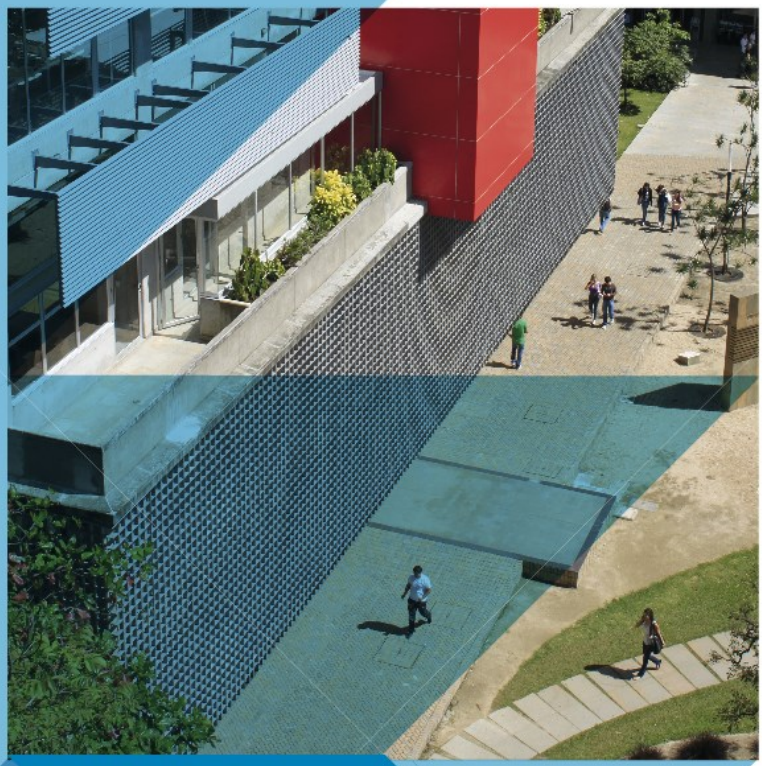

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Export Behavior and Board Independence in Colombian Family Firms: The Reverse Causality Relationship

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The Reverse Causality Relationship

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ABSTRACT

In the context of greater market liberalization in Latin America, one issue that merits greater attention for empirical investigation is the international expansion of family-owned business. Specifically, the relationship between export behavior, family control and board composition in the Latin American context is absent in the literature. Using a large and unique database from Colombian firms (33,249 firms in the period of 2008 to 2013), we provide insightful information on the determinants of export behavior of family firms in emerging markets. Our empirical test confirms an endogenous relation between boards' composition (specifically the presence of independent members) and export behavior in family firms. Firms with a higher participation of independent board members are more likely to exhibit higher levels of exports. A "virtuous cycle" was also detected whereby the introduction of independent members on the board can be expected to boost export behavior, which in turn will encourage the increase of independent members on the board of private firms.

Key Words: export behavior, family firms, corporate boards, Colombia

JEL Classification: F20; G39; J12

Introduction

Family firms are decisive in the economic growth for both industrialized and emerging markets (Zahra and Sharma 2004; Graves and Thomas 2004; Calabrò et al. 2009; Benavides-Velasco et al. 2011; Sciascia et al. 2012), but during the last decade the main currents of globalization (of which trade liberalization is an integral feature) represent a major challenge for the survival and stability of family-owned business (Brunninge et al. 2007; Filatotchev et al. 2001; Naldi and Nordqvist 2008; Sanders and Carpenter 1998; Sirmon and Hitt 2003). Scholars have studied family firms' internationalization process and the determinants that trigger that process (Claver, Rienda, & Quer, 2009; Fernádez & Nieto, 2005; Gallo & Pont, 1996; Graves & Thomas, 2004, 2006; Segaro, 2010; Thomas & Graves, 2005), however there's still a dearth of research on how family ownership and management changes affect these firms' propensity to become exporters, especially in the context emerging economies.

Although the investigation of family firms' internationalization has gained momentum in the literature, Scholars have recently pointed out that research on the role of the board of directors on family firms' international activity is still needed (Mitter, Duller, Durstmuller and Kraus, 2014). Specifically in the context of Latin American firms, the investigation of how Latin American family firms develop their export activities through improved corporate governance is missing in the literature. Such investigation is particularly important in the context of Latin America, since family firms account for about 90% of all businesses in the continent, and export activity has turned into a crucial activity for the long term survival of these firms (Bhaumik, Driffield, and Pal, 2010).

Thus, the objective of this research is to study the relationship between board characteristics and export behavior. Specifically we analyze how family firms increase the quality of their boards to access international markets, noting that at the same time high export activity in family firms generates improvements in the quality of the boards. We focus on two dimensions of export

behavior: export density (exports amount), and export intensity (export/total sales ratio) (Calof, 1994; Bonaccorsi, 1992; Miesenbock, 1988: Aaby, 1989), and analyze the influence of outside board members on these dimensions in the Colombian context.

Family firms are often reluctant to pursue export opportunities, as information asymmetry and risk aversion deter their "going global" motivations (Férnandez and Nieto, 2006; Gomez-Mejia et al., 2010). However, research finds that firms do become more efficient after becoming exporters (Clerides, Lach and Tybout, 1998). As for outside members of boards of directors and their influence, they are very often key drivers of improved firm performance (Pombo and Gutierrez, 2011). Independent directors can bring valuable tacit knowledge to the firm (Sanchez-Bueno and Usero, 2014), and their presence has proven to result in improved sales growth and return on equity in emerging markets (Black, Jang and Kim, 2006; Peng, 2004). In those markets, especially, independent directors can have a major impact on the strategic decision-making capabilities of these firms (Hillman et al., 2000; Peng, 2004).

Why Colombia? Colombia was chosen as the focus for the study, as it is the third largest country in Latin America (527.6 billion) with stable political and economic systems, a large family business sector, strong work ethic, and a priority for the government and private business associations to expand and diversify its export sector. Moreover, there is a broad consensus that export diversification is very important to a nation aiming to enhance its competitiveness (Mejia, 2011), as Colombia has very good prospects in global markets, mainly the U.S. which accounts for 36% of Colombia's exports. Clothing, flowers, and leather goods, and machinery have great upside potential for exporting (Proexport, 2014) as do capital goods and technology (Torres and Gilles, 2012). Moreover, oil and coal account for 59% of Colombia's exports. Therefore, Colombia presents a good emerging economy setting to be studied, considering the many important exporting industries it possesses, the current classification of Colombia as a traditional emerging market (MSCI, 2014) and the strong presence of family firms.

Our contributions are twofold. First, we provide evidence that in the context of Latin America family firms are less prone to invest abroad, which sheds light on the conversation regarding the risk aversion position and agency problems faced by family firms (Gomez-Mejia, Makri and Kintana, 2010). Second, we demonstrate that as these firms invest more in corporate governance over time, namely by incorporating independent directors into their boards, these firms will develop a higher capacity to explore foreign markets. In this case, we observed that the introduction of independent members on the board increases export behavior, which in turn encourages the participation of independent members to the board of private firms, thus creating a virtuous cycle. This finding is particularly important to the understanding of how improved corporate governance practices can reduce agency conflicts and not only benefit the firms' reputation and profitability (Bhagat and Bolton, 2008), but also its international business development.

In terms of research design, we use data from the Colombia Superintendencia de Sociedades data base on foreign sales in 33,249 firms from 2008 to 2013. We apply a test to gauge the existence of reverse causality between the independence of board members and export behavior. We use the Hausman Specification Test to establish if unseen characteristics are fixed or random and the results indicate the significance of temporal effects. Therefore, this study provides further evidence from an emerging economy perspective that family firms still lag behind non-family firms when it comes to international expansion (Fernández and Nieto, 2006; Gomez-Mejia et al., 2010). Moreover, we shed additional light on the debate of the role of independent directors in family firms' boards (Mitter et al., 2014; Pearce and Zahra, 1992) and find that these independent members help firms to increase their international business.

We start comparing the two dimensions of export behavior between family and non-family firms and between family firms with and without independent board members in Colombia. Then, we study how the engagement of qualified independent board members and family ownership interact to promote exports. Finally, we address the endogenous relationship between the

engagement of independent board members and export increases occurring in family firms. In structuring the paper, we first present a review of the literature which presents and justifies the hypotheses tested in the empirical assessment. We then provide a description of the data, followed by the design and methodology employed; analysis of the results, conclusions and implications of our findings. We also cite study limitations and suggestions for future research.

Literature Review

Family Firms and Internationalization Process

The investigation of how family firms are created and managed has drawn attention of many scholars since the early nineteenth century until today (Bertrand and Schoar, 2006). Family controlled firms are the most prevalent business type in the world and have been studied with regard to their internal capabilities such as stewardship, risk management, organizational culture as well as internationalization and performance (González et al., 2013; Mitter et al., 2014; Schulze, Lubatkin and Dino, 2003; Zahra, 2003). Drawing from the agency theory (Fama and Jensen, 1983) and the principal-agent model (Jensen, 1998), scholars have studied family firms departing from the concept that the ownership status of board members has a key influence on firms' strategic decisions. Considering that family firms have a higher concentration of ownership and control (Bertrand and Schoar, 2006), these firms would arguably deal with minimized agency costs since family members have a more developed communication and shared knowledge system (Fama and Jensen, 1983). Moreover, family-controlled firms benefit from strong social ties and open interaction among members as well as increased organizational commitment (Schulze et al., 2003). Family-controlled firms also have distinctive motivations regarding their business, since they focus not only on profits but also on the long term maintenance of social status and family needs (Gomez-Mejía et al, 2007). In this context, managers-owners are more willing to act as stewards of firms' resources and put the firms' goals as their highest priority (Zahra, 2003).

However, family controlled firms may not always have advantages over non-family firms when non-family firms can develop good internal intangible capabilities (Habbershon, Williams and

MacMillan, 2003). Although family involvement in management can generate positive performance (Anderson and Reeb, 2003; Kim and Gao, 2013), family firms are strongly grounded on culturally-based patterns of behavior which can lead them to inefficient decision-making (Bertrand and Schoar, 2006). With regards to international business, there's still a lack of consensus on how family firms develop their internationalization. On the one hand, past research has pointed out that family businesses have a higher entrepreneurial drive which can lead to internationalization (Tsao and Lien, 2013). Studies have also found that family ownership can positively influence firms' degree of internationalization (Simon, 1996; Zahra, 2003) based on the argument that family firms possess unique intangible assets and capabilities that help them in their international ventures. Such intangible assets have been cited in the literature as the family members' commitment and dedication to the firm, also called "familiness", increase opportunity recognition (Aldrich and Cliff 2003) and stewardship, which are related to increased market orientation and entrepreneurship (Mitter et al., 2014).

On the other hand, the most prominent finding in the literature is that family owned firms lag behind non-family firms in their propensity to invest abroad (Graves and Thomas, 2008). For example, studies have found that family firms are more cautious about going abroad because it usually requires major resource commitments and generates conflict among family members (Calabro et al., 2014; Gallo and Sveen, 1991). Family business owners may be reluctant to invest abroad because they fear not being able to transfer their intangible competitive advantages, such as organizational culture and business model, since they believe their success is mainly a result of their own entrepreneurial efforts and leadership (Gallo and Sveen, 1991). In this context, family firms are usually averse to decentralizing decision-making and prefer internalized operations, which reduces the options for international investments (Bhaumik et al, 2010; Zahra, 2003). Moreover, studies have found that as the family firm increases its international investments, it would have to deal with increased information asymmetries leading to an aversion of losing control which in turn can lead to conflicts among family members and a reduction of the international expansion (Fernández and

Nieto, 2006; Gomez-Mejia et al., 2010). Given these contrasting views, researching emerging market firms can shed additional light on how this phenomenon is developed in the context of weak institutional development.

Emerging market firms have largely relied on family control and business groups to sustain performance and survive, where in fact one of the main arguments for the formation of family firms is that it helps against local market imperfections and weak institutions (Bertrand et al., 2008),. Thus, the ownership structure of emerging market firms is the characteristic that is mostly impacted by local institutions (Bhaumik, Driffield, and Pal, 2010). However, there is still a dearth of research on how family firms from emerging markets, particularly from Latin America, develop their international activities. Studies investigating the internationalization process of family firms have focused mainly on firms from developed markets (Calabro et al., 2013; Mitter et al., 2014; Zahra, 2003). It is also important to note that emerging economies have a greater proportion of family firms in comparison to developed countries and have greatly increased their international operations in the past few years (Cuervo-Cazurra, 2006; Ramamurti and Singh, 2009). Although there are examples of family firms from emerging economies that are largely internationalized, the average family-controlled firms from emerging markets are still poorly developed internationally (Bhaumik et al., 2010). Considering that firms from emerging markets are embedded in a context of weak institutions such as property rights and contract enforcement, expanding internationally also incurs dealing with new laws and regulations (Khanna and Palepu, 2000). Thus, in addition to the risk-aversion and centralization characteristics of family firms that restrain them from pursuing internationalization, the underdeveloped local institutional context (Hoskisson et al., 2013) can also be an additional hurdle to family firms' international development. In sum, we argue that emerging market firms possessing family-inherent agency positions will be less willing to pursue international activities. Specifically, we test this hypothesis using two forms of export behavior, the firm's export density (total amount of foreign sales), and export intensity (foreign sales over total sales ratio),

since this joint analysis can provide a more comprehensive perspective of the overall export behavior of firms.

Hypothesis 1: Family controlled firms are less likely to (a) have higher export density, and (b) to develop greater export intensity.

The Role of Independent Directors in a Firm's Internationalization

When it comes to the corporate governance of firms, the presence of independent directors on the board can have significant impacts on these firms' strategic decision (Sanders and Carpenter, 1998). Independent directors are board members who do not have family ties with controlling shareholders and usually are elected by minority shareholders (Lefort and Urzúa, 2008). Past research has found that board members having family ties with the founding family are more prone to overexploit the firms' wealth towards their private benefit (DeAngelo and DeAngelo, 2000). Therefore, the presence of independent directors has been one of the most important indicators of good corporate governance as these managers can intervene to protect the interest of all shareholders and are usually assigned by minority shareholders to monitor the firm against managerial opportunism (Anderson and Reeb, 2004).

In the context of emerging market firms, where law enforcement is usually weak, two hypotheses emerge regarding the presence of independent directors on the board and improved corporate governance practices (Kapper and Love, 2004). On the one hand, improving governance with the presence of independent directors would not be effective because laws are not enforceable and independent directors can cause agency conflicts. However, having independent directors can be beneficial to emerging market firms because they can improve their reputation and leverage knowledge via better governance quality (Kapper and Love, 2004). Supporting the latter argument, empirical investigations have found that the presence of independent directors is related to improved sales growth, market value and return on equity of emerging market firms (Black, Jang and Kim, 2006; Lefort and Urzúa, 2008; Peng, 2004).

It is known that independent directors can use their managerial expertise from other areas and bring valuable tacit knowledge to the firm (Sanchez-Bueno and Usero, 2014). Specifically, scholars have found that independent directors can add unique value to organizations through their knowledge in terms of dealing with information overload, strict time constraints and also recognizing potential value from investments (McDonald et al., 2008). Thus, agency theorists have argued that the presence of independent directors into the board is a key characteristic of good corporate governance (Bhagat and Black., 2002; Fama and Jensen, 1983). Moreover, independent board members usually are not hampered by fears of career advancement in the company and are more willing to put pressure on some managerial issues that inside board members usually avoid (Min and Smyth, 2014).

Past research on the role of independent directors on firms' internationalization process have found different outcomes using samples from developed economies. For example, Sherman et al., (1998) found that there's no significant relationship between the proportion of independent directors and firms' degree of internationalization while Sanders and Carpenter (1998) found that when boards get large, the proportion of independent directors negatively impacts a firm's degree of internationalization. However, scholars have more usually found a positive relationship between the number of outside directors and international investments (Mitter, et al., 2014; Pearce and Zahra, 1992). The main argument for this positive relationship is that independent directors can help firms to better manage international operations due to their external knowledge acquired from other business (Hitt et al., 2006). Moreover, drawing from the resource dependence theory, independent directors help firms by acting as boundary spanners who extract resources from the environment and help firms during environmental uncertainty periods with resource-rich information (Peng, 2004; Pfeffer, 1972).

Since internationalization increases the firm's exposure to different contexts, cultures and competitive pressures (Johanson and Vahlne, 1977; Contractor, 2012), having independent directors with broader experience and expertise can be very helpful in these circumstances. Considering that

emerging market firms usually lack transferable resources and capabilities due to their reliance on local resources such as cheap labor (Khanna and Palepu, 1997; Ramamurti and Singh, 2009), independent board members can be very helpful in providing their firms with additional data on how to operate in different environments. Therefore, access to external knowledge regarding how to operate in more diversified contexts can be an important factor for emerging market firms' capacity to develop their foreign operations. Following this rationale, we hypothesize that:

Hypothesis 2: Firms with independent directors are more likely to (a) have high export density and (b) to develop greater export intensity

Hypothesis 2c: The larger the participation of independent directors on the firm board, the higher export density

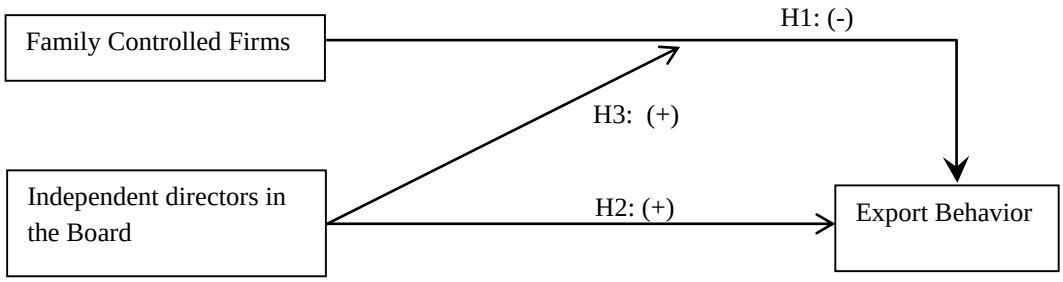
In the case of public family firms, these organizations usually have a board of directors composed of its major owners and founders (including the CEO) who tend to concentrate the power of decision making (Schulze et al., 2003). Therefore, the governance structure of family firms and how their board of directors process information are greatly influenced by family members. However, when family firms decide to rely too much on family members, they increase their risk of having a shortage of qualified personnel (Karra et al., 2006). Promoting family members beyond their capabilities can be also detrimental to international expansion since these firms will lack trained and qualified managers to carry out such activities (Gomez-Mejia et al., 2010). Furthermore, although family firms usually benefit from higher stewardship from their managers, these firms also face more inertia and resistance to change, which can halt international activities (Gomez-Mejia et al., 2010; Sciascia and Mazzola 2008). Specifically, scholars have found that family firms in some cases would prefer not to expand or diversify their operations if they think that their authority, controlling power and/or emotional status (socio-emotional wealth) will be at risk (Gomez-Mejia et al., 2010; Gomez-Mejia, Haynes, Nunes-Nickel, Jacobson and Moyano-Fuentes, 2007).

In this context, the presence of independent directors can be very beneficial to the family firm due to the knowledge and expertise provided by these managers, which in turn can positively influence family firms' export behavior. Particularly in family firms from emerging markets, the presence of independent directors can have a substantial positive impact on the strategic decision-making capabilities of these firms (Hillman et al., 2000; Peng, 2004). Independent directors are less subject to family influences and are more willing to cast themselves into decisions that go against poor and ill-conceived initiatives (McDonald et al., 2008). Moreover, well-positioned and politically connected independent board members can significantly increase a firm's chances to secure government contracts, cheaper credit lines and favorable legislation in emerging markets (Peng, 2003).Independent board members can also act as important mediators between family firms and external market opportunities by reducing family firms' agency conflicts between family-owner members since they have to justify their actions more formally (Mitter et al., 2014). Scholars have noted also that although family board members are usually less prone to invest abroad, the presence of independent directors can create an influx of new knowledge about internationalization that will attenuate the avoidance of international business (Calabro et al., 2013). Thus, it is known that firms usually look for incorporating outside board members before investing abroad (Pearce and Zahra, 1992). Lastly, independent directors can also increase firms' entrepreneurial orientation by providing new orientation that challenges old family assumptions (Kellermanns and Eddleston 2006), which in turn can stimulate international operations. For those reasons, since family firms are usually less prone to invest in international business, we argue that the presence of independent board members will positively moderate the relationship between family control and internationalization. Considering that in the context of family firms the investigation of how the presence of independent directors affects these firms' international activities is still incipient (Mitter et al., 2014), we expand this literature stream by testing the following hypothesis:

Hypothesis 3: The presence of independent directors on family firms' boards positively moderates the negative impact of family control on firms' export density.

Next, we explain our data collection and methodological procedure, followed by the analysis of results, discussion and concluding remarks. Figure 1 illustrates the relationships hypothesized in our conceptual model.

Figure 1. Conceptual model



Method

Data description

Information about export behavior and board of directors' characteristics of Colombian firms comes from the Corporate Governance Survey and the data base of the Superintendencia de Sociedades from 2008 to 2013. The sample is composed of 33,249 firms of which 5,123 are exporters and 14,770 are family firms. A total of 14,844 firms possess boards of directors and 7,553 firms have independent board members. The number of board members on average is 3.3, and 8,911 firms have mechanisms to control the disclosure of conflicts of interest. Yet, 11,741 have instruments to determinate the expertise level of board members. The survey has data on the number of board members for three years, from 2008 to 2010.

A total of 7,657 family firms have boards of directors, and 3,191 of the family firms include independent members inside the board. Moreover, 2,141 family firms maintain mechanisms to control the disclosure of conflicts of interest, and 5,444 have instruments to determinate the

expertise level of board members. Table 1 summarizes the sample variables with their respective descriptive statistics such as mean, median, minimum and maximum.

Dependent variables

We examine two dimensions of export behavior: the first is *export density* (exp_dens) that indicates whether a firm is an exporter and is estimated as the natural log of the sum of one plus total foreign sales, used by Lien et al., (2005). *Export intensity* is estimated as the ratio of export sales to total sales (Export ratio) and the natural log of the sum of one plus the ratio of export sales to total sales (Lien et al., 2005; Sullivan, 1994; Zahra, 2003). Finally, we also used *export asset turnover* (Export turnover) estimated as the natural log of one plus the ratio of total foreign sales divided by total assets (inspired in Shoham, 1998; Sousa, 2004) in order to run a robustness check for the first hypothesis following parsimony principles.

We use data from The Colombian Superintendencia de Sociedades on foreign sales by 33,249 firms from 2008 to 2013. This unique database of Colombian private firms allows us to examine the relationship of family control, board independence and export behavior of firms in Latin America.

Independent variables

As our main concern is to establish what is the export behavior in family firms, we use an independent variable called "*family*" which is a dummy variable that indicates whether a firm has the economic and/or financial control and/or management of the company, exercised by people connected to each other. Those connections can be by marriage or relationship (primary and/or alternate) to the third degree of consanguinity (parents, children, grandparents, siblings, grandchildren, grandparents, uncles, nephews, grandchildren), second degree (in-laws, sons, daughters, brothers), and first civil relationships (parents or adopted children) (Anderson & Reeb, 2003).

To gauge robustness and take into account whether the family has control inside the board, we use another variable - "*no_family_board*", meaning that the family does not have control of the

decisions instituted by the board. This variable takes into account whether the board of directors makes decisions independently, especially when the origin of the firm is family-based (Villalonga and Amit, 2006).

The second main objective of this paper is to analyze the interrelationship between a family firm having independent members on its board of directors and the export behavior of that firm. Considering the important effects of board independence on firm performance (Hermalin and Weisbach, 1991), we selected our measures based on firms' board of directors' information. First, we use the percentage of independent outside board members named "perc_indep_dir ", estimated as the ratio of the total outside independent members divided by the total number of members of the board. Second, we take the natural log of one plus the number of independent directors in a variable called "indep_dir". Additionally, a dummy variable named "d_indep_dir" is used to indicate whether the firm has or not independent members on the board.

Control variables

Four control variables are included to ensure the validity of the relation between the explanatory variables and dependent variables. The first control variable is a dummy variable named "*foreign*" that indicates whether a foreign entity has any ownership on the firm, which in turn can be associated with export activities (Lien et al., 2005). Scholars have argued that export behavior is related to the size of the firm (Bausch and Krist, 2007; Dunning, 1993). In some studies, number of employees was used as the measure for size (Bilkey and Tesar 1977; Cavusgil and Naor 1987), while in others the sales level of the firm was used (Hester 1985; Holden 1986). Cavusgil (1984) found that when firm size was measured by number of employees, no relationship was found with export behavior, but a significant relationship was found when size was measured by annual sales. With this observation in mind, we employed a control variable named "*size*" measured as a natural log of annual sales.

Lastly, we control for the ratio between long-term financial debt to total assets, or "*leverage*" and the number of years since firm creation ("*firm_age*"), which also can influence

firms' export behavior (Villalonga and Amit, 2006). In order to control for any financial or economic crisis affecting Colombian exports or any other relevant factor in a specific period of time, we controlled for differences across the years using year dummies.

Instrumental variables

To test the existence of reverse causality between independence of the board members and export behavior, we include instrumental variables that are determinants of the presence of independent members in the board but not correlated with export behavior of the firm, so we can reduce endogeneity problems related to the presence of independent directors.

Table 1 - Summary Statistics

Variable	Mean	Median	25th percentile	75th percentile	Standard Deviation
Exp_dens	4,350	0,000	0,000	11,925	6,575
Export intensity	0,076	0,000	0,000	0,026	0,176
Export ratio	0,099	0,000	0,000	0,026	0,243
Export turnover	0,089	0,000	0,000	0,023	0,260
Family	0,456	0,000	0,000	1,000	0,498
Foreign	0,116	0,000	0,000	0,000	0,320
Size	13,794	14,660	13,271	15,879	4,094
Leverage	0,168	0,063	0,000	0,219	7,256
Firm_age	19,218	17,000	10,000	26,000	12,341
d_indep_s	0,093	0,000	0,000	0,000	0,291
perc_indep_dir	0,568	0,500	0,333	0,889	0,325
No_family_board	0,530	1,000	0,000	1,000	0,499
Conflict_int_board	0,680	1,000	0,000	1,000	0,466
Expert	0,668	1,000	0,000	1,000	0,471
Board_size	1,437	0,000	0,000	3,000	2,653
Total_sales	15.624.625	2.325.870	580.292	7.876.127	116.787.458
Foreing_sales	4.393.576	0	0	150.994	61.190.378
Total_assets	18.766.895	3.010.231	1.112.434	8.705.565	143.099.807

Descriptive statistics for the sample. The sample consists of 33,249 firms between 2008 and 2013. Exp_dens is estimated as the natural log of the sum of one plus total foreign sales. Export intensity is the natural log of the sum of one plus the ratio of export sales to total sales. Export ratio is estimated as the ratio of export sales to total sales. Export turnover is estimated as the natural log of one plus the ratio of total foreign sales divided by total assets. Family equals one when the firm has the economic and /or financial control and /or management of the company is exercised by people connected with family ties. Foreign indicate whether a foreign has share in the property of the firm. Size is the natural log of annual sales. Leverage is the ratio between long term financial debts to total assets. Firm_age is the number of year since the firm creation. d_indep_dir is used to indicate whether the firm has or not independent members on the board.

perc_indep_dir is the ratio of total outside independents members divided by total member of the board. No_family_board indicated whether the board may not form the majority decision-making people connected with family ties. Conflict_int_board is a dummy variable that take into account the existence of mechanism to disclose possible board director's conflict of interest. Expert equals one when the election of the members of the boards take into account the expertise, qualification and high professional reputation. Board_size is the number of members of the board. Total_sales, Foreing_sales and Total_assets are in thousands of Colombian pesos.

The first instrumental variable is "*conflict_int_board*", a dummy variable that takes into account if the firm has mechanisms to disclose possible board director conflict of interest. The rationale here is that the magnitude of exports is not correlated with the existence of this kind of mechanism on the board of directors. However, the board using this kind of instrument is more likely to engage independent members, so we expect boards with rigorous systems to disclose conflicts of interest will have higher numbers of independent board members.

The second instrumental variable, "*board_size*", is measured as the natural log of total members in the board of directors (Boone et al., 2007). In this case, we observed that larger boards of directors will have more independent members, and we noted also an orthogonal relationship between the size of board and export behavior, as shown in the correlation table.

The third instrument is labeled "*expert*", which is a dummy variable that captures whether the election of the members of the boards takes into account the expertise, qualifications and professional reputation of the candidate. We observed that firms that take into account the expertise of the members before selecting them have a higher number of independent members on their board. However this condition is not correlated with the export behavior in the sample.

Estimation

The objective of this research is to measure how board independence and family ownership interact to promote export behavior. We use a panel regression with the main unit of observation being the firm-year. In each regression model a test is applied to establish the significance of variables that control temporal and spatial effects. The results indicate the significance of temporal effects. We use the Hausman Specification Test to establish if unseen characteristics are fixed or

random. Test results indicate fixed effects and the model used is described in the following equation:

$$\text{Export behavior}_{it} = \beta_0 + \beta_1 family_{it} + \beta_2 Board\ independence_{it} + \beta_3 Control_{it} + \varepsilon_{it} \quad (1)$$

Where Export behavior$_{it}$ denotes any of the two dimensions mentioned before: export density and export intensity of a i-firm and during a year t. (export asset turnover was used for robustness check in the first hypothesis). Family$_{it}$ denotes the condition of family ownership for a firm i in a year t. Board independence$_{it}$ indicate the level of independence members in the board of a firm i in year t. Control$_{it}$ is a vector that includes all control variables used.

The result of the Wooldridge test (2002) indicates no serial correlation. The modified Wald test indicates heteroskedasticity (Greene, 2000, p. 598). Finally, the Pasaran CD test (Hoechle 2007) indicates contemporaneous correlation. Following Beck and Katz (1995), we utilized estimates from Panel Corrected Standard Errors (PCSE) to solve the problems of contemporaneous correlation and heteroskedasticity. Dichotomic variables are introduced to include the significance detected in the temporary effects. Thus, the period of time in our sample (6 years) allows the use of the correction through PCSE models (Beck 2001).

Analysis of Results and Discussion

This section shows the results from the empirical analysis and discuss its implications. We start comparing the two dimensions of export behavior mentioned above between family and no family firms, and between family firms with and without independent boards in Colombia. Then we study how the engagement of qualified independent boards members and the family ownership interact to promote exports. Finally we address the study's main concern: the two-way relation between the engagement of qualified independent board members and exports in family firms. Table 2 shows the correlation matrix between all the variables of the model.

Export behavior and family business

In table 3 (model 1) we present the estimates from the panel data regression. The main explanatory variable is "family", which indicates whether a firm has the economic and / or financial control and / or management exercised by people connected through family ties. The estimate of β_1 is significantly negative, implying that export behavior is lower to firms under family ownership. The interpretation of this coefficient is that on average the family firm has a lower export density (63.4%). This result confirms hypothesis 1(a). Regarding the main control variables foreign, size and leverage, these are positive and significant.

In model 3 we test the hypothesis 1(b), using the second dimension of export behavior, the export intensity. In this case we are comparing the export intensity between family firms and non-family firms. The estimate of β_1 is negative and significant, and its magnitude implies export intensity on average to be lower in family firms relative to non-family firms. Now, for a robustness check of our conclusion until this point, we use our own measure of export behavior, the export asset turnover estimated as the natural log of one plus the ratio of total foreign sales divided by total assets (inspired in Shoham, 1998; Sousa, 2004). We present this result in model (5). Again, the results are consistent and the estimate of β_1 is negative and significance, indicating that the asset export turnover on average is lower in family firms relative to non-family firms.

We test the basic results using different specification of our empirical model. In model (6), we account for left and right censoring by replacing the basic panel data specification with a Tobit regression. The rationale behind this is that our last measure for export intensity (the ratio of export sales to total sales) is left truncated at 0 and right truncated at 1. The results in this model show that all the coefficients associated with each variable are consistent with the previous tests, and more importantly, the coefficient of the main variable of interest (family) does not change and it is significance at the 1% level.

Finally, we run a robustness check by considering the firm age ("Firm_age"). The rationale for this test is that older firms have higher levels of export behavior, as pointed out by past research

(Bausch and Krist, 2007; Dunning, 1993). The betas associated with firm age in models (2) and (4) in table 3 confirm a positive relationship between firm age and export density and export intensity at the 1% level of significance. In order to check if older family firms have higher export acuity, the regressions depicted in models (2) and (4) have an interaction variable between family firm and firm age ("Family* Firm_age"). The beta coefficient of this interaction term is negative and significant at the 1% significance level for export density and at the 5% significance level for export intensity. Therefore, it is possible to observe that older family firms actually will have a lower export development compared to non-family firms, which provides additional support to H1.

Table 2 - Correlation Matrix

	Exp_ dens	Exp_ int	Export turnover	Exp_ ratio	Family	Foreig n	Size	Leverag e	Firm_ age	perc_ind -ep_dir	No_family _board	Conflict_ int_board	Expert	Board_ size	Total_ Sales	Total Assets	Foreign sales
Exp_dens	1,000																
Export intensity	0,682	1,000															
Export turnover	0,565	0,816	1,000														
Export ratio	0,640	0,996	0,817	1,000													
Family	-0,144	-0,094	-0,096	-0,086	1,000												
Foreign	0,140	0,069	0,042	0,063	-0,122	1,000											
Size	0,373	0,145	0,181	0,128	-0,093	0,119	1,000										
Leverage	0,057	0,072	0,073	0,071	0,044	-0,004	0,166	1,000									
Firm_age	0,237	0,050	0,003	0,031	0,024	0,039	0,288	-0,069	1,000								
perc_indep_dir	0,067	0,034	0,035	0,030	-0,246	0,076	0,083	0,007	0,051	1,000							
No_family_board	0,143	0,072	0,063	0,062	-0,526	0,123	0,146	-0,054	0,032	0,239	1,000						
Conflict_int_boar d	0,077	0,034	0,025	0,031	-0,090	0,049	0,117	0,012	0,058	0,065	0,092	1,000					
Expert	0,119	0,073	0,062	0,068	-0,141	0,051	0,148	0,026	0,051	0,107	0,189	0,179	1,000				
Board_size	0,098	0,035	0,017	0,031	-0,059	0,026	0,161	0,029	0,118	-0,027	0,043	0,039	0,053	1,000			
Total_Sales	0,195	0,089	0,103	0,083	-0,070	0,095	0,475	0,061	0,177	0,011	0,097	0,074	0,069	0,106	1,000		
Total Assets	0,168	0,064	0,019	0,056	-0,053	0,112	0,399	0,004	0,182	0,021	0,124	0,075	0,072	0,120	0,800	1,000	
Foreign sales	0,215	0,263	0,286	0,264	-0,067	0,047	0,225	0,033	0,071	0,012	0,074	0,027	0,036	0,052	0,643	0,499	1,000

Exp_dens is estimated as the natural log of the sum of one plus total foreign sales. Export intensity is the natural log of the sum of one plus the ratio of export sales to total sales. Export turnover is estimated as the natural log of one plus the ratio of total foreign sales divided by total assets. Export ratio is estimated as the ratio of export sales to total sales. Family equals one when the firm has the economic and /or financial control and /or management of the company is exercised by people connected with family ties. Foreign indicate whether a foreign has share in the property of the firm. Size is the natural log of operational income. Leverage is the ratio between long term financial debts to total assets. Firm_age is the number of year since the firm creation. perc_indep_dir is the ratio of total outside independents members divided by total member of the board. No_family_board indicated whether the board may not form the majority decision-making people connected with family ties. Conflict_int_board is a dummy variable that take into account the existence of mechanism to disclose possible board director's conflict of interest. Expert equals one when the election of the members of the boards take into account the expertise, qualification and high professional reputation. Board_size is the number of members of the board.

Table 3 - Export behavior and Family Firms

Variables	(1) Exp_dens	(2) Exp_dens	(3) Export intensity	(4) Export intensity	(5) Export turnover	(6) Export ratio
Family	-1.005***	-0.546***	-0.0217***	-0.0133***	-0.0287***	-0.0125***
	(0.0748)	(0.132o)	(0.0021)	(0.0038)	(0.0030)	(0.0026)
Firm_age		0.0956***		0.0004***		
		(0.0036)		(0.0001)		
Family* Firm_age		-0.0285***		-0.0004**		
		(0.0056)		(0.0001)		
Foreign	3.500***	3.642***	0.0578***	0.0586***	0.0676***	0.0143***
	(0.1200)	(0.1170)	(0.0037)	(0.0037)	(0.0052)	(0.0034)
Size	0.723***	0.630***	0.0098***	0.0093***	0.0123***	0.0112***
	(0.0126)	(0.0120)	(0.0006)	(0.0006)	(0.0004)	(0.0009)
leverage	0.444*	0.754***	0.0205**	0.0217**	0.0278**	0.0144**
	(0.2030)	(0.2220)	(0.0070)	(0.0071)	(0.0092)	(0.0056)
Constant	-5.765***	-6.293***	-0.0640***	-0.0631***	-0.0807***	-0.0753***
	(0.1990)	(0.1870)	(0.0089)	(0.0091)	(0.0071)	(0.0143)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	29,411	29,411	28,806	28,806	29,411	28,806
R-squared	0.150	0.178	0.038	0.038	0.035	
Firms	14,146	14,146	13,776	13,776	14,146	13,776

Panel Data specification is used in model (1) to (5). Dependent variable in model (1) and (2) is Exp_dens defined as the natural log of the sum of one plus total foreign sales. In model (3) and (4) the dependent variable is Export intensity estimated as the natural log of the sum of one plus the ratio of export sales to total sales. In model (5) the dependent variable is Export turnover, estimated as the natural log of one plus the ratio of total foreign sales divided by total assets. Model (6) presents a Tobit regression, dependent variable Export ratio estimated as the ratio of export sales to total sales. Family equals one when the firm has the economic and /or financial control and /or management of the company is exercised by people connected with family ties. Firm_age is the number of year since the firm creation. Foreign indicates whether a foreign has share in the property of the firm. Size is the natural log of annual sales. Leverage is the ratio between long term financial debts to total assets. Each regression includes year dummies and fixed effects. Numbers in parentheses are Heteroskedasticity adjusted standard errors. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

Export behavior, family firms and independence of the board

Next, in table 4, we address the second hypothesis of this study: the moderating effect of the presence of independent board members on the relation between family ownership and export behavior. In model (1) the endogenous variable export density shows a positive association with the presence of independent members on the board of directors ("d_indep_dir"). The coefficient of 1.363 implies that firms with independent members in the board have 2.9 times more foreign sales on average than firms without independent members on their boards. This confirms hypothesis 2(a).

Next, we test the hypothesis 2(b) using as the dependent variable export intensity as shown in Table 4, model (5). The beta associated to the variable "d_indep_dir" is positive and significant at the 1% level. This means that export intensity on average is higher among firms with independent members in the board, thus confirming hypothesis 2(b).

In model (2) we test the relation between export density and the percentage of independent board members. The results confirm a positive and significant relation between export density and independent members on the board, which means that firms with a higher percentage of independent members on their boards of directors are more likely to have a higher level of export behavior, thus confirming hypothesis 2c.

Lastly, Hypothesis 3 tests whether the contribution of independent board members to export behavior remains for family firms. Thus, the dependent variable in model 4, column (3) is export density and includes a new independent variable ("d_indepen_dir*family") representing the interaction between family firm and independent members on the board. The interaction variable shows a negative and significant ($p<0.01$) effect. Therefore, the joint analysis of the coefficients "d_indep_dir" and "d_indepen_dir*family" allows us conclude that the marginal effect of having independent members on the board remains positive and significant also in the case of family firms. This result suggests that independent members on the board of family firms are able to encourage export behavior, supporting hypothesis 3.

Next, we study additional sensibility issues related to the importance of independent board members to family firms' export behavior. Model (6) in table 4 includes two new variables for this purposes. The first one is named "Family_ind_q1" and denotes family firms in the lowest quartile in the share of independent directors on the board, and "Family_ind_q3" denotes family firms in the highest quartile. The results show a bigger negative coefficient (significance at 1% level) for the lowest quartile in comparison to the coefficient associated with the highest quartile. This means that independent board members are more important to the export behavior of family firms, reducing the

negative effect of family firm ownership. This result can be seen as a robustness check that supports hypothesis 3.

The last conclusion is confirmed in model (7), table 4. We added a new variable "Family*m_ind_total" representing family firms with 100% of independent members on the board. The coefficient associated with this variable is positive, indicating that total independent boards have a direct relationship with export behavior in the case of family firms. However, this result was not significant statistically. This weak relationship could be reflecting the fact that sometimes independent board members do not have decision power or real influence in the strategy of the firm. In this case, independent members would be used to accomplish a legal requirement or as discretional advisors without the necessary empowerment to address the main decisions, specifically in family owned firms.

Model (4) in table 4 includes another independent variable related to family control called "no_family_board", which indicates if the family lacks the majority of decision-making power on the board. Thus, this variable accounts for family firms in which independent board members have the majority of voting rights. Thus, we included in model (4) the interaction "No_family_board*d_indep_dir", which captures the relation between the family's decision power and the existence of independent members on the board. Both variables show coefficients that are positive and significant, thus supporting hypothesis 3. For family firms, the existence of non-family controlled boards with independent members increases export behavior.

Table 4 - Export behavior, family firms and independence of the board

Variables	(1) Exp_dens	(2) Exp_dens	(3) Exp_dens	(4) Exp_dens	(5) Exp_int	(6) Exp_dens	(7) Exp_dens
d_indep_dir	1.363***		1.199***	0.297*	0.0107***		
	(0.0970)		(0.1360)	(0.1710)	(0.0026)		
Family			-0.783***				
			(0.0818)				
d_indepen_dir*family			-0.899***				
			(0.1940)				
Foreign	3.768***	3.568***	3.528***	3.496***	0.0600***	3.542***	3.662***
	(0.0910)	(0.3540)	(0.1200)	(0.1580)	(0.0028)	(0.3540)	(0.3530)
Size	0.643***	0.953***	0.711***	0.813***	0.00923***	0.953***	0.958***
	(0.0089)	(0.0430)	(0.0126)	(0.0192)	(0.0005)	(0.0430)	(0.0432)
leverage	0.449***	0.464	0.388	0.603**	0.0173**	0.413	0.463
	(0.1310)	(0.4910)	(0.2010)	(0.2740)	(0.0053)	(0.4910)	(0.4910)
perc_ind_dir		0.877**					
		(0.2720)					
No_family_board				1.070***			
				(0.1250)			
No_family_board* d_indep_dir				0.400*			
				(0.2120)			
Family_ind_q1						-1.208***	
						(0.2670)	
Family_ind_q3						-0.0457	
						(0.4180)	
Family*m_ind_total							0.0557
							(0.4200)
Constant	5.852***	9.712***	6.019***	8.181***	-0.0730***	9.064***	9.296***
	(0.1290)	(0.6900)	(0.1990)	(0.3110)	(0.0069)	(0.6830)	(0.6850)
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	48,364	6,050	29,411	17,329	47,195	6,050	6,050
R-squared	0.143	0.128	0.152	0.155	0.029	0.129	0.126
Firms	19,597	3,917	14,146	8,127	19,000	3,917	3,917

Panel Data specification is used in all models. Dependent variable Exp_dens defined as the natural log of the sum of one plus total foreign sales is used in models (1) to (4) and (6) and (7). In model (5) the dependent variable is exp_int estimated as the natural log of the sum of one plus the ratio of export sales to total sales. d_indep_dir indicates whether the firm has or not independent members on the board. Family equals one when the firm has the economic and /or financial control and /or management of the company is exercised by people connected with family ties. Foreign indicates whether a foreign has share in the property of the firm. Size is the natural log of annual sales. Leverage is the ratio between long term financial debts to total assets. perc_indep_dir is the ratio of total outside independents members divided by total member of the board. No_family_board indicates whether the board may not form the majority decision-making people connected with family ties. Family_ind_q1 indicates family firms in the lowest quartile of share of independent directors in the board. Family_ind_q3 indicates family firms in the highest quartile of share of independent directors in the board. "Family*m_ind_total" represents family firms with 100% of independent members in the board. Each regression includes year dummies and fixed effects. Numbers in parentheses are Heteroskedasticity

adjusted standard errors. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

Export behavior and independent members on the board: simultaneous effects on family firms

We used a simultaneous equation approach to test the simultaneity between export behavior and the independent members of the board in family firms. The system of equations is organized as follows:

$$\text{Export behavior}_{it} = \propto_0 + \beta_1 Indep\_dir_{it} + \beta_2 family_{it} + \beta_3 Foreign_{it} + \beta_4 Size_{it} + \beta_5 Leverage_{it} + u_{it} \quad (2)$$

$$\text{Indep\_dir}_{it} = \gamma_0 + \delta_1 Conflict\_int\_board_{it} + \delta_2 board\_total\_memy_{it} + \delta_3 Expert_{it} + \vartheta_{it} \quad (3)$$

Equation 2 analyses the determinants of export behavior, specifically employing the export density dimension. Equation 3 is an additional specification to investigate the determinants of the presence of independent directors (Indep_dir) by capturing the reverse causality effect. As we mention in the variables and data description section, to test the existence of reverse causality between independence of the board members and the export behavior, we included instrumental variables that are determinants of the presence of independent members on the board and are not correlated with export behavior. Equation 3 shows the "indep_dir" variable as a function of its instrumental variables: "conflict_int_board", a dummy variable that takes into account the existence of mechanisms to disclose possible board of directors' conflicts of interest. As for "board_size" that is the total number of members on the board measured as the natural log of total members of the board of directors. Yet, "expert" is a dummy variable that captures whether the election of the members of the boards take into account the expertise, qualifications and the professional reputation of board candidates.

Table 5 reports regression results obtained using a 2SLS procedure. Robustness of the results are confirmed through the GMM method. We use the Robustified Durbin-Wu-Hausman test to check the validity of the endogenous regressor (Davidson, 2000). To test the validity of over-identifying instruments in an over-identified model, we use the over-identified test, Sargan's (1958) and Basmann's (1960) as is Wooldridge's (1995) robust score test. With regards the GMM estimator, we applied the Hansen's (1982) test.

As a preliminary step, we analyze the significance of having independent members on the board to encourage the export density and the significance of higher export density to explain higher numbers of independent board members. In Table 5 model (1), we run a panel data regression using "Indep_dir" as an explanatory variable of export density. The results indicate a positive relation with significance at the 5% level, which leads us to conclude that the greater number of independent members of the board the higher export density. Model (2) contains the results of regressing "indep_dir" as a dependent variable in function of its instrumental variables and export density. It can be seen that all the instrumental variables are positive and significant at the 1% level ("Board_size", and "Expert"), and at the 5% level ("Conflict_int_board"). Export density ("Exp_dens") is positive and significant at the 1% level as well. This indicates that all instrumental variables and export density are related to the existence of a higher number of independent members in the board.

Models (3) and (4) in Table 5 report the parameters of the simultaneous equation model using Two Stage Lest Square with fixed effects (FE2SLS) and robust standard errors estimation. The results here confirm that higher export behavior is explained by the high number of independent members on the board (model 3). Having independent members on the board encourages export behavior (model 4) and both measures have positive and significance effects even after taking endogeneity into consideration.

We test the robustness of this conclusion running the last model using GMM regression in order to check for any issues and the strength of the other approaches. The results confirm our

conclusions. Additionally, a sensibility analysis is depicted in models (6) to (9) in Table 5 using GMM regressions. Models (6) and (7) show results using "Conflict_int_Board" and "Board_size" as instrumental variables where their respective coefficients remain significant. Similarly, models (8) and (9) using "Expert" and "Board_size" as instrumental variables also confirm the conclusions.

In sum, we confirm that export behavior and independence of the board interact with each other. We can reasonably argue on this basis that a virtuous cycle can be seen as ongoing in this country. Thus, the introduction of independent members on the board can be expected to improve export behavior, which in turn can be expected to encourage an increase of independent members in the board composition of private firms.

By utilizing a large and unique database from an emerging country, this study provides important contributions to the research on the determinants of export behavior in family firms. Our results suggest that Colombian family firms are generally more risk averse to international expansion compared to non-family business, thus confirming previous research's theoretical arguments regarding family firms' risk avoidance and agency conflicts stemming from family board members that act passively and are only interested in their own economic welfare (Gomez-Mejia et al. 2010; Lubatkin et al. 2005). However, this negative propensity to invest abroad is positively moderated by the presence of independent directors on the board. This finding suggests that the increased presence of independent members on the board is an important formal governance measure that not only increases family firms' governance quality but also enhances exports activity.

Our results are also in line with prior research from developed countries (Graves and Thomas, 2008; Mitter et al., 2014) and reveal that emerging market family firms can leverage their exports through the increase of independent board members. We also add to the family firms' literature confirming an endogenous relationship between board composition (specifically the presence of independent members) and export behavior. Therefore, we provide a unique insight towards the understanding of how family firms evolve over time, their exports activity, and the

important factors that can influence their behavior. This fulfills an important research gap raised by past studies on family firms' international activity (Mitter et al., 2014).

Table 5 - Export Behavior and independent members in the board: Simultaneous effect in family firms

VARIABLES	(1) Exp_dens	(2) Indep_dir	(3) First-stage Indep_dir	(4)2SLS Second-stage Exp_dens	(5)GMM Second-stage Exp_dens	(6) First-stage Indep_dir	(7) GMM Second-stage Exp_dens	(8) First-stage Indep_dir	(9) GMM Second-stage Exp_dens
Family	-1.520***		-0.2068***	-1.231***	-1.2258***	-0.2154***	-1.276***	-0.2082***	-1.226***
	(0.1840)		(0.0135)	(0.1980)	(0.1984)	(0.01345)	(0.1980)	(0.0135)	(0.1980)
Indep_dir	0.407**			1.5220***	1.6013***		1.3750***		1.5760***
	(0.1500)			(0.3170)	(0.3173)		(0.3210)		(0.3180)
Foreign	3.1580***		0.0842***	3.0090***	2.9912***	0.0882***	3.0190***	0.0853***	2.9960***
	(0.3540)		(0.0246)	(0.3460)	(0.3466)	(0.0245)	(0.3460)	(0.0246)	(0.3470)
Size	0.9300***		0.0089	0.9000***	0.9032***	0.0101***	0.9060***	0.0092***	0.9030***
	(0.0421)		(0.0031)**	(0.0427)	(0.0430)	(0.0031)	(0.0429)	(0.0031)	(0.0430)
leverage	0.667		0.0667**	0.593	0.6177	0.0693**	0.601	0.0668**	0.6252
	(0.4910)		(0.0341)	(0.5000)	(0.5008)	(0.0342)	(0.5000)	(0.0341)	(0.5010)
Exp_dens		0.0034***							
		(0.0009)							
Conflict_int_board		0.0440**	0.0268*			0.0399***			
		(0.0151)	(0.0148)			(0.0146)			
Board_size		0.111***	0.1087***			0.1091***		0.1088***	
		(0.0030)	(0.0030)			(0.0030)		(0.0030)	
Expert		0.163***	0.1182***					0.12459***	
		(0.0233)	(0.0234)					(0.0231)	
Constant	-8.868***	0.460***	0.4715***	-9.948***	-10.1297***	0.5489***	-9.829***	0.4801***	-10.0942
	(0.6820)	(0.0279)	(0.0543)	(0.7230)	(0.7261)	(0.0525)	(0.7280)	(0.0541)	(0.7260)
Time dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	6,074	6,074	6,074	6,074	6,074	6,074	6,074	6,074	6,074
R-squared	0.138	0.252	0.2842	0.129	0.1281	0.2798	0.131	0.1285	0.1285
Firms	3,935	3,935	3,935	3,935	3,935	3,935	3,935	3,935	3,935

The dependent variable Exp_dens is the natural log of the sum of one plus total foreign sales. Indep_dir is the natural log of one plus the number of independent directors. Family equals one when the firm has the economic and /or financial control and /or management of the company is exercised by people connected with family ties. Foreign indicate whether a foreign has share in the property of the firm. Size is the natural log of annual sales. Leverage is the ratio between long term financial debts to total assets. Conflict_int_board is a dummy variable that take into account the existence of mechanism to disclose possible board director's conflict of interest. Board_size is the number of members of the board. Expert equals one when the election of the members of the boards take into account the expertise, qualification and high professional reputation. The instruments used are Conflict_int_board, Board_size and Expert. Each regression includes year dummies. Numbers in parentheses are robust standard errors. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

Conclusions, Limitations and Future Research

Our results reveal that family ownership have on average lower levels of export behavior. This conclusion was confirmed using two dimensions for export behavior (export intensity, export density) as well as different statistical specifications and empirical models. Comparisons between non- family and family firms, the test of alternative measures for export behavior (export asset turnover) and the use of control variables also reinforce our conclusions. Although older firms show higher levels of export behavior, this behavior is lesser in the case of family firms. On average, a family firm has a lower export density and lower export intensity than non-family.

This conclusion has strong implications for public policy in emerging countries and managerial practice. Specifically in the Colombia, several free trade agreements have been signed by the nation in the last several years. Taking account the large share that family businesses contribute to GDP, one of the main challenges that Colombian policy makers have is to design a framework and develop programs that encourage family firms to export. Thus, national strategies recommended by the literature to support the internationalization of family firms encompass policies oriented to increase the institutional quality, enhance the competitiveness levels, create channels to promote international partnerships, promote ways to more easily access capital, and structure effective technical activities to aid family firms that seek to export or expand existing exports (Mitter et al., 2014, Herrera et al. 2014). Yet, managers and business owners can utilize our findings as an informative resource regarding improvements of corporate governance and its relationship with increased firm exports. Therefore one of the measures that a family firm can take to meet the challenge of globalization is to create and empower a board of independent directors with the skills and knowledge required to lead the firm on the road towards reaping international opportunities.

Finally, a virtuous cycle was detected empirically in Colombia family firms: the introduction of independent members on the board can be expected to boost export behavior, which in turn can be expected to encourage the increase of independent members to the board of private

firms. This last result is consistent with the Hermalin and Weisbach (2003) who argue that boards of directors are endogenously determined institutions.

In terms of limitations, the relatively short time period of our sample limited the length of the analysis in this study and, in so doing, limited the number of variables that could be included in the model. By extending the number of countries and studying them for a longer time period greater accuracy of our results could be achieved.

Regarding the statistical degree of freedom, increasing the period of time of this study would permit to factor important variables to study another aspects of interest related with the export behavior and independence of the boards of firms in emerging countries. For example some country level socio-cultural characteristics could be included to establish their relation with encouraging the export behavior and adopting independent boards in family firms in emerging countries.

Future research may wish to focus on why some kinds of family enterprises are more likely to exhibit greater levels of export behavior in developing countries than others and why some board characteristics are more likely to encourage export behavior in family firms. While we examined the effects of independent (non-family) board members, follow-on research may wish to account for characteristics like gender, stability, longevity or networking impact export behavior in family firms of emerging countries and whether the effects change depending upon the business sector.

Another challenge is measuring how board actions—not just board characteristics—impact export behavior. Board activity is recognizably a superior measure of how the board of directors supports firm performance. What actions have real significance and what kind of board characteristics encourages these actions is a central concern in the process of building more productive boards.

Clearly, too, the impacts of external factors such as regulations, the stage of economic development, and the existence of free trade agreements should all be considered in an empirical assessment, future researchers may wish to conduct cross-country comparisons with one or more

countries in Latin American or other regions and assess export behavior and board Independence in one or more sectors exposed in different ways to these external conditions.

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