on International Intensity

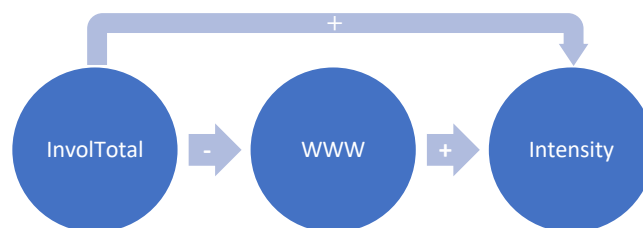


Figure 36. Total Involvement to Intensity

Table 30 and Figure 36 present the relationship between family involvement and international intensity. **Total Involvement** (Family Involvement in the company) has a direct and indirect connection to **Intensity**. The first one is positive, the family wants to be committed to the internationalization process. The second one is negative because the family has a negative attitude towards committing through the internet (WWW). The total effect is positive, reflecting the commitment of the company, and family, to the internationalization process.

4.4.17. **Total Involvement to Scope** (Number of International Subsidiaries)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Involvement -> Scope	Indirect Effect	-0.056	-0.057	0.023	2.424	0.016

Table 31. Family Involvement Impact on International Scope (number of markets)

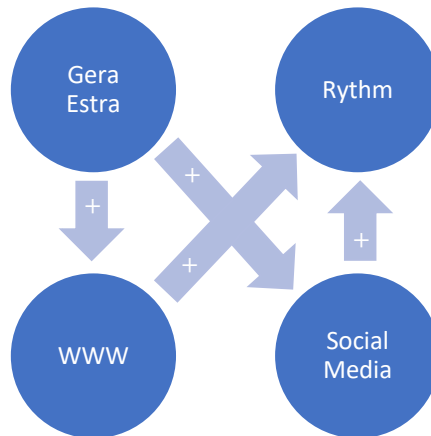


Figure 37. Total Involvement to Scope

Table 31 and Figure 37 present the relation between family involvement and the number of international countries where firms is present. **Total Involvement** has two indirect connections with **Scope**. The family does not want to increase international sales by WWW or by Social media. So, as more involved family is smaller is the number of international markets. Family has a negative attitude towards both internet forms.

4.4.18. Total Involvement to Rhythm (International markets)

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Involvement -> Rhythm	Indirect Effect	-0.041	-0.042	0.022	1.828	0.068

Table 32. Family Involvement Impact on International Rhythm (international markets)

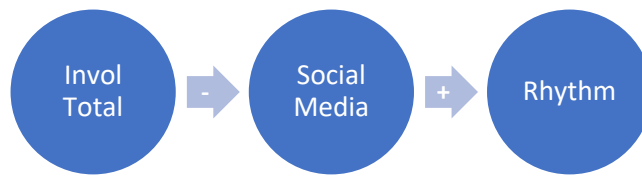


Figure 38. Total Involvement to Rhythm

Table 32 and Figure 38 present the relation between family involvement and international markets. Apparently, **Total Involvement** has a negative indirect connection with **Rhythm**. However, this relation was not validated.

Summarizing Involvement and internationalization, Involvement is one of the most unique factors of family businesses, it represents their corporate expression and culture and the characteristics of each family in their business. Although it has a positive and direct connection with intensity, referring to the allocation of resources applied to internationalization, all the other effects are negative, reflecting a little on the conclusions that we obtained from the analysis of the previous variables and their connections with internationalization.

4.5. Results and Discussions

Investigating Model A and Model B, it was found that social media, intensity and involvement were noteworthy variables in the triangle between the Family Business and usage of the Internet by Portuguese family-owned companies as a way for Internationalization.

As observed in the literature review, Lee *et al.*, (2019) affirmed that digitalisation adoption allows companies to internationalise rapidly. The researchers also proclaimed that even though the concept of early internationalisation in international entrepreneurship has been attracting growing attention in recent decades, digitalisation is still missing, which ensures a more rapid internationalisation. Additionally, suggested that when examining the influence of the internet on the global economy and small enterprises, it is critical to remember that the internet conveys both knowledge and commerce. It can reach a worldwide audience. Instant knowledge may significantly influence it. One of the most critical repercussions of global marketplaces is the ability of small businesses to join overseas markets at comparatively inexpensive pricing. A business website (WWW) may serve as a promotional tool for a firm that anybody in the world can access as we have seen in our model. In this study, most of the companies assumed the usage of a company website to promote business.

Aral *et al.* (2013) argued that social media is profoundly altering the way businesses interact, cooperate, consume, and produce. They are one of the most revolutionary effects of digital technologies on commerce, both inside and outside of company borders. Social media has transformed how firms interact with the marketplaces and community, opening up a new universe of opportunities and challenges for all elements of the business, from marketing functions to economics and management of human resources. Social Media is for sure a powerful tool that nowadays companies are exploring, as discovered during the research process and analyse and validate in our model.

The aspect of intensity was proclaimed in another study conducted by Lahiri *et al.*, (2020), wherein it was found that while evaluating the internationalisation of family businesses, different researchers use specific measures like foreign direct investments; exports (Merino *et al.*, 2015; Majocchi *et al.*, 2018; Scholes *et al.*, 2016); international involvement and internationalisation (Shi *et al.*, 2019); and foreign sales (Hennart *et al.*, 2019). In our model, we understood the importance of seeing internationalization as multiple phenomena including international sales, international countries and international subsidiaries and we add the idea of Intensity (the commitment of resources to perform the necessary actions for the internationalization process). Digital business has a negative relation with international intensity, but a positive relationship with speed. This maybe means that digital business firms are able to internationalize faster with fewer

resources. The greater the family ownership, the less the use of the digital business. Simultaneously and almost surprisingly, the higher the generation, the lower its use too, although strategically is the opposite. This could be a red flag to this kind of enterprise since even the younger generation is not very prone to use it.

So, Generation in Management influences Internet relations negatively and Generation in the Strategy (the one who designs the strategy) sees internet relations very positively. This finding is not in congruence with the study findings of Vlachakis *et al.* (2015), wherein the researchers affirmed that as the second generation enters into the management of the family businesses, the use of the internet and the process of internationalisation enhances a great extent as these generations are more computer literate. Marketing techniques such as marketing, e-marketing, and online marketing are readily mastered by the second generation, which looks promising of SMEs family enterprises, given the Internet's transformative influence on worldwide commerce.

Also, the generation in management/governance and strategy is important for Internationalization. Strategically speaking, generation has a positive relation to speed and scope (both in the number of countries and in the number of international subsidiaries), however, when they are in the management the relation with the number of international subsidiaries is not clear, while, they have a positive relation to speed and the number of countries. It seems that new generations are more internationally ambitious than the founders were. The results show the influence of generations on business decisions that consequently change the company's course for the future.

Evert *et al.* (2018) believe that the involvement of the family and family ownership are positive aspects of internationalisation. Yan *et al.* (2018) argue that after the initial overseas entrance, the risks are becoming less substantial, and possibilities may be used to seek skills and capacities that will allow for more successful internationalisation. Evert *et al.* (2018) also found that the family business ownership model and administration significantly impact their internationalisation strategy since family proprietors are more opposed to internationalisation. The reluctance of family enterprises to internationalise is more prominent when families have greater control over the firm's actions due to the combination of stronger family ownership (mainly by management positioning) and family engagement in administration (through strategic, administrative, and operational control). As we saw, in our model this is not clear. In this case, ownership does not have

a clear effect on the intensity and has a positive on scope (Number of International Markets and speed (Sales increase on internationalization).

The results of the model, that is, the quantitative model, stated that Ownership (Shareholders) influenced internationalisation positively, however, internet relations were impacted negatively. The aspect of ownership positively impacting the internationalisation process was also depicted in Ray et al. (2018) research, wherein the scholars proclaimed that family enterprises' ownership model and administration have a significant impact on their strategy since family proprietors are more opposed to internationalisation. Even though it indicates that family relationships do not enhance the possibility recognition system, the study conducted by Kampouri *et al.* (2017) suggested that family management of family firms creates the potential for international entrepreneurship tied to family firms' connections.

Furthermore, the model suggested that the total involvement, which includes the family members that are shareholders, managers and active in the company, is intense on the company activities, but it is not completely clear. Cano-Rubio et al. (2017) asserted that Involvement not only provides family members with the expertise they need to adhere to an internationalisation plan, but it also provides them with the expertise they need to assess the benefits and consequences of that approach, in our case the panorama is quite different. Involvement has a negative relation to scope (international subsidiaries) and rhythm (number of countries), and no one direct relation to internationalization was validated. Maybe when the frontiers of family and business are not clear, internationalization is not a priority, but it is not a danger to avoid.

Finally, the study results showed that companies with a high level of family culture are very active in internet relations (digital business and social media). The aspect of culture was also indicated in the study conducted by Ratten et al. (2017).

This study is impressive because of the high levels of family culture registered in the majority of the companies, the influence of the family in the company, the sharing of the same values, and the pride of being a member of the family.

According to the study, it cannot be said that the effect of the family on companies on internationalization is one way or the other, depending on whether the analysis is carried out with culture, involvement, generation in management or administration or ownership

will have impacted many different. When the mediating effect of the internet is added to this, this chain of reactions becomes even more complex.

As for the intensity of internationalization, Digital Business has a negative effect, that is, greater use of digital business decreases commitment to foreign markets, but a positive effect on the speed of internationalization.

The use of social media, on the other hand, only influences the scope, which is in terms of the number of countries and international subsidiaries.

The WWW has a positive effect on both the intensity and the number of foreign countries in which the company is present.

In this way, different dimensions of internationalization are influenced by different dimensions of the internet in a different and in some cases even contradictory way (digital business has a negative effect on intensity, while WWW has a positive effect).

The relationship of the familiness with the internet is also mixed and many situations also shoot up. Family culture has a positive relationship with digital business, but ownership and involvement have a negative relationship. This is understandable if we consider that Digital Business represent a new area, involving new risks and ownership wants to protect family wealth, and high involvement means the inexistence of frontiers so risky options in companies are equal to risky options for family

The generation in management on the definition of strategy has contradictory effects. Thus, the higher the generation in management, the lower the use of social media and the lower the digital business, on the other hand, the greater the generation in the definition of the strategy, the greater the digital business, and the greater the use of social media and even the use of the WWW.

As for family involvement, this has a negative effect both on social media and on WWW. That is, when the family more than having a top position far from operating the business, they are in the management and involved in the day-to-day of the company, the internet does not seem to be a priority.

5. CONCLUSION

5.1. Summary

The conclusions of this study are diverse and point to different aspects of social and economic science that require a systematization of results and conclusions to obtain valid interpretations for the academic and business world.

It aims to somehow understand the influence of the internet on internationalization in small and medium-sized Portuguese industrial companies, traditionally always very close to innovation, with high organizational entropy and resistance to change.

In 2018/19, when the work began, the Internet, and e-commerce had already broken sales records, E-bay, Amazon, and Alibaba were mega multinationals, and most companies already had some online presence, but as discussed in the literature review, there was little organized information about family businesses and their relationship to the Internet.

However, the information collected allowed the construction of the first scenario between these three major concepts, **Family Business**, the **Internet** and **Internationalization**, and the various factors that constituted them and formed their unit.

The study is developed from there through a qualitative analysis, with semi-structured personal interviews with managers of this type of company using previously validated questionnaires as support, to ascertain the results of the academic literature review.

This work resulted in a set of new factors for each concept, **Involvement in Family Business**, **Social Media** on the **Internet** and **Intensity in Internationalization**. The Family Business concept itself is renamed **Familiness** for being more consistent with the relationship and intervention of the family in the company.

Involvement is linked to the way the family sees itself in the company and interacts with the social environment that surrounds them. **Social Media** was the revelation of the value of this factor in the dissemination and promotion of the company to the world, and **Intensity** with the dedication and commitment that the family dedicates to the company's activities, in this case to the activities that aim at internationalization.

A new scenario was redrawn with the new concept and factors that influence and characterize it, mirroring the new vision after the qualitative analysis.

With the aim of making the new findings more robust, a quantitative analysis was developed aimed at all small and medium-sized Portuguese industrial companies. This work was carried out through a structured questionnaire validated in other academic studies and added with other validated questions, which allowed the collection of the opinion of 230 managers of family businesses from North to South Portugal.

The conclusions of the work are relevant to the influence of the Internet in the internationalization process, but they also demonstrate the various views and positions that the family has on its use, depending on the position they occupy in the company, Shareholder, Governance board, Management board or the generation that represents in these same functions.

5.2. Conclusions

Concerning the research questions:

RQ₁: How do family firms use the Internet to promote business internationally?

RQ₂: What is the impact of the internet on the internationalization of family firms?

RQ₃: What challenges do family firms face while implementing the internet and other digital technologies?

These three research questions will have multiple answers:

- As presented in the Result Chapter the study gave twenty-two significant relations between Family Business Internationalization and Internet as a mediator. All factors are important, and the level of influence is also different from one business to the other.
- The study results guide us in different directions depending on the analysis's role and generation. Family shareholders, Governance Board managers, Management Board managers, or family members. Internet and internet factors, Social Media, Digital Business and WWW, will have different impacts and forms to influence the company results.

Some of these results can guide to some conclusions, but they must be analyzed under each specific question:

As previously mentioned, the answer to the questions is not simple and has many influences.

The results showed that Family Culture influences internationalization but has different responses when using the Internet to promote and encourage it. High levels of family culture have a greater aversion to risk and taking positions that affect the future of the company.

Ownership is the percentage of the family in the company. The objective was to understand their influence on the management results. The conclusion is that ownership has a more direct view of internationalization, not favoring the Internet to do so, preferring more traditional methods, but undoubtedly in favor of the company's internationalization and expansion.

Generation in Management can be the founder, other generations, or non-family members. They have a cautious vision, adverse to the Internet as a form of expansion, and are careful in the decisions to be taken, which condition the future of the company.

Generation in the Strategy has a more open, positive view of the use of the internet for internationalization, showing some care with the allocation of resources for the purpose according to the result in Intensity.

Involvement, representing the family spirit and dedication to the company, is directly linked to the intensity, the allocation of resources to internationalization, the execution time and the objectives to be achieved.

In conclusion, the Internet changed the form of acting of these different family players. Direct or indirect is a “new way” of promoting, developing, and launching the company internationally. Company challenges, the perception of the Internet as a mediator for internationalization, varies significantly with the family role and company objectives, increase sales, and new markets or opening of new subsidiaries.

In theoretical terms, new factors raise awareness for future studies, such as further **Involvement**, a more personal form than the previous research, where the man/woman and company are part of the same “soul”. In the Family company man/woman, the pride

of working for the family takes the legacy from one generation to the other generation. The presence of family members in the boardroom can positively affect the behavior of nonfamily directors. Owner-directors and representatives of the family will elevate efforts through a direct monitoring role of boardroom activities. This involvement at all levels of the company leads to a greater sense of belonging and identification of the family with the company itself and of the company with its own family, the boundaries between what the family is and what the company is are blurred.

The **new Intensity** factor for internationalization is the family and nonfamily members to achieve company goals. The time and effort put into those vast actions need great personal effort and team confidence. Allocation of company and personal resources to objectives, prioritizing tasks, investments, and goals to short, medium, and long-time strategies focused on the objectives, the company and family ones.

The rise of **Social Media**, a form of communication that is changing the business world. The impact on company activities, since more family culture means more social media diffusion because the study gives managers an important tool to play to enhance the opportunities to accomplish goals using a different approach with new results for the company, in terms of clients, suppliers, workers and business partners.

The sequential methodology applied to this study performs a solid approach to the model under analysis. The Literature review, the Interviews with NVIVO analysis for the qualitative approach, and the structural equation model with the quantitative analysis result in a large spectrum of results that can contribute to the enrichment of the Family business studies.

For managers and researchers in the family business, this study can help with ideas, experiences and results that hopefully help to understand a little more the difficult act of managing and decision-making in the new business world of the WWW.

These results must be analyzed in accordance with the company and managers', and owners' reality. Different levels of family culture (familiness) will guide different decisions, and the generation involved will have a different approach to each problem.

How many International markets will be opened, and how much the sales will increase?
How many subsidiaries? How much the family will be committed?

These topics open a wide range of questions to the family, and to the managers, and challenges are numerous, but this thesis gives a starting point to associate all these variables and try to understand which will be the results of some actions, and strategies going internationally.

In aggregate, the research goes into great detail on each area, and the investigation takes an exploratory and analytical approach to this issue, assuring that each element is addressed appropriately. Nonetheless, each characteristic could only get a certain amount of discussion and analytical time. Because internationalisation theory covers many topics, the organisations chosen do not necessarily practise all elements. In all respects, a more detailed investigation is necessary.

Furthermore, the sample only included manufacturer Portuguese companies. Consequently, the results would have been more significant and generalisable if the research had included more diversified corporations belonging to other sectors and countries.

It will also be interesting to perform the same analyses after the pandemic period the world is living. How much more has the Internet influenced Internationalization in the last two years? How many companies had to adjust to resist the great changes in the market, which was almost limited to the online world in numerous product categories? These changes were and are of different natures, from human resources, which mostly stayed in telework, to financial resources that remained and are much more limited, and to the market/consumer that changed their behaviour and purchase and investment decision.

5.3. Limitations

The current study has employed qualitative and quantitative data to gather relevant information. Firstly, qualitative data is collected through interviews. Since thematic analysis is used to interpret the interviews and variables are selected from the researcher's study's literature review, the variables are subject to the researcher's biases. Thus, the findings may result from particular bias, impacting the study's credibility. Secondly, the research is conducted on Portuguese SMEs; therefore, the results obtained may be affected by the country's social, economic, and political culture and may not be generalisable to other countries' businesses. This study is an exploratory one, considering only relations,

not establishing causal relations, which could be seen as a limitation too. Moreover, it is not about success or performance, it is only about internationalisation and the internet, not studying their impact on sustainability.

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7. ATTACHMENTS

I – Finalized Questionnaire for the Quantitative Study

Questionário	
Identificação	
1 Morada	
2 Volume de Vendas	
3 Vendas Portugal _____% Internacional _____%	
4 Numero de empregados	
5 Tipo de Negócio: Venda ao Retalho _____% Consumidor final _____%	
Família	
Posição Familiar	
6 Por favor indique a divisão de ações/quotas na empresa:	
7 Família _____%	
8 Não Familiar _____%	
9 A empresa tem um conselho de administração/governança? Sim _____ Não _____	
10 Se sim:	
11 Por quantos membros é composto?	
12 Quantos membros são da família?	
13 Quantos membros não familiares foram nomeados pela família?	
14 Quem tem o controlo formal? Família _____ Não familiares _____	
15 O processo de decisão é influenciado pelo líder? Sim _____ Não _____	
16 A empresa tem um órgão de gestão? Sim _____ Não _____	
17 Se sim:	
17 Por quantos membros é composto?	
18 Quantos membros são da família?	
19 Quantos membros não familiares foram nomeados pela família?	
20 Quem tem o controlo formal? Família _____ Não familiares _____	
21 O processo de decisão é influenciado pelo líder? Sim _____ Não _____	
Geração/Experiência	
22 Quantos membros compõem a família? (Membros adultos de primeiro e segundo grau, incluindo noras e genros) _____	
23 Qual é a geração que detém a empresa? _____ geração	
24 Qual é a geração que gere a empresa? _____ geração	
25 Qual é a geração ativa no conselho de administração/governança? _____ geração	
26 Qual é a geração ativa no órgão de gestão? _____ geração	
27 Quantos membros da família participam ativamente na empresa?	
28 Quantos membros da família não participam ativamente na empresa?	
29 A empresa está a preparar uma estratégia de sucessão? Sim _____ Não _____	
30 O sucessor está a ser preparado dentro ou fora da empresa? Dentro _____ Fora _____ Ambos _____	
31 O sucessor vai ser aceite como líder? Sim _____ Não _____	
Cultura	
<i>Por favor avalie na escala as frases abaixo no contexto e realidade da sua empresa:</i>	
	Não se Aplica - Aplica-se Totalmente
32 A família tem influencia na empresa	1 2 3 4 5 6 7
33 Os membros familiares partilham valores semelhantes	1 2 3 4 5 6 7
34 A empresa e os membros familiares partilham valores semelhantes	1 2 3 4 5 6 7
35 Há membros familiares que indiretamente influenciam a empresa (antigo líder, esposas, filhos jovens, noras)	1 2 3 4 5 6 7
36 Os membros familiares na sua maioria estão disponíveis para trabalhar afinadamente em prol do sucesso da empresa	1 2 3 4 5 6 7
37 Os membros familiares defendem veementemente a empresa em discussões com amigos, empregados e outros elementos	1 2 3 4 5 6 7
38 Os membros familiares são leais à empresa	1 2 3 4 5 6 7
39 A família tem orgulho em fazer parte da empresa	1 2 3 4 5 6 7
40 Os membros familiares têm muito a ganhar em participar no negócio familiar	1 2 3 4 5 6 7
41 A família concorda com os objetivos, planos e políticas da empresa	1 2 3 4 5 6 7
Internacionalização	
42 Valorize em termos percentuais o tempo que os empregados da empresa dedicam aos negócios internacionais versus mercado nacional _____%	
43 Valorize em termos percentuais o valor dos ativos da empresa no estrangeiro versus os ativos em Portugal _____%	
44 Em quantos mercados internacionais a empresa está presente com subsidiárias?	
45 Que aumento tiveram em vendas desde o início da internacionalização? _____%	
46 Que aumento tiveram o valor dos ativos internacionais desde o início da internacionalização? _____%	
47 Que aumento tiveram o numero de empregados dedicados ao mercado internacional desde o início da internacionalização? _____%	
48 Quanto aumentaram em numero de mercados desde o início da internacionalização? _____%	
49 Quantas subsidiárias abrem por ano nos mercados internacionais, em média nos últimos 3 anos?	
E-Business	
50 A empresa tem presença na Internet (WWW)? Sim _____ Não _____	
51 One-line Web Site? Sim _____ Não _____	
52 Venda de produtos/serviços on line? Sim _____ Não _____	
53 Facebook? Sim _____ Não _____	
54 Instagram? Sim _____ Não _____	
55 Pinterest? Sim _____ Não _____	
56 Ebay? Sim _____ Não _____	
57 Amazon? Sim _____ Não _____	
58 Alibaba? Sim _____ Não _____	
59 Outros?	
<i>Por favor avalie na escala as frases abaixo no contexto e realidade da sua empresa:</i>	
	Não se Aplica - Aplica-se Totalmente
60 A empresa utiliza a Internet como forma de estudo de mercado, suporte a clientes, valorização de marca, promoção e captação de recursos?	1 2 3 4 5 6 7
61 Utilizam o marketing digital e os "social media" como forma de atrair novos clientes e alcançarem os existentes de uma forma mais eficiente?	1 2 3 4 5 6 7
62 Utilizam o comercio eletrónico como forma de gerarem um forte aumento de vendas?	1 2 3 4 5 6 7
63 Confirmam que a utilização do comercio eletrónico permite a eliminação de distribuidores e retalhistas, reduzindo stocks e custos de todo o processo?	1 2 3 4 5 6 7
64 A empresa utiliza a Internet como forma pesquisa e análise de fornecedores, reduzindo custos, tempo e stocks e melhorando a comunicação.	1 2 3 4 5 6 7
65 A empresa utiliza a Internet para estudar e analisar o ambiente tecnológico, comercial e concorrencial na procura de informação que ajude ao processo de decisão.	1 2 3 4 5 6 7
66 A empresa partilha e integra informação na Internet com os seus vários parceiros de negócio com o objetivo de em conjunto desenvolverem melhorias aos seus produtos e serviços.	1 2 3 4 5 6 7

Tópicos de Entrevistas a Empresas Industriais – Tese PHD

A - Tipologia de empresa e modelo de gestão.

1 - Identificação

- Empresa:
- Nome:
- Cargo:
- Idade:
- Formação:

2 – Propriedade

- Empresa Familiar:
- % Capital familiar:

3 – Modelo de Gestão

- A empresa tem “Governance Board” (Conselho Consultivo)?
 - Sim: Quantos membros?
 - Quantos membros família e não família?
- Como decide o “Board” Maioria ou consenso? Ou influencia do Líder?
 - O líder é membro da família? Foi nomeado pelo “board”?

4 – Geração Familiar

- Que geração detém o capital da empresa?
- Que geração é activa no “Governance Board”
- Que geração gere o dia a dia da empresa (conselho executivo, CEO)?
- Quantos membros familiares são activos na empresa em funções executivas? Maioritário, Minoritário?
- A sucessão está a ser preparada? Vai ser um membro familiar de que geração, seguinte, atual, anterior?
 - A cultura e objectivos da familiar estão a ser passados ao sucessor?

5 – Cultura

- Os membros da família ativos na empresa partilham os mesmos valores dos não ativos?
 - Existe uma lealdade entre os membros da família? Ativos e não Ativos?
 - Os valores familiares são compatíveis com os da empresa?
 - Fazer parte da família tem uma influencia positiva na vida.
- Apoio e suporte das decisões familiares em relação ao futuro da empresa. Compromisso.

6 – Envolvimento

- Esposa do líder/CEO tem influencia na empresa? Está envolvida na empresa?
 - Influencia e envolvimento do genro, nora, cunhado?
 - Envolvimento das futuras gerações?
 - Envolvimento das antigas gerações?

Tópicos de Entrevistas a Empresas Industriais – Tese PHD

B – Internacionalização, processo e método.

1 – Internacionalização

- A empresa está presente em mercados internacionais?
- A comercializar produtos ou serviços? % do volume de negócios?
- A adquirir produtos ou serviços? Sub-contratação? % do volume de compras?

2 – Método estratégico de Internacionalização

- Desenvolvimento orgânico.
- Fusão ou Aquisição.
- Aliança Estratégica.

3 – Processo de Internacionalização

- Contactos pessoais por visitas aos mercados, feiras, associações e eventos.
- Via Clientes ou fornecedores.
- Via pesquisa na Internet.

C – Internet impacto no processo de Internacionalização

1 – Processo

- Como forma de estudo de mercado; produtos, serviços, modelos, design, preços, concorrência.
- Procura de clientes?
- Procura de fornecedores?
- Comercio on-line (E-commerce)

2 – Forma

- Facilita a comunicação, aproxima a relação?
- Reduziu custos do processo? Simplificou a forma?
 - % do negocio internacional via internet?
- Tendência para o futuro a curto/médio prazo - %