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Fostering the internationalization of family firms: the role of foreign participation, R&D, and import of goods

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V. Abstract

English

This master thesis studies the relationship between family firms and export performance as a proxy of internationalization. The prevalent view of scholar's state that family firms often have inferior export performance, due to their concerns for familiness, limited resources, lack of skills, and knowledge that leads to higher risk aversion. Given the importance of family firms in today's global economy, the main aim of this work is to find possible strategies that can foster their international expansion. The theoretical framework leads us to the find three possible strategies that can moderate the negative export performance of family firms. The hypotheses of positive moderation effects of foreign ownership, R&D, and import of goods are empirically tested, with FGLS model and checked for robustness, with the GEE model, using the Spanish ESEE database that includes over 5000 firms observed from 1990 to 2016. Our result shows a positive moderation effect of foreign ownership and import of goods, but no evidence was found for the positive moderation effect of R&D on the export performance of family firms.

Italiano

Questa tesi di laurea studia le relazioni tra le aziende familiari e l'andamento delle esportazioni come proxy dell'internazionalizzazione. La prevalente visione accademica mostra come le aziende familiari, spesso, hanno un andamento delle esportazioni inferiori causa il loro interesse nel "familiness", le risorse limitate, la mancanza di abilità ed una conoscenza che induce ad un'elevata avversione al rischio. Data l'importanza delle aziende familiari nell'attuale economia globale, lo scopo principale di questo lavoro rimanda alla ricerca di possibili soluzioni che favoriscano la loro espansione nel panorama internazionale. La struttura teorica ci rimanda all'identificazione di tre possibili strategie in grado di mitigare l'andamento negativo delle aziende familiari. Le ipotesi di effetti positivi riguardanti le proprietà straniere, R&D e l'importazione di beni sono empiricamente testati tramite modelli FGLS e controllati per consistenza, con modelli GEE, usando il database spagnolo ESEE che include oltre 5000 aziende monitorate in un arco temporale che spazia tra il 1990 ed il 2016. Il nostro risultato espone un effetto di moderazione positivo per le proprietà straniere e l'importo di beni, ma non è stata trovata nessuna prova rigardo un effetto positivo dello R&D e dell'andamento dell'export delle aziende familiari.

1 Introduction

Family firms play an important role in the global economy. Many of the businesses around the world are controlled or owned by families (European Family Business, 2012). For instance, it is recorded that more than 40 % of European businesses are family firms (Chen and Steinwender, 2016; Faccio and Lang, 2002). Family-controlled firms can be found from smaller firms in everyone's close geographical proximity up to the international publicly traded firms, such as Wal-Mart Stores and Ford Motor (Burkart et al., 2003). Indeed, family firms represent the most common type of corporate governance across the countries (La Porta et al., 1999). Family firms have a significant impact on the economies in terms of job creation and contribution to the global welfare (Neubauer and Lank, 1998). Moreover, the involvement of family members in the business creates a set of unique features for firms, which influence their goals, structures, and strategies (Chua et al., 1999). Accordingly, by identifying specific characteristics of family firms, scholars attempt to investigate different strategies of family firms to find out the business practices that can foster the family firm's performance. Particularly, there is an increasing number of studies that focus on internationalization of family firms. Internationalization is one of the most important and complex strategies that a firm can undertake (Fernández and Nieto, 2005). The evolution of globally spread value chain induced firms to cross the national borders seeking for new market opportunities, more productive labor, and higher quality of inputs. Moreover, in today's world where change is the only constant and domestic markets are becoming increasingly competitive, and internationalization, in form of export, is one of the main means for business growth and survival. However, for the past three decades a significant number of studies on the internationalization of family firms highlighted several difficulties and limitations in family firms that can determine their internationalization process. The minor degree of family firms' presence in international markets, compared to non-family firms, often stem from the lack of adequate financial resources, insufficient managerial capabilities, and a greater level of risk aversion. The causes for such limitations are also a well-studied topic in the literature that addresses the internationalization of family firms. Nevertheless, finding possible strategies, that can mitigate the limitations of family firms in international markets, attracted less attention (Pukall and Calabrò, 2014). Therefore, in order to address this gap, we further study the

reasons for restrictions of family firms in international markets, aiming to discover the best possible solutions that can help family firms to overcome their difficulties and expand their international markets.

Reviewing the most promising researches, we argue that the main reason for the limitation of family firms in their global expansion arise from what (Graves and Thomas, 2008) call “self-imposed limitation”. Family firms’ idiosyncratic attributes, such as the pursuance of non-economic goals and their intention to pass the business as a heritage to their heirs, make them less inclined to open their governance structure and top management team to non-family members (Arregle et al., 2012; Gómez-Mejía et al., 2007). This, in turn, can hinder the implementation of internationalization strategies since international markets require relatively more abundant resources and capabilities that are often scarce in family firms. However, in order to successfully compete in international markets, family firms should develop their resources and capabilities. To do so, they should open their governance structure to external owners or alternatively they should develop their missing resources and capabilities internally.

It has been widely argued that ownership structure influences the internationalization performance of firms (Fernández and Nieto, 2006, 2005; George et al., 2005; Thomsen and Pedersen, 2000). Heterogeneity among owners’ perceptions, values, risk appetite, knowledge, and resources differentiate the objectives and performance of different firms in international markets (Sanchez-Bueno and Usero, 2014). In this extent, scholars particularly distinguish between the foreign owners and domestic owners (Douma et al., 2006; Fernández and Nieto, 2006; Spanos, 2005). For instance, they argue that foreign owners may have a different level of experience of international trade, technology, and risk appetite (Filatotchev and Piesse, 2009). Although some scholars (Arregle et al., 2012; Fernández and Nieto, 2005; George et al., 2005; Sanchez-Bueno and Usero, 2014) discuss that the presence of external owner can be highly beneficial for the internationalization of family firms, the origin of the owners could gain relatively less attention. Therefore, we are interested to examine the presence of foreign owners in family firms and its effect on the implementation of internationalization strategies in form of exporting.

R&D is one of the possibilities to improve the family firm’s internal processes. In the information age, the availability and accessibility of knowledge changes dramatically

and the pulse of technological innovation is increasing. In order to keep up with the pace of innovations and digitalization, developing the necessary knowledge and capabilities is essential for the firm in order to survive in international markets (e.g., Lin et al., 2002). R&D activities help the firm to provide a state of the art toolbox of managerial capabilities, state of the art knowledge, increased absorptive capacity, product and process innovation, and improved productivity, that is needed to successfully compete in international markets. We will therefore investigate how the family firm can possibly use R&D activities to improve its internationalization in terms of export intensity.

While the global sourcing and importing strategies are becoming a crucial issue for the competitiveness of firms, researches on importing are mainly conducted on the country-level and are classified in the field of international economies. However, the effect of import on several aspects of firms' strategies and performance has recently attracted researches' attention in field of international business. Scholars argue that importing can be possibly considered as a source of competitive advantage and productivity for firms (Sharma, 2013; Zhang, 2017). More importantly, some scholars point out to the key role of imports in international trade of firms as it enables them to start exporting and to enhance their performance in their current exporting markets (e.g., Bas, 2009; Feng et al., 2016). For instance, they argue that through importing, firms can acquire some level of international trade experience which might be also useful for their future exporting (Harris and Moffat, 2015). Moreover, importing firms often have a wider access to the global pool of diversified, higher quality, and cheaper inputs (Bas and Strauss-Kahn, 2014). However, the effects of importing on family firms' export performance have been neglected. Therefore, it is interesting to explore whether importing can help family firms to improve their export performance.

The main hypotheses are tested on the ESEE database, with panel data from 1990 to 2011, that represents Spanish manufacturing companies with a minimum size of ten employees, and with the total number of 5040 firms. The ESEE database is especially suitable for the research of family firms due to its high number of family firms. We evaluate how familiness can affect the export performance of a firm. Then, we examine the moderating effect of foreign participation in family firms export performance. The same moderation effect is also tested for R&D investments and importing goods. Our finding suggests that there is a negative and significant relationship between the family firm and export performance. Further, we observed a positive moderating effect of foreign

participation and importing on export performance of family firms. However, we found no evidence for such moderation effect for R&D investment.

Our study contributes to the existing literature in several ways. First, while the majority of preceding researches selected a single theoretical framework to study internationalization of family firms (Pukall and Calabrò, 2014), we incorporate several of them with the main focus on agency theory, stewardship theory, and resource-based view theory. The study of family firms' attributes from different perspectives helps to understand the source of heterogeneity between family firms that is often neglected (Corbetta and Salvato, 2004; Fernández and Nieto, 2006; Lin, 2012). While the results of a vast majority of researches exhibit the negative relationship between family firms and internationalization (Arregle et al., 2012; Fernández and Nieto, 2006; Hennart et al., 2017), other scholars argue the contrary (Carr and Bateman, 2009; Zahra, 2003). Through the wide literature review we could find three possible moderation effect and by studying the effect of these three different moderators, our research helps to understand the reasons for this contradictory. Our finding further supports the debate about existing heterogeneity among family firms (Sanchez-Bueno and Usero, 2014); not all family firms are equal in their characteristics and, therefore, some might be better suited to internationalize. Second, our findings extend the analysis of the impact of external owners on the internationalization of family firms (Arregle et al., 2012; Fernández and Nieto, 2006; Sanchez-Bueno and Usero, 2014). We particularly pick up and develop the recent debate on the impact of foreign owners on export performance of family firms (Calabrò et al., 2013; Cerrato and Piva, 2010; Wąsowska, 2017). However, while previous researches compare the impact of foreign owners between non-family and family SMEs (Calabrò et al., 2013; Cerrato and Piva, 2010), we particularly investigate the consequences of the presence of foreign owners in the entire range of family firms. Third, we also contribute to the discussion about family firms and R&D activities. R&D and internationalization strategies possess several traits in common and most of the researchers conclude that both strategies are risky and require expanded resources. Family firms are expected to have less propensity and inferior performance in both of them. Perhaps that is why the effect of R&D activities on internationalization of family firms is not investigated. While our findings further support the previous discussion about R&D and family firms, we also empirically analyze the moderating effect of R&D on export performance of family firms. Forth, although import represents another cross-border trade

of goods by firms and it can be implemented relatively easier compared to the exporting, surprisingly previous researches of family firms' internationalization did not study the complementary effect of import on the export performance of family firms. Therefore, this study answers the call of (Arregle et al., 2012) for inclusion of import activities in extent of family firms internationalization.

The remainder of this research is organized as follows: in chapter two, we present the theoretical framework to further study the attributes of family firms that can affect their internationalization decisions and performance. In order to have a more comprehensive view, the three most frequented frameworks, that are the resource-based view, agency theory, and stewardship theory, are selected. Next, in chapter three, we explain the possible internationalization modes that family firms can undertake, and we explain why export is the most common method for family firms to internationalize. Then, in chapter four, through hypothesis development, from a theoretical point of view, we discuss more precisely how foreign ownership, execution of R&D, and importing goods might help family firms to enhance their export performance. The main model and analysis of interaction effects are presented in chapters five and six. In the subsequent chapter, we discuss our findings. And finally, the managerial implications, research limitation and suggestions for future research are presented.

2 Theoretical background

2.1 Why studying family firms?

Families are the main economic units of each society and their intention to open a business by leveraging on their abilities appears quite logical (Aronoff and Ward, 1995). Family businesses have been existing and operating for several years, but until the 1990s that the field was not viewed as a separate academic discipline, before 1980 family business fell into the sociology category and later into a small business management category, neither of which allowed the field to become distinctive (Bird et al., 2002). In October 1984, Beckhard and a group of other scholars initiated the idea for creating a new field that would stimulate academic research in family business, gradually and after few years, awareness about family firms and its importance increased among economists and they started to explore the arena more than before (Sharma et al., 2012). Because they realized that "family businesses can be different from non-family businesses" (Okoroafo, 1999, p.147), moreover, "The family-owned business is an important field of study for understanding the past, present, and future of the global economy" (Yeung, 2000, p.55). Academic institutions have realized the significance of family firms' contribution in economies and trade for many countries (Claver et al., 2007) and they dedicated research centers and specialized departments, hoping to stimulate research in this area, therefore, research into family businesses has flourished, and it is conducted more regularly. Recently, because of the diffusion of family firms and their economic relevance, family businesses also have attracted scholars' attentions from outside of the family firm research area (Murro and Peruzzi, 2016). The ultimate aim of family firm's research is to inform, lead, enrich, and guide managerial practice to understand the distinctions of family business over other types of business, problems that managers of family business face, determining causes and reasons, and finding the best fitting strategies to deal with them (Zahra and Sharma, 2004).

Back in the history, family firms played a key role in economies and had a significant impact on west civilization (Shim and Okamuro, 2011). According to (Neubauer and Lank, 1998) family enterprises were among of the most effective firms to create jobs, and among those few which could be successful enough to pay taxes, they also described family firms as agile and flexible entities in case of economies trouble. Even today family members still largely control many large modern corporations with

numerous anonymous shareholders (Bird et al., 2002). Nowadays, a large fraction of businesses throughout the world are organized around families and involvement of families in businesses is very common, both among privately held firms and publicly traded firms (Bertrand and Schoar, 2006; Burkart et al., 2003). Faccio and Lang (2002) reported that more than 43% of Western European firms are family controlled. Similarly, La Porta et al. (1999) pointed out that also in South and East Asia, Middle East, Latin America, and Africa, the vast majority of publicly traded firms are family controlled. In the United States and U.K., some of the largest publicly traded firms, such as Wal-Mart Stores and Ford Motor, are controlled by families (Burkart et al., 2003). In 1999, Okoroafo stated that 90% of all American businesses were family-owned firms and more than70% of American manufacturing export was done by family firms. Family firms constitute a substantial proportion of American Fortune Global 500, even in Europe they control around 40% of the businesses (Chen and Steinwender, 2016). According to (European Family Business, 2012), "in most countries around the world, family businesses are between70 and 95% of all business entities" (p.2). Indeed, it is recorded that by far the dominant form of controlling ownership in the world is not that by banks and other corporations, but rather by families (La Porta et al., 1999).

Researches and studies about the specification of family firms are known as one of the most complex fields in management and international business literature (Benavides-Velasco et al., 2011; Fernández and Nieto, 2005; Zahra and Sharma, 2004). And there is no comprehensive framework for family-owned business researches. Discussions and studies among scholars about family firms are fragmented and oriented to a specific aspect of their business that aim to investigate how family firms differ with dispersed ownership in various business strategies (Hennart et al., 2017; Verbeke and Kano, 2012; Wortman, 1994). Different studies and topics in this field can be mentioned, such as internationalization (Basly, 2007; Fernández and Nieto, 2005; Gallo et al., 2005; Hennart et al., 2017; Lin, 2012; Wąsowska, 2017) technology (Kotlar et al., 2013), performance (Anderson and Reeb, 2003; Chrisman et al., 2003a; Sciascia and Mazzola, 2008), finance (Filbeck and Lee, 2000), customer service (Lyman, 1991), merger & acquisition (Shim and Okamuro, 2011), and diversification decisions (Gomez-Mejia et al., 2010; Sanchez-Bueno and Usero, 2014).

In short, given the considerable number of firms that are owned and managed by family members and their significant contribution in global economy, it appears a worthy

field of study, that could raise the scholars' attempts to further investigate the family businesses characteristics in different aspects and strategies to discover policies that can enhance their performance and thus improve the global welfare and economy.

2.2 Family firm definition

The absence of an idiosyncratic definition of family firms creates difficulties in understanding their strategies (Arregle et al., 2017). Thus, by considering several proposed definitions of family firms in the past decades, we try to review some of them to find basic principles that they have in common and make a clear definition in our research.

- "A family business is defined as an organization whose major operating decisions and plans for leadership succession are influenced by family members serving in the management or on the board" (Handler, 1989, p.262).
- To be considered as family business, Lyman (1991) stated that "the ownership had to reside completely with family members, at least one owner had to be employed in the business, and one other family member had either to be employed in the business or to help out on a regular basis even if not officially employed" (p.304).
- Sharma et al. (1997) define family business as "a business governed and/or managed on a sustainable, potentially cross-generational, basis to shape and perhaps pursue the formal or implicit vision of the business held by members of the same family or a small number of families" (p.2).
- "The family business is a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families" (Chua et al., 1999).
- Family firms are defined as "those businesses that reported some identifiable ownership share by at least one family and had multiple generations in leadership positions within those firms" (Zahra, 2003, p.501).

- ”Family firms are characterized by a concentration of ownership, control and often key management positions among family members, even after the retirement of the firms’ founders” (Bertrand and Schoar, 2006, p.74).
- “The family firm can be defined as a firm controlled by one or more families involved in governance or management or at least holding capital stakes in this organization” (Basly, 2007, p.154).
- Sciascia and Mazzola (2008) first address that family-owned company can be managed by family or nonfamily members, then they describe a family business if it reflects family participation in strategic decision making.
- Shim and Okamuro (2011) define the family firm as “one where a family controls enough votes to influence significantly corporate conduct” (p.6)
- “Family firm can be defined by its family ownership, management, or both. Family members can also hold marginal or substantial control over the firm” (Arregle et al., 2017, p.802).
- According to Hennart et al. (2017) family firms are defined as those “firms in which family members have substantial ownership and take an active role in management” (p.5)

These are just a few examples of many definitions of family firms among different scholars who examined the different dimensions of family business during the decades. The first issue that was mentioned in almost all of the researches is “ownership” that should belong to the members of the same family. Another aspect that could receive more attention at the beginning than recent researches, is “succession”, referring to the fact that a family business should be passed onto the next generations of the same family. “Governance” is the next point that is listed as one of the main features of family business, this argument refers to the necessity of having influence on different strategical decisions of business along occupying owner positions.

Along with recent studies (e.g., Gomez-Mejia et al., 2010; Hennart et al., 2017; Zahra, 2003) we exclude “succession” in our definition since it is an inherent trait of family firms that determines most of family firms characteristics (Bennedsen et al., 2007) and we concern management and ownership simultaneously; thus we define family firms in our research as *any firm which family members have the owner position and are also actively involved in the control or management of the firm.*

2.3 Internationalization of family firms

"Internationalization is the most complex strategy that any firm can undertake", this strategy is likely to become increasingly necessary (Fernández and Nieto, 2005, p.77). Yet, scholars (e.g., Gallo and Sveen, 1991; Pukall and Calabrò, 2014) propound that family firms are more avid to invest in their domestic markets, owing to the growing market globalization even family firms which are traditionally focused on their domestic markets may have to face this strategy (Graves and Thomas, 2004). An increasing number of companies in different industries across the world have been expanding their activities in foreign markets, therefore family firms also should pursue this strategy (Claver et al., 2007). Otherwise, by not following the global trend, they will be isolated in markets and eventually they might be out of the competition (Grandon and Pearson, 2004).

Nowadays value chain activities are spread across the globe and the traditional family business model of concentration within a specific geographic region is rapidly becoming obsolete (Benavides-Velasco et al., 2011). Firms should cross the international borders to access to a larger base of customers, suppliers and even employees (Pinho and Martins, 2010). The higher access to such resources outside the country can accelerate firm's growth and lead to higher returns for firms (Fernández and Nieto, 2005). Additionally, Intensifying global competition, technological development and greater opportunities in international markets allow firms to benefit from the larger pool of productive and cheaper labor, better quality of intermediate inputs, and exploitation of economies of scale (Pukall and Calabrò, 2014). On the other side, "internationalization helps reduce fluctuation in revenue by spreading risk over a number of countries" (Lin, 2012, p.48). Moreover, global expansion of the business is not only a strategy for business growth but sometimes it is significantly necessary for the survival of firms (Kontinen and Ojala, 2010); particularly for small-medium-sized enterprises (SMEs) which are mainly managed and owned by families (Graves and Thomas, 2004; Hennart et al., 2017; Okoroafo, 1999).

Scholars (e.g., Anderson and Gatignon, 1986; Arregle et al., 2012; George et al., 2005; Zahra, 2003) state that the ownership structure can influence internationalization efforts of enterprises. Because different owners have different perceptions, values, incentives, and preferences in their corporate strategies (Lin, 2012). Family firms are known as those business entities that have specific characteristics, in other words, the

involvement of family members in business creates a set of unique features for firms which influence their goals, structure, and strategies (Chua et al., 1999). Moreover, this uniqueness of family firms attributes “affects how resources can be managed to create competitive advantage” (Sirmon and Hitt, 2003, p.340) that enables family firms to make economic rents (Chrisman et al., 2003a). The faminiess of the firm can be a source for potential differentiation and it can create some “hard-to-duplicate capabilities” (Chrisman et al., 2003b). It refers to the “summation of the resources and competencies generated by the interaction of family, business, and individual family members” (Sciascia and Mazzola, 2008). Researches in the family business field argue that internationalization strategies of family firms may differ from other firms with different corporate ownership (George et al., 2005). Because unique capabilities and limitation of family firms can significantly affect their attitude on internationalizing their business (Davis and Harveston, 2000; Gallo and Pont, 1996; Zahra, 2003). In other words, one can expect different strategies including internationalization in firms that have family owner-managers than those without family involvement (Zahra, 2005).

Although during past years several studies examined family firm' internationalization and have attempted to discover the enhancing managerial practices for firms, this topic of international business is still considered as a young filed (Pukall and Calabrò, 2014). On the other side, one problem that might be seen in studies of family business is the generic approach of research, in other words, researchers analyze and report that a family firm has a specific advantage or disadvantage over non-family firms and not investigating the possible reasons for observing outcomes (Habbershon and Williams, 1999). With regard to the large number of family firms and their significant contribution in the international economy, it appears that this field requires more research and exploration to reconcile and connect all the findings so far which make it possible to discover more managerial implications to improve family business' presence in global marketplace (Kontinen and Ojala, 2010).

There are several theoretical frameworks that can help researches to deepen the understanding on how familiness matters in firms' strategies including those related to the presence in global markets. Kontinen and Ojala (2010) and Pukall and Calabrò (2014) have reviewed all the studies about strategies that family firms undertake, including their international expansion strategies. According to them, the main and most used theories in family firm's studies are the resource-based view, agency theory, and stewardship theory. Along with them, we select these three theories as our main theoretical framework. They

are specifically useful for evaluating firm's internationalization because while corporate ownership and firm's resources are two main forming components of decisions about internationalization (Wąsowska, 2017), with the resource-based view we can have a precise overview on family firms resources attributes. However, since this theory does not allow us to evaluate the behavioral basis of a family firm (Verbeke and Kano, 2012), we use the other two theories. By agency theory and stewardship theory we analyze the managerial behaviors of family firms' leaders that affect the allocation of resources, strategies, and decisions of firms.

2.4 Resource-based View theory

Perhaps resource-based view (RBV) is the most persuasive framework for the cognition of strategic management, that is why during past years it has been dramatically utilized in different theoretical development and studies (Barney et al., 2001). One of the main reasons for its prevalence is the linear relationship between firm performance and management of resources that can be studied by RBV (Sirmon and Hitt, 2003). RBV theory (Barney, 1991) suggests that sustained competitive advantage is raised from the resources and capabilities that a firm possesses which are valuable, rare, inimitable, and non-substitutable (VRIN). Under RBV theory, it is as assumed that differences among firms in the same industry are because of the heterogeneity in their strategical resources. Moreover, resources cannot be exchanged across firms which leads to enduring heterogeneity among firms (Barney, 1991).

Resources are those "strengths that firm can use to convince of and implement their strategies" (p.101) which includes human capital resources, physical capital resources, and organizational capital resources. Barney (1991) points out that "firms obtain sustained competitive advantage by implementing strategies that exploit their internal strength through responding to environmental opportunities while naturalizing external threads and avoiding internal weakness" (p.102). What enables a company to obtain the sustained competitive advantage is not only the possession of resources but also the effective employment and management of resources (Barney et al., 2001). By emphasizing on both internal and external environments' specification of a firm, RBV can perfectly explain why firms' performance may differ in long-run (Habbershon and Williams, 1999).

RBV is a proper theoretical framework to explain distinctiveness of a family business (De Massis et al., 2015) since "it examines the links between a firm's internal characteristics and performance, it provides the opportunity to more fully delineate the competitive capabilities of family companies" (Habbershon and Williams, 1999, p.7). Internationalization is based on opportunities that a firm can explore its competitive advantage abroad (Fernández and Nieto, 2005). Put differently, "firm's ability to expand globally is dependent upon its ability to configure firm-specific resources to create globally relevant capabilities" (Graves and Thomas, 2004). RBV is useful to further discover family firm's strategic and value-adding capabilities and resources in the hyperdynamic and competitive environment of international markets (López Rodríguez and García Rodríguez, 2005). Moreover, effective management of resources enables a family firm to compete in dynamic markets, and still, RBV is a beneficial framework to discover how a family businesses can achieve this effectiveness to utilize the opportunities and create the sustained competitive advantage (Sirmon and Hitt, 2003).

Based on RBV, resources and capabilities can be viewed as bundles of tangible and intangible assets, including a firm's management skills, its organizational processes and routines, and the information and knowledge it controls (Barney et al., 2001). Accordingly, several researchers described family firms as a unique bundle of resources and capabilities which is caused by the interaction of business system, family members, and individuals in the organization (Habbershon and Williams, 1999; Olson et al., 2003; Wąsowska, 2017; Zahra et al., 2004). Habbershon and Williams (1999) call this bundle of resources "familiness", which provides a "unified systems perspective on family firm performance capabilities and competitive advantage" (p.1). RBV is utilized to evaluate a firm's unique bundle of resources on the internationalization process of that firm (Graves and Thomas, 2004). "The integration of the family and business creates several salient and unique characteristics" which makes the firms' resources different than non-family firms (Sirmon and Hitt, 2003, p.340). Here we focus on three of them including human capital, financial capital, and social capital resources which are important in internationalization strategies of firms.

2.4.1 Human capital

"Human capital resource includes the training, experience, relationship, and insight of individual managers and owners in a firm"(Barney, 1991, p.101). The general perception about human capital of firms is that it can be moved between firms easily, and consequently, it cannot generate sustained competitive advantage for firms (Hatch and Dyer, 2004). However, human capital is most valuable and inimitable resource, especially when it is firm-specific and exploited in its original environment (Buck et al., 2003; Hatch and Dyer, 2004). Consequently, human resource is highly important and can influence strategy execution of the firms (Koch and McGrath, 1996). Moreover, it has been noted that human resource development over time leads to the generation of specific human capital skills that can engender sustained rents for the originating firm (Barney et al., 2001).

Among all the qualifications that make a firm's human capital superior to its counterparts, experience and knowledge play more significant roles that make firms able to achieve their desired outcome (Marvel and Lumpkin, 2007). This can be a source of competitive advantage through cost reduction for a firm; because experienced managers with needed knowledge of firm had learned how to run operations more effectively (Hatch and Dyer, 2004). Put differently, collected skills and capabilities of managers during years could change them and enable them to act in new ways (Coleman, 1988).

Family firm's human capital can be the source of competitive advantage since it is constituted by a higher level of commitment to business, extraordinary communication, friendship, and intimacy among members and motivation (De Massis et al., 2015). Zahra (2003) suggests such organizational environment can positively contribute to family firm's internationalization since it can reduce the level of perceived risks in international markets for managers and consequently improve their performance in international markets.

Moreover, the longer presence of family members in the firm from their childhood can cause a profound and inimitable firm-specific tacit knowledge (Sirmon and Hitt, 2003). Family members use their collective tacit knowledge to effectively coordinate and integrate all other firms' resources (Basly, 2007). Bertrand and Schoar (2006) argue that the transmission of tacit knowledge of firm from the founder to their heirs as the next generation managers starts from early stages and before the formal involvement of family members in the business. The early involvement of family members in business can be

beneficial for global expansion since they start to learn managerial capabilities and gain knowledge that facilities international growth of the company (Bertrand and Schoar, 2006). Among the most important managerial capabilities that they acquire through learning by doing, the ability to evaluate threats and opportunities in the market has more importance (Barney, 1991). Due to the higher competitiveness of international markets, the mentioned capability in addition to the ability to plan an effective resource allocation might significantly assist them in their internationalization policy (Graves and Thomas, 2006; Hatch and Dyer, 2004).

Since this firm-specific knowledge is optimally developed toward the firm's goals and is tailored to specific strategies and culture, it can generate sustained economic rent for family firms; In addition, this value-adding knowledge is protected because if rivals want to acquire this knowledge they must first employ the human capital which impels to potentially high adjustment costs to adapt the acquired human capital to new environment (Hatch and Dyer, 2004). Consequently, mentioned attributes of human capital in family firms are the source of causal ambiguity, that is, rivals cannot easily and fully understand the link between family firms' human capital and their competitive advantage (Habbershon and Williams, 1999).

However, the positive attributes of family firms such as high-quality relationships and assumed excellent communication cannot automatically lead them to better performance in domestic and foreign markets. Because "selling abroad is thought to require substantial additional [human] capital" (Hennart et al., 2017). While managerial capability is among the essential strategical resources that can generate sustained competitive advantage in foreign markets (Fernández and Nieto, 2005), such capabilities are scare among the family firms (Cerrato and Piva, 2010; Graves and Thomas, 2006). More precisely, internationalization requires managers who have the ability to monitor and evaluate opportunities in the dynamic environment of foreign markets and execute an effective resource allocation to take advantage of perceived opportunities (Graves and Thomas, 2006). Such capacity and expertise is more abundant outside of family firms (Basly, 2007), moreover, family firms managers often do not monitor current opportunities in global marketplaces (Okoroafo, 1999) and owners have difficulties to hire the qualified managers (Merino, 2017).

The tendency of family firms to keep the control of business inside the family which stems from their concerns about preserving the firm's familiness (Gomez-Mejia et al., 2010; Merino, 2017) increase their desire to be independent of outsiders (Basly,

2007). This, in turn, can lead them to hire suboptimal employees (Sirmon and Hitt, 2003) that usually do not have sufficient experience, capabilities, and knowledge for internationalization (Arregle et al., 2017; Gallo and Sveen, 1991). In other words," trying to avoid loss of control, family management tends to limit external managerial implication even it would be valuable to undertake international activities" (Basly, 2007, p.161). Additionally, it is argued that knowledge and expertise of international activities is not the only skill that family managers lack, but often family firms confront deficiency of managerial expertise and competencies in general terms (Murro and Peruzzi, 2016; Pukall and Calabrò, 2014). For instance, Anderson et al. (2003) refer to one of the common traits of family firms that is "family firms potentially place one of their own members in the CEO position at the cost of excluding more capable and talented outside, professional managers" (p.1306). From a different perspective, some scholars (e.g., Dyer and Whetten, 2006; Sirmon and Hitt, 2003) remark the restriction of family firms to attract professional managers; they discuss that even if family firms tend to acquire skilled human capital from external resources, qualified managers avoid family firms due to some reasons such as exclusive succession, limited potential growth, discriminatory behavior and higher concentration on family members. In brief, the family firm's access to the labor market is limited and they often hire employees who have the lower quality that is not qualified for internationalization (Gomez-Mejia et al., 2001).

Involvement of family members in key managerial positions affects firm's strategical decisions since they put a higher priority on familial values such as nepotism and identity (Chrisman and Patel, 2012). Thus, if family managers perceive some threats to family values by activity in international markets, or they are not prepared to accept the higher responsibility of foreign sales, they discourage internationalization (Gallo and Garcia Pont, 1996). On the other side, overemphasized concerns about family values can be detrimental for firm performance in recruiting process of family firms; While hiring decisions are among the most important decisions in a firm (Sharma et al., 2012) both owners and family applicant emphasis more on family-centered goals and values rather than necessary and professional expertise and competences (Gomez-Mejia et al., 2001). That is why family firms are told to suffer from lack of skilled and strong human capital; whereas manager's skills are considered as VRIN resource in the international expansion of businesses (Graves and Thomas, 2006; Merino, 2017).

To summarize, internationalization requires managers who have knowledge of foreign markets (Hennart et al., 2017) and high managerial capacity and expertise (Graves

and Thomas, 2006) because from one side knowledge of foreign markets is positively related to firms' performance in international markets (Basly, 2007) and on the other side, international strategy creates considerable managerial challenges which demands ability of managers to deal with different and competitive environments (Arregle et al., 2017) and lack of such expertise and foreign markets knowledge are significant barriers in internationalization path of family firms (Gallo and Garcia Pont, 1996; Johanson and Vahlne, 1977). Accordingly, this can explain one of the reasons for the widely acknowledged inferior performance, slower pace, and less willingness of family firms to sell their products abroad (Arregle et al., 2012; Lin, 2012).

2.4.2 Financial capital

Financial capital is known as one of the most important strategical resources that a firm should possess when exploiting opportunities in international markets (Fernández and Nieto, 2005). Because "internationalization requires extensive financial… resources, especially to overcome the liability of foreignness which stems from doing business in an unknown market" (Arregle et al., 2012, p.1118). Yet, it has been widely acknowledged that family firms possess lower and limited financial resources compared to non-family businesses (e.g., Fernández and Nieto, 2005; Graves and Thomas, 2006; Pukall and Calabrò, 2014). Such scarce financial resources, which are usually funded internally, are often not sufficient for starting firm's activity in foreign markets and it impedes family business managers to take internationalization strategies (Basly, 2007; Fernández and Nieto, 2006; Gallo and Garcia Pont, 1996). It can also negatively affect the expansion and growth of those family firms that already entered into foreign marketplaces (Hennart et al., 2017; Sanchez-Bueno and Usero, 2014).

By obtaining the capital from external providers, family firms can financially benefit to grow, improve the probability of their survival, and also compensate the missing resources for internationalization (Davis and Pett, 2000). Several methods are proposed to strengthen the firm financial position and resources such as external shareholders, banks, and venture capitalist (Hennart et al., 2017). For instance, Sanchez-Bueno and Usero (2014) suggest that involvement of financial companies as the second largest shareholder in family firms can significantly improve their internationalization. However, "The decision-making processes in family businesses are often handled very differently than in nonfamily businesses" (Filbeck and Lee, 2000, p.203) and family firms

are often inward looking and tend to supply all their needed capitals inside the family tie (Graves and Thomas, 2004; Miller and Le Breton-Miller, 2005). Accordingly, they avoid external financial intervention to keep the control within the family and to prevent the joint control of firm (Basly, 2007) since the higher amount of employed external capital in firms leads to the potentially greater influence of financer in ultimate strategic decision making (Davis and Pett, 2000). Indeed, family managers want to be final and conclusive decision makers (Fernández and Nieto, 2005).

Inclusion of external investing owners, directly and indirectly, can facilitate the internationalizing process of family firms; direct positive effect refers to providing more financial resources and indirect effect means external financial capital can enable family firms to hire skilled managers and performing some activities such as market research that can increase the knowledge of foreign market (Arregle et al., 2012). However, involvement of external large shareholders in family firms contrasts with firm owner's long-term perspective and the desire to pass the business to next generation of family, because through their acquired power to control the business they can affect important process such as recruiting, and they also can affect or deviate from familial values and culture (Anderson et al., 2003; Hennart et al., 2017). The reluctance of family firms to utilize external financing mode than internal one such as retention of earnings (Basly, 2007) leads them to face limited possibilities to access their missing financial resources for expansion of their activities in foreign countries (Merino, 2017). One alternative policy for family firms to empower their financial position is to issue bonds that is congruent with their concern to keep the firm's control. However, a vast majority of family firms are SMEs which are too small to perform this strategy (Okoroafo, 1999; Sirmon and Hitt, 2003).

Another prevalent discussion about family firms is the risk aversion level. Family firms have been depicted as more risk-averse entities with more conservative managers than non-family ones (Anderson and Reeb, 2003; Fernández and Nieto, 2005; Gomez-Mejia et al., 2010; La Porta et al., 1999; Sanchez-Bueno and Usero, 2014). Three characteristics of firm's familiness can explain it. First, family business owners invest most of their wealth in their business (Carney, 2005; Gomez-Mejia et al., 2010) and they avoid any activity which can threaten their personal wealth (Anderson and Reeb, 2003). Second, and they are concerned about the ownership succession, they want to pass the business as a heritage to their next generation (Schulze et al., 2003). Third, instead of

accumulated financial resources, family firm's members may perceive more importance in pursuance of non-financial motives such as recognition with firm' name, reputation, and altruism (Gomez-Mejia et al., 2001; Hennart et al., 2017; Miller et al., 2009). This, in turn, implies that they avoid all the activities which have a higher level risk such as structural changes and investment in uncertain projects (Gallo and Sveen, 1991; Murro and Peruzzi, 2016). This specification of the family firms can be another reason to explain their refusal of external financial resources because the higher amount of external financial resource can increase the loss of family control (Gomez-Mejia et al., 2010). While they can obtain external financial resources to accelerate their internationalization process and improve their performance in international markets , "family firms avoid using external financing because it is often seen as a factor that could increase the risk to both financial and socioemotional wealth and it allows keeping authority and power in the hands of family members" (Sanchez-Bueno and Usero, 2014, 1314).

However, in contrasts to all drawbacks and limitation of financial resources in family firms that can be seen as a considerable obstacle of their internationalization process, it has been told that their financial capital is patient (Lumpkin and Brigham, 2011; Sirmon and Hitt, 2003). This can be a highly beneficial privilege in firm's internationalization. Patient capital or long-term capital means that investors do not seek for the quick and short-term return of their invested capital (Graves and Thomas, 2008), consequently, this allows managers to exploit more opportunities that will pay off in a longer period of time which possibly are more lucrative (Cremers and Pareek, 2016). Among those opportunities, internationalization will be more facilitated by patient capital; as "internationalization may take years to generate profits" (Zahra, 2003, p.499). Possession of patient capital can be highly helpful for global expansion of business since in internationalization process, particularly for SMEs, because there might be several unexpected challenges and obstacles which require time to be solved, if investors are impatient, firms will not reap the rewards of their efforts in international markets (George et al., 2005). The long-run commitment to business, family investors' reinvestment of dividends in the firm, the existence of family harmony, and identical business perspectives of family owner/managers in the firm are sources of creation of patient capital in family firms (Graves and Thomas, 2008).

Additionally, high dependence of financial resources of family firms to private wealth of family founder/owner gives rise to *parsimony* (Carney, 2005), which is "the careful resources conservation and allocation" (Sirmon et al., 2008, p.983). Parsimony

implies an efficient allocation of financial capital for family firms that makes them able to deal with complex business strategies (Carney, 2005) such as internationalization. The efficient allocation of financial resources has a significant importance in international markets because those firms which decide to sell their product aboard encounter a wide variety of trade costs (Bas, 2009).

2.4.3 Social capital

In RBV theory, Barney (1991) describes social (organizational) capital as a resource that include "a firm's formal reporting structure, its formal and informal planning, controlling, and coordinating systems as well as informal relations among groups within a firms and between a firm and those in its environment"(p.101). It is a goodwill that others have toward one individual, a valuable resource that can facilitate action and create value (Adler and Kwon, 2002). In management researches, social capital focuses on the relationship of individuals or between organizations (Sirmon and Hitt, 2003). Social capital is an important factor that can shape the economy since individuals' actions are affected by that (Coleman, 1988) and moreover, individual and organizations can utilize it to achieve their objectives (Lin, 2001). Social capital can be seen as a substitute or complement of other resources such as human resource (Adler and Kwon, 2002). All the aspects of VRIN framework are attributed to social capital, and it can be a source of positive contribution to a firm's outcome (Arregle et al., 2007).

In the organizational researches, social capital have been described as a factor that can affect important activities of a firm (Sirmon and Hitt, 2003) such as, interunit and interfirm resource exchange, interfirm learning, supplier relation and regional production network, product innovation, entrepreneurship, cross-functional team effectiveness etc. (Adler and Kwon, 2002). It can also bring changes and improvements through personal relationships that can facilitate actions and accelerate processes (Coleman, 1988) or in the other words, "the actions of individuals and groups can be greatly facilitated by their direct and indirect links to other actors in social network" (Adler and Kwon, 2002, p.19).

The existing literature on social capital in family firms and its effect on strategical decisions such as internationalization are two-sided. Some argue that it is a family-specific resource that generates competitive advantage, while some other refer to weaknesses of social capital in a family business that can hinder their internationalization. Arregle (et al., 2007) divide the social capital into three dimensions, "structural (i.e. the

network connections between actors), relational (i.e. the nature and the quality of connections), and cognitive (i.e. shared representations, interpretations, and systems between actors yielding durable connections)" (p.75). Higher quality of these three dimensions leads a family firm to build its relationship with customers, suppliers, and support organizations more effectively (Sirmon and Hitt, 2003). Nowadays, the importance and influence of such capital in creating competitiveness for firms is greater than other types of capital (Graves and Thomas, 2004).

Higher levels of social capital are developed and observed in contexts which encompass considerable mutual interdependence, such as families (Nahapiet and Ghoshal, 1998). Familial ties, an identical family name, and common history elevate a shared identity and create a long-lasting social capital that can be passed through generations (Dyer and Whetten, 2006; Verbeke and Kano, 2012). Social capital can be seen as a key to acquire the competitive advantage and excellent performance in family firms since such capital is so difficult to imitate by impersonal corporations (Miller et al., 2009). Members of the same family in firms possess identical view about their business as a mean for security, reputation and intergenerational benefit for their kin, thus they have a closed and stable relationship (Dyer and Whetten, 2006). Such last-longing relationship can reduce the risk of new ventures of a firm such as internationalization (Miller et al., 2009). The same argument was proposed by Zahra (2003) whereby he describes family firms by intense communication among members which in turn can facilitate understanding the firm' mission, this shared understanding and supportive behavior of employees can mitigate the risk of strategical actions of managers such as internationalization. Benefits of such social capital in family firms can further increase the probability of internationalization in case if family owners/managers have other relatives who live in target country (Okoroafo, 1999). Their shared values and sense of identity can enhance the information flow and decrease the risks of activity in unknown markets (Gallo and Garcia Pont, 1996).

Basly (2007) state that among social capital of a firm, social networking is crucially and positively associated with internationalization since it can tunnel to some specific and necessary knowledge for strategical decisions to internationalize. He describes family firms to have superior quality to establish social networks rather than formal economic networks, that is why they can acquire needed knowledge for extending their activities in other countries in a better and faster way. Likewise, other authors (e.g., Arregle et al., 2017) argue that relational capital is considered as a key factor in the quality

of strategic decisions of family firms. Social relational capital reduces the amount of time and investment required to collect information (Coleman, 1988). Unique family language as one of the main advantages of family firms leads to facilitation of information flow within the firm (De Massis et al., 2015). Family firm members are prone to make connections that is an enduring relationship with external stakeholders that provide resources for the company (Dyer and Whetten, 2006). These outsiders may be suppliers of critical knowledge and international contacts or financial capital that can strengthen family operation, which can compensate the gap of different capitals that family firms lack for global expansion (Graves and Thomas, 2004; Miller et al., 2009). Moreover, being a member of the large network which includes global actors can enhance family firm's ability to survive and growth (Casillas and Moreno-Menéndez, 2017).

Social capital can assist family firms to obtain the missing capitals to internationalize. For instance, it is possible to overcome the problem of financial resources shortage by acquiring them through network relationships (Pukall and Calabrò, 2014). One possible example of these network relationships can be found in the research of Murro and Peruzzi (2016) about credit accession in family firms. They argue that family firms are known as riskier entities; therefore, when they deal with the banking system to get loans, higher collateral requirements and deeper screening methods are carried out, that can aggravate their weak financial positions; strong social relational capital is the remedy that family firms use to enhance their credit accessibility. Moreover, Coleman (1988) discusses that rich social capital leads to the reduction of transaction costs of firms. The attained financial resources and decreased costs can offset the needed financial resources to internationalize.

However, social capital can have some negative consequences, particularly in complex organizations such as family-owned firms (Adler and Kwon, 2002). Considering drawbacks of the relationship among family firms' members, Sciascia and Mazzola (2008) assert conflicts are part of the interpersonal family environment and since members are locked in the firm, conflicts are more persistent and more difficult to extinguish, which in turn can affect business operation and decision-making process of the firm. On the other side, "internationalization is a strategic move that can trigger the conflicts within the family firms" (Zahra, 2003, p.498). Therefore, since conflicts between family members can have severe and enduring effects on execution of firm strategies (Eddleston and Kellermanns, 2007), it appears that family firm' preoccupation with their familial values (Gómez-Mejía et al., 2007) avoid entering into international

markets that have high potential for interpersonal conflicts because it can threaten their familial values.

Family managers have been told to have similar values and share same family social capital (Arregle et al., 2007), moreover, in family firms there is a strong personal attachment, commitment, sense of identification with name of firm, and altruism (Anderson and Reeb, 2003; Levinson, 1971), which can cause some problems for family firms global expansion. Because family firm's reluctance to have outsiders as managers (since they do not have same attributes) and the propensity to maintain firm's familiness, clashes with their lack of sufficient knowledge and experience to internationalize (Arregle et al., 2017). Along with this argument, some researches (e.g., Dyer and Whetten, 2006; Miller et al., 2009) admit that social capital dimensions of the family may have negative effects in firms; favoritism, nepotism, discrimination against non-family managers cause poor communication to external stakeholders. Chrisman et al. (2003b) discuss that family ownership decreases firm member's ability to build and maintain strong social capital which accordingly can have negative effects on obtaining needed relational capital to empower their internationalization efforts. In other words, strong personal attachment in family firms may hinder members to acquire necessary and required social relational capital for international expansion, which exists outside of the firm (Chrisman et al., 2003b; Gomez-Mejia et al., 2010).

Social relationship with outsiders can create a network that enables firms to exchange resources, it also can augment firm's knowledge and reputation that consequently will cause the higher level of internationalization (Johanson and Vahlne, 2009). That is why networks are told to have a significant importance in internationalization process of firms, and sometimes it is even more critical than firm-specific resources (Graves and Thomas, 2004). Some argue that family firms may perceive the substantial effect of networks on the success of their business. For instance, De Massis et al. (2015) state, to improve firm's visibility and family reputation, relationship development, particularly with main external stakeholders is one of the key strategies in family firms. But on the other side, Adler and Kwon (2002) discuss that building an appropriate social capital which makes a firm able to establish an enduring relationship, and preservation of such network in a high quality require considerable investment. Similarly, Johanson and Vahlne (2009) argue that establishment of business networks is the consequence of substantial investments of a firm's resources. Accordingly, one prohibitive factor of family firm's internationalization is lack of a rich

working relationship; this can stem from the scarcity of their resources (particularly in SMEs) which impede them to build networks with outsiders that can be helpful for their internationalization process (Basly, 2007). Inclusion of non-family members in management team of firms can help family owners to overcome this barrier, non-family manager can be a source to increase the social capital of firm; family owners do not incur the high amount of investment to build the network instead, they hire managers with more external networks who can facilitate the information and knowledge gathering with less cost (Sciascia and Mazzola, 2008).

2.5 Agency theory

Agency theory is a relevant perspective to examine several issues of family firms by addressing the individual-level behaviors and firm-level governance system to anticipate possible organizational outputs (Corbetta and Salvato, 2004; Madison et al., 2016). Agency theory also is useful to study internationalization policies of family firms since, besides resources and capabilities, another critical factor in the global presence of firms is governance structure that impacts owner and managers relationship, perception, and strategies (Carney, 2005). The focal issue of theory concerns that managerial decisions are impacted by the agency position of individual decision-maker since outside-owners and owner-managers have different preferences (Schulze et al., 2003).

Theory review

An agency relationship is defined as "a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent."(Jensen and Meckling, 1976, p.5). Contracts are "rules of the game" that specify each agent's responsibilities, expected performance, and rights magnitude in the decision-making process of organizations (Fama and Jensen, 1983).

Agency problem arises when the agent and principal have divergent optimal decisions and they aim to maximize their utilities (Donaldson and Davis, 1991). In the traditional model, agency problem can be solved if the principal has complete information about the performance of the agent, in this case, they can agree on an optimal fee to be paid to the agent for his action which is in the line of principal's expectations (Gomez-Mejia et al., 2001). However, in reality, an agent is often better informed than the

principal about his abilities and behaviors and the principal has bounded rationality; consequently, the principal cannot determine contractual performance criteria for an agent that is optimal for the principal (Ross, 1973). Result of this information asymmetry and bounded rationality is an incomplete contract (Verbeke and Kano, 2012) which give rise to adverse selection and moral hazard problems; adverse selection happens when an agent overstates his capabilities which induce principal to inaccurately contracts with the agent and moral hazard refers to opportunistic action of agent after contracting that is not beneficial for principal (Chrisman et al., 2004; Gomez-Mejia et al., 2001).

An agent will not always act in the interest of the principal, and principal tries to ensure that agent will act in the optimal interest from the principal point of view. This cannot happen in zero cost, both parties incur costs including monitoring costs by the principal, the bonding expenditure by the agent and the residual loss (Jensen and Meckling, 1976). In other words, inducing an agent to take actions as he was maximizing the principal's welfare requires negotiation to reach a complete contract and supervision of principals on agent performance. These activities along with the possible loss of productivity, bears expenditures for both parties, what is known as agency costs. (Lubatkin et al., 2005).

Agency theory is particularly useful to investigate the case of the ownership and control separation and corporate governance (Fama and Jensen, 1983). It focuses on the existence of goal alignment between firm's managers and owners (Schulze et al., 2003) as it is assumed that managers behave opportunistically to pursue their own goals rather than what is favorable for the principal (Jensen and Meckling, 1976). "Separation of ownership and management creates costs that may not exist if ownership and management were combined" (Chrisman et al., 2004, p.335). These costs are the result of the incomplete alignment of manager's and owner's interests in a firm, which are either in form of excessive expenses or loss in revenue, which in turn can negatively affect firm's value (Ang et al., 2000; Schulze et al., 2003). Owners can abate the divergence from their interests by defining a proper incentive scheme and by incurring a certain level of costs to monitor managers that minimize their deviated behaviors (Jensen and Meckling, 1976). Chrisman et al. (2004) argue that adverse selection problem can be mitigated by a higher level of control and monitoring over managers action while an efficient solution for moral hazard problem is a combination of incentives and punishment. Similarly, Gomez-Mejia et al. (2001) introduced "relational contracts" as an effective solution for agency problems. Relational contracts or long-term contracting

enables owners to use information about managers during the contract's period to understand if the agent performance is along with principal's interests, and therefore preventing adverse selection. On the other hand, it may be useful for solving moral hazard problem since managers will act less opportunistically because their future benefits and welfare are tied to the principal judgments of their behaviors.

Agency costs arise in case of the fractional ownership because a manager which possess equity is more inclined to growth and maximizing the shareholders' utility regardless of imposed costs and risks to the firm. In the other words, managers may free-ride on owner's equity and wealth and favor consumption over investments (Schulze et al., 2003). Hence, managers obtain most of the gains and owners incur most of the costs (Anderson and Reeb, 2003).

2.5.1 Agency relationship in family firms and internationalization

Agency theory can be utilized to investigate the impacts of family ownership in internationalization strategies of firms (Pukall and Calabrò, 2014). Such as many other theories in family business literature, there are contradictory views about agency relationships in family firms. Some argue that it can be a source of competitive advantage in global markets while others believe it prevents family firms to internationalize; Accordingly, to deepen our understanding, we review both perspectives in the literature.

It is argued that there is zero agency cost in those firms that manager owns the entire firm. The increasing number of managers who own firm's equity inversely affects agency costs, but if managers are paid employees, agency costs are minimized (Ang et al., 2000; Chrisman et al., 2007). That is why traditionally family firms were considered as the optimal corporate governance with zero or insignificant agency costs (Fama and Jensen, 1983; Jensen and Meckling, 1976). Exitance of a large shareholder diminish some agency problems, founding families are a specific version of large shareholders that can strongly influence firm's decisions with distinctive incentives (Anderson et al., 2003). Based on this premise, scholars discuss that the integration of ownership and control makes family firm advantageous to reduce agency costs because family firm is a type of private ownership that its shares are distributed among insiders and mainly in the possession of controlling owner of the firm who is usually CEO and founder (Anderson and Reeb, 2003), therefore, preventing managers to free-ride and overconsumption of resources (Schulze et al., 2003). Moreover, having owner-managers means a lower level

of preferences' misalignment, information asymmetry, and opportunistic behaviors. For instance, managers make the investment that is simultaneously optimal for the firm, family, and themselves (Schulze et al., 2001). Another point is that family firms incur less agency costs because they benefit from the intimacy and special relations that exist between family members which causes less costly monitoring over agents decisions (Lubatkin et al., 2005).

Considering first, "Internationalization decisions are mainly taken by the board of directors and/or top management team and one of the defining characteristics of family firms is the involvement of family members on both" (Casillas and Moreno-Menéndez, 2017, p30) and second, the presence of effective alignment of interests between managers and board of directors that leads to easiness in strategical decision-making process and mitigation of risk aversion in family firms; one can conclude that family owner-managers are interested in those strategies such as internationalization which is recognized with a higher level of risk and benefits (Zahra, 2005). They can incite firm to expand the activities globally, because they aim to improve the value of their share, increase the competitiveness of the firm, and guarantee the job for their children (George et al., 2005).

It has been also told that family ownership can reduce agency conflicts because of non-economic objectives that members pursue, indeed this can cause further economic and performance enhancement (Chrisman et al., 2003a). While in the other type of organizations managers mainly are motivated only by economic goals and seek for maximization of their own wealth regardless of imposed risk to the firm, family managers aim to increase the family income and welfare (Chrisman et al., 2004). This is known as altruism, which makes the family agency relationships unique. Altruism is a trait that positively links an individual's welfare to that of the others (Lubatkin et al., 2005). It makes family firms committed and loyal to family identity and motivates members to consider other's benefits in their actions (Carney, 2005). As a result of this, communication and knowledge flow are improved which in turn can facilitate decision-making process (Schulze et al., 2001). Anderson et al. (2003) point out another advantage of the family firm which reduces agency problems, they assert that family firms perceive their firm as an asset to be passed to their heirs rather than a wealth to be consumed. Therefore, when they deal with the divergent interests of shareholders and owners, they opt for firm's value maximization rather than shareholder's value. This, in turn, implies that agency problems are less rigid in family firms. According to (Schulze et al., 2003), altruism in family firms can "offsets some of the inefficiencies in risk-bearing that

otherwise accompany the private company" (Schulze et al., 2003, p.6). They discuss that family owners lessen their self-interest to considerate others' welfare. Moreover, perceiving the business as a heritage for their children and their acquired experience over their lifetime enable them to examine and take more risky strategies-such as internationalization (Schulze et al., 2003). Indeed, family owner-managers accept the high risk and compensations of internationalization, seeking to accumulate wealth for themselves and their heritors (Gómez-Mejía et al., 2007). Although internationalization requires a huge amount of their limited financial resource, family business directors are likely to follow this strategy if it generates job for other family members (Gomez-Mejia et al., 2010; Zahra, 2003).

Primary research after the agency theory assumes that the unified management and ownership in family firms lead to the aligned interests of owners and managers. However, another widely debated perspective is that agency problems may arise even in family firms because owner and other shareholders do not necessarily share similar interests (Gomez-Mejia et al., 2001; Madison et al., 2016) that might even engender the enduring relationship conflicts that directly affect firm's performance (Eddleston and Kellermanns, 2007). This can be more severe in older businesses with more number of shareholders with controlling equities from the same family. In such firms, owners value activities and policies differently and as a result, monitoring is less effective and more costly (Ang et al., 2000).

Despite the arguments about benefits of having few large family shareholders in firms, it appears that the presence of large family shareholders can be detrimental for firm's internationalization policies and efforts. Yet, internationalization requires structural changes in the main business processes, such as manufacturing and distribution (Casillas et al., 2010), high dependency to the founder or small group of family owners causes difficulties to promote any change in organization strategies including internationalization (Gallo et al., 2005). It can stem from manager perception that may consider any change as a threat to his current image and wealth (Gallo and Sveen, 1991) and it comes even more to matter since managerial perception plays a pivot role in internationalization decision-making (Axinn, 1988). George et al. (2005) discuss that the higher level of ownership of CEO discourages internationalization of firms. If family owners do not value global expansion of business or do not perceive the embedded benefits in global markets, they will be concentered on local markets (Gallo and Garcia Pont, 1996). Banalieva and Eddleston (2011) argue that this is often the case of family

firms and they usually have superior performance in regional markets rather than global markets. Similarly, lack of satisfaction and agreement of the highest governing body of family firms (due to lack of knowledge, expertise or any other reason) hinder the process of family firm's internationalization (Gallo and Garcia Pont, 1996). That is why Fernández and Nieto (2005) suggest that family firms should open their ownership circle to other large shareholders such as companies. They affirmed this can be extremely beneficial for family firms since they can have access to foreign markets' knowledge, financial resources, expertise, and human resource that could be vital for competing in global markets. Likewise, George et al. (2005) propose that inclusion of an outsider in high organizational positions such as vice-president in family firms can strengthen firm's decision about internationalization. Accordingly, those family firms that peruse this strategy benefit from reduced uncertainty and perceived risk of global markets in comparison to independent family firms (Arregle et al., 2012; Pukall and Calabrò, 2014).

Such corporate ownership structure with high number of family members in the board of directors is criticized because it may engender opportunistic investment by family members, which is resource allocation without any accountability to external and internal shareholders (Carney, 2005; Gomez-Mejia et al., 2001); similarly, the family blockholders can expropriate the wealth of other non-family shareholders (Anderson et al., 2003). This behavior that reduces firm's value, namely entrenchment "permits managers to extract private benefits from owners" (Chrisman et al., 2003b, p.18). "Managerial ownership above a certain level will allow managers to become entrenched and expropriate the wealth of minority shareholders" (Thomsen and Pedersen, 2000, p.691). Accordingly, familiness in a firm intensifies the managerial entrenchment (Morck et al., 1988; Villalonga and Amit, 2006). It can be explained from two perspectives; first, when blockholders are from the same family, they are more likely to choose a CEO among the family members (Anderson and Reeb, 2003) because they intend to maximize their welfare (Bennedsen et al., 2007). In addition, they plan to pass their business on the next generation and they do not want to lose the controlling position (Gomez-Mejia et al., 2001). On the other hand, due to the familial relationship and existing altruism, monitoring is less rigorous, and the valuation of managers' decisions is biased (Craig and Dibrell, 2006). Thus, family managers have wider ability to transfer more benefits toward themselves and largest family shareholders at the expense of other shareholders (Verbeke and Kano, 2010). Second, family managers may have less altruistic behavior to other family members and shareholders in the firm (asymmetrical altruism) so they try to

extract and maximize their own wealth (Gomez-Mejia et al., 2001; Lin and Hu, 2006; Verbeke and Kano, 2012). In other words, family managers are more likely to pursue their own goal rather than owners (Chen and Steinwender, 2016) which corresponds to increased agency problems that are especially deleterious to the firm's performance. Therefore, the presence of family blockholders can hamper the internationalization process of a firm for several reasons. First, since they appear to be less accountable to other shareholders outside of the family (Gomez-Mejia et al., 2001) they are likely to consume firm's resources for personal and familial benefits rather than investment in the international expansion (Anderson and Reeb, 2004; Arregle et al., 2017). Second, their propensity to appoint the CEO from family members (Anderson and Reeb, 2003; Gallo and Sveen, 1991) which is usually followed by superficial monitoring contrasts with the necessity of precise an formal control over executive performance in international markets which bear more risk (Graves and Thomas, 2006). In lack of such supervision, managers can manipulate the foreign sales report and increase information asymmetry between the board of directors about firm's performance in foreign markets (Singla et al., 2014). Third, family leaders' concerns about preservation of family control and wealth give rise to adverse selection problem which can be highly problematical in their internationalization policies (Banalieva and Eddleston, 2011). Put differently, international business environment requires more advanced skills of managers (Graves and Thomas, 2006), but family firms' orientation to keep the control inside the family confines their access to more qualified and skilled labor market (Anderson et al., 2003; Basly, 2007). Moreover, in family firms, contracting parties are more affected by emotional relationship, mutual expectation, and kinship ties rather than family manager's abilities, expertise and economic value creation (Levinson, 1971). Consequently, selected managers often do not have the essential knowledge and capabilities to deal with complex international markets (Arregle et al., 2012; Gomez-Mejia et al., 2001; Verbeke and Kano, 2010). This impediment can be more intense in long-run because family managers are likely to occupy their position for a long time, and prolonged presence of same people with insufficient expertise deteriorate internationalization (Basly, 2007; Gallo et al., 2005). Forth, according to agency theory, high amount of wealth and investment of family blockholders in firms make them more risk averse (Fama and Jensen, 1983; Jensen and Meckling, 1976), while operating in foreign markets is perceived with the higher level of risks and uncertainty (Gallo and Garcia Pont, 1996). Fifth, because of family blockholders' long-term commitment and their concern about passing the business to

their heirs, family firms have independence orientation; they are inward-looking and prefer to obtain their resource from local and family members (Fernández and Nieto, 2006; Miller and Le Breton-Miller, 2005). This, in turn, excludes the possible valuable financial resources, knowledge and expertise of outsiders that are critical in international markets (Basly, 2007).

Interestingly besides all the mentioned benefits, the presence of altruism in family firms may be detrimental to the agency relationship. It augments the moral hazard problem so family managers can behave opportunistically since they consider their benefits guaranteed under any circumstances; this, in turn, ravages the unique capabilities of family firms as their competitive advantage (Chrisman et al., 2003b; Schulze et al., 2001). Altruism can prevent internationalization efforts of family firms because family members encourage family owners (usually their parents) to dedicate a significant amount of firm's -constrained financial- resources to keep them and other family employees satisfied and motivated (Schulze et al., 2003). Indeed, "family members may use their power to divert resources away from the frim to the family, thus benefiting family members but harming the firm"(Muñoz and Sanchez, 2011, p.64). This can be asked in form of the higher salary, secured position in the company, or some privileges that they could not otherwise have; Thus, firm encounter financial deficiency in case of implementation of international growth strategies (Sanchez-Bueno and Usero, 2014).

2.6 Stewardship theory

Agency theory (Jensen and Meckling, 1976) has been widely used to study different business and organizational policies and it mainly examines the implications of ownership and control separation and it assumes the divergent interests between managers and owners in different dimensions of a business. Based on this theory managers are self-interested individuals who seek to maximize their own utility. Scholars argue that existence of principal-manager relationship does not necessarily imply interest's misalignment and opportunistic behaviors (e.g., Corbetta and Salvato, 2004; Davis et al., 1997; Zahra et al., 2008). In many cases, individual managers may have aligned interests with their corporation and or they are motivated to act in the best interests of the principal, this specific condition can be studied more precisely with stewardship theory (Donaldson and Davis, 1991).

Theory review

"Stewardship theory defines situations in which managers are not motivated by individual goals, but rather are stewards whose motives are aligned with the objectives of their principals" (Davis et al., 1997, p.21). Stewards are those who act without the sense of obligation and duty (Donaldson, 2008). Davis et al. (1997) attempting to develop the stewardship theory, described a steward manager as a person who prioritizes the value and interests of the corporation over his or her own, even in case of not having aligned interests with the principal. Since stewards realize their personal utility tied to their organization benefits, they demonstrate the "cooperative behavior" rather than individual self-serving behavior. Consequently, by their superior performance, stewards seek to increase the profitability of the organization and protect the wealth of owners. On the other side, while heterogeneity among shareholders' goals and interests is an undeniable fact in organizations, stewards can satisfy needs of most groups. Particularly because stewards try to improve the organization's performance which leads to organizational wealth increment, that is in line with interests of most shareholders. In brief, stewards are those whose their personal and organizational objectives do not differ, so they have collectivists and pro-organizational attitude. Accordingly, separation of ownership and control might have even a positive impact on corporation performance (Anderson et al., 2003). This can be observed in a principal-steward relationship where delegating a certain level of control and power to make decisions to steward managers will strengthen their ability to handle corporation (Anderson and Reeb, 2004; Donaldson and Davis, 1991). Steward managers are beneficial for organization performance because from one side, they are dominant on business as they are privileged by commitment to the organizational values and a higher level of knowledge and information about firm's operation status that in turn can cause higher returns for shareholders (Muth and Donaldson, 1998; Zahra et al., 2008). On the other side, the job itself is motivating for stewards and there is lower necessity to impose incentive schemes and monitoring over steward actions, so principal incurs less costs (Donaldson, 2008; Pastoriza and Ariño, 2008).

Donaldson and Davis (1991) suggest that a steward relationship is more effective on the longevity of a business than incentive scheme. In other words, due to inherent motivation of stewards and their interest alignment, organization survives longer in the presence of stewardship.

Researches have mentioned several advantages for steward relationship, but not all the organizational relationships are based on that. Primary perceptions and values of principal can specify the type of relationship (Corbetta and Salvato, 2004). One factor that can play an important role is the different level of principals risk aversion. Davis et al. (1997) state that in event of contracting; principal risk willingness is the determinative factor; as an example, "risk-averse owners will most likely perceive that executives are self-serving and will prefer agency governance prescriptions" (p.27).

2.6.1 Stewardship in family firms and Internationalization

It has been discussed that principal-steward is the prevalent type of relationship in firms that family members are involved and dominate over other shareholders (e.g., Corbetta and Salvato, 2004; Miller et al., 2008; Zahra, 2003). Perhaps because some family managers' attributes such as strong organizational identity and altruism can be found more in a steward than an agent (Arregle et al., 2007). Chrisman et al. (2007) argue that this can be valid under two conditions, which are the presence of intrinsic interest alignment of family manager to that of family owners, and the long-run relationship between family manager and family owner which is emotionally affected. Scholars claim this is often the case in family businesses since family managers have a prominent organizational behavior and they are intrinsically motivated to achieve outstanding performance, seeking for identification and self-satisfaction in long-run (Muth and Donaldson, 1998; Zahra et al., 2008). Based on this inherent interest of family manager, which is aligned with the optimal interest of family principal, monitoring costs are minimized (Pastoriza and Ariño, 2008) and in some cases, it might even have the negative effect on family members performance (Levinson, 1971). Because the presence of goal alignment between family managers and owners increase the reliance on the mutual trust and reduce the need for formal relationship, while in this circumstance, monitoring might be perceived as an anti-trust behavior of owners (Zahra and Sharma, 2004).

Family firms pursue financial and non-financial goals simultaneously and family managers were considered as those stewards who seek mainly for non-financial objectives (Chrisman et al., 2004; Gómez-Mejía et al., 2007). But other scholars discuss that family managers may be more inclined in one set of goals when they are more prone to financial objectives they have extrinsic interest in the improvement of firm's operation, that is a principal-agent relationship. Conversely, when their pursuance of non-financial

goals dominates in family firms, they are intrinsically interested in firm's growth or there is a principal-steward relationship (Corbetta and Salvato, 2004). For clarification, intrinsic interest refers to a situation in which an individual is spontaneously satisfied from doing an activity while extrinsic motivation ties the individual satisfaction to rewards and consequents of that activity (Gagné and Deci, 2005).

However, it is frequently stated that non-financial objectives and inherent motives have more importance rather than financial and extrinsic motivation in family firms which proves that the common principal-manager relationship in family firms is steward relationship (Sharma et al., 1997). For instance, Miller et al. (2008) argue that the reason that family firm leaders pursue economic objective is the augmentation of their non-economic goals and objectives. To put it another way, financial difficulties detriment family community and security while pursuance of economic goals secures their reputation, sense of identification with family name, and job creation for their children. Similarly, Gómez-Mejía et al. (2007) introduced *socioemotional wealth* that refers to "non-financial aspects of the firm that meet the family's affective needs, such an identity, the ability to exercise the family influence and the perpetuation of the family dynasty" (p.106). They remark the socioemotional wealth of family firms as the most influential factor in their strategical policy-making process. In the same vein, Arregle et al. (2007) state that the family concern about the socioemotional wealth can strongly affect firm's internationalization decisions.

"Although the origin of most family businesses can be traced back to an entrepreneur assuming a high degree of risk" (Casillas and Moreno-Menéndez, 2017, p.31), the widespread perspective about family firms is that accumulated wealth of family owners in a firm causes higher level of risk aversion in family firms (La Porta et al., 1999). This may tempt the family business owners to build an agency relationship rather than stewardship because principal may perceive the higher level of opportunistic behaviors (Donaldson and Davis, 1991). This perspective is criticized by Gómez-Mejía et al. (2007) for the exclusion of non-economic objectives of family firms in measuring their risk appetite. The amount of risk that a firm is willing to take comes to matter especially in case of firm's decisions about the expansion of operation in foreign markets which have more level of uncertainty and risk (Gallo et al., 2005). Gomez-Mejia et al. (2010, 2007) argue that family firms put a higher priority on their socioemotional wealth rather than financial resources and therefore, they may accept a higher level of risk to protect their socioemotional wealth even if it ends up to financial loss. Put differently,

family firms are not risk averse but rather loss averse, this can differ case by case depending on their perception of potential loss or gain of their socioemotional wealth (Pukall and Calabrò, 2014).

Under this scenario, family firms' effort to preserve their socioemotional wealth or the presence of strong alignment in non-economic interests between family managers and owners is a key asset in their internationalization. Because family managers will act as a steward of firm's resource and they analyze the possible threats and opportunities in foreign markets, this in turn not only encourages family firms to participate in risky projects such as internationalization, but makes them more successful in comparison to non-family managers in global markets competition (Zahra, 2003). In other words, in global markets which are rapidly changing environments and have the higher level of uncertainty and risk, firms require some managers who have high level of initiative, commitment and lower level of risk aversion; and it appears that in such dynamic market, steward is the most appropriate relationship that allows managers to behave in this way (Zahra et al., 2008) because they can lead to higher level of flexibility and also accelerated decision-making process which is favored in foreign markets (Claver et al., 2007).

It has been widely debated that poor knowledge and expertise both in managerial practices and foreign markets are among the preventing attributes of family firms in their internationalization strategy (e.g., Fernández and Nieto, 2005). Stewardship behavior in family firms, the substantial non-economic benefits that family members may derive from firm's identity, the perception that firm's performance improvement corresponds to personal welfare and wealth accumulation (Davis et al., 1997; Gómez-Mejía et al., 2007) lead family owners to realize the relatively higher importance of capability and expertise of directors in international markets rather than control over family actions. Consequently, to elevate firm's health and empower the firm position in foreign marketplace they may communicate to skilled outsiders and hire them as a consultant or appoint them in the board composition to provide more knowledge and information and assist owners in decision-making process (Anderson and Reeb, 2004; Arregle et al., 2012). Moreover, acting as a steward of corporate value, family governors specifically are concerned about their employees and managers training because they want to ensure that they have a talented and capable community that are able to prolong the survival of the firm, improve the products and services, and empower the market share (Miller et al., 2008). Accordingly, by enhancing the vital skills and expertise of firm's employees, steward relationship should improve family firms' activity in global markets.

The appearance of stewardship in family firms can stem from family business appeal to business continuity which implies their long-run perspective to preserve the business for next generation and "to honor family values and ethical concern" (Miller and Le Breton-Miller, 2005, p.520). In turn, this strategy requires a superior community in the firm and high-quality connections with outsiders (Miller et al., 2008). The existence of strong communication between family members in firm facilitates spreading the mission that firm follows in international markets and gives rise to the supportive behavior and sense of altruism of employees. This in sequence, makes family owners more confident and less risk-averse about their internationalization strategies that might require a longer payoff period (Zahra, 2003).

The family firm propensity to have high-quality connections with external stakeholders can be their competitive advantage in internationalization. Because connections with outsiders may provide an opportunity for family firms to obtain the resources for strengthening their position in international markets (Adler and Kwon, 2002). Moreover, due to their long-run perspective on business, they look for an enduring relationship with external stakeholders such as suppliers and customers. Such relationship enables them to gain more information and knowledge about foreign markets that reduces the perceived risk of internationalization and in addition, it improves their reputation and reduces transaction cost in global markets (Basly, 2007; Miller et al., 2009).

Although stewardship theory provides a contrasting view of agency theory and predicts the principal-manager relationship in a different and detailed way, it is subject to some criticism. Pastoriza and Ariño (2008) argue that stewardship theory depicts the relationship of principal-manager in a single time frame and possible future deviations in their interests are neglected. While conflicts exist in family firms, and because of nepotism it can be long-lasting and extremely detrimental to firm's performance (Eddleston and Kellermanns, 2007; Levinson, 1971), stewardship theory does not consider any conflicts between managers and owners and it assumes managers are intrinsically motivated to pursue the optimal interest of principal (Donaldson, 2008). Conflicts may arise from non-economic reasons that can cause not-rational behaviors of owners which threaten all stakeholders' welfare (Schulze et al., 2001). Therefore, it is not logical to neglect the presence of the existing heterogeneity in the leadership style and management insights of family firms. Indeed, one cannot conclude that all family firms employ the stewardship behavior, but it depends on the firm structure, culture and manager/owner perceptions (Miller and Le Breton-Miller, 2005). Accordingly, it is not

convincing to infer that family firms may have better performance only because they have a steward relationship. It appears that to further discover family firms' behaviors and relationships, that are important in internationalization strategies, both agency and stewardship theories should be studied simultaneously.

3 Internationalization through export

When firms decide to internationalize, the main decisions are where to go and how to enter into foreign countries markets. Entry mode decisions can have a huge effect on foreign operation success of firms, as it can affect the final performance (Brouthers et al., 2003). Entry mode choices vary from contracting to foreign firms, exporting, sharing the control and establishing a joint venture, new investment, and greenfield subsidiary, or to acquire another firm in foreign countries (Hennart et al., 2014). The idiosyncratic attributes of international markets necessitate an efficient entry mode decision which is in line with firm's characteristics, as the selection of the wrong mode can lead to business failure and firm's bankruptcy (Hennart et al., 2017). Although more involvement of a firm in foreign markets might correspond to more market share and higher income, it is also associated to higher risks of firm's resource commitment (Claver et al., 2007). That is why, "firms choose, or should choose the optimal mode for entering a market by analyzing their costs and risks based on market characteristics and taking into consideration their own resources" (Johanson and Vahlne, 2009, p.1412).

There are serval aspects that should be considered when firms choose their entry mode; scholars explain them from different perspectives. For instance, Anderson and Gatignon (1986) proposed "transaction cost" theory of entry mode, which argues that the only determinant factor is owner's preferable level of control over the foreign operation, since the higher level of control over firm's foreign activities causes more flexibility in firm's strategies, which in turn enables owners to adjust the risks and returns of international trade by the change of methods and policies. The magnitude of control depends on the level of resource commitment, the more resources firms employ in the foreign country the more control they will have, but important issue for firms is to balance possible risks of loss of resources and expected returns. Accordingly, the entry mode may differ from contractual agreement to wholly-owned foreign subsidiaries. Johanson and

Vahlne (1977) introduced a gradual process of firms' entry into new foreign markets or what is known as Uppsala model. They discuss that the level of the knowledge about the foreign markets and operation is the most critical factor in the entry mode decision of firms and such knowledge mainly can be acquired by prior experience of the foreign trade. In this theory, firms are assumed to seek for long-term profits and minimized risk. Lack of foreign markets' knowledge can be problematic for firm's internationalization since it causes an inappropriate allocation of resources in foreign markets which is in contrast with assumed characteristics of the firm. Therefore, firm's internationalization starts with a set of small and progressive steps, that is "typically firms start to export to a country via an agent, later establish a sales subsidiary, and eventually, in some cases, begin production in host country" (p.24).

Another widely used theory to study the entry mode choice of firms is the eclectic theory (Dunning, 2001, 1987, 1988; Dunning and Lundan, 2008) or OLI paradigm. This theory suggests that depending on three advantages that a firm possess, they can choose they entry mode. Firm ownership advantage or firm-specific advantage is a certain advantage that a firm owns which make it possible to obtain economic benefits in other countries. The location advantage or country-specific advantage are one or several advantages in the host country (e.g. national resources, land, productive and low-cost labor, and access to customer base) that firm can combine them with "transferable intermediate products produced in the home country" (1987, p.2) to produce goods and services. If these local complementary assets are more efficient in home-country, they produce in home country and they engage in exporting, otherwise firms may "perceive it to be in their best interests to internalize the markets for the generation and/or the use of these assets; and by so doing add value to them" (2001, p.176), this is called the internalization advantage In other words, in order for firms to increase their access to complementary assets of their firm-specific advantage and decrease transaction costs, they internalize these processes by establishing a production plant in the foreign country.

Hennart (2009b) criticized these frameworks. He argues that although the role of owners of complementary local assets of the host country is significantly important for the entry mode decisions of firms, both transaction cost theory and Uppsala model of entry mode are based on unilateral decisions of firms. He also disagrees with the implicit assumption of OLI theory that assets are freely accessible in the host country. Instead, he proposes a *bundling model*; when firms decide to operate abroad they should possess a bundle of imported factors such intangibles (knowledge and reputation) and

complimentary local factors such as land, utilities and access to customers. Based on Hennart’s bundling model, the interaction between two agents in two countries can happen in three markets, namely “market for the service of assets, market for assets, and markets for firms owning the assets” (p.1437). An optimal entry mode depends on how efficient two parties can bundle up the intangible and complementary assets in these markets. For instance, the presence of an efficient market for asset services leads firms to license their knowledge to foreign manufacturers. Or in case of an efficient market for assets, firms can bundle their own knowledge with available complementary assets produce goods and service and then start exporting.

Considering the family firms and their decisions on entering into new foreign markets, while other theories such as OLI paradigm might be suitable (see for example Erdener and Shapiro, 2005), it is widely acknowledged that family firms internationalization process can be explained by Uppsala model (Carlos Pinho, 2007; Pukall and Calabrò, 2014). That is they often start their foreign venture with export. Okoroafo (1999) state that more than 90% of family firms choose to export as the first mode of starting their activities in their foreign markets. This can be justified by the combination of some characteristics of family firms and each entry mode. First, level of risk perceptions of firms plays a leading role in their decisions of entry mode in a foreign market (Johanson and Vahlne, 1977). Risk is ”the uncertainty associated with exposure to a loss caused by some unpredictable events and variety in possible outcome of an event based on chance” (Ahmed et al., 2002, p.3). According to this definition, risk can be found more in foreign markets, where firm have a higher level of uncertainty (Zahra, 2003). Each method of foreign markets entry has the different level of risks (Claver et al., 2008). As discussed in previous sections, family firms are known as more risk-averse entities (e.g. Thomsen and Pedersen, 2000). Accordingly, when they decide to internationalize, in their entry mode decisions they opt for the mode with minimal perceived risk which is export (Graves and Thomas, 2004). Second, the core premise of Uppsala model is the knowledge that is “information about foreign markets and operations in those markets” (p.26). The higher level of such knowledge can reduce perceived risks on the activity in the foreign markets and lead firms to expand their internationalization (Johanson and Vahlne, 1977). For instance, if owners have a considerable knowledge and experience about their target country, they are likely to choose wholly-owned subsidiaries which have the higher level of control and returns (Carlos Pinho, 2007; Hennart et al., 2014).

However, family firms often suffer from a lack of such knowledge (e.g. Arregle et al., 2012) and as a result, their internationalization process begins with exporting (Claver et al., 2007). Third, it has been discussed that family firms usually possess limited resources that can hinder their internationalization (e.g., Fernández and Nieto, 2005). Therefore, it appears in case that the decision to internationalize is made, they choose to export that requires less resource commitment compared to other internationalization methods (Graves and Thomas, 2008). Forth, some entry modes such as foreign joint venture require firms to give up a certain level of their control to reduce their risk, access to the market, or increase the earning (Anderson and Gatignon, 1986; Hennart, 2009). Family concerns about control retention prevent them to be involved in this kind of entry modes (Pukall and Calabrò, 2014). This can be another explaining reason of prevalence of export among family firm since in exporting activities most of the decision-making is centralized (Claver et al., 2007).

Based on Uppsala model, one important factor that determines the target county of firm's internationalization is psychic distance. That is "sum of factors preventing the flow of information from and to the market. Examples are the difference in language, education, business practice, culture, and industrial development" (Johanson and Vahlne, 1977, p.24). As Uppsala model proposed, family firms start their internationalization in those countries that have closer geographical and cultural differences (Kontinen and Ojala, 2010). For instance, Child et al., (2002) demonstrate that the first and main destination of internationalization of firms in Hong Kong is China; because they are geographically close and they have similar cultures that facilitate their trade. The tendency to minimize the risks is the main reason for such strategy since in those countries information can be obtained easier, the learning process can occur with a faster pace and lesser investment and resource commitment (Casillas and Moreno-Menéndez, 2017) and firms will perceive more opportunities to growth (Nassimbeni, 2001). "Successful expansion into global markets can be difficult, due to unfamiliarity with cultures and business practices" (Banalieva and Eddleston, 2011, p.1062), that is why the foreign sales are expected to be lower when there is a greater psychic distance between two countries (Hennart et al., 2017). This comes to matter when one considers the limited amount of resources of family firms have, that is why they prefer to follow a gradual internationalization process that initially begins with exporting to psychically close foreign markets (Graves and Thomas, 2008). Similarly, Claver et al. (2007) and Pukall

and Calabrò (2014) state family firms first step is exporting to those countries that are close and have similar culture because starting with countries that have less psychic distance make family firms able to experiment unexpected barriers that can occur in internationalization process with fewer costs.

In brief, although some researches show family firms can engage in wide variety of entry modes such as joint venture and foreign direct investment (e.g., Kontinen and Ojala, 2010; Okoroafo, 1999), the most common way among family firms to enter into a foreign market is exporting to countries with close geographical and cultural distance (e.g., Arregle et al., 2012; Claver et al., 2007; Graves and Thomas, 2008, 2006; Okoroafo, 1999; Pukall and Calabrò, 2014).

4 Hypothesis development

4.1 Family firms and export

The first attempt to study the internationalization of family firms was made by Gallo and Sveen more than 25 years ago in 1991. Afterwards, within the increasing number of researches in the field of family firms, internationalization strategy is receiving more attention the presence of new entities such as multinational SMEs and emergence of new patterns in business globalization, can provide more opportunities for family firms to internationalize (Casillas and Moreno-Menéndez, 2017). Studies about internationalization strategies underline two distinct views about the family firms and their specifications. The first perspective emphasizes the inherent constraints of family involvement in the business, while the other perspective highlights the positive attributes of family firms compared to other firms (Arregle et al., 2017). “Familiness may have both positive and negative effects on firm’s competitive position, including its ability to compete in foreign markets” (Wąsowska, 2017, p.170). In the similar vein, Anderson and Reeb (2003) remark that family ownership can potentially cause both costs and benefits for firms. There are some positive attributes of family firms that might help them to have better performance in international markets. Ownership and control often are not separated in family firms and consequently agency costs are minimized because family firm members may perceive their welfare tied to the growth of the firm (Anderson and Reeb, 2003; Schulze et al., 2003, 2001). This, in turn, can explain some associated virtues of the family members in the firm, such as commitment, sense of identity, altruism and aligned goals and interest with firm’s owner (De Massis et al., 2015; Pastoriza and Ariño, 2008; Zahra, 2003). As a result, family managers and employees may exhibit a more proactive attitudes in the market that is particularly advantageous in the foreign markets (Lin, 2012). Family firm’s managers act as a steward of firm’s resources and often pursue non-economic goals and they usually value the socioemotional wealth of the family more than economic achievement (Kalm and Gomez-Mejia, 2016). A possible result of such organizational behaviors can be a parsimony that leads to a more efficient resource allocation (Carney, 2005). Since the foreign sales is associated with a higher resource commitment and unforeseen expenses (Johanson and Vahlne, 2009; Leonidou, 2004), parsimony can cause a better export performance. Family owners have a long-run perspective in their business strategies (Gallo et al., 2005), because they perceive their

business as an asset that should be passed through the family's next generations (Bennedsen et al., 2007; Dyer and Whetten, 2006; Okoroafo, 1999). This, in turn, can lead to possession of patient capital that is highly useful for undertaking strategies such as exporting that requires a longer time horizon to pay off (Graves and Thomas, 2008; Sirmon and Hitt, 2003). It also has been argued that the long-term orientation of family owners makes them loss averse (Olson et al., 2003; Pukall and Calabrò, 2014), despite this they might engage in risky and uncertain projects such as internationalization if they realize that the avoidance of such strategy can threat the family-centered goals (Gomez-Mejia et al., 2010; Gómez-Mejía et al., 2007). Moreover, family owners' long-term perspective and concerns about the socioemotional wealth of the firm, usually make family firms to develop a high-quality relationship with the external stakeholders such as customers and suppliers which can further improve their export performance, since they may acquire some necessary resources and information from them (Basly, 2007; Miller et al., 2009). Accordingly, there are some authors who propose the positive impact of the family ownership on internationalization of firms, such as Zahra (2003). In his research about the international expansion of American manufacturing family businesses, he concludes that "family ownership and involvement in the firm as well as the interaction of this ownership with family involvement are significantly and positively associated with internationalization" (p.495). Also Carr and Bateman (2009) observed similar results and they discuss that "family firms are slightly more internationally orientated than non-family firms" (p.745).

However, a significant number of scholars argue that there are also some limitations and negative characteristics of family firms that often prevail on the positive attributes of them. As a result, they have an inferior export performance in comparison to non-family firms.

To start international sales and to obtain a sustained competeitve advantage in international markets, firms resources play a crucial role (Sirmon and Hitt, 2003). The financial capital of family firms is mainly funded by family owners that often is not sufficient to bear the high expenses of the foreign sales (Fernández and Nieto, 2006; Schulze et al., 2003). Moreover, some idiosyncratic characteristics of family firms such as their desire to retain the control of business inside the family confine their access to external funds (Claver et al., 2008; Gallo et al., 2004; Gomez-Mejia et al., 2011; Muñoz and Sanchez, 2011). Although some attributes of family firms such as parsimony and possession of patient capital may lead to a more efficient expenditure, possession of

adequate financial resources to compete in international market precedes those behaviors and have more considerable effect in export performance of the firms (Sanchez-Bueno and Usero, 2014; Sirmon and Hitt, 2003). As an evidence, results of the research of Carr and Bateman (2009) are based on the gathered information from "world's largest top family firms" of Fortune Global Top 500 and Forbes Top 2000. Those large and wealthy family firms that usually possess the sufficient resources to export (Hennart et al., 2017) and hire expert non-family managers (Villalonga and Amit, 2006) might be able to further improve their export performance by relying on the associated benefits of familiness in their firm. However, the lack of necessary financial resources is a prevalent issue among family firms and it is considered as one of the main factors that can deteriorate export performance of family firms (Arregle et al., 2012; Fernández and Nieto, 2005; Schulze et al., 2003).

Additionally, operating in foreign markets, in comparison to the domestic markets, requires more skilled human capital (Carlos Pinho, 2007; Cerrato and Piva, 2012; Hennart et al., 2017). Family firms' manager often do not have the essential managerial capabilities, experience, and expertise of activity in the foreign markets (Sirmon and Hitt, 2003). They are often hired as a result of the nepotism and owner's desire to maintain the familial structure of the firm that neglects the managers' competencies and expertise (Gomez-Mejia et al., 2001). The existing altruism and family ties among family managers and owners lead family managers to undervalue the leaning and participation in the training programs (Chen and Steinwender, 2016; Graves and Thomas, 2006), their benefits are often secured and usually there is no skill-based competition for managerial positions (Chrisman et al., 2003b), consequently, they do not perceive any necessity to learn and improve their managerial capabilities (Zahra et al., 2007). It has been widely argued that both in domestic and foreign markets, family firm's managerial capabilities are lower than non-family firms (Arregle et al., 2012; Bloom and Van Reenen, 2006; Graves and Thomas, 2006). Although the results of some studies exhibit the positive relationship (e.g., Zahra, 2003) between family ownership and export, from the managerial capabilities perspective, Graves and Thomas (2006) argue that such positive relationship can stem from the fact that family firms usually export to the psychologically close markets that necessitate less managerial capabilities. In a research about the importance of human capital in internationalization of firms, Cerrato and Piva (2012) discuss that although some attributes of family firm's human capital such as commitment and flexibility might be their competeitve advantage to non-family firms,

family firms do not have the skilled employees and capable managers who can deal with essential intricate business practices to expand their market globally and engage in the exporting. Indeed, the familiness of a firm might have some positive effect on performance of its human capital (Sanchez-Famoso et al., 2013) which, in turn, can be beneficial for their export performance (Pinho and Martins, 2010), but this effect often is negated by the higher costs of exclusion of non-family skilled managers (Villalonga and Amit, 2006).

The social capital of family firms has been described as one of their core competencies that facilitate the communication, both inside the firms, and with external stakeholders (Anderson and Reeb, 2003; Arregle et al., 2007). The strong social capital often can be observed in the environments such as family firms, since members have a high level of shared interests (Nahapiet and Ghoshal, 1998). Kinship ties give rise to a rich social capital in family firms (Dyer and Whetten, 2006) that might help the firm to improve its performance (Gallo and Garcia Pont, 1996; Sanchez-Famoso et al., 2013), as interaction between member will be more simplified and that lead to a shared understanding the firm's mission (De Massis et al., 2015; Zahra, 2003). Moreover, such social capital often makes family firms able to build an enduring social networks with outsiders which might possess the resources that family firms lack (Basly, 2007; Zahra, 2005). Despite the possible benefits of the social capital of a family firm, it appears that their social capital cannot be highly beneficial for their internationalization strategies. Some consequences of social capital of family firms such as nepotism and identical family and business name may lead to favoritism and discriminatory behaviors that, in turn, deprive family firms to acquire more professional managers that can assist them to internationalize (Arregle et al., 2017; Miller et al., 2009; Villalonga and Amit, 2006). On the other side, their social networks often help them to enhance their domestic firms rather than the foreign sales (Pukall and Calabrò, 2014), because family firms often do not expand their network out of their friends and other family firms which usually have the same limited resources and knowledge of the international business expansion (Anderson et al., 2005; Chrisman et al., 2003b; Graves and Thomas, 2004). Indeed, the family firms' social networks are not an essential factor that can make them able to expand their business globally (Casillas and Moreno-Menéndez, 2017). Put differently, although their relatively stronger social capital may help them to overcome some of the barriers of their internationalization process, they often do not have the more necessary and primary resources that enable a firm to successfully compete in international markets (Sirmon and

Hitt, 2003). Furthermore, some results of family firm's unique social capital, such as altruism and trust, might often lead to opportunistic behavior of family managers, such as entrancement (Anderson and Reeb, 2003; Chrisman et al., 2003b; Sirmon et al., 2008; Thomsen and Pedersen, 2000). Consequently, family firms often incur more corporate costs (Bennedsen et al., 2007). The negative effects of such corporate costs on their internationalization performance usually devastate the positive attributes of family firm's social capital (Sanchez-Bueno and Usero, 2014).

The level of risk aversion of managers and owners is another influential factor in export performance of firms (Ahmed et al., 2002; Leonidou, 2004). The undiversified financial capital of family firms (Carney, 2005), a high concern about socioemotional wealth and succession issues make family owners reluctant to undertake any uncertain and risky project such as exporting (Arregle et al., 2007; Gómez-Mejía et al., 2007). However, it is also argued that the family firms' foundation often is the result of a risk-taking strategy (e.g., Sciascia et al., 2012; Zahra et al., 2004). Zahra (2005) state that family owners often are an entrepreneurial person with a high level of risk appetite that makes them able to explore and undertake new and risky projects. Nevertheless, a vast majority of literature point out the higher level of risk aversion in family firms that lead to lower propensity to exporting (Fernández and Nieto, 2006, 2005; Gallo and Garcia Pont, 1996; Gomez-Mejia et al., 2011; Kalm and Gomez-Mejia, 2016; Murro and Peruzzi, 2016). On the other hand, the argument about being loss-averse and thus exhibiting a better export performance is often not supported, as again resource limitation exercises a stronger preventing effect (Sciascia et al., 2012; Sirmon and Hitt, 2003).

The aforementioned discussion was the summary of the first chapter where we reviewed the main theoretical background of international business as well as family firms research area. Accordingly, it seems that restrictive attributes outweigh the facilitative traits of family firms in internationalizing of their business . Thus, our first hypothesis is:

Hypothesis 1 (H1): *There is a negative relationship between the family ownership of a firm and its export performance.*

4.2 Moderating effect of foreign ownership

The ownership structure causes the major differences in the strategies and performance of companies (Shrader and Simon, 1997) including internationalization (e.g., Fernández and Nieto, 2006; George et al., 2005). The different performance of firms can stem from the owners' knowledge and expertise (Demsetz and Villalonga, 2001), resource endowment (Shrader and Simon, 1997), governance style (Estrin and Wright, 1999), level of risk aversion (Thomsen and Pedersen, 2000), network and ability to create new networks (Basly, 2007), identity (Fernández and Nieto, 2006), managerial capabilities (Morck et al., 1988), and their diverse objectives (Douma et al., 2006).

In the context of family firms, some scholars studied the consequences of the change in the ownership composition of these companies, that is the effect of external shareholders on family firm's performance, and in particular, its internationalization. For example, Fernández and Nieto (2006) studied the effect of inclusion of external corporate owners on the internationalization of Spanish family SMEs. The result of their study shows that when family firms open their capital structure to corporate blockholders, they are more likely to export. They argue that the greater amount of tangible and intangible resources of corporate investors and the higher level of professionalism give rise to the observed positive relationship between new ownership composition of family firms and their decision to export. In another study about the effect of external owners on internationalization of family firms, from a resource dependence perspective. Arregle et al. (2012) suggest that one possible solution for family firms to overcome their barriers to export is the adaption of an open governance structure. Through a structure that favors "involvement of external non-family owners and external nonfamily board members" (p.1133), family firms can acquire sufficient financial and human resources that influence the scope and scale of their international sales. Similarly, Sanchez-Bueno and Usero (2014), based on a sample of European and Asian firms, found out that presence of "a financial institution as a second owner in a family firm will have a positive impact on its international diversification strategies" (p.1317). A financial institution can provide the capital that family firms lack for internationalization. Moreover, they can effectively reduce the level of family firms risk aversion which prevent their international expansion. Additionally, Sanchez-Bueno and Usero (2014) observed a significant and negative impact on international diversification of firm when two family firms acquire each other's equity.

In the extent of ownership incorporation, in addition to the intrinsic differences of the ownership structure of investor and recipient firm, the differences in the performance of a firm with the combined ownership may arise from investors being foreign or domestic (Douma et al., 2006). It has been argued that foreign investors have some attributes that often make them relatively preferable than domestic investors. For instance, Lien et al. (2005) argue that foreign investors have better monitoring and governance mechanism. They often have a specific expertise and knowledge that can create a competitive advantage for the recipient firm (Hennart, 2009). Foreign owners possess more international networks and usually have a more expanded presence in the foreign markets (Greenaway et al., 2012). They often have a high level of knowledge and experience in international trade (Filatotchev et al., 2009). They are long-term oriented and have more financial resources (Douma et al., 2006). Moreover, they can introduce a set of new technologies (Bloom and Van Reenen, 2006) that in turn, lead to the higher productivity of recipient firms (Sinani and Meyer, 2004). Foreign owners usually invest more than local owners in training of employees (Lipsey and Sjöholm, 2004). They have higher level of risk appetite (Chen et al., 2017), more skilled human capital (Dunning and Lundan, 2008), and more productive labor (Blomstro, 1999).

Accordingly, in case of the presence of foreign investors, firm's performance should be improved. Spanos (2005) argue that the presence of foreign investors leads to the enhanced performance of Greek firms. In the same vein, based on a research about Chines firms, Greenaway et al. (2012) found out that until 64% foreign ownership causes the better performance of firms. They argue that the further decline after this threshold manifests the importance of complementary resources of domestic firms. Similarly, Chhibber and Majumdar (1999) argue that only when foreign investors have the majority of control over the business practices, the domestic firm can benefit from a better performance. Douma et al. (2006) observed a greater level of improvement in the performance of firms that were the recipient of foreign investors rather than domestic investors. Foreign ownership positively influences the economic growth through the technology transfer that takes part between the foreign owner and the domestic firm, moreover, it increases the labor productivity of the firms (Wang et al., 2013). Based on the results of a study on a database of 57 countries, Boubakri et al. (2013) discuss that foreign investors increase the level of corporate risk-taking, this, in turn, can lead to better performance of firms because corporate risk-taking is a fundamental issue for economic

growth of firms. Either through better training or transferring more skilled labor to the domestic firm, foreign investors enhance the human capital of firm and thus firm performance (Dunning and Lundan, 2008).

According to the literature, it appears that one possible solution for family firms to overcome their barriers in the execution of their internationalization strategies is to open their capital structure and thus dilution of the business control with external owners (Arregle et al., 2012; Fernández and Nieto, 2006, 2005). Regardless of the various type of potential external owners (corporate, bank, insurance etc.), they can be divided into foreign and domestic owners. The points of strength of foreign investors rather than domestic investors may better accommodate and compensate the limitation of family firms in their international expansion strategies. Therefore, we discuss the possible moderating effect of foreign ownership on the negative relationship between family firms and export performance.

Lack of financial resources is considered as one of the functional barriers that can hinder the foreign sales of firms (Pinho and Martins, 2010), because compared to domestic sales, foreign sales require more financial resources (Hitt et al., 2006). "Engaging in export operation often requires the extensive expenditure in researching overseas market, in visiting foreign customers, in adapting the export marketing strategy, and so on" (Leonidou, 2004, p.288). Additionally, possession of financial assistance, especially for those firms with limited financial resources, can have a considerable positive impact on the behavior of firms in exporting strategies (Pinho and Martins, 2010). Nevertheless, family firms not only lack adequate financial resources for exporting (Aronoff and Ward, 1995), but they are less inclined to accept the external financial assistance (Davis and Pett, 2000). The "self-imposed restrictions" (Graves and Thomas, 2008, p.162), that is the desire to retain the familiness of the firm and owners' intention to pass the business to next generation are the main reasons that cause the weak access to external financial resources (Kammerlander et al., 2015). Put differently, the financial resource of family firms is restricted because the main part of it is funded by personal wealth of owners (Carney, 2005), moreover, they often reject the external financial assistance because it may devolve a certain level of control to the nonfamily owners (Keasey et al., 2015), that in turn can affect their intention to leave the business as a heritage for their children (Miller and Le Breton-Miller, 2005). However, some family firms may perceive the significant impact of external investors on their key strategies,

such as internationalization which leads to the business growth and survival (Dawson, 2011; Fernández and Nieto, 2006). "By creating links to the external environment, and open up the governance structure for input and resources only available outside the family and the firm, family firms can overcome their lack of resources that constrains their ability to pursue certain strategic choices and, for instance, expand internationally" (Naldi and Nordqvist, 2008, p.4). External owners can provide auxiliary financial resources that can facilitate export performance of family firms (Arregle et al., 2012) and among the external owners, it appears that foreign owner's financial capital can be more helpful for international expansion of the firm (Filatotchev et al., 2005). In the same vein, based on a research about Swedish firms, Dahlquist and Robertsson (2001) argue that presence of foreign owners, rather than domestic owners, has a positive impact on firm's cash flow that facilitates the entry into new international markets. Foreign investors are often preferred to the domestic investors because "they may provide local firms in their portfolio with access to larger, global pool of financial resources compared to a domestic institution that mainly operates in the national capital markets" (Filatotchev et al., 2005, p.267). The new capital structure of a firm after dilution of the ownership with foreign investors may enable the firm to expand its activity internationally (Filatotchev et al., 2008). This view is consistent with results of a study about Italian manufacturing firms by Cerrato and Piva (2010) that exhibit presence of foreign owners can amplify the financial capital of both family and non-family firms and make them able to increase their foreign sales. On the other side, foreign owners may bring a technology that reduces production cost and hence strengthen the family firm's financial resources (Calabrò et al., 2013; Guadalupe et al., 2010). Furthermore, the novel foreign technology can generate the new products which are not domestically available (Sinani and Meyer, 2004), which in turn, can increase the domestic market share of the recipient firm and augment the financial capital of the family firm so they can engage in exporting (Montobbio and Rampa, 2005).

The international business expansion is associated with the higher level of risk and uncertainty for firms (Zahra, 2003). One of the main influential factors on firm's performance in the international markets is the level of risk aversion of owners and managers (Ahmed et al., 2002). Firms with the higher level of risk aversion are more likely to avoid the international business expansion and they are more prone to concentrate on the local markets (Claver et al., 2008). Firms' knowledge of foreign

markets and experience of international trade are two of the main factors that can determine the willingness of a firm to accept the higher risk and uncertainty of international markets (Johanson and Vahlne, 1977). The higher level of knowledge and experience of foreign trade deceases the uncertainty of activity in overseas markets (Fernández and Nieto, 2005). However, family firms often exhibit a higher level of risk aversion, as a consequence, they are less prone to engage in export markets (Banalieva and Eddleston, 2011). Besides the lack of knowledge and experience in international markets (Arregle et al., 2017), undiversified financial capital structure (Carney, 2005) and preoccupation about the socioemotional wealth (Gómez-Mejía et al., 2007) further intensify the level of risk-aversion in family firms. Nevertheless, it appears that if family firms can access to essential knowledge of foreign markets, the probability to engage in exporting is higher (Gomez-Mejia et al., 2010). Arregle et al. (2012) argue that one possible solution to mitigate the effect of insufficient foreign trade knowledge and experience of the family firm is to involve the external blockholders in the firm. Compared to domestic investors, involvement of the foreign investors in ownership composition of the family firm is more effective due to the more extensive level of knowledge of international markets that they possess (Fernández and Nieto, 2006). The knowledge that is aggregated through foreign owners' experience in international trades has significantly more value compared to the general knowledge that domestic investors might have about international trade (Greenaway et al., 2012; Johanson and Vahlne, 2003). Indeed, in comparisons to local investors, the internationally accumulated knowledge and experience of foreign owners may provide firms with the greater level of strategical expertise that makes family firms able to operate better in foreign markets (Filatotchev et al., 2005). In the same vein, Calabrò et al. (2013) state that "the presence of foreign investors might foster the increase of knowledge and capabilities about international markets thus supporting internationalization strategies in family firms" (p.519). The individuals or enterprises decide to invest in firms in other countries than their home country when they have a high level of knowledge about foreign trade and international markets (Filatotchev et al., 2009). Accordingly, when they acquire the ownership of a firm, the recipient firm can reckon on their knowledge that can decrease the perceived risk of operation in international markets (Lien et al., 2005). Moreover, the accumulated knowledge and experience of foreign investors make them better positioned to recognize opportunities in international markets, which in turn, can compensate the weak capabilities of family firms to search and exploit more opportunities in the

international markets (Filatotchev et al., 2008; Kontinen and Ojala, 2011). Since opportunity recognition is a fundamental pillar for the firms in their internationalization process (Fernández and Nieto, 2005), it appears that the recipient firm of foreign investors can benefit from the knowledge of new owners and expand its international sales (Meyer, 2002).

Possession of qualified human capital is a crucial issue for firms in their internationalization process (Pinho and Martins, 2010). Performance of a firm in international markets is highly dependent on its human resources capabilities, training, and expertise (Cerrato and Piva, 2010). Dealing with unforeseen threats and opportunities in global markets requires professionalism and talent of a firm's human resource (Hennart et al., 2017; Sciascia et al., 2012). However, the unique characteristics of family firms often deprive them to possess adequate human capital. The existing nepotism in family firms leads to an inefficient recruiting process (Gomez-Mejia et al., 2001). This recruiting process in family firms often leads to the presence of unqualified managers who lack necessary skills to handle more complex business practices in the international markets (Merino, 2017). Consequently, family managers often dissuade those strategies such as internationalization which require the higher managerial capabilities (Graves and Thomas, 2006). To overcome this impediment in internationalization path of family firms it is widely suggested that family firm should hire non-family expert managers (Anderson and Reeb, 2004). However, the external managers often perceive less opportunity to grow in family firms or they demand a high wage and compensation which family firms cannot afford (Gallo and Sveen, 1991; Sirmon and Hitt, 2003). An alternative strategy that can enhance the capabilities of family firms' human resources is the dilution of ownership of the firm with external investors (Arregle et al., 2012). By implementation of this strategy, family firms can benefit from external owners' counsel, knowledge, expertise, and reputation, all of the mentioned can improve their internationalization (Naldi and Nordqvist, 2008). Presence of the external owners in family firms "may add professionalism and experience to the firm and contribute to better decision-making" (Sacristán-Navarro et al., 2011, p.73). Foreign owners often have relatively more managerial skills than domestic owners (Greenaway et al., 2012) and they often provide the complementary human resources that the recipient firms lack (Meyer, 2002). Beyond the essential competencies for internationalization, they often possess more general management capabilities than the local firm (Calabrò et al., 2013). Their higher

managerial capabilities make them able to implement the essential organizational restructuring and prepare human capital of firms to engage in the new business practices such as internationalization (Meyer, 2002). Foreign owners seek higher level of performance and they persuade firms to undertake more lucrative strategies such as internationalization (Boubakri et al., 2013). To reach a better level of performance, they demand more qualified managers (Fernández and Nieto, 2006); consequently, they invest in training of managers and employees of the recipient firms (Lipsey and Sjöholm, 2004). On the other hand, change in the ownership composition of family firms by the involvement of foreign owners can reduce the probability of appointing family members in critical managerial positions regardless of their professional competences (Morck et al., 1988). Less authority of family owners in recruiting process of the firm can lead to the appearance of new managers who possess essential skills and background of internationalization (Calabrò et al., 2013).

The presence of foreign owners takes an even increased importance by considering that a common phenomenon in family firms is to choose the CEO and other top managers from family members (Anderson et al., 2003) which is often followed by less rigorous monitoring of managers behaviors (Graves and Thomas, 2006). The weak monitoring system which stems from the kinship ties and altruism among family members may give rise to an agency problem (Corbetta and Salvato, 2004; Craig and Dibrell, 2006), since family managers often try to pursue the personal goals and maximize the private wealth (Chen and Steinwender, 2016; Gomez-Mejia et al., 2001). Additionally, in case of presence of minority shareholders in family firms, family managers are more likely to expropriate the wealth of other shareholders (Sacristán-Navarro et al., 2011; Verbeke and Kano, 2010). These opportunistic behaviors can be highly detrimental for internationalization process of firms. Operation in international markets implies a higher level of uncertainty and necessitate an efficient resource allocation of firms (Pinho and Martins, 2010). Therefore, to achieve a superior performance in internarial markets, firms should possess a formal and precise monitoring system (Graves and Thomas, 2006). Less stern monitoring of managers' behaviors in family firms leads to the entrenchment (Morck et al., 1988), which can deteriorate the export performance of family firms (Chrisman et al., 2003b). In other words, while in such undiversified ownership structure, CEO decisions have a significant effect on firm's performance (Johannisson and Huse, 2000), family CEO may not undertake those strategies such as internationalization which

necessitate a higher proportion of firm's resources, but instead they might try to divert the firm's resources to maximize their personal wealth (Sacristán-Navarro et al., 2011). That is why George et al. (2005) suggest that presence of external owners can mitigate such opportunistic behaviors that, in turn, can improve the performance of family firms in the international markets. Although changes in the ownership composition of firm is usually a source of information asymmetries about different dimension of business between old and new owners (Chrisman et al., 2004), "altering the ownership structure often reduces the managers' control over strategic choices and leads to a consideration of more strategic options" (Naldi and Nordqvist, 2008, p.4). In this extent, foreign owners, rather than domestic owners, can be more beneficial for the export performance of family firms (Lien et al., 2005). Foreign owners often must pass more complex process to invest in firms, which make them more conservative about potential threats to their invested capital (Filatotchev et al., 2008; Hennart, 2009). Indeed, asymmetric information can be detrimental for foreign owners capital, therefore, foreign owners require more "informative disclosure and maintain strict control of managers action" (Chen et al., 2017, p.409). They have a more efficient monitoring system and governance mechanism (Greenaway et al., 2012; Huang and Zhu, 2015) and they try to decrease the opportunistic behaviors of managers (Filatotchev et al., 2008). "Foreign investors may have a wealth of experience dealing with managerial opportunism and associated principal-agent problem in various national and cultural setting" (Filatotchev et al., 2005, p.263). Foreign owners demand the higher level of transparency, which can prevent the possible entrenchment, free-ride, and wealth expropriation by family managers (Boubakri et al., 2013).

International business networks of a firm play a fundamental and significant role to achieve a superior performance in global markets (Johanson and Vahlne, 2009). Combined with a firm's strategies, the expanse of international networks of a firm can determine the resource commitment and entry mode of a firm (Johanson and Vahlne, 2003). In many cases, firms can facilitate their internationalization process by relying on their existing international networks (Hennart, 2014). This because the international networks help firms to identify customers and recognize opportunities easier, moreover, it may lead to access to complementary local resources and information (Graves and Thomas, 2004; Hennart et al., 2017; Johanson and Vahlne, 2009; Oviatt and McDougall, 2005). A high quality and relevant cross-border business network will generate

knowledge of foreign market opportunities, advice, and experimental learning for firms (Cerrato and Piva, 2012). However family firms often lack such international business networks (Fernández and Nieto, 2006) and typically they possess an “inward-focus network” (Arregle et al., 2012), because building a relevant business network requires a high amount of investment (Johanson and Vahlne, 2009), which often family firms lack (Basly, 2007). Moreover, while international business networks necessitate a set of formal relationship which as result of long-lasting interaction with professional outsiders (Adler and Kwon, 2002), family firms are often more inward-looking (Miller and Le Breton-Miller, 2005), and they are inclined to build an informal relationship with their friends and other family firms which often suffer from the same limitations (Graves and Thomas, 2004; Kontinen and Ojala, 2011). Indeed, family firms are more likely to have local network ties rather than international business networks (Pukall and Calabrò, 2014). Since the scarcity of networks in family firms is one of the main explanatory factors of their inferior performance in international markets rather non-family firms (Graves and Thomas, 2004), it appears that participation of professional and experienced owners such as corporate block-holders and banks who have a set of established business networks, both locally and internationally, can be highly beneficial for family firms internationalization (Calabrò et al., 2013; Fernández and Nieto, 2006). External owners may have access to more extensive networks that can help family firms to build a strategical relationship with outsiders (Holt, 2012) who might possess the essential resources that family firms lack in their global market expansion (Basly, 2007). Those external investors who have the experience of foreign trade, often possess established network with foreign market players and are a member of different association abroad (Filatotchev et al., 2009). This can be found in foreign investors who usually have better networking skills compared to domestic counterparts (Greenaway et al., 2012). Foreign investors can provide necessary contacts and links from their professional networks that can facilities internationalization of the family firms (Calabrò et al., 2013). For instance, foreign owners’ networks may include the distribution channels in other countries or, by relying on their networks, the direct sales to other foreign entities may occur (Guadalupe et al., 2010). “Foreign investors include network relationship with both business and governmental authorities” (Meyer, 2002, p.270) that can lead family firms to recognize wider opportunities in international markets (Cerrato and Piva, 2012). That is why Wąsowska (2017) state that those family firms that have foreign owners have better export performance.

In short, it appears that, compared to domestic investors, foreign owners can further help family firms to expand their internationalization, as they are characterized by higher level of international trade experience and knowledge, more extensive international business networks, greater financial capital resources, more skilled human resources, and better monitoring and governance system. Therefore, we propose the second hypothesis as following:

Hypothesis 2 (H2): *Foreign ownership positively moderates the negative relationship between the family ownership of a firm and its export performance.*

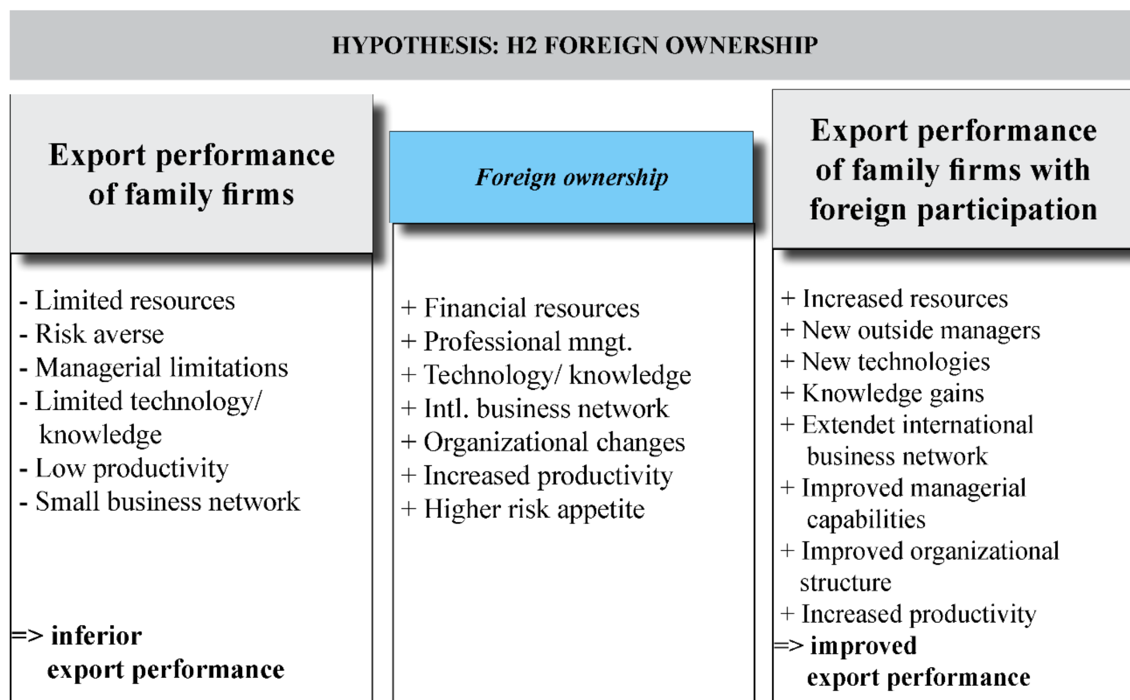


Figure 1: Hypothesis H2

4.3 Moderating effect of R&D

An outstanding performance of a firm in international markets depends on the combination of several factors, among them, high quality of products and services in addition to the lower price of goods can have the remarkable contribution to the success of firms (Hasan and Raturi, 2003). One of the main strategies that helps firms to achieve those advantages is then investment in technology base of the firm (Dhanaraj and Beamish, 2003; Zahra, 1996a). Exporter companies generally invest more in technology, this investment often manifest in form of investment in research and development (R&D) (Archibugi and Michie, 1998; Cassiman and Golovko, 2010). Investment in R&D may lead to establish a more efficient production process and business practices, which yield to lower production costs, enhancement of products quality, and producing new products (Nieto and Quevedo, 2005; Roper and Love, 2002). New process increases the firm's productivity and new products, through the generated advantage of product differentiation (López Rodríguez and García Rodríguez, 2005), can create new markets for firms (Archibugi and Michie, 1998). Both product and process innovations can cause the growth, increased economic rents for firms (Koellinger, 2008) and an enduring competitive advantage in markets over rivals (Bertrand and Mol, 2013).

R&D activities are recognized as the inputs for technological process and strategies, which can lead to multiple technological results such as product innovation, process innovation, and the number of registered patents of firms. Traditional literature perspective that R&D investment always leads to innovation, is criticized by recent researches. For instance Cohen and Levinthal (1989) state that "R&D obviously generates innovations" (p.569) but recently researches (Kim et al., 2008) argue that R&D is not the only factor that can affect technological capabilities and create technological innovation (e.g., Schmid et al., 2014). Yet, it is believed that R&D has a leading role in technological development; "Obviously R&D has still a crucial role to play since it is an important factor, but not necessarily the only one, that affects the development and introduction of production or process innovation" (Parisi et al., 2006, p.2038). Nonetheless, R&D activities are considered as the initial and preliminary step which makes firm able to achieve innovation and other technological advancements (Chen and Hsu, 2009). In the other words, R&D investment makes firms able to acquire competitive advantage and success (Muñoz and Sanchez, 2011).

Inefficient managerial capabilities in family firms that can deteriorate firm's performance (Bennedsen et al., 2007; Bloom and Van Reenen, 2006) becomes more severe for firm's performance when family managers and family employees often do not improve their expertise and knowledge, or they lack interest in learning (Chen and Steinwender, 2016; Zahra et al., 2007). Indeed, human resource capabilities of a firm, particularly their technical expertise, have a substantial importance in international markets (Davis and Harveston, 2000). That is why, a firm that possesses more knowledge and technical intensified human capital is more likely to pursue internationalization strategies (Filatotchev and Piesse, 2009). One possible strategy that can help family firms to enhance the capabilities of their employees, thus having better performance, is the investment in new technologies, which often occurs in form of R&D investments (Koch and McGrath, 1996). R&D investments are considered as learning investments (Jung and Kwak, 2018). By increasing the R&D activities and expenditure, firms can improve the organizational learning and increase the level of knowledge and expertise of employees (Cohen and Levinthal, 1989). More importantly, the acquired organizational learning through R&D can be highly helpful for family firms, because it is based on experiential learning that eventually can lead to "adopting the routines, procedures, or strategies that lead to favorable outcomes" (Levitt, 1998, p.327). The learning and improvement in employee's behavior can evolve the family firms' flexibility and openness to change (Bruque and Moyano, 2007) which in turn can foster family firms ability to undertake those strategies, such as internationalization, which requires a higher level of organizational change (Casillas et al., 2010). Such internal human capital development through R&D results in a firm-specific human resource with a high level of tacit knowledge, which is able to participate in more complex business processes (Hatch and Dyer, 2004). For instance, Hasan and Raturi (2003) argue that one factor that could facilitate Indian firm's entry into export markets was the skilled workforce which in turn was yielded from primary R&D investment to export. Similarly, Filatotchev and Piesse (2009) discuss that "R&D enhance organizational knowledge, and learning capabilities, which, in turn, are important antecedent factors of the IPO [Initial public offering] firm's capability to pursue international expansion by increasing exporting as the proportion of total sales" (p.1262). R&D capable staff can participate in different tasks of firms and increase the functions creativeness, moreover, they are better able to process the information which firm acquire from its external networks (Roper and Love, 2002). Therefore it appears that the higher R&D expenditure of family firms leads to possession

of more skilled labors, which in turn positively affects the family firm's internationalization performance (Braunerhjelm, 1996).

A set of valuable sources of knowledge and technology for internationalization is available outside of the firm (Basly, 2007). Firms often can obtain different knowledge, information, and technologies from their external stakeholders, such as suppliers, competitors, and customers, and utilize them in their business process (García et al., 2012). They can be beneficial for a firm since they may lead to more productive process or new products and services (Nieto and Quevedo, 2005). The occurrence of such acquisition highly depends on organizational readiness to learn or what is known as absorptive capacity, that is the ability of an organization to recognize, learn and exploit the knowledge from the environment (Cohen and Levinthal, 1989). Firms with higher absorptive capacity can utilize the acquired knowledge and technology to reallocate their resources and adapt their business process to new conditions of the market, that in turn leads to product innovation and sustained competitive advantage (Nieto and Quevedo, 2005; Zahra and George, 2002). However absorptive capacity in family firms appears to be lower than non-family firms. For instance, while one of the main constructive components of the higher level of absorptive capacity is internal organizational resources (e.g. human and financial) (Gray, 2006; Nieto and Quevedo, 2005), family firms often lack adequate organizational resources (Graves and Thomas, 2008) which prevent them from exploiting the potential external opportunities (De Massis et al., 2013). Additionally, managerial perceptions and motivations about business growth have a considerable contribution in absorptive capabilities of firms (Vega-Jurado et al., 2008; Zahra and George, 2002). Yet, family managers who are often hired based on the inherited terms (Morck et al., 1998) often do not look for business growth more than what secures their personal welfare (Chen and Steinwender, 2016; Gray, 2006). That is why Chaudhary and Batra (2018) concede that family firms, compared to non-family firms, often have a poor absorptive capacity. Nevertheless, it is argued that even those firms with more restricted organizational resources, such as family firms, can significantly strengthen their absorptive capacity with more investment in R&D (Gray, 2006). Because one of the main results of R&D investment is the strengthen of absorptive capacity of firms (Block, 2012; Cohen and Levinthal, 1989) and those firms that have a higher amount of R&D expenditure are better positioned to gain more knowledge and stronger technological capabilities (Miller, 2004). Indeed, "R&D investment facilities the understanding of

other's discoveries and play a key role in the assimilation and absorption of new technologies" (García et al., 2012, p.1101). The capability to acquire and assimilate external knowledge and technology takes on even more importance by considering the family firm's reluctance to rely on external sources of knowledge in addition to their limited resources (Basly, 2007; Chaudhary and Batra, 2018). The greater absorptive capacity of family firms can remarkably contribute to the success of their internationalization (Lin et al., 2002). Because one factor that can create competitive advantage for firms in the global market and differentiate them from competitors is their ability to assimilate information and embedded tacit knowledge in market (e.g. local culture) and exploit business opportunities in the short time (Zahra and Hayton, 2008). "The ability of the firm to absorb, internalize and exploit this knowledge can influence the extent to which it can achieve higher profits or revenue growth from international operations" (Zahra and Hayton, 2008, p.197).

The level of knowledge and information about foreign markets is one of the main determinative factors in the decision-making process of firms' internationalization (Leonidou, 2004). Foreign markets are unknown markets that are associated with higher level of uncertainty and risk (Carr and Bateman, 2009). "Information is crucial in reducing the high level of uncertainty surrounding the heterogeneous, sophisticated and turbulent foreign business environment" (Pinho and Martins, 2010, p.267). The willingness of firms to accept the higher risk of activity in seeking for greater returns from foreign markets can explain why some firms have better performance (Ahmed et al., 2002). For instance, firms that have strong financial resources often are inclined to accept the risk of a new venture in foreign markets (Sanchez-Bueno and Usero, 2014). Moreover, spread ownership can favor internationalization more than personal ownership (Smith et al., 2002). Accordingly, family firms often are more risk-averse because family owners do not distinguish between personal wealth and firm's financial resources (Carney, 2005). Moreover, the sole financial resource of family firms might be insufficient when they decide to export (Hennart et al., 2017). Therefore, it appears that family owners/managers only decide to export when they realize that foreign venture has the minimized risk and their wealth is secured (Pukall and Calabrò, 2014). That is why it is often witnessed that they start to export to countries that are culturally closed or have lower psychic distance (Gomez-Mejia et al., 2010). Since the acquisition of knowledge about those markets are relatively easier, family managers perceive less risk and the probability to expand their

exporting activities is higher (Johanson and Vahlne, 1977). One strategy that augments the information base of firms is the implementation of R&D activities, which in turn, can make firms able to better compete in foreign markets (Harris and Moffat, 2011). The acquired knowledge through R&D is considered as a significant resource when firms plan to expand their markets and sell their products abroad since by that knowledge they can learn how to overcome the associated problems of operation in unknown markets (Autio et al., 2000). The more intensified level of such knowledge is one of the accelerating factors of firms exporting (Sapienza et al., 2006). In the same extent, in a research about Indian manufacturing firms, Hasan and Raturi (2003) discuss that firms that conduct R&D are more likely to enter exporting market, because through research about the foreign markets they can obtain the necessary information about the condition of those markets. Accordingly, it appears that the acquisition of information about the foreign markets, that ensues from R&D activities, makes family firms to perceive less risk of exporting, which lead to better export performance (Leonidou, 2004).

On the other side, information generated by R&D helps family firms to understand the variation of foreign market conditions and to recognize the new opportunities; based on such information firms can adapt their operation to lunch new products or modify the existing products (Zahra et al., 2000). Investment in R&D enables firms to recognize, assimilate, and exploit the knowledge from various environments, which in turn can engender both innovation and organizational learning (Cohen and Levinthal, 1989). Accordingly, "Family firms' information acquisition both in the breadth of information and speed at which information is obtained is positively related to innovativeness within family firms" (Craig and Moores, 2006, p.6). By higher investment in technological capabilities and R&D family firms can directly contact the foreign customers and thus empower their information base; this may lead firms to produce new products because customers are an ideal source of innovation (Sher and Yang, 2005). Those innovations that are resulted from former obtained information from market conditions are more valuable and can generate higher economic benefits (Akcali and Sismanoglu, 2015). Introducing new products that comply with customer needs make firms able to differentiate themselves from the local incumbents and preempt the market competition (McDougall et al., 2003; Zahra, 1996b). In the other words, based on acquired information through R&D about product demand in foreign markets family firms can benefit from the first-mover advantage (Jung and Kwak, 2018). That is why Filatotchev

and Piesse (2009) discuss that the capability to innovate can accelerate the process of internationalization of firms. As a result, firms benefit from growth in revenue, higher profit, and extended presence in the foreign market (Koellinger, 2008). Accordingly, McGuinness and Blair (1981) state that those firms which spend more in R&D have better and greater export performance.

To conclude, investments in R&D have a substantial effect on internationalization of firms. In the extent of family firms, R&D investments can help family firms to overcome the barriers that hinder further expansion of their foreign sales. R&D activities improve the organizational learning and the knowledge base of family firms. It strengthens their absorptive capacity which is an imperative factor in the highly competitive environment of international markets. R&D investment may yield to product and process innovation, which in turn, can improve the financial resources of family firms for export. Moreover, the acquired knowledge about the foreign market through R&D activities can decrease the perceived risk of the foreign market for family firms. Indeed, the combination of gained knowledge and acquired resources from innovation can enable family firms to enter into the new foreign markets and improve their current export performance (Sapienza et al., 2006). This discussion about the effect of R&D in export performance of family firms lead us to propose the following hypothesis:

Hypothesis 3 (H3)*: R&D investment positively moderates the negative relationship between the family ownership of a firm and its export performance.*

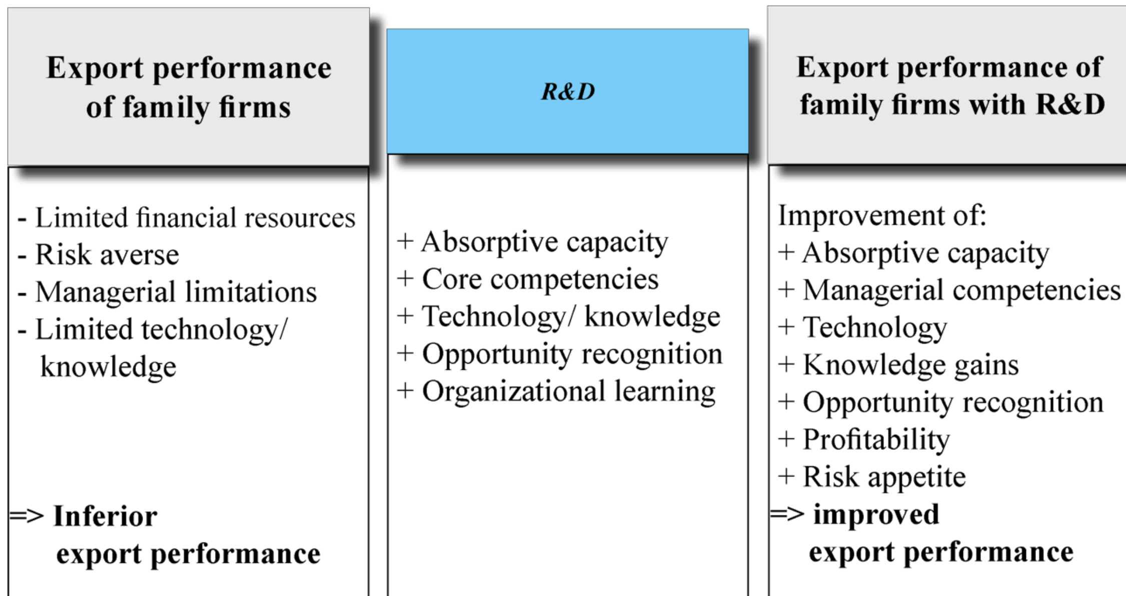


Figure 2: Hypothesis H3

4.4 Moderating effect of import

While firm's productivity is the vital and determinative factor for exporting (e.g. Melitz, 2003), it has been widely acknowledged that family firms are less productive than non-family firms (e.g., Bloom and Van Reenen, 2006; Morck et al., 1998; Pérez-González, 2006). The lower productivity of family firms, which hinder their internationalization, can stem from less R&D investment (Chen and Hsu, 2009), lower management quality (Chen and Steinwender, 2016), poor human capital resources (Pérez-González, 2006), less technological intensity (Kotlar et al., 2013), deficient financial capital, and inappropriate financial structure (Morck et al., 1998). A strategical decision that may improve family firm's productivity to make them able to export is to start importing their inputs from foreign firms (Edwards et al., 2018; Kasahara and Rodrigue, 2008). Because "productivity gain from importing intermediates may allow some importer to start exporting" (Kasahara and Lapham, 2006, p.3). In this part, we study how benefits of importation can enhance family firm's ability to improve their export performance.

The effect of import on several aspects of firms' strategies and performance has recently attracted researches' attention. It has been argued that imported goods, such as raw materials and intermediate goods, have a substantial positive effect on firm's productivity and performance (Sharma, 2013). For instance, results of a study by Zhang (2017) on Colombian manufacturing plants suggests that importing can increase both current-year firm's revenue and future productivity of firms. Altomonte et al. (2008) found out the positive impact of import on the productivity of Italian manufacturing firms. Goldberg et al., (2010) argue that import allows firms to access previously unavailable inputs which can enable firms to produce more variety of products in their domestic market. Chuang (1998) states that acquisition of new goods and intermediate products from importing can cause long-lasting business growth: "The introduction of new consumption goods diminishes the cost of further research and development, and the introduction of new intermediate goods augments capital formation. Both eventually lead to enduring growth" (p.699).

More importantly, several authors point out to the key role of import in international trade of firms as it enables them to start exporting and to enhance their performance in their current exporting markets. For instance, Bas and Strauss-Kahn

(2014) and Harris and Moffat (2015) discuss that access to cheaper, higher quality, and new variety of inputs through import, increase the firm's productivity and consequently facilitate firm's exports. In the same vein, the results of a study by Feng et al. (2016) show that manufacturing firms in China experienced an expanded scope and volume of export as a result of importing the intermediate goods. Feng et al. (2016) point out to the key role of embedded advanced technology in intermediate goods that cause the expanded scale and breadth of Chinese exporting performance. Similarly, Bas (2009) argue that firms whose production is based on imported intermediate goods incur less cost of production and are more competitive, which in turn can lead to the higher probability of survival and exporting.

Import can also be used as a mean to acquire information. Internationalization requires managers who are less conservative because activity in foreign markets has the higher level of uncertainty and risk (Zahra, 2003). Risk-averse firms cannot successfully compete and survive in international markets (Murro and Peruzzi, 2016). Knowledge of foreign markets and operation is the fundamental issue which determines the level of risk and uncertainty of foreign market (Johanson and Vahlne, 1977). Activity in unknown markets has a higher probability of business failure (Ahmed et al., 2002). Non-family decisions makers may be willing to penetrate new and unknown markets, but the accumulated wealth of owner in family firms hamper such new venture in an uncertain market, even if they are possibly more profitable (Graves and Thomas, 2008). This can explain one of the reasons for the inferior export performance of family firms in comparison to non-family firms. There are several strategies to acquire more knowledge about foreign markets which in turn can mitigate the perceived risk of internationalization for family firms. For instance, firms that establish the foreign business networks can directly receive the essential information they need in their decision-making process to expand their business abroad (Basly, 2007). However, family owner/managers do not have a well-established professional foreign business network (Sciascia and Mazzola, 2008). Therefore, it appears that lack of knowledge and information make family owners conservative about the foreign expansion of business (Basly, 2007). An alternative business practice that can increase the family firms' knowledge of foreign market and operation is importing (Grosse and Fonseca, 2012). Because import can be considered as a vehicle to transfer the knowledge of foreign markets (Vogel and Wagner, 2010). By importing the raw material, intermediate goods, and production inputs, such as

machinery, the communication channel with foreign suppliers and counterparts will be established (Harris and Moffat, 2015). Particularly if family firms continue purchasing their input from foreign suppliers, they can build an enduring foreign network which is beneficial for their exporting, because in such network exchange of useful information about markets is more facilitated (Kontinen and Ojala, 2011). That is why the foreign firms of this network can be family firm's future "clients or channel of distribution into the foreign market, or even acquisition targets" (Grosse and Fonseca, 2012, p.367). Moreover, established channels through import often contain technological spillovers that are associated with intermediate imported goods (Sharma, 2014). This newly acquired technology can further encourage the firm's exporting (Bas, 2012) since the acquired technology and information through this network can increase the knowledge of firms about the foreign trade (Damijan et al., 2013). The higher amount of knowledge and information may lead firms to expand their business in the foreign market even to the point that firms decide to set up their own production infrastructure in foreign markets (Johanson and Vahlne, 2009). Imports creates a professional network between trading parties (Vogel and Wagner, 2010); the characteristics of this relationship, such as formality, make family firms to acquire more knowledge and recognize more opportunities in international markets because family firms can have a better performance in acquiring knowledge in formal ties rather than informal or family ties (Kontinen and Ojala, 2011). Put differently, import makes family firms able to establish a foreign network, where acquired knowledge and information through this network can decrease the uncertainty of foreign sales in that specific market or similar foreign markets (Grosse and Fonseca, 2012). As a result, family owners and managers perceive less risk in exporting and they might further expand their market abroad. For instance, in a case study about the opportunity recognition in international markets of family SMEs in manufacturing sector, Kontinen and Ojala (2011) exhibit a case that a family firm could start selling its product to France, because this family firm previously had imported some inputs from a French firm, and through establishing network with French firm, that family firm could acquire the necessary knowledge for exporting.

Costs and characteristics of essential inputs of firm's production process are among the factors that can affect the firm's profitability, financial resources, and consequently undertaking strategies that require more capital such as exporting (Feng et al., 2016). Incurring lower costs of production inputs can increase the margin of firms,

which in turn make firms able to further expand their business (Bas, 2012). Moreover, the quality of products plays a key role in firm's domestic and foreign market sales (Kugler and Verhoogen, 2009). Utilized raw material and intermediate goods in the production process of firms determine the quality of products that firms distribute in the market (Kugler and Verhoogen, 2009). Consequently, products quality affects the future business growth and firm's competitiveness in markets (Sharma, 2013). Low-quality products cannot generate a sustained competitive advantage in the market for a firm and high quality of products increases customer satisfaction and consequently boosts the firm's revenue stream (Bas, 2012). In other words, quality of products is among factors that can specify firm's growth and survival (Bas, 2009; Goldberg et al., 2010; Harris and Moffat, 2015). Therefore, firms often seek more productive inputs, that is the raw material and intermediate goods with lower cost and higher quality (Grosse and Fonseca, 2012). Such inputs take on even more importance when firms decide to operate in foreign markets which are associated with intensified competition (Goldberg et al., 2010). It has been widely discussed that such productive inputs can be acquired through importing (e.g., Bas, 2012; Kugler and Verhoogen, 2009). For instance, the result of a research by Feng et al. (2016) about Chinese firms shows that imported inputs lead to the quality upgrading of firm's products. Similarly, Bas and Strauss-Kahn (2014) argue that firms can gain productivity from importation because imported goods are often characterized by a lower price, higher quality, and better-embodied technology. This is particularly true if they are imported from advanced markets where producers are highly specialized on specific goods (Edwards et al., 2018; Feng et al., 2016). The foreign seller might have different process and resources that make them able to produce goods in a more productive way that local and domestic suppliers, which may lead to the cheaper price of intermediate goods (Harris and Moffat, 2015). The cheaper access to intermediate inputs and raw material directly reduce total production costs of firms, make firms able to gain more profit and consequently increase the firm's export value (Amiti and Konings, 2007; Edwards et al., 2018). Moreover, imported goods often are the result of advanced foreign technology and have better quality (Bas and Strauss-Kahn, 2014). That is why Feng et al. (2016) suggest that even in case of equal price of imported and local intermediates, firms should choose imported intermediates since they will gain more benefit from utilization of imported inputs in their production process. In the same vein, results of the study of Sharma (2014) affirm that firms which imported their intermediate inputs are more productive. Likewise, Manova and Zhang (2012) argue that higher quality of imported

intermediate goods can be substantially beneficial for firms' exporting because they can produce more sophisticated products and charge higher prices in foreign markets. Furthermore, higher quality of imported intermediate goods "allows a firm to focus resources and to specialize in activities where it has particular strengthens" (Vogel and Wagner, 2010, p.644). In brief, by importing more productive inputs, family firms can incur in less cost of production and strengthen the quality of their products. This, in turn, can expand their market and increase their profitability. The stronger financial position facilitates their decisions about improving their current export performance.

Heterogeneity among customers' taste induces firms to produce more variety of products. This heterogeneity becomes even more extensive in foreign markets where customers' preferences are affected by several factors such as cultural issues (Gomez-Mejia et al., 2010). Lack of product variety can negatively affect firm's internationalization (Qian, 2002). Because product diversity can help firms to expand their sales in existing foreign markets or enter into new international markets (Li et al., 2012). Producing multiple products can be a source of competitive advantage because it reduces the associated risk of recession in the market of a specific product and moreover it increases the income of firms (Jones et al., 2008). For instance, Bernard et al., (2010) found out that American multi-product firms benefit from the higher revenue stream compared to the single-product producer. However, family firms are often known as those firms which concentrate on few products and few markets (e.g., Anderson and Reeb, 2003; Gomez-Mejia et al., 2010; Muñoz-Bullon et al., 2018). Gomez-Mejia et al., (2010) note that family firm are less likely to diversify their products, but if they diversify first they choose domestic markets and then culturally closed foreign markets. Some salient characteristics of family firms such as high level of risk-aversion and their special concern about business survival induced scholars to expect the higher level of diversification strategies in family firms (Muñoz-Bullon et al., 2018). But results of researches exhibit that concerns about the socioemotional wealth of family firms and more level of entrenchment play the prohibitive roles against any structural changes such as diversification in business (e.g., Gomez-Mejia et al., 2010; Jones et al., 2008). In the same vein, Muñoz-Bullon et al. (2018) argue that product diversification can "offer the potential to enhance long-term value by increasing a firm's viability through entry into new product markets" (p.39), but due to the potential socioemotional losses, "family firms experience significantly less product diversification" (p.47). However, some family

firms, such those which have business expert affiliates (Jones et al., 2008) or large and public family firms (Li et al., 2012) often are able to overcome these specific barriers. To successfully diversify, family firms should require new inputs and resources because one of the main reason that can prevent firms from producing more differentiated products is lack of heterogeneous inputs, which can stem from less variety of inputs in the domestic market (Bas and Strauss-Kahn, 2014). Jones et al. (2008) argue that family firms can rely on the help of external expert affiliates to acquire the essential inputs and resources which they require for product diversification. Those affiliates do not behave opportunistically since their benefits are guaranteed and they do not have any control over firms, as they are market specialists with a high level of experience. Jones et al. (2008) did not specify any particular skills for expert affiliates; "we were not able to determine the specific skills and experiences possessed by affiliate directors" (p1022) but they mentioned the important role of affiliates in product diversification of family firms: "affiliate directors are more likely to be viewed as extending the resources of the family firm, especially in the context of diversification" (p.1020). Under this scenario, since they are professional experts which can significantly help family firms to implement product diversification strategies, they should be aware of the role of import and diversified inputs in product diversification strategies (Bloom and Van Reenen, 2006). That is, in order to have access to more diversified inputs, firms start to import some of their intermediate inputs from foreign countries. Kugler and Verhoogen (2009) state that importer firms use 4 to 5 more categories of inputs than those who merely supply their inputs locally. Consequently, imported goods either in form of intermediate goods or finished goods significantly can increase the product diversification (Bernard et al., 2009) and "wider variety of products allows firms to meet the preference of a larger number of customers in domestic markets" (Goldberg et al., 2010, p.1043). This, in turn, can correspond to the higher amount of sales which can increase the firm's profitability and strengthen the financial resources (Bernard et al., 2010). Higher profitability makes family firms able to overcome their restricted financial resources and engage in exporting (Bas, 2012). Therefore, it appears that "the greater the number of diversification of imported inputs, the larger number of varieties that firms sell in export market" (Bas and Strauss-Kahn, 2014, p.4). Moreover, more diversified producers are more inclined to sell their product in foreign markets (Damijan et al., 2013). In other words, by providing more variety of inputs, import can increase the product diversification of family firms, consequently, it can enhance their exporting in two ways. First, it can increase the domestic sales, which lead to overcoming

their deficient financial resources to start exporting. Second, it makes family firms able to enhance their export performance by targeting more customers with different needs and tastes in their existing markets.

Firms expect more uncertainty and unforeseen business challenges when they expand their sales overseas (George et al., 2005). Managerial capabilities and skills are considered as one of the considerable factors that are associated with firm's productivity and profitability (Bloom and Van Reenen, 2006) and make firm able to deal with the business complexity in the international market (Bertrand and Schoar, 2006). As discussed earlier, family firms often do not possess skilled human resources (e.g. Arregle et al., 2017). As a result of the poor managerial capabilities, managers perceive exporting more complex than domestic sales and they discourage internationalization (Graves and Thomas, 2006). Also, family owners may decide to not engage in exporting activities since they do not risk over their wealth when managers are not ready to undertake such a strategy (Carney, 2005). Importing activities provide learning opportunities for family firms managers, through import they can learn both some expertise for internationalization and some other managerial capabilities such as supply chain management skills (Grosse and Fonseca, 2012). Damijan and Kostevc (2015), in a research about learning effect from international trade, highlight the considerable impact of learning from import on export performance of firms; they state that "firms learn primarily from import links, which enable them to innovate and to "dress up" for starting to export" (p.408). The possible interaction with more firms from the same industry allows firms to learn more managerial practices in shorter time horizon (Bloom and Van Reenen, 2006). Moreover, to successfully utilize some imported intermediate in production, managers must acquire complementary knowledge and skills, which often can be learnt in importing process from foreign suppliers, since benefits of foreign seller are tied to firm's human resource, capabilities and skills; foreign firms are more likely to instruct the managers in the essential knowledge and skills (Damijan et al., 2013). This acquired technical knowledge can have an enduring effect on firm's future performance (Zhang, 2017). Although both learnings by exporting and learning by importing can have a substantial positive impact on firm's internationalization performance (e.g., Srithanpong, 2014), two salient characteristics of learning from importing can be particularly beneficial for the export performance of family firms. First, the lower fixed and sunk costs of import over that of export (Damijan et al., 2013; Kasahara and Lapham,

2013) better suits restricted financial resources of family firms (Carney, 2005). Second, learning from exporting often is more complex than learning from import (Damijan and Kostevc, 2015); the lower managerial capabilities of family firms appear more appropriate for learning from importing (Bloom and Van Reenen, 2006), which gradually can increase their skills and expertise that is essential for exporting (Grosse and Fonseca, 2012). On the other side, family firms may have difficulties to hire non-family managers and employees who have more experience and skills for international markets (Merino, 2017). Lack of financial resources to afford qualified managers and skilled labor is one of the main reasons (Graves and Thomas, 2006). Through importing, firms can accumulate more financial resources, which make them able to afford the demanded wages of qualified managers (Bernard et al., 2009).

To conclude, it appears that importing can enhance the export performance of family firms for several reasons. First, through importing they can establish the foreign network and acquire more knowledge and information about foreign markets (Harris and Moffat, 2015). Possession of this information makes family firms able to recognize more opportunities in markets (Kontinen and Ojala, 2011). Moreover, such information reduces the perceived risk of export (Johanson and Vahlne, 2009). Second, import allows family firms to increase the product diversification (Bas and Strauss-Kahn, 2014), consequently, they can expand both their domestic and foreign markets (Damijan et al., 2013). Third, better quality and cheaper imported goods lead to augmented market share (Amiti and Konings, 2007), which corresponds to stronger financial resources (Grosse and Fonseca, 2012); this, in turn, helps family firms to overcome the financial barriers that they encounter in exporting (Feng et al., 2016). Fourth, through importing they can learn the essential managerial practice that they often lack for exporting (Damijan and Kostevc, 2015). Relatively lower fixed cost and sunk cost of import over export can further motivate them to engage in importing (Kasahara and Lapham, 2013). Therefore, the next hypothesis to be tested is:

Hypothesis 4 (H4): *import of goods positively moderates the negative relationship between the family ownership of a firm and its export performance.*

HYPOTHESIS: H4 IMPORT INTENSITY

Export performance of family firms	*Import*	**Export performance of importing family firms**
- Limited resources - Risk averse - Managerial limitations - Limited technology/ knowledge - Low porductivity - Limited product range - Small business network => **Inferior export performance**	+ Lower cost of inputs + High quality of inputs + Greater variety of inputs + Managerial learning + Technology/ knowledge + Intl. network + Opportunity recognition + Productivity	+ Increased margin + Higher quality outputs + Greater product range + Managerial learning + Technology/ knowledge + Extended network + Opportunity recognition + Higher productivity => **Improved export performance**

H4: *"The import of goods positively moderates the negative relationship between the family ownership of a firm and its export performance"*

Figure 3: Hypothesis H4

The Figure 4 gives an overview on the developed hypotheses, starting with H1 the negative relationship between the family firm and export intensity and three positive moderators of foreign ownership, R&D intensity, and import intensity.

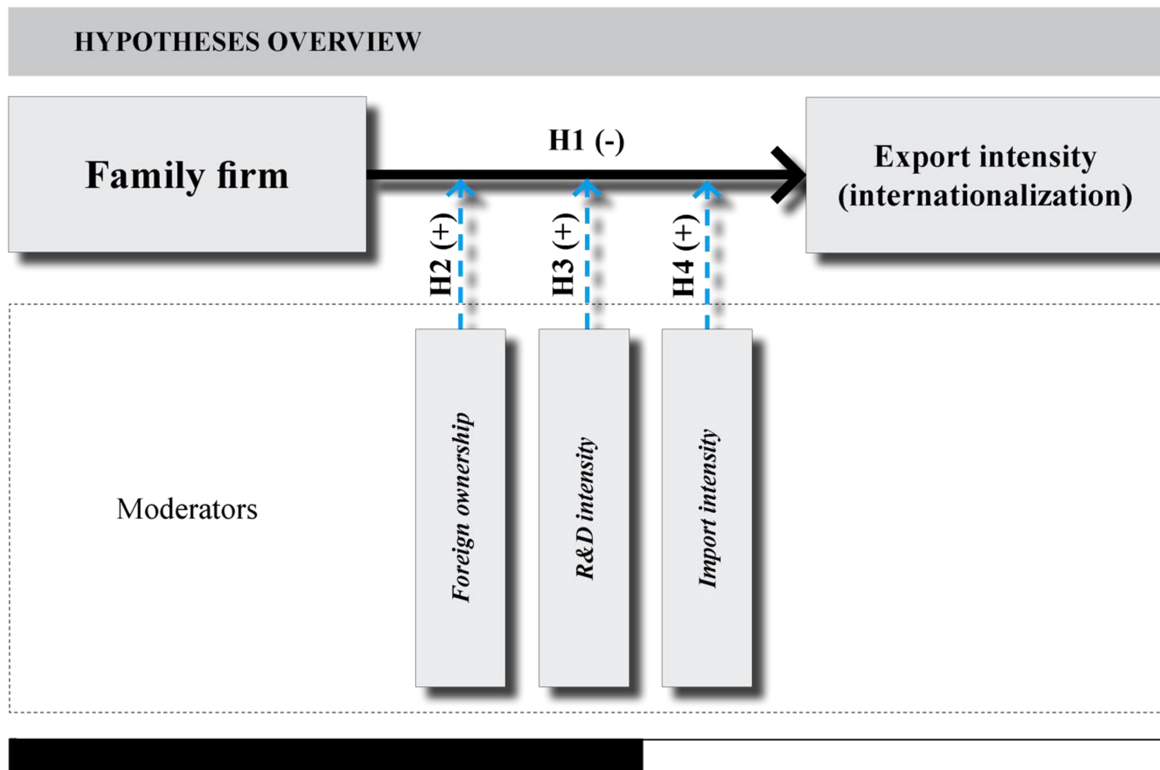


Figure 4: Hypotheses overview

5 Methodology

5.1 Database

All further research was carried out with the Spanish ESEE[1] database. The database ESEE (*Encuesta sobre Estrategias Empresariales)* was created in a cooperation between the SEPI Foundation and the Spanish Ministry of Industry. The data collection ranges from the beginning of the survey in 1990 to 2016. However, the timespan of this study ranges from 1990 to 2011. The data is collected through the SEPI foundation every year. In 1990 the initial number of firms that participated in the survey was 2,188. Over the years the SEPI foundation tried to keep the population of this sample constant, in order to keep the representativeness with respect to the population. They recorded also the representation of existing firms. Due to the fact that existing firms exited or stopped to collaborate as well as new firms entered into the database, this leads to the characteristic of an unbalanced panel dataset. By 2016 there were more than 5000 firms included in the dataset. The population consists of firms from the manufacturing industry with a minimum of 10 employees. The sample classifies large firms, with a number of employees over 200, that all of them were asked to participate, further small firms with 10 to 200 employees were selected randomly with stratified, proportional and strategic sampling. According to Delgado et al. (2002), the participation was around70% for large firms and 5% for small firms.

The dataset is meant to represent the Spanish manufacturing industry, that also represents around 21.76 % (in 2011) of the total Spanish employment according to ILO (International Labor Organization, ILOSTAT[2]). In this context, it has to be mentioned that manufacturing saw a decline from 33,426 % in (1991) to 21.76 % in (2011), which represents almost the entire time period that is observed in this study.

Spanish database provides us with a comprehensive and great opportunity for family firms research since Spain has a high endowment with family firms at around 40%. This was also underlined by Bruque and Moyano (2007) that Spain has a high number

1 https://www.fundacionsepi.es/investigacion/esee/en/spresentacion.asp

2 https://data.worldbank.org/indicator/SL.IND.EMPL.ZS?locations=ES

family firms. Moreover, the inclusion of the international activities of firms in the database is another benefit of ESEE.

5.2 Variables

5.2.1 The dependent variable: export intensity

As discussed earlier, export is the most common mode of internationalization among family firms. Since, compared to other modes of internationalization some associated attributes of exporting, such as a lower level of risk and essential knowledge of foreign markets, better fits with characteristics of family firms. In order to measure the export performance of family firms, it was decided to take an accounting-based indicator that is based on two different measures for the value of sales. First, the total volume of sales that get exported and second the total volume of sales. Both sales volumes are based on the accounting year. The export intensity is a ratio computed by the division of the total value of foreign sales over the total sales (FSTS) of the respective firm. The advantage of accounting-based measures is that they are relatively accurate and reliable as their measure is based on the national accounting and tax regulations and laws.

The use of this indicator dates back to the scholars Johanson and Valhne (1979) came out with their famous “Uppsala Model”, that referenced to export as the first step of the internationalization process of firms, and therefore founded one of the pillars of international business. Based on these early theories, still, by today, export is seen as the first step of internationalization (Andersen, 1993) for family firms (Graves and Thomas, 2004). FSTS is being used as a measurement for the degree of internationalization of a specific firm (Sullivan, 1994). This has lead Thomas and Eden (2004) to use FSTS as the first out of three dimensions of the multinational performance of a company besides foreign production and country scope. Although this indicator is not able to measure the full spectrum of possible internationalization activities of a firm (Arregle et al., 2012; Hennart, 2011; Verbeke and Brugman, 2009), a vast majority of scholars used the FSTS ratio to measure the internationalization trough export performance including both old research (e.g., Bonaccorsi, 1992; Calof, 1994; Wakelin, 1998), and recent studies (e.g., Arregle et al., 2012; Barrios et al., 2003; Caldera, 2010; George et al., 2005; Gomez-Mejia et al., 2010; Graves and Thomas, 2004; Zahra, 2003). Indeed, “the percentage of sales outsides the home country is the most common figure, typically focusing only on

export numbers” (Pukall and Calabró, 2014, p.107). Following the extensive use in the pertinent literature, it was a logical step to choose export intensity as a proxy for internationalization.

5.2.2 Independent/Explicative variable: family firm

The variety of definitions of family firms among research studies stated and discussed in the literature review can also be found when scholars actually start to measure family firms on empirical data. The abundance of possible measures for the research has been studied and several of the possibilities that have been used, by well-known scholars, are described with the following examples in order to give a better overview:

- Graves and Thomas (2004) identify the family firm if (1) a family is holding the majority ownership (>50%) and (2) if at least one family member is participating in the management team and they generate a dummy variable when both conditions are met.
- Gomez-Mejia et al. (2010) measure the family ownership based on (1) holding the minimum block of (10%) of shares and (2) the participation with at least 2 family members represented in the board.
- Some other scholars (e.g., Chua et al., 1999; Sirmon et al., 2008) measure family firms through (1) the ownership of the family accounts for a minimum of (5%) on the social capital and (2) the participation condition is met, that is if one family member is holding the CEO position in the company.

In an increasing number of studies, family firm’s measurement includes both examining a certain level of family ownership and the active involvement of family members in the business activities. However, in comparison to them, the ESEE database permits us to take advantage of its simplicity, as it combines ownership and family members in one variable. Our variable measures *the number of owners and relatives who hold managing positions on December 31st*. Accordingly, we can define the family firm as “any firm in which family members have ownership and are also actively involved in the control or management of the firm".

Compared to those studies that use a dummy variable to identify family firms in their research (e.g., Graves and Thomas, 2004) our measure is more advantageous since

it allows to observe changes export intensity of family firms when the number of family members involved in the business activities is increasing. In order to overcome interpretation problems on the family firm, the boundaries of the family should be very precisely defined. Because only the presence of nuclear family members in a firm's management and ownership can define a family business (Chua et al., 1999). Accordingly, we decided to quantify the number for our analysis with 10 family members to be the upper limit[3].

5.2.3 Moderator variable foreign ownership

It has been frequently acknowledged that the ownership structure has a fundamental impact on the firm's decisions and strategies (e.g., Shrader and Simon, 1997), including internationalization activities (George et al., 2005). Consequently, it appears that the change in the ownership structure of family firms, by the involvement of the foreign owners, can affect their export performance. As foreign owners might provide ancillary knowledge about international trade, financial resources, managerial capabilities/expertise and access to international business networks, all these may facilitate family firm internationalization.

Foreign ownership comes along with various definitions and measurements. Generally, studies either tend to define foreign firms by the influence that comes from lower levels of foreign capital participation up to (50%), or by taking over the control of the firms with the possession of more than (50%) of shares/voting-rights. In a different way, some scholars use dummy variables to identify foreign participation in the capital structure of domestic firms (e.g., Girma et al., 2008). Most of the studies define a certain threshold of foreign capital participation to the recipient firms to observe the possible beneficial implications of the presence of foreign owners (Fariñas and Martín-Marcos, 2010; Guadalupe et al., 2012; Kohler and Smolka, 2014; Wąsowska, 2017). They argue that the increasing power over the business policies leads foreign owners to dedicate more resources, such as human and financial capital, in addition to their international business network and knowledge to the recipient firm. However, the ratio, that allows the foreign

[3] We could even observe a family firm with 117 family members in a firm. After modification, a total number of 9 values was changed to the value of 10 members.

owner to exercise control over the firm, can vary for several reasons, such as the firm's internal contractual criteria. Moreover, it has been also argued that even partial foreign capital participation in a firm can be beneficial for the recipient firm. The spectrum of a ratio, without any minority and majority definition, gives us a greater view and the possibility to study several levels of foreign ownership and its moderating effect on family firms and export intensity. A non-particular classification of any minimum or maximum level of ownership offers a more precise possibility to study the moderating effect. Accordingly, we measure the foreign ownership, used as the first moderator variable, as the "*percentage of direct or indirect participation of foreign capital into the social capital of the company*".

The advantage of using a ratio for measuring foreign ownership over the dummy variable was also emphasized by previous research (Girma et al., 2008), as it leads to the more precise evaluation of foreign ownership.

5.2.4 Moderator variable R&D investment

R&D activities improve the organizational learning and the knowledge base of the firm. It can augment the absorptive capacity of firms that in turn can lead to a higher level of competitiveness in international markets. R&D investment may lead to the product and process innovation and consequently can improve the financial resources of firms. Moreover, the acquired knowledge and information about the foreign market through R&D activities can help firms to perceive less risk in their internationalization process. Indeed, the combination of gained knowledge and acquired resources from innovation can enable family firms to enter into the new foreign markets and improve their current export performance (Sapienza et al., 2006).

R&D investment often is measured through R&D intensity that is an accounting-based measure. R&D intensity represents *a ratio of total R&D expenses over the total sales in a given year*. It is a widely, if not the most commonly used, indicator for measuring R&D activities. The traditional indicator that uses the total R&D expenditure can lead to a biased measurement, as it does not consider the firm's properties. The traditional indicator implies that larger firms tend to have a higher R&D expenditure compared to their smaller counterparts since they have higher resource endowment.

The main advantage of using the ratio of R&D expenditure over sales is that the firm size is playing a less important role compared to the total spending. Additionally, the ratio offers the advantage of avoiding skewness, caused by scale measures, and therefore it can be easier applied in the main regression model. R&D intensity represents a good insight into how great the percentage, based on sales, is that gets reinvested into R&D activity and technology generation in the same year. Therefore, it appears that R&D intensity is the appropriate measure, as it shows how great the commitment of the firm is towards the future product and process innovation (Graves and Thomas, 2004).

Similar to the majority of studies, in our research, we could observe some firms with R&D ratios over 1. Such ratios correspond to those firms that invest a greater proportion of their financial resources into R&D than their current total sales account for. Those firms often are currently developing their technological capabilities or their business model to generate the higher amount of sales in the future, such as startups.

According to the aforementioned discussion, to analyze the moderating effect of R&D investment on family firms' export performance, R&D investments of family firms are measured by their R&D intensity. The use of this indicator is further supported by the previous studies (e.g., Augier et al., 2013; Barrios et al., 2003; Chen and Hsu, 2009; Chrisman and Patel, 2012; de Jorge and Suárez, 2011; Graves and Thomas, 2004; F. Merino, 2017)

5.2.5 Moderator variable import

Import is another activity of internationalization that involves the cross-border trade of goods and services. Form a theoretical point of view, we argued that the importing can facilitate the export performance of family firms. Because importing family firms are more likely to establish the relevant international business network that, in turn, can help them to acquire the knowledge and information about foreign markets. Importing can increase the risk appetite of family firms and it can also make family firms able to improve the quality of their product and decrease their production costs. Indeed, importing family firms are expected to have a higher level of productivity that can help them to mitigate the limitation of exporting.

Although studies that evaluate the importing activity in the firm-level, compared to export research, are relatively rare, we could observe different methods to measure import. For instance, Damijan and Kostevc (2015) distinguish between importers and

non-importers by using a dummy variable on the import status. Forlani (2017) and Görg and Hanley (2005) measure the import intensity of a firm by creating a ratio of total imported goods over the total purchased goods. Eppinger et al. (2018) use the ratio of imported goods over the total sales to measure the import intensity.

Despite the different possibilities to measure the import activity of a firm, we measure import intensity of a firm, that is a ratio of *total imports divided by the total sales of the firm in the same year.* The import intensity manifests a firm's foreign sourcing of raw materials and intermediate goods.

In comparison to those studies that use a dummy variable (e,g., Damijan and Kostevc, 2015) this ratio gives a more profound and detailed insight on the moderating effects of different import levels and propensities. Import intensity is proven to be a highly efficient indicator to study the firm level adjustments on the import propensity, even in times of decreasing total import and sales volumes, as it can be observed during times of economic crisis (Eppinger et al., 2018).

5.2.6 Control variables

In addition to familiness in a firm, there are other factors that may influence the export performance of a firm. Therefore, we control for these factors in our estimations.

Control variable: size

The size of the firm is one of the most commonly used control variables in the literature by today. Several scholars have proven the positive correlation of size with the export performance of the company (Bonaccorsi, 1992; Calof, 1994). This positive correlation is supported because big firms have several advantages over smaller firms. For instance, scholars (e.g., Dhanaraj and Beamish, 2003; Zahra, 2003) argue that a larger firm size indicates a greater availability of resources, therefore the firm is also in a favorable position to provide the necessary resources that are needed to internationalize. Furthermore, larger firms:

- Have a more extensive business network that makes them able to identify opportunities as well as to overcome the functional barriers of international trade (Graves and Thomas, 2004; Kontinen and Ojala, 2011; Lianxi Zhou et al., 2007)

- Have greater organizational capabilities, that enable them to deal with complexity and uncertainty of foreign markets (Majocchi et al., 2005).
- Have the advantage to exploit economies of scale in manufacturing, export marketing, and export management, as the greater size helps to distribute these fixed costs over greater numbers of sales (Bonaccorsi, 1992).

The variable size represents *the total number of employees of a firm*. In order to avoid the problem of skewness, we apply the natural logarithm on this variable, as there are a large number of small firms with few employees as well as a few larger firms with high numbers of employees. This approach is consistent with the previous researches (e.g., Arregle et al., 2012; Damijan and Kostevc, 2015; Fernández and Nieto, 2006; Gomez-Mejia et al., 2010; Valle et al., 2015).

Control variable: labor productivity

The second control viable is the labor productivity that provides the average output per employee. It is a widely known and applied indicator for studying the export performance of firms (e.g., Hennart et al., 2017).

A higher level of labor productivity is positively correlated with the export performance (Andersson et al., 2008). Labor productivity is one of the main reasons for higher firm productivity (Koch and McGrath, 1996). This takes on more importance by considering the widely acknowledged fact that exporters have higher productivity than non-exporters (e.g., Bernard and Jensen, 1999). For instance, Melitz (2003) state that only more productive firms can overcome the associated sunk cost of exporting and a high level of productivity is the main factor that enables them to successfully compete in foreign markets. In the same vein, scholars (e.g., Hennart et al., 2017; Majocchi et al., 2005) argue that labor productivity positively affects the export performance of firms.

In our research labor productivity is measured through *the value of the production of goods and services and other current income, in thousands of Euros, divided by the approximation of the average total personnel.* Similar to size, the natural logarithm is applied on this variable in order to avoid the problem of skewness, that is consistent with the previous literate (e.g., Andersen, 1993; Andersson et al., 2008; Barrios et al., 2003; Guadalupe et al., 2012; Valle et al., 2015).

Control variable: industry type

We also control for firm's industry. In order to measure it, following Zahra (2003), we created a dummy variable that takes the value of (1) for high-technology industries and the value (0) for low-technology industries.

High technology sectors are more prone to export compared to low technology sectors as "High-technology industries offer greater opportunities for internationalization than low-technology industries" (Zahra, 2003, p.503). High-tech firms tend to export more and at an earlier stage since the demand in their home markets is often not sufficient and export can be considered as the only chance of business growth (Bonaccorsi, 1992). Accordingly, results of a study by Shefer and Frenkel (2005) show that high-tech industries account for a major part of the exports. Similarly, Cuaresma and Wörz (2005) state that high-tech industries contribute a higher fraction to export growth in comparison with low tech industries. The greater export performance of high-tech industries is further supported by Schneider et al. (2010).

High/low technology industry classification

No.	Industry	Firms (%)	Industry dummy (0/1)
1.	Meat products	2,79	low-tech (0)
2.	Food and tobacco	9,11	low-tech (0)
3.	Beverage	1,98	low-tech (0)
4.	Textiles and clothing	9,35	low-tech (0)
5.	Leather and footwear	3,36	low-tech (0)
6.	Wood	3,58	low-tech (0)
7.	Paper	2,92	low-tech (0)
8.	Graphic arts	5,11	low-tech (0)
9.	Chemical and pharmaceutical products	5,80	high-tech (1)
10.	Rubber and plastic products	5,23	low-tech (0)
11.	Non-metallic mineral products	6,92	low-tech (0)
12.	Ferrous and non-ferrous metals	2,72	low-tech (0)
13.	Metal products	11,88	low-tech (0)
14.	Agricultural and industrial machinery	6,15	high-tech (1)
15.	Computer, electronic and optical products	3,12	high-tech (1)
16.	Electrical machinery and equipment	5,38	high-tech (1)
17.	Motor vehicles	4,33	high-tech (1)
18.	Other transport equipment	2,28	high-tech (1)
19.	Furniture	5,36	low-tech (0)
20.	Miscellaneous manufacturing	2,61	low-tech (0)

Source: ESEE, Firms (n=5445), years: 1990-2011

Table 1 Industry overview

The dummy variable for high-tech (1) and low-tech industries (2), was created based on the standard industrial classification system from European Union (NACE) that includes a total of 20 industry classifications. In order to define the dummy variable, the 20 categories were assigned to the four classes based on the OECD classification for manufacturing industries. The OECD separates the industries into 4 classes of technology, where two of them account for high-tech industries and the other two for low-tech industries. After assigning the 20 industries to the four OECD classifications, for the final selection of the industry, we followed the approach taken by Valle et al. (2015) to use the following categories (high-tech industries and medium-high-tech industries) to be summarized under the high-tech industry dummy. This high-tech category with the dummy value of (1) is composed of the following industries: 9 (chemical and pharmaceutical products); 14 (agricultural and industrial machinery); 15 (computer, electronic and optical products); 16 (electrical machinery); 17 (motor vehicles); 18 (other transport equipment). All the other industries from the categories (medium-low-tech industries and low-tech industries) with the numbers (1; 2; 3; 4; 5; 6;7; 8; 10; 11; 12; 13; 19; 20) were assigned to the low-tech category dummy with the value of (0).

5.3 General correlation and descriptive statistics

The correlation table often also referred to as the correlation matrix represents the correlation coefficients. It shows all possible correlations between the dependent and independent variables as well as the control variables. The correlations can range between the values (1) indicating a highly positive and (-1) a highly negative correlation. The correlation matrix offers the advantage of having a first glimpse overview over the variables used and in which extent, they correlate with each other, but it has to be kept in mind that the hypothesis will be tested with the main model.

At first, we assess the correlation of the control variables in regard to the dependent variable. There we see the positive and significant correlation between the dependent variable of export intensity with the three control variables company size, labor productivity, and the high-tech industry dummy variable. In a comparison of these with the lagged control variable, we even can observe a slight and positive increase on correlation with size and labor productivity and a decrease on the high/low-tech industry dummy, but they are not significant as the changes are lower than (0.05). These findings are in order with the predictions made on the control variables, as it was stated that the size and labor productivity have a positive influence on the export performance, moreover, firms in high-tech industries tend to export more than firms in low-tech industries. However, the final predictions and conclusions will be done on the main model. The correlation between the dependent variable (export intensity) and the independent variable (family firm) is negative and significant.

Export intensity shows a positive and strong correlation with the lagged moderator variables, import intensity, foreign ownership and R&D intensity. However, R&D intensity only shows a positive significant correlation of the dependent with the lagged moderator variable.

The family firm variable shows a negative correlation with all other variables, even though the correlation with R&D is only significant on the lagged correlation. The negative correlation between the family firm and all three control variables can be considered as the evidence of their limitation and restricted resources that often make them smaller and less productive. Moreover, the lack of adequate resources often deprives them to compete in high-tech industries.

As already stated, the hypotheses will be tested in the main model, as the simple correlation models are not taking into account the time series and cross-sectional effects of the panel data.

DESCRIPTIVE STATISTICS AND CORRELATIONS

Variable	1	2	3	4	5	6	7	8
1 Export Intensity (%)$_{(t)}$	**1**							
2 Family firm (n)$_{(t)}$	**-0.1422**	**1**						
Family firm (n)$_{(t-1)}$	-0.1491							
3 Foreign ownership (%)$_{(t)}$	**0.2875**	**-0.2913**	**1**					
Foreign ownership (%)$_{(t-1)}$	0.2956	-0.2931						
4 R&D Intensity (%)$_{(t)}$	**0.0184**	**-0.0045**	**0.0067**	**1**				
R&D Intensity (%)$_{(t-1)}$	0.1572	-0.0441	0.0646					
5 Import Intensity (%)$_{(t)}$	**0.3223**	**-0.1908**	**0.4676**	**0.0135**	**1**			
Import Intensity (%)$_{(t-1)}$	0.3220	-0.1935	0.4687	0.1166				
6 Size (ln)$_{(t)}$	**0.3979**	**-0.2690**	**0.4670**	**0.0315**	**0.3957**	**1**		
Size (ln)$_{(t-1)}$	0.4077	-0.2727	0.4682	0.1886	0.3963			
7 Labor productivity (ln)$_{(t)}$	**0.2853**	**-0.1556**	**0.3270**	**0.0086**	**0.4161**	**0.4350**	**1**	
Labor productivity (ln)$_{(t-1)}$	0.2799	-0.1602	0.3260	0.0584	0.4139	0.4326		
8 Industry (high/low technology)$_{(t)}$	**0.2459**	**-0.1190**	**0.2457**	**0.0469**	**0.2545**	**0.2265**	**0.1573**	**1**
Industry (high/low technology)$_{(t-1)}$	0.2277	-0.1208	0.2442	0.2665	0.2508	0.2242	0.1539	
Mean	**17.5192**	**.6921**	**16.8017**	**.8242**	**9.0881**	**4.2040**	**4.5874**	**.2802**
Standard deviation	**25.5709**	**.9801**	**35.9162**	**16.5964**	**14.2022**	**1.5195**	**.8537**	**.4491**
Min	**0**	**0**	**0**	**0**	**0**	**0**	**-.058**	**0**
Max	**100**	**10**	**100**	**3266.38**	**95.67**	**10.14**	**9.01**	**1**

N= 39571, ALL CORRELATIONS GREATER THAN 0.04 ARE SIGNIFICANT AT ($P < 0.01$)

Table 2: Descriptive statistics and correlations

5.4 The main model

For the further approach to select the best statistical model two important steps have to be considered:

1) Our dependent variable that represents the export intensity (the ratio of the values of the total foreign sales over the total sales), induce us to choose a statistical model that fits percentile values between 0 and 100.
2) To be compliant with step one, to find the right model for the dependent variable, an intensive literature research was performed. This was done in order to use a similar model that enables us then to do a comparison with previous findings. The result of this research shows that the most frequently used statistical models are based on the least square statistical framework (OLS). For being coherent with the international business and statistical literature, the process of decision-making in favor of the feasible generalized least square (FGLS) model initiated with the OLS model. Further, the FGLS model will be described and a comparison with other panel data models will be done.

The OLS model

OLS stands for ordinary least squares- or linear least squares regression. It is a linear regression method to estimate the relationship between the dependent and independent variable. Beck and Katz (1995) call the OLS model as the workhorse of political methodology and it is a highly used and appreciated among scholars and scientists for its simplicity and accuracy. The OLS model is based on the assumption that the stochastic estimator has a disturbance that is independent and identical distributed, usually referred to as the “i.d.d. condition” (Baum, 2006). According to Beck and Katz, (1995), the OLS is only optimal in the presence of spherical errors, including the conditions of homoscedasticity and no autocorrelation. If this condition is not met there are other more efficient estimators to be used. For these reasons, autocorrelation and heteroskedasticity are tested below.

Heteroskedasticity and Autocorrelation

Baum (2006, p.134) defines heteroskedasticity as following: "the i.i.d. assumption fails when the errors are either not identically distributed or not independently distributed (or both). When the variance of the errors, conditional on the regressors, changes over the observations, the identically distributed assumption fails […]. This problem is known as heteroskedasticity (unequal variance), with its opposite being homoskedasticity (common variance). When the errors are correlated with each other, they are not independently distributed.".

Therefore, in order to test the Heteroscedasticity in our panel data we use the "Breusch and Pagan (1979) and Cook and Weisberg (1983) test that assumes the regression disturbances to be normally distributed. The testing heteroskedasticity leads to the rejection of the null hypothesis that assumes the constant variance. The result of our test on Table 3 proofs the presence of heteroskedasticity in our panel data.

Test	Breusch-Pagan (1979) and Cook-Weisberg (1983) test for heteroskedasticity
H_0 Hypothesis	Constant variance
Chi-square (7)	4225.79
Probability	0.0000

Table 3: Test heteroskedasticity

Beside heteroscedasticity, autocorrelation is one of the main phenomena in panel data that causes the results to be less efficient. Often both of these phenomena occur together in panel data. Autocorrelation, often stated as serial correlation, refers to the similarity between given data over time and its lagged version.

The idea of autocorrelation is that the previous value has an impact on the development of future values. In particular, in the case of studying the export, an example could be as the family firm has an established customer base abroad it is most likely that the sales of today have impact on the future sales, similar effects can be observed in size or labor productivity, as the previous size or productivity influences the values the presence and the future.

Drukker (2003) states "serial correlation in linear panel-data models biases the standard errors and causes the results to be less efficient, researchers need to identify serial correlation in the idiosyncratic error term in a panel-data model" (p.170). Based on this statement a test autocorrelation on the panel data was carried out. The Probability value equal to zero leads to the rejection of the null hypothesis of no first-order autocorrelation. The result on Table 4 below confirms the presence of autocorrelation.

Test	Woodridge test for autocorrelation in panel data
H_0 Hypothesis	No first-order autocorrelation
F (1, 3916)	140.674
Probability	0.0000

Table 4: Test autocorrelation

To conclude, two tests performed proof the presence of heteroskedasticity and first-order autocorrelation in our panel data.

5.4.1 The FGLS model

Choosing the right statistical model is a tradeoff between robustness and efficiency. The robust approach includes fewer restrictions on the moderator while the efficient approaches incorporate explicit specifications towards the i.i.d error (Baum, 2006). The FGLS is a linear regression method to estimate the relationship between the dependent and independent variable. The FGLS model offers the possibility to cope with heteroskedasticity as well as the first-order autocorrelation.

Under certain specified/strong assumptions, the FGLS model can be more asymptotically efficient than the OLS model, this is as well valid for panel data (Wooldridge, 2002). Beck and Katz, (1995) compared these two models to understand in which particular cases it is better to use the FGLS over the OLS model, despite its possible criticism on the inaccuracy of standard errors. To address this comparison properly they used time-series and cross-section (TSCS) data that included observations on fixed units. TSCS are vulnerable to have heteroskedastic errors that make the use of OLS problematic. For this case they support the use of the FGLS model, even that FGLS may lead to an

underestimation of parameter variability, further OLS on TSCS leads to highly inaccurate standard errors that would have to be replaced with panel corrected standard errors. In addition, they underline the great performance of FGLS in large samples compared to the OLS. They conclude that the in case of TSCS data with strong heteroskedasticity and large sample data, the application of the FGLS model is the better choice.

In our case, TSCS is represented through the time series (TS) in the form of panel data and cross-sectional (CS) data in the form of the firms. According to the recommendation by the scholars above in favor for the FGLS model in presence of TSCS data in addition to the presence of both heteroskedasticity and autocorrelation, we choose the FGLS over the OLS model.

The use of the FGLS statistical, due to the observation of autocorrelation and heteroscedasticity in the data, can be found in several articles on internationalization (Hitt et al., 2006; Lin, 2012; Lu and Beamish, 2004; Purkayastha et al., 2017; Xiao et al., 2013) and family firms research (Cai et al., 2012; González et al., 2012; Greenwood et al., 2007).

However, there is a range of other statistical models that could possibly be used instead of the FGLS model on panel data. Further, an overview is given with a short justification why the FGLS was the model of choice.

5.4.2 Model comparison

Panel data regression

The general panel regression can be either computed with random or fixed effects. It is a quite frequently used model in social science with many great features. Due to its frequent use, Bollen and Brand (2010) criticize that in many cases scientists do a very limited assessment before they fit this model to the data. The criticism arrives from the usual procedure of only running the Hausman test (Hausman, 1978) to distinguish between fixed and random effects in the data. All the further procedure is then based on this test only. Accordingly, scientists apply then the panel data regression for random or fixed effects. Bollen and Brand (2010) point out that only performing the Hausman test leads to an inadequate description of the data, especially when in the case of having TSCS panel data. That is why they support the approach of Beck and Katz (1995) to use the

FGLS as a better alternative model. Accordingly, to avoid the problem of lacking justification of using the Panel data regression, that is solely based on the Hausman test, and additionally having TSCS data, we choose FGLS over the panel data regression model. In short, the direct comparison to the other panel data models favors the FGLS due to its comprehensive features addressing several obstacles arriving from panel data at the same time.

Generalized Estimation Equations (GEE)

The generalized estimation equations, that is a type of fractional logit regression for panel data (Papke and Wooldridge, 2008), is widely appreciated to have a richer description for the correlation and it is also permitted to perform quite good analysis under the condition of first-order autocorrelation similar to the FGLS model. The FGLS for panel data offers, in direct comparison with the GEE, the possibility of cross-sectional correlation that is not applicable to the GEE model. Even though in accordance with the research question, cross-sectional dependence is not part of our research, the FGLS offers a unique option to account for heteroscedasticity error structure in the panel without taking into account cross-sectional correlation. To conclude, both the GEE and FGLS offer the possibility to cope with the first-order autocorrelation similarly, but the FGLS model is superior as it can handle heteroskedasticity in panel data in addition. That is why the FGLS model is preferred over the GEE. However, GEE appears to be a great fit to check the robustness of the main model.

6 Analysis and results

6.1 The main regression model

The main model on Table 5 is computed with the FGLS regression using the relevant options in order to deal with the problems of the first order autocorrelation and heteroskedasticity in the panel data. Furthermore, the year dummy was included in the FGLS model that represents the years from 1991 to 2011.

FGLS - MAIN REGRESSION MODEL

Variable	Coefficient	Std. Err	z	P>|z|
Family firm (n)$_{(t-1)}$	-.0496	.0232	-2.14	0.03
Foreign ownership (%)$_{(t-1)}$	.0315	.0026	11.98	0.00
R&D intensity (%)$_{(t-1)}$	.0588	.0156	3.76	0.01
Import intensity (%)$_{(t-1)}$	2.4497	.0572	42.79	0.00
Size (ln) $_{(t-1)}$	2.4497	.0572	42.79	0.00
Labor productivity (ln)$_{(t-1)}$	1.0536	.0597	17.65	0.00
Industry (high/low technology)$_{(t-1)}$	3.4249	.2243	15.27	0.00

Number of observations = 33852
Chi-square = 4222.93
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 5: Main regression

The Table 5: Main regression provides the results calculated through the FGLS model. All the variables, except the dependent variable, have been lagged in order to avoid the reverse causality problems and changes during the years as the panel data are measured yearly. The mitigation of the possible causal effects, such as reverse causality

problem, was done by lagging the independent variables on the FGLS model, that is consistent with the previous researches (e.g., Buckley et al., 2014; Hitt et al., 2006; Lu and Beamish, 2004).

According to the predictions made, all three control variables show positive and significant results ($p<0.01$). As we can observe, the control variables are performing as predicted and they are positively related to the export performance. Moreover, a positive and significant relationship between the dependent variable of export intensity and the other variables can be observed.

In order to assess the core study regarding the independent variable of family firms and its relationship to the dependent variable of internationalization, represented by the export intensity, the coefficient, and the significance is checked. A negative and significant relationship ($p<0.05$) between family firms and export intensity can be observed. This leads to the confirmation of the first hypothesis that family ownership negatively affects the export performance of a firm.

As it is shown in Table 6: Interaction foreign ownership we can observe the negative and significant coefficient ($p<0.01$) of family ownership and export intensity, foreign ownership has a positive and significant ($p<0.01$) relationship with export intensity of a firm. Additionally, the results show a positive and significant ($p<0.01$) relationship between the interaction of family firms and foreign ownership and export intensity. The proven positive moderation effect results in the confirmation of the hypothesis H2. Therefore, we expect a higher export intensity in those family firms that incorporate the firm' ownership with foreign owners.

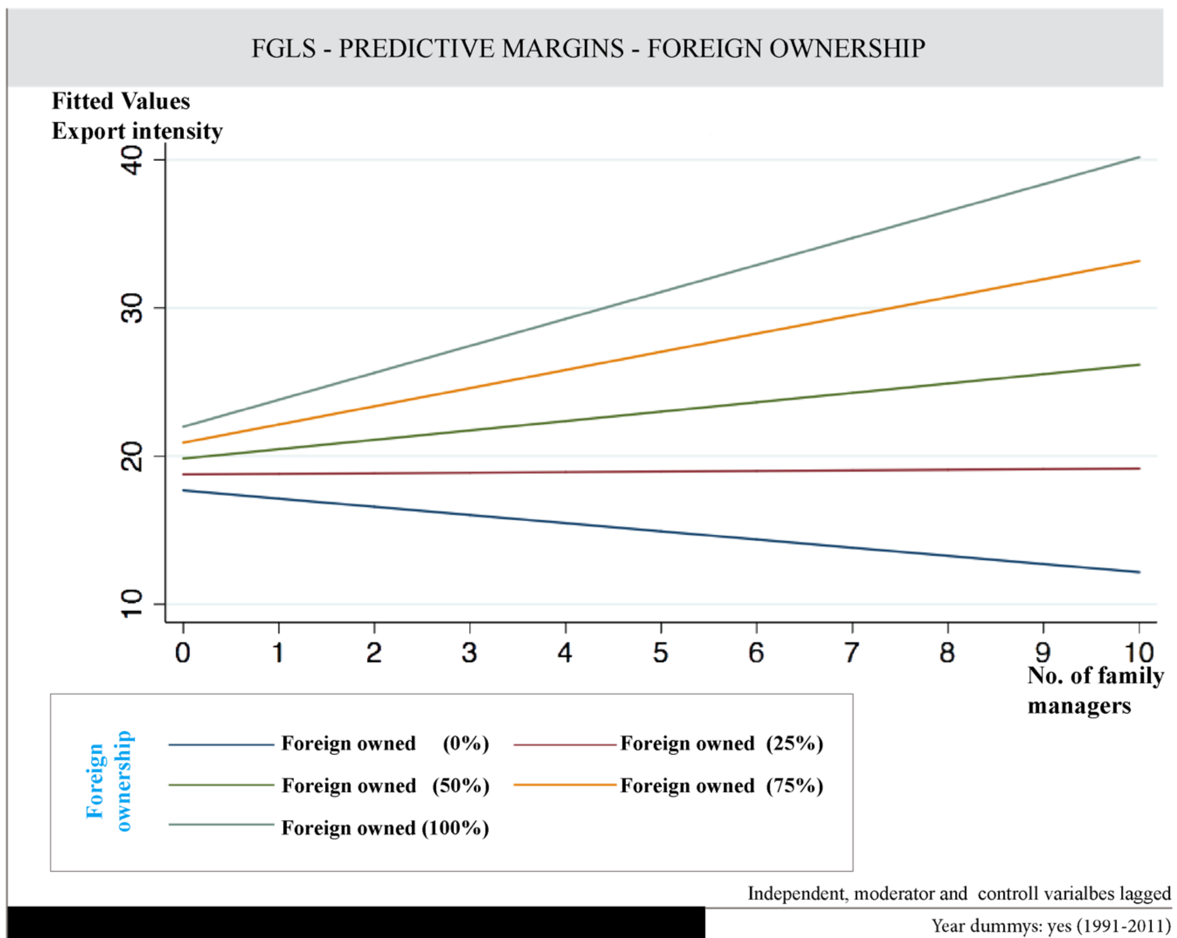
FGLS - INTERACTION MODEL - FOREIGN OWNERSHIP				
Variable	**Coefficient**	**Std. Err**	**z**	**P>|z|**
Family firm (n)$_{(t-1)}$	-.5517	.1370	-4.03	0.00
Foreign ownership (%)$_{(t-1)}$	.0430	.0042	10.11	0.00
Interaction Family firm$_{(t-1)}$ & Foreign ownership$_{(t-1)}$	.0237	.0072	3.30	0.00
R&D intensity (%)$_{(t-1)}$	.6082	.0540	11.26	0.00
Import intensity (%)$_{(t-1)}$	.2318	.0105	22.07	0.00
Size (ln)$_{(t-1)}$	4.730	.1011	46.75	0.00
Labor productivity (ln)$_{(t-1)}$	1.0255	.1824	5.62	0.00
Industry (high/low technology)$_{(t-1)}$	5.6991	.2939	19.39	0.00

Number of observations = 34428
Chi-square = 9528.70
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 6: Interaction foreign ownership

In addition to the computation of the moderating effect of foreign ownership, the interaction plot in Graph 1 is generated to give a more detailed and profound overview on this particular moderating effect based on the predictive margins.



Graph 1: Predictive margins foreign ownership

In order to get the predictions on the moderating effects of foreign ownership on the family firms and their export intensity, the Graph 1 envisions the interaction effects based on the number of family owners on the horizontal axis and the generated fitted values of export intensity. The five lines represent the predictions based on the percentage of foreign ownership from (0%) to (100%) with the intermediate steps of (25%).

As the number of family owner/managers is zero, it can be seen as a non-family firm. The fully domestic-owned (0%) non-family firm shows the lowest export performance compared to the fully foreign-owned (100%) non-family firm.

The same order can be observed with the family firm along the horizontal axis in the interval from 1 to 10 family members. The fully domestic family firm, with the absence of the foreign ownership moderation, shows a decrease in its export performance with the increase of family members being actively involved in managerial and administrative positions. The moderation effect through foreign participation on a level of (25%) is able to fully neutralize the negative effect, that is caused by increasing number

of family members with reference to hypothesis H1, and even a minor increase can be observed as the line has a slightly positive slope.

With increasing foreign participation on the firm's social capital, the positive moderating effect increases accordingly. The moderation of foreign capital participation leads to a steeper increasing slope, that indicates an increasing export intensity. In this case, the moderation effect proves to not only neutralize the negative relationship of family firms and export with the increasing number of family managers but even to turn it into a positive relationship. This increasing positive moderation effect can be observed on all foreign participation levels equal and greater than (25%).

To conclude the results discussed on the predictive margins, it can be stated that foreign ownership has a moderating effect that is able to neutralize or turn negative relationship of family firms and export performance even into a positive one. This represents a further justification of the second hypothesis.

While the Table 6: Interaction foreign ownership exhibits again the negative and significant relationship between family firms and export performance, we can observe the positive and significant ($p<0.01$) coefficient of R&D intensity and export intensity. That is, the higher R&D expenditure causes a better export performance. Regarding the moderation effect of R&D intensity on the family firms export performance, no meaningful relationship ($p=0.38$) between the family firm and R&D intensity interaction and export intensity can be found. This implies that H3 is rejected.

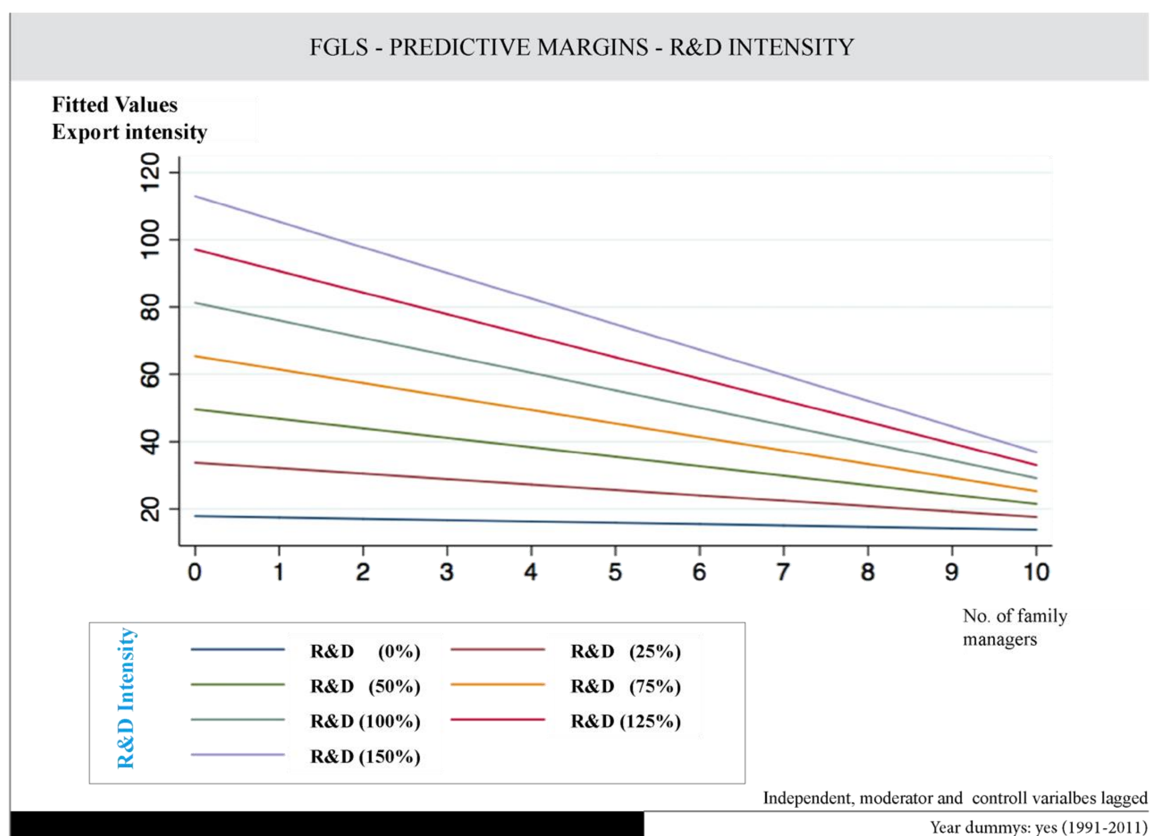
FGLS - INTERACTION MODEL - R&D INTENSITY				
Variable	**Coefficient**	**Std. Err**	**z**	**P>|z|**
Family firm (n)$_{(t-1)}$	-.4121	.1393	-2.96	0.00
R&D intensity(%)$_{(t-1)}$	.6333	.0613	10.32	0.00
Interaction Family firm$_{(t-1)}$ & R&D intensity$_{(t-1)}$)	-.0479	.0542	-0.88	0.38
Foreign ownership (%)$_{(t-1)}$	.0452	.0042	10.76	0.00
Import intensity (%)$_{(t-1)}$	.2312	.0105	22.01	0.00
Size (ln)$_{(t-1)}$	4.7389	.1011	46.84	0.00
Labor productivity (ln)$_{(t-1)}$	1.0297	.1825	5.64	0.00
Industry (high/low technology)$_{(t-1)}$	5.7033	.2939	19.40	0.00

Number of observations = 34405
Chi-square = 10255.82
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 7: Interaction R&D intensity

Additionally, the Graph 2: Predictive margins R&D" was generated to give a more precise and detailed overview on this particular moderating effect based on the predictive margins.



Graph 2: Predictive margins R&D

The Graph 2 shows the moderating effect of R&D intensity on family firms and their export performance and it enables further predictions and the discussion of the moderating effect. Generally, a positive relationship between the R&D intensity and export performance can be observed, as the higher R&D ratios account for higher fitted export performance values. This can be seen, when moving along the horizontal axis, for every number of family member observed the graphs with the higher R&D ratios account for a higher export performance as those firms without R&D spending (ratio equal to zero) have a lower export intensity. For example, a family firm with 5 family members involved has higher values of the fitted export intensity when it has higher R&D ratios.

The assumption taken with hypothesis H1 can be observed on the level of no moderation (R&D intensity 0%). A decrease of export intensity can be observed between the non-family firm (0 family managers) and the family firm, and the negative trend on the export performance is continued with the increasing number of family members in the business.

The results for the third and last moderation effect, that is the interaction of import intensity and family firms and export performance are stated in Table 8: Interaction import intensity. Besides the observed negative and significant relationship between family firms and export intensity, import intensity has a positive and significant ($p<0.01$) relationship with export intensity. The results in row three show a positive (0.0963) and significant ($p<0.01$) relationship between the interaction of family firm and import intensity on export performance. This proven positive moderation results in the confirmation of the hypothesis H4.

FGLS - INTERACTION MODEL - IMPORT INTENSITY

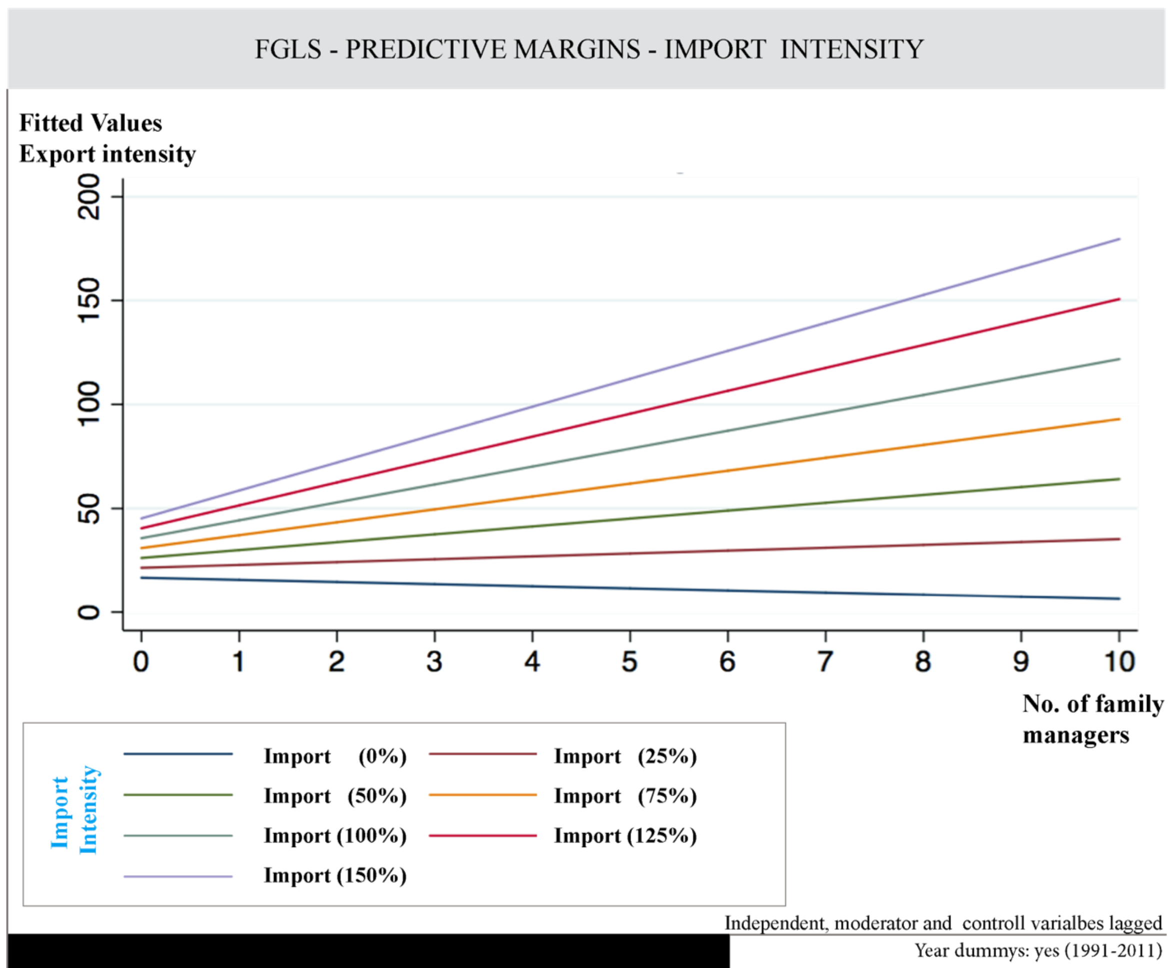
Variable	Coefficient	Std. Err	z	P>|z|
Family firm (n)$_{(t-1)}$	-1.030	.1502437	-6.86	0.00
Import intensity (%)$_{(t-1)}$	.1900	.0115	16.41	0.00
Interaction Family firm$_{(t-1)}$ & Import intensity$_{(t-1)}$	.0963	.0114	8.40	0.00
Foreign ownership (%)$_{(t-1)}$	.0512	.0042	12.04	0.00
R&D intensity (%)$_{(t-1)}$	.6045	.0539	11.20	0.00
Size (ln)$_{(t-1)}$	4.7370	.1010	46.87	0.00
Labor productivity (ln)$_{(t-1)}$	.9925	.1823	5.44	0.00
Industry (high/low technology)$_{(t-1)}$	5.7578	.2937	19.60	0.00

Number of observations = 34428
Chi-square = 9798.23
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 8: Interaction import intensity

Similar to the other moderation effects, to have a better overview on the moderating effect of the import intensity of a family firm on its export intensity, the interaction is demonstrated Graph 3: Predictive margins import.



Graph 3: Predictive margins import

The Graph 3 shows the moderating effect of import intensity on the negative relationship between family ownership and export performance. First, it can be generally observed that importing goods have a positive impact on the export performance. Among the firms that are not involved in importing, the non-family firms have a higher fitted export intensity compared to the family firms. This trend is extended with the increased number of family members, this means that without any import activity we observe the negative relationship of the family firm and export intensity. Starting with the moderating effect of an import intensity at a level of 25%, a positive moderating effect can be observed in the family firm as the export intensity is increasing with the family members, this means that the moderating effect of import is strong enough to neutralize and even to

overcome the negative relationship between family firms and export performance. The moderation effect through higher levels of import intensity increased the export performance even in the presence of an increased number of family members, this is represented by the steeper slope for the lines representing higher import intensities.

The predictive margins plot underlines the positive moderation effect of increased import intensities on the export performance of family firms. Put differently, import has a positive moderation effect on the relationship between the dependent and independent variable, that further supports the hypothesis H4.

To sum up, considering the results derived from the main FGLS model, hypotheses H1 (negative effect of family ownership on export intensity), H2 (positive moderation effect of foreign ownership), and H4 (positive moderation effect of import) have been supported, while H3 (positive moderation effect of R&D intensity) has been rejected. The reasons for confirming or rejecting the hypotheses will be further illustrated in the discussion and interpretation part.

6.2 Robustness check

In order to give the main FGLS model a robustness support, we computed the main regression using the GEE model. As already mentioned, although the GEE lacks the possibility to cope with cross-sectional heteroskedasticity in comparison with FGLS, it provides many similar options and efficiency. Using the fractional logit estimation model for panel data, based on a fractional dependent variable, is in accordance to the approach of Papke and Wooldridge (1996) and Ramalho et al. (2011).

This model also includes the year dummy from 1991 to 2011 and the lag of the independent, the moderator and the control variables in order to perform the robustness in consistency with the FGLS main model.

GLM ROBUSTNESS - MAIN MODEL

Variable	Coefficient	Std. Err	z	P>|z|
Family firm (n)$_{(t-1)}$	-.0044	.0027	-1.62	0.10
Foreign ownership (%)$_{(t-1)}$	.0004	.0001	3.05	0.00
R&D intensity (%)$_{(t-1)}$	.0060	.0015	3.85	0.00
Import intensity (%)$_{(t-1)}$	.0023	.0003	7.33	0.00
Size (ln)$_{(t-1)}$	.0474	.0034	13.72	0.00
Labor productivity (ln)$_{(t-1)}$	.0102	.0054	1.88	0.06
Industry (high/low technology)$_{(t-1)}$	.0570	.0096	5.90	0.00

Number of observations = 34405
Chi-square = 1289.29
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 9: Robustness regression

On the Table 9 the main relationship between the family firm and export intensity is negative but slightly not significant (p=0.10), but with this p-value close to the threshold (0.1) we can state a weak support for the hypothesis H1.

In the main model for robustness we see that foreign ownership, R&D intensity, and import intensity have a positive and significant (p<0.01) relationship with the export intensity. Further we can see a positive and significant relationship (p<0.01) with the export intensity and the size, as well as the industry type, and a significant relationship at (p<0.1) with labor productivity that confirm the predictions made on the control variables.

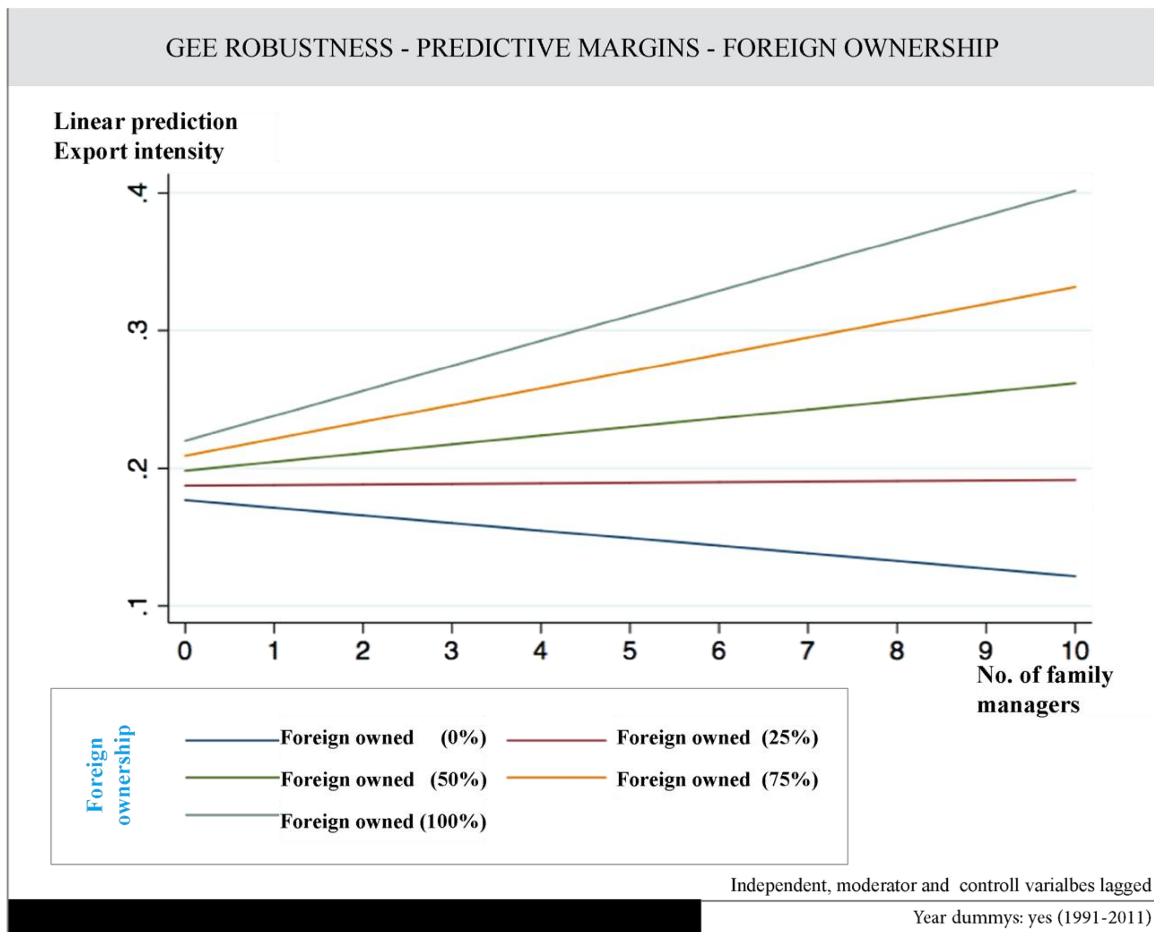
GEE ROBUSTNESS - INTERACTION MODEL - FOREIGN OWNERSHIP				
Variable	**Coefficient**	**Std. Err**	**z**	**P>|z|**
Family firm (n)$_{(t-1)}$	-.0055	.0028	-1.94	0.05
Foreign ownership (%)$_{(t-1)}$	.0004	.0001	2.87	0.00
Interaction Family firm$_{(t-1)}$ & Foreign ownership$_{(t-1)}$	.0002	.0001	1.82	0.00
R&D intensity (%)$_{(t-1)}$	.0060	.0015	3.86	0.00
Import intensity (%)$_{(t-1)}$	.0023	.0003	7.35	0.00
Size (ln)$_{(t-1)}$	.0473	.0034	13.69	0.00
Labor productivity (ln)$_{(t-1)}$	.0102	.0054	1.88	0.06
Industry (high/low technology)$_{(t-1)}$	.0569	.0096	5.91	0.00

Number of observations = 34405
Chi-square = 1298.38
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 10: Interaction foreign ownership - robustness

On the Table 10 we can observe a positive and significant ($p<0.01$) relationship between foreign ownership and export intensity. The robustness interaction model confirms the positive (0.002) and significant ($p<0.01$) moderation effect of foreign ownership between the family firm and export performance and gives further support to hypothesis H2.



Graph 4: Predictive margins foreign ownership - robustness

The Graph 4: Predictive margins foreign ownership - robustness shows the moderating effect of foreign ownership on the family firm's export performance. The predictions of the GEE robustness show coherent results with the predictions through the main FGLS model and lead to similar observations. First, without moderation, domestic-family firms (foreign participation 0%) with a minimum of 1 family manager show a lower export performance than non-family firms (0 family managers). Further we can see a positive moderation effect of foreign ownership with the foreign participation at (25%) and an amplified effect for the values up to (100%) that leads to an increase of the export performance, even when the number of family managers is increasing from 1 to 10. All this observations on the robustness plots are consistent with the plots form the main model, therefore we conclude that the H2 is also supported by the robustness test.

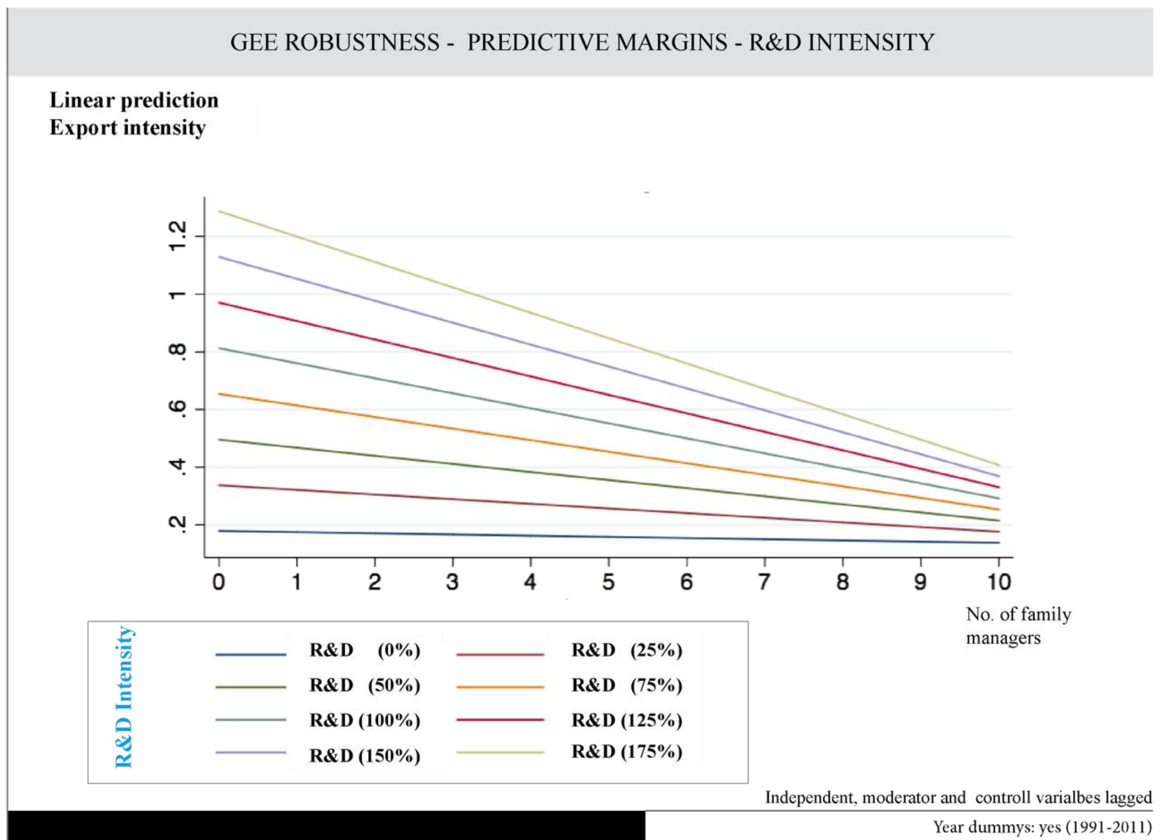
GEE ROBUSTNESS - INTERACTION MODEL - R&D				
Variable	**Coefficient**	**Std. Err**	**z**	**P>|z|**
Family firm (n)$_{(t-1)}$	-.0041	.0027	-1.48	0.14
R&D intensity(%)$_{(t-1)}$	.0063	.0018	3.50	0.00
Interaction Family firm$_{(t-1)}$ & R&D intensity$_{(t-1)}$)	-.0004	.0011	-0.42	0.67
Foreign ownership (%)$_{(t-1)}$	.0004	.0001	3.05	0.00
Import intensity (%)$_{(t-1)}$	.0023	.0003	7.33	0.00
Size (ln)$_{(t-1)}$	.0473	.0034	13.72	0.00
Labor productivity (ln)$_{(t-1)}$	.0102	.0054	1.89	0.06
Industry (high/low technology)$_{(t-1)}$	.0570	.0096	5.91	0.00

Number of observations = 34405
Chi-square = 1291.11
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 11: Interaction R&D intensity - robustness

The Table 11 shows a positive and significant (p<0.01) relationship between R&D intensity and the dependent variable of export intensity. The rejection of H3 in the main model is confirmed through computing the interaction on the GEE robustness model, that shows no meaningful relationship (p=0.67) between the interaction of R&D and family firms with the export intensity. This is consistent with the results of the interaction results received from the main FGLS model.



Graph 5: Predictive margins R&D - robustness

The Graph 5 represents the margins plot on the R&D intensity of the robustness check shows consistent findings as in the predictive margins derived from the FGLS model. All the observations of the robustness margins plot are consistent with the findings stated in the main model.

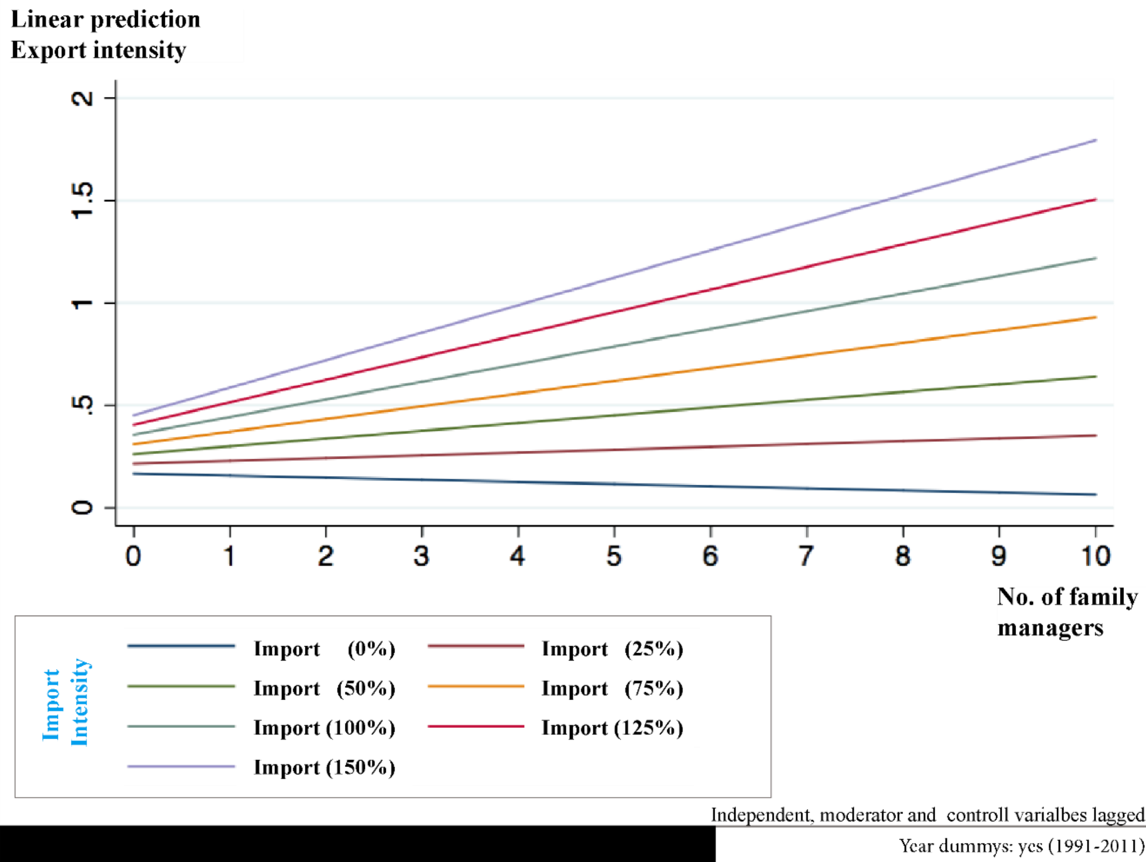
GEE ROBUSTNESS - INTERACTION MODEL - IMPORT INTENSITY				
Variable	**Coefficient**	**Std. Err**	**z**	**P>|z|**
Family firm (n)$_{(t-1)}$	-.0103	.0029	-3.51	0.00
Import intensity (%)$_{(t-1)}$	.0019	.0003	5.50	0.00
Interaction Family firm$_{(t-1)}$ & Import intensity$_{(t-1)}$	.0009	.0002	3.96	0.00
Foreign ownership (%)$_{(t-1)}$	.0005	.0001	3.42	0.00
R&D intensity (%)$_{(t-1)}$	.0060	.0015	3.82	0.00
Size (ln)$_{(t-1)}$	.0473	.0034	13.71	0.00
Labor productivity (ln)$_{(t-1)}$	.0099	.0054	1.82	0.06
Industry (high/low technology)$_{(t-1)}$	.0575	.0096	5.98	0.00

Number of observations = 34405
Chi-square = 1338.03
Prob > chi2 = 0.0000

Year dummys: yes (1991-2011)

Table 12: Interaction import intensity - robustness

From Table 12 we can observe a negative and significant relationship (p<0.01) between family firms and export intensity and a positive and significant relationship (p<0.01) between import intensity and export intensity. Results of third row shows a positive (0.009) and significant (p<0.01) relationship on the interaction of the family firm and import intensity with the export intensity. This finding through the robustness gives a further support to the confirmation of hypothesis H4 through the FGLS model.



Graph 6: Predictive margins import - robustness

The Graph 6 shows the positive moderating effect of import on the export performance of family firms. The relationship without moderation though imports enables us to observe a negative relationship between the family firm and export intensity that is leading to a decreasing export performance when the number of family members increases. In accordance with the predictions seen in the main model, the robustness margins plot shows a positive moderation effect, starting with an import intensity of 25% and a further improved moderation effect at higher ratios of import. All the predictions shown through the margins plot computed with the GEE model are similar to the findings on the FLGS model which leads to a support of hypothesis H4.

7 Discussion and conclusions

With regards to the research question our aim was to further contribute to the call of various scholars (e.g., Pukall and Calabrò, 2014; Zahra, 2003) for further research on the internationalization of family firms. Although there are several possibilities that enable family firms to expand their business internationally, such as foreign direct investment or international joint ventures, we study the export performance of family firms because export is the most common form of family firm's internationalization (e.g., Claver et al., 2007; Graves and Thomas, 2004; Hennart et al., 2017; Okoroafo, 1999).

In order to empirically examine our hypotheses, we used the sample of Spanish manufacturing firms (ESEE), which is especially suitable for family firms, that is covering the time span from 1990 to 2016. Moreover, to have a more comprehensive result about the export performance of family firms, we followed the recommendation of Cerrato and Piva (2012) to use the panel data analysis.

The vast majority of literature acknowledges the negative relationship between the family firms and export performance, which stems from their self-imposed retractations (Graves and Thomas, 2008), such as inadequate financial (Schulze et al., 2003) and human capital resources (Cerrato and Piva. 2012), lack of knowledge and experience on foreign operations (Basly, 2007), higher risk aversion (Sirmon et al., 2008) and lack of relevant international business networks (Kontinen and Ojala, 2010).

It appears the limitations of family firms can be compensated through the provided opportunities of the involvement of foreign owners, import of goods, and R&D activities; that, in turn, help them to acquire the lacking resources, decrease the level of risk aversion towards internationalization, and develop the essential capabilities that enable them to expand their business beyond the domestic borders.

Considering the results of Table 5 of the main model, we could observe a negative and significant relationship between family firms and export intensity. A framework is built on the previous studies in order to picture several possible reasons that lead to the empirically tested negative export performance of family firms.

On the one hand, resources of a firm are considered as the fundamental base for any further business activity expansion including the exporting. Family firms tend to have an undiversified capital structure, that is mainly funded by family owners, that is often not sufficient to afford the higher expenses of foreign sales (Carney, 2005; Fernández and Nieto, 2005). In addition, family firms tend to refuse external financial resources, as they might come with a loss of control (Gomez-Mejia et al., 2011), which may oppose the firm's familiness. On the other hand, family firms tend to address creditors with limited resources, such as their friends, family members, and other family firms (Anderson et al. 2005; Chrisman et al. 2003a), which stems from their inward-looking behavior (Arregle et al., 2012).

The negative observed relationship between the family firms and export intensity can be also explained by the characteristics of their human capital. Internationalization requires higher skilled human capital that is able to manage the complexity and unpredicted business challenges, in addition, to recognize business opportunities in foreign markets (Cerato and Piva, 2012; Hennart et al., 2007). However, inherited managers often lack essential skills and knowledge of activities in international markets (Gomez et al., 2001). Consequently, family firms are not able to successfully recognize potential business opportunities and manage more complex business processes of export (Kontinen and Ojala, 2010). This becomes even more severe by considering the family firm`s unwillingness or reluctance to hire external expert managers (Arregle et al., 2012).

The unique features of social capital in family firms (e.g. trust and altruism) leads to less rigid monitoring of the behavior of the individual family members that, in turn, can give rise to the opportunistic behaviors of family managers such as entrenchment (Graves and Thomas, 2006). These opportunistic behaviors can further deteriorate the limited resources of family firms. Therefore, despite being told that social capital is a source of the family firm's competitive advantage, it can possibly be determinantal for their export performance.

While activity in foreign markets is associated with the higher level of uncertainties and risks (Zahra, 2003), family owners and managers are often more risk-averse. This, in turn, can be another possible justification for the negative effect of family ownership on the export performance. The higher level of risk aversion of family firms can stem from several reasons. First, this possible lack of financial resources together with an undiversified capital structure (Carney, 2005) makes the family firm and the owning family more vulnerable to any risk. Second, one of the primary objectives of

family owners is to pass the business tradition to the next generation and to keep the control over the firm at the same time (Miller and Le Breton-Miller, 2005). This leads them to refuse the undertaking of any business activities that could possibly risk the continuance of the family firm (Gallo and Sveen, 1991). Third, family managers often do not possess the necessary skills and knowledge of foreign sales, therefore they receive the risk of foreign sales as a more pertinent threat (Gomez et al., 2010).

Our empirical finding that suggests the negative significant relationship between (Arregle et al., 2012; Fernández and Nieto, 2006, 2005; Gallo and Garcia Pont, 1996; Hennart et al., 2017).

In terms of moderating role of foreign ownership, our results on Table 6 show that there is a positive moderation effect of the foreign ownership on family firms export intensity. Our finding confirms the discussion of previous research, that the firm's ownership structure affects the export performance (e.g., Fernandez and Nieto, 2005; George et al., 2005). The further conclusion is ordered by a logical timely series, how foreign ownership participation can improve the export performance of family firms.

The preservation of familiness of the firm, concerns about the socioemotional wealth, and family owners' intention to pass the business tradition to their heirs prevent them to relinquish the control of the business (Graves and Thomas, 2008). However, some positive effect of involvement of external owners on export performance of family firms may convince family firms to open up their social capital to foreign participation. A positive overlap of the moderator can be witnessed as foreign owners also tend to be long-term oriented as well (Douma et al., 2006), even if the long-term goals may vary. For this reason, a positive relationship and the social norms between the family firm and the foreign investors may play a fundamental role when it comes to the shared decision process and define overlapping goals, that makes internationalization of the recipient family firm more likely to happen.

Foreign participation initiates several possible changes in the family firm, that turn out to have a positive moderating effect on its export intensity. Foreign owners tend to possess the extensive financial resources (Douma et al., 2006) that are highly beneficial for intensifying the export performance of firms (Filatotchev et al., 2005). Therefore, one of the possible immediate and short-term effects of foreign participation is that the family firm can access the financial resources of the foreign owner (Cerrato and Piva, 2010). This is further supported by the positive impact of foreign participation on the firm's cash

flow that may provide the necessary resources to foster these international endeavors (Dahlquist and Robertsson, 2001). The improved financial resources and performance through the involvement of the foreign owners are especially important, as the constrained financial resources of the family firm are among the functional barriers that deteriorate their exports (Fernández and Nieto, 2006).

Additionally, a positive short to medium run moderation effect is the possible access to the more extensive international business networks of foreign owners (Calabrò et al., 2013; Filatotchev et al., 2009). Foreign owners tend to have superior networking skills (Greenaway et al., 2012), while this ability is less likely to be seen in family firms (Fernández and Nieto, 2006; Graves and Thomas, 2004). Therefore, foreign owners are better positioned to build strategical relationships that can help family firms to (1) facilitate their internationalization process, (2) expand their foreign markets (Johanson and Vahlne, 2003), (3) and identify more international business opportunities (Cerrato and Piva, 2012). For instance, family firms can take advantage of the foreign owner's network and access to distribution channels in foreign markets (Guadalupe et al., 2010).

Beside the changes in the financial structure in the short run of the family firms, the moderating effect comes with the possible access to the technology owned by the foreign owner in the medium run. Foreign owners can introduce new technologies to the family firm (Calabrò et al., 2013; Guadalupe et al., 2010), that can possibly reduce the production costs. Moreover, new foreign technology can lead to the creation of new products which can increase their market share and increase the family firms overall productivity (Bloom and Van Reenen, 2006; Sinani and Meyer, 2004).

A further possible medium to long-term process, that the family firm undergoes with the presence of foreign owners, is the change of its governance structure towards a more professional managerial approach. Consequently, this change positively impacts the firm's strategy creation and execution, that in turn, can improve the performance of family firms in international markets. This takes more importance by considering that family firms tend to appoint family members for the key managerial positions (Anderson et al., 2003) who are risk-averse and often lack the essential knowledge of international trade and are more likely to behave opportunistically. The presence of foreign owners might help family firms to mitigate these negative effects, that can cause the inferior export performance, in several ways. First, they have a higher level of knowledge and experience in foreign markets, that is substantial for a better export performance since it can diminish the risk of activity in unknown foreign markets. Second, having a more advanced

monitoring and governance system can help to observe and prevent the possible opportunistic behaviors of family members. Third, the traditional family firm's recruiting process that is solely based on the familial values is more professionalized with a higher competence-focus in order to get a managerial fit.

Despite the fact that the impact of foreign ownership involvement on the export intensity of family firms is not well studied, as of today. Compared to the results of those few scholars who studied this impact, the observed positive impact of foreign ownership on export performance of family firms is consistent with (Fernández and Nieto, 2006) Calabró et al. (2013), Wasowska (2017), Cerrato and Piva (2012). However, Calabro et al. (2013) and Cerrato and Piva (2012) only focused their research on SMEs including family and non-family firms, but we expanded our observation beyond the SMEs, on all sizes, and all possible foreign participation ratios. On the other side, despite that Wasowska (2017) argues that family firms experience a better export performance with foreign minority ownership, our model predicts that majority foreign ownership is more beneficial for the export performance for Spanish family firms.

Although our main model reveals that firms with a higher R&D intensity have a better export performance, our results lead us to infer that the R&D investment has no significant moderating effect on the family firm's export intensity (see Table 7). In order to better understand the rejection of this hypothesis, a step by step explanation is provided, to discuss why family firms might possibly be facing limitations on the successful usage of the advantages that can stem from the R&D intensity on their export performance.

It has been argued that family firms are less likely to invest in R&D activities. Since R&D investments require a substantial proportion of the firm's financial resource (Hall, 2002) and family firms often have limited financial resources. Moreover, even if family firms have possibly overcome their resource constraints and start to invest in R&D activities, they are facing the next hurdle as R&D investments are associated with uncertain results and high risks (Block, 2012; Lee and O'Neill, 2003; Munari et al., 2010) which opposes their high level of risk aversion (Arregle et al., 2007; Schulze et al., 2003). Nevertheless, in order to compete in international markets, family firms might decide to invest in R&D activities. Our finding shows that family firms, in comparison to non-family firms, are less successful to exploit the possible advantages of R&D activities in their export performance. Because the successful implementation of the R&D strategy, that enables a firm to further expand internationally, needs efficient managerial and

organizational capabilities (Bayona et al., 2001), which family firms often lack (Eddleston et al., 2008). This can stem from the fact that inherited family managers and family employees often do not improve their expertise and knowledge, or they lack interest in learning (Chen and Steinwender, 2016; Zahra et al., 2007). Moreover, a good R&D strategy depends upon the firm's commitment for growth, that can be differentiated through the different level of resource allocation of firms (Pisano, 2012). Yet, what can be widely witnessed in family firms is, that the family owner/managers do not look for business growth, more than they do for securing their personal welfare (Chen and Steinwender, 2016; Gray, 2006). This phenomenon hinders the family firm to fully exploit the potential advantage of R&D activities in international markets. Moreover, in order to create the sustained competitive advantages in international markets, firms should execute a comprehensive R&D strategy (Eddleston et al., 2008). However, based on the limited resources, knowledge, managerial, and organizational capabilities, most of the family firms lack a clear R&D strategy (Filatotchev et al., 2009; Gray, 2006).

On the other side, when firms are able to successfully extract the benefits of R&D activities (e.g. product innovation), they are more likely to exploit their innovation first in the domestic market and later, as they recognize the demand for their products they might start exporting (Cassiman and Golovko, 2010). However, family firms often lack the essential tools (e.g. an international business network, knowledge, information, and international experience) to identify the possible foreign demand for their innovative products. That is why, family firms have a strong orientation on the domestic market (Evangelista, 2005; Lee et al., 2012). Additionally, as R&D investments require a long time to result in benefits for firms (Patel and Chrisman, 2014), one-year lag in our estimations might not be enough to capture the influence of R&D in the export intensity of family firms.

In brief, and consistent with previous scholars (e.g., Cassiman and Golovko, 2010; Filatotchev and Piesse, 2009; Golovko and Valentini, 2011; Hennart et al., 2017), we argue that R&D activity is one of the determinative factors of the superior export intensity of firms. Nevertheless, we found no evidence for the positive moderating effect of R&D investment on family firms export intensity.

The result of our study also shows a positive and significant moderation effect of the import intensity on family firms export performance on Table 8. There may be several reasons for these results. First, foreign sourcing possibly can enable the firm to access

goods of lower cost (Amiti and Konings, 2007). Having access to lower costs input may help a firm to strengthen its financial capital (Pinho and Martins, 2010). The increased number of available inputs, through imports, enables the firm to offer a wider variety of products to better meet the preferences of a greater number of customers (Goldberg et al., 2010) and increase sales. Greater turnovers can strengthen the financial resources of the firm (Andrew B Bernard et al., 2010). This in combination with the cost advantages of imports that increases the firm's margin (Kugler and Verhoogen, 2009) results in a higher total profitability. This helps family firms to enlarge boundaries of the limited financial resources that are needed to engage exporting activities (Bas, 2012; Feng et al., 2016) as well as to overcome their other difficulties in their internationalization path, for instance, they might be able to afford the demanded wages of qualified managers (Bernard et al., 2009).

Imported inputs may help the family firm to produce the higher quality outputs. This has two main advantages, first higher quality goods can be sold at higher prices and increase the margins (Manova and Zhang, 2012), this improves the financial performance as stated above, as well as it offers a competitive advantage of product differentiation. Secondly, high-quality products improve the family firm's reputation (Gomez-Mejia et al., 2010), which also represents one of their most important non-financial goals. Both advantages can lead to augmented market share and improved products (Amiti and Konings, 2007).

Besides the superior features, the intermediate goods offer, the creation of an international network through import gives the firm a unique chance to develop its particular knowledge and gain access to information on foreign markets (Harris and Moffat, 2015). The foreign network created by importing enables a firm to identify business opportunities in existing import markets, that can lead to possible exports (Kontinen and Ojala, 2011). Moreover, the developed knowledge of foreign markets operations through the import can decrease the perceived risk and uncertainty of foreign markets by family firms that prevent them to expand their exporting.

This international network for imports helps the firm to learn the essential managerial practices, such as international supply chain management, of cross-border trade that is then needed for exporting (Damijan and Kostevc, 2015; Grosse and Fonseca, 2012). Import creates the knowledge for family managers on doing international business activities, as exporting often is more complex than learning from import (Damijan and Kostevc, 2015); the lower managerial capabilities of family firms appear more

appropriate for learning from importing (Bloom and Van Reenen, 2006), this acquired knowledge and experience can have an enduring effect on the family firm's future export performance.

Overall, the bundle of discussed advantages arrives from the import activity and leads to the observed positive moderation effect from family firms. We could observe this effect also with the higher import intensity on the margins plot that leads to the prediction of higher related export performance.

To conclude this work, we argue that the major problems of family firms in their internationalization path stem from what (Graves and Thomas, 2008) call "self-imposed retractations". It is seen that a positive moderation effect can be observed when positive incentives, through extended resources and gained knowledge, are given to the family owners/managers that make them able to overcome their limitations. First, the extended financial resources through foreign owners or increased margins through imported goods help them to overcome the functional barriers of export. Second the learning effects the family members are forced to undergo through internationalization activities, imposed by foreign owners or import activities, lead them to increase their knowledge that makes them perceive export activities less risky and uncertain. Further after undergoing this learning process, they are able to look back on a successful track record with higher risky activities, that increases their reputation (improvement of socioemotional wealth), as well as their future risk appetite when it comes to further improvements of their export activities. In the opposite, R&D activities might not provide these "moments of success" and increased knowledge that is needed for the family owners/managers to increase their risk appetite and further pursue the path of internationalization.

8 Managerial implications

Our results and conclusion lead us to the following managerial implication for a better export performance of the family firm. We advise the family managers to take advantage of the socioemotional wealth of their family firms that often comes with a more flexible and accelerated organizational decision making. That is especially beneficial in increasingly complex and dynamic markets, that family firms are facing nowadays, through the globalization and major trends as digitalization, technological change, demographic shifts and industry 4.0.

It is therefore up to the managers or the owner of the family firm to establish a sense for current major trends to become aware of the great number of business opportunities abroad and to see the globalization not as a thread, but as a chance and create a long-term internationalization strategy that is in line with the family firms vision. Therefore, we advise family firms to undertake an organizational change towards a more managerial approach, that means that business processes in the firm are getting better defined as well as to establish a standardized procedure for the international strategy creation. The definition of processes helps the family firm to better understand its current business practices as well as the role of the particular family member in the firm. The organizational change, that includes the process-definition and the field of duties, should be used by the main owner/director of the family firm to push back the influence of the other family members, this also implies to overcome emotional bonds of the family when establishing a managing culture. With pushing-back the influence, we advocate, to decrease the number of family members in the decision-making process of the firm, due to our result, that shows that the increasing number of family managers has a negative effect on the export performance.

One of our recommended possibilities to undergo this change at a faster pace and to gain the necessary resources and knowledge to internationalize is to open up the social capital to foreign capital participation. We could predict that a foreign ownership of 25% has already the moderating power to overcome the negative relationship between the family firm and the export performance. Even lower foreign participation ratios enable the family firm to exploit the advantages of foreign ownership (resourced, more managerial structures, opportunity recognition, foreign knowledge, information about foreign markets), without losing the substantial control over the firm and further the

possibility to employ the family members as well as passing on the family tradition, as well as keeping the family and entrepreneurial values living inside the family. In this case, they can even keep the other family members in the firm, as we could prove that the moderating effect of foreign ownership can increase the foreign sales even with an increasing number of family members. Although a low foreign participation ratio keeps the power of the foreign owner limited, it can give the opportunity to have the outside control as a foreign owner. For instance, foreign owners might appoint an external manager or controller that acts on their behalf inside the family to observe the possible opportunistic behavior of the family managers and/or help the family managers/owners to gain managerial experience. In comparison with the family members, that have a high level of emotional involvement due to family bonds, an external owner can help the family to get more neutral insights without the biases caused by the personal interests of the family members. It is then also up to the family managers to efficiently use the other resources, that come with the foreign participation, such as the international business network, new product, and process technologies, and other valuable organizational and industrial knowledge, in order to turn them into real advantages of the family firm and create sustained capabilities that lead to competitive advantage and to real success in the long run for the family firm.

As the R&D activity might potentially have a positive impact on the process and product innovation, having a wider range of products and increased productivity further helps to export. But R&D is a very risky activity that requires a lot of resources that the family firm is already lacking. The risk of R&D is further increased as the family firm often lacks knowledge on the industry and the export markets, meaning R&D is generally positive but if the family managers cannot address a direction for the R&D activities and that makes failure is more likely and can even threaten the existence of the family firm. As for this risky operation, we would advise the family managers/owners not undergo R&D simultaneously with export activities.

One of the cases, where we suggest the family firm to perform R&D activities is related to the import. If the family firm imports or the possible foreign owners introduce the firm to new intermediate goods of higher technology and quality, R&D investments might be needed for the adaptations of the current products to these superior inputs. These R&D activities are also less risky as the direction is clearly given and often come with the support and information, provided by the supplier, such as blueprints and technical

assistance. This support and information can lead to quick wins for the company. These beneficial side effects lead the firm then to build a better international network, deal with new inputs, adapt and improve their production process that leads to a higher productivity. Further, we point out the future advantages for the firm, that intensive exchange with the foreign supplier also leads to innovation proposed by the supplier or better support as the supplier can offer more customized or suitable solutions for the inputs used in the future. Further, we want to point out that importing intermediate goods enable family managers to focus on the firm's core competencies. We even encourage firms that are currently not having export activities to start importing first as import activities are being told to be less complex than export activities (Damijan and Kostevc, 2015; Kasahara and Lapham, 2013). Further sourcing accounts for a majority of the cost of manufacturing firms, therefore we emphasize family firms to develop a sourcing strategy and use the tool of importing for standard goods in order to lower their purchasing cost and boost their margins. In addition, we want to convey to family managers that a new sourcing strategy, involving imports, can lower the dependence of domestic suppliers as well as to increase the bargaining power of the family firm. We also point out that in the importing, in the times of internet, is not requiring difficult souring processes or intensive communication with the suppliers that will tie up the capacities and resources (human, financial) of the firm, which particularly benefits family firms. It is also possible to require a vast amount of information on possible suppliers and inputs online and many intermediate goods can be bought through online stores, which makes it easy to start importing.

When it comes to sourcing we also suggest that managers pursue the commonly found sourcing strategy of standardization of inputs in order to fully exploit the international economies of scale. Furthermore, a standardization makes the family firm aware of international standards that are then also beneficial when it comes to exporting the family firm’s goods, as their products that are more likely to fit required industrial standards abroad. Generally, the potential impact of importing activities on the export performance of family firm cannot be underestimated.

To conclude our managerial implication, it is up to family directors to overcome the self-imposed restrictions, it is first needed to create an understanding for the issues of the family firm decision makers and create a commitment for real change, in order to open up their social capital to foreign owners and/or to start sourcing form foreign markets. These two possibilities can enable the family firm to increase the export intensity, that in

turn, preserves the family firm in the long run and enable the family owners to pass on the “tradition” as well as to secure the jobs and capital of the family members in the future.

9 Limitation and future research

This study also has some limitations that can provide some helpful suggestions for future research. To obtain a more precise perspective over the export performance of family firms, we suggest to use the gravity model that helps to understand the number and distance of foreign markets, in addition to the volume of foreign sales (Hennart, 2011; Hennart et al., 2017). The use of the gravity model can help to find out the causes that could allow a family firm to overcome its barriers and increase the number of its foreign markets and export to distant countries rather than countries with close psychic distance. This, in turn, can foster the ability of future researches to further discover the best fitting models that improve the export performance of family firms.

Our empirical findings suggest that foreign ownership leads to a better performance of family firms in foreign sales. However, future research can provide ex post analysis of ownership incorporation, that can reveal the improvement process in internationalization of family firms in depth. Additionally, each type of corporate governance can contribute differently on the enhancement of the recipient performance. For example, Grinblatt and Keloharju (2000) argue that foreign banks have a better and more diversified access to financial resources. Therefore, it appears worthy to explore what kind of foreign entities can be more beneficial for family firms. For instance, what kind of foreign owners can adapt better to socioemotional wealth of family firms, or what kind of foreign owners can better expand international business networks of family firms.

This study further supported the discussion about the positive effect of R&D activities on internationalization path of firms (e.g., Barrios et al., 2003; Filatotchev and Piesse, 2009). However, our empirical analysis exhibited that, even in case of equal investment, family firms relatively benefit less than non-family firms from their R&D activities in their exporting process. Form a theoretical point of view, we provided some justification for this observation. We deem future research can be beneficial to empirically

analyze the causes of the limited benefits of R&D on the export performance of family firms.

Our model suggests that importing goods can be highly beneficial for foreign sales of family firms. However, future research can further manifest whether importing intermediate goods can be more helpful than raw materials. Moreover, it can be interesting to empirically analyze how import can help the family firm to adapt to international industry norms. Since it is expected that family firm's concern about the reputation lead them to produce high-quality products (Hennart et al., 2017). It can be also interesting to empirically examine how the socioemotional wealth can affect their global sourcing strategies regarding price versus quality.

And finally, while our study is limited only to the Spanish context, we suggest to use a multi-country database that help to control for the home market effects of family firms (Arregle et al., 2012). Accordingly, results and findings of researches based on the pooled data from several countries can be more generalized (Hennart et al., 2017).

10 Bibliography

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