TOP MANAGEMENT TEAM HETEROGENEITY, FAULTLINES AND ENTREPRENEURIAL ORIENTATION IN FAMILY FIRMS

A DISSERTATION SUBMITTED ON THE 18TH DAY OF DECEMBER 2019

TO THE DEPARTMENT OF MANAGEMENT

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

OF THE A.B. FREEMAN SCHOOL OF BUSINESS

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FOR THE DEGREE

OF

DOCTOR OF PHILOSOPHY

BY

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ABSTRACT

Drawing on strategic leadership approach, entrepreneurship theory and family business literature, my dissertation studied the composition of top management teams (TMTs) as antecedent of entrepreneurial activities in family business. The study proposed that while family involvement is the key feature that makes family firms unique and different; the heterogeneity of TMTs could contribute to the company's involvement in entrepreneurial activities. The heterogeneity of TMTs in family firms was studied through the familial nature of the teams, tenure, age and number of generations of family involved in the business. Likewise, the research included the notion of group faultline to study the potential disruptive behavior that can be generated into TMT, because of the creation of homogeneous subgroups based on the alignment of demographic attributes (Lau & Murnighan, 1998). Furthermore, generational stage of family firms was also considered into the research as moderator. The hypotheses were tested using a sample of 409 Venezuelan small and medium family firms of the following sectors: construction, manufacturing, wholesale/retail commerce and service. The findings showed that heterogeneity in senior management teams in family firms could positively affect entrepreneurial orientation (EO) if they combine the right compositional attributes. However, if teams are created without regard to compositional factors, it can become a potential source of disruptive behavior negatively affecting entrepreneurial orientation. Specifically, balancing family and non-family members in TMTs shown a positive effect on EO because it allows access to greater social capital and financial resources, as well as low agency costs and high stewardship behavior (Sciascia & Mazzola, 2009; González-

Cruz & Cruz -Ros, 2016). However, when organizational tenure heterogeneity, age heterogeneity and the number of generations of the family involvement in firms are considered, the effects are negative on EO. In this case, the relationship conflict that implies personal incompatibilities regarding values, attitudes and intentions, has negative consequences on the priorities and the way of carrying out the tasks (Bertrand & Schoar, 2006). Additionally, when the effects of the heterogeneity of these attributes were considered simultaneously, the findings show that the composition of the TMT can promote the appearance of faultlines, which leads to the reduction of the positive effect of the heterogeneity or to deepen the negative effect of this.

Key words: family firms, top management team (TMT), family involvement, heterogeneity, faultline, strategic leadership, entrepreneurial orientation.

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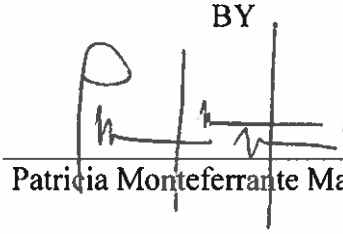

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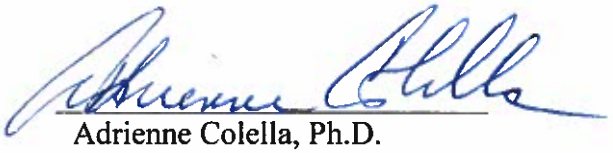

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CHAPTER 1: INTRODUCTION

Overview

The increasing interest in family business[1] research is related to the importance of these organizations in the economic landscape. Indeed, family firms are the dominant organizational form in today's corporate world (La Porta, Lopez-de-Silanes, & Shleifer, 1999), playing a crucial role in the economy and social welfare in different countries (Zahra, Hayton, & Salvato, 2004). Family businesses are the primary drivers for economic development and growth, given that approximately two thirds of all businesses around the world are family firms (Bennedsen, Nielsen, Perez- Gonzalez, & Wolfenzon, 2007; Westhead & Howorth, 2006; Gedajlovic, Lubatkin, & Schulze, 2004). Specifically, in the United States and Europe, family businesses represent about 85 per cent of all the firms (IFERA, 2003) and even greater proportions in the developing countries are family-owned. Family firms generate around 64 per cent of the gross domestic product in United States, employing approximately 62 per cent of this nation's workforce (Astrachan, Keyt, Lane & Mc Millan, 2006). In Latin America, several estimates suggest that nine out of ten firms can be considered family businesses (Belausteguigoitia, 2004). Likewise, several researchers have found that family firms in the US-based S&P 1500 (the 1,500 largest publicly-traded US firms) financially outperform their non-family counterparts (Anderson & Reeb, 2003; Villalonga & Amit, 2006).

[1] The terms family business, family firms, and family-owned business are used interchangeably throughout this dissertation.

Family firms have been defined in different ways; this is precisely one of the main obstacles faced by this novel research field. In general, family firms can be defined as business controlled and usually managed by family members (Shanker & Astrachan, 1996). One of the approaches frequently used to define this type of organizations is based on the components of a family's involvement in the business: ownership and voting control (e.g. La Porta et al., 1999; Anderson & Reeb, 2003), involvement of multiple generations (e.g. Villalonga & Amit, 2006), active management by family members (e.g. McConaughy, Henderson, & Mishra, 1998), among others. Likewise, another group of researchers has focused on the essence of a family firm. The essence of family businesses has been conceptualized from different approaches: family influence in the strategic direction (Shanker and Astrachan, 1996), intention of the family to keep control across generations (Liz, 1995), the behavior of the "dominant coalition" (Chua, Chrisman & Sharma, 1999), and the resources and capabilities arising from the family involvement in the business (Habbershon, Williams and MacMillan, 2003). In this regard, I define a family firm as "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: 25).

On the other hand, the environment that organizations face today is increasingly dynamic and competitive, leading the firms to change frequently and to be more entrepreneurial (Bettis & Hitt, 1995; Hamel, 2000). Therefore, several scholars have argued that the entrepreneurial efforts are central to firms' profitability and growth (Lumpkin & Dess, 1996; Zahra, 1996; Ireland, Hitt, & Sirmon, 2003). The

entrepreneurial behavior[2] so called corporate entrepreneurship referring to established organizations "allows a firm to fully exploit its current competitive advantage while also exploring tomorrow's opportunities and developing competencies required to pursue them" (Eddleston, Kellermanns & Zellweger, 2010: 3).

Precisely, due to the importance of family business in the global economy, it seems relevant to examine the entrepreneurial behavior in these types of firms. However, the study of entrepreneurial activities in the context of family firms is not only a key to understanding how family-controlled businesses remain competitive in today's dynamic environment, but also to identify how these firms ensure the success across different generations. Indeed, the desire and intention to sustain the business in the family across generations is the distinctive characteristic and fundamental goal of many family businesses (Gersick, Davis, Hampton, & Lansberg, 1997; Eddleston et al., 2010; Miller & Le Breton-Miller, 2005). As noted by Cruz and Nordqvist (2010), the long-term survival necessarily requires the family firm to engage in entrepreneurial activities in order to revitalize its business and stay competitive. Unfortunately, the studies of entrepreneurship and family business have been developed independently to a great extent, but recently some indications suggest that they are moving closer to each other (Anderson, Jack, & Drakopoulou, 2005; Nordqvist & Melin (2010). Specifically, as noted by Lumpkin, Steier and Wright (2011: 285), "few researchers have investigated the role of strategic entrepreneurship in family businesses. Generally speaking, entrepreneurship scholars have tended to underestimate the contribution of family systems to entrepreneurial success". Therefore, little is known regarding how families influence their entrepreneurial

[2] The entrepreneurial behavior in this dissertation is related to established firms; therefore, it refers to corporate entrepreneurship.

activities and why some family firms are more successful at corporate entrepreneurship than others (Kellermanns & Eddleston, 2006; Nordqvist, 2005; Salvato, 2004).

In this regard, two opposing views have prevailed in the literature that explores entrepreneurship in family business (Nordqvist & Melin, 2010; Lumpkin, Brigham & Moss, 2010). One of them suggests that family firms present a creative context, dynamic, and change oriented that promotes the entrepreneurial behavior in the organization. Particularly, the supporters of this side argue that "the long-term nature of family firms' ownership allows them to dedicate the resources required for innovation and risk taking, thereby fostering entrepreneurship" (Zahra et al., 2004: 363). In opposite view, other scholars claim that family involvement in firms is a constraint to entrepreneurial efforts (Chirico, Sirmon, Sciascia & Mazzola, 2011). This perspective suggests that family firms are conservative, risk-averse, and inflexible organizations in which entrepreneurship seems to be hampered by elements related to the family tradition and the power dynamics created inside the families (Nordqvist & Melin, 2010).

Both theoretical perspectives have found some empirical evidence. For instance, Kellermanns, Eddleston, Barnett and Pearson (2008) studied the way certain characteristics of the CEO (i.e. tenure and age) and the family involvement influence the entrepreneurial behavior. Their findings suggest that generational involvement is a strong predictor of entrepreneurial behavior. Zahra (2005), adopting a broad definition of entrepreneurial risk taking, studied 209 manufacturing family firms and found that family involvement in the ownership and management promotes entrepreneurship, whereas long tenures of CEO founders have the opposite effect. Moreover, Gomez-Mejia, Haynes, Núñez-Nickel, Jacobson and Moyano-Fuentes (2007) argue that family firms may be risk

seeking and risk averse at the same time. Specifically, these authors state that, for family firms, the primary reference point is the loss of their socio-emotional wealth, and to avoid those losses, family firms are willing to accept a significant risk to their performance; yet, at the same time, family businesses avoid risky business decisions that might aggravate those losses. In opposite view, Naldi, Nordqvist, Sjoberg, and Wiklund, (2007) found that family firms take less risks compared to non-family businesses. Similarly, McConaugby, Matthews & Fialko (2001) suggest that the family-owned business use less risky capital structures. Martin and Lumpkin (2003) found that the founding generations are more motivated regarding the entrepreneurial activities, but the latter generations demonstrate a decreasing entrepreneurial orientation and an increasing family orientation.

Unquestionably, the contradictory findings previously mentioned suggest the need of further research to understand the different drivers of entrepreneurship in family firms. In this regard, Kellermanns et al. (2008) and Chrisman, Chua and Sharma (2005a) suggest that many questions remain unanswered and much interesting research remains to be done to determine how family involvement affects entrepreneurial behavior and performance. In the same vein, Nordqvist and Melin (2010) recommend that research on family firms must consider the heterogeneity that characterizes the universe of family firms. More specifically, these authors suggest to include into the research the differences between publicly listed and privately held family firms, the differences between firms owned but not managed by a family and firms with active family involvement in the managerial roles, the differences related to the generation that have the business control, among other aspects.

A promising avenue that could attend some of these shortcomings is the integration of the strategic leadership perspective into the research on family business and entrepreneurship. The strategic leadership field is rooted on Hambrick and Mason's (1984) seminal article, and "focuses on the impact of characteristics of strategic leaders on the form, fate, and fortunes of firms by shaping what strategic choices they make, and why and when they make those choices" (Simsek, Heavey, Prabhakar & Huvaj, 2011: 284). Specifically, the strategic leadership perspective considers that individual executives (CEOs), top management teams (TMTs), or other governance bodies (BODs) are responsible for "determining the overall direction and vision of firms, managing resources and capabilities strategically, fostering an entrepreneurial culture and mind-setting throughout the organization, and emphasizing balanced organizational control (Simsek et al., 2011). Likewise, according to Simsek et al. (2011: 284), upper managers represent "the linkage between strategy and entrepreneurship, mediating resources/capabilities and market opportunities".

In general, this theoretical approach suggests that the way organizations respond to their environment will depend largely on how their upper managers interpret the events taking place. Specifically, the strategic leadership perspective centers its attention on executive cognitions, values, and perceptions and on how these psychological features influence the process of strategic choice and performance outcomes. In this regard, Hambrick and Mason (1984) suggested that the internal and external situations of organizations are filtered and interpreted through the cognitive characteristics and values of the top management teams. Nonetheless, since these psychological constructs are difficult to measure, the upper echelon approach suggests that observable demographic

measures are reasonable proxies for underlying differences in cognitions, values, and perceptions (Hambrick & Mason, 1984; Carpenter, Geletkanycz & Sanders, 2004). Specifically, Hambrick and Mason (1984) use, in their original framework, upper echelon characteristics such as age, functional tracks, other career experiences, education, socioeconomic roots, financial position, and group characteristics. These observable variables are proxies of psychological constructs, which configure the interpretation made by the team over internal and external situations, facilitating the formulation of appropriate strategic alternatives (Carpenter et al., 2004).

The strategic leadership approach appears as particularly useful for understanding how different configurations of family involvement affects the organizational outcomes in family firms, inasmuch as a significant amount of the upper echelon executives are members of the family, as well as owners of the firm. Specifically, as suggested by some authors (e.g. Habbershon et al., 2003), the family involvement in the family firm is vital to create and exploit the resources and capabilities that are unique and distinctive in this kind of firms – i.e. *familiness*[3]. However, little research has been developed regarding the functions and interactions of members of top management teams in family businesses (e.g. Ensley & Pearson, 2005; Kellermanns et al., 2008; Ling & Kellermanns, 2010). Paradoxically, according to Ling and Kellermanns (2010), family firms offer a very rich field for research on the upper echelon perspective, which has been little explored by scholars.

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[3] *Familiness* is a term used by Habbershon et al. (2003) to characterize the interactions between individual family members, the family unit, and the business that lead to systemic synergies, known as distinctive *familiness* or diseconomies, known as constrictive *familiness*, with the potential to create competitive advantages or disadvantages for the firm (Chrisman, Chua & Steier, 2005b). A more complete discussion on this construct is provided in Chapter 2.

Drawing on strategic leadership approach, this research studies the composition of TMTs as an antecedent of entrepreneurial activities in family firms. In general, my dissertation proposes that despite the family involvement is key feature that makes family firms unique and different, the heterogeneity of TMTs could contribute to engage the organization in entrepreneurial activities, and thus remain competitive in today's dynamic environment and ensuring the success across different generations. Specifically, I argue, founded on the cognitive-resource perspective, that heterogeneous TMTs can be associated with a broader set of perspectives for decision making (Sawyer, Houlette, & Yeagley, 2006; Tuggle, Schnatterly & Johnson, 2010), a greater diversity of information sources and perspectives, as well as a more creative or innovative discussion (Milliken & Martins, 1996; Wiersema & Bantel, 1992), and therefore they can promote more entrepreneurial activities. The heterogeneity of TMTs in family firms is explored through the familial nature of the teams, tenure, age and number of generations of family involved in the business.

Likewise, my dissertation includes the notion of group faultlines to study the potential disruptive behavior that can be generated into TMT, as a consequence of the creation of homogeneous subgroups based on the alignment of demographic attributes (Lau & Murnighan, 1998). In this sense, a group faultline can be defined as "hypothetical dividing lines that may split a group into subgroups based on one or more attributes" (Lau & Murnighan, 1998: 328). Specifically, the faultline perspective may lead to conflicts and communication difficulties between the sub-groups and thus they have the potential to reduce overall group performance (Lau & Murnighan, 2005; Li & Hambrick, 2005). The faultline approach rooted in social-identity and self-categorization theories

provides an additional vision for understanding the effects of group composition on organizational outcomes since, rather than studying the amount or type of diversity, it is concerned with the structure of team diversity (Sawyer et al., 2006; Bezrukova, Thatcher & Jehn, 2007). In this regard, my research proposes that the faultlines in TMTs can lead to a reluctant position towards sharing information, views and perspectives, and therefore it becomes more difficult to have joint decision-making, achieve consensus and commitment that are a critical key in decisions related to the entrepreneurial initiatives (Hambrick, Cho & Chen, 1996).

In this regard, my research is aligned with the insights suggested by Harrison and Klein (2007), who define diversity in three different ways: diversity as separation, as variety, and as disparity. These authors call for the need to distinguish each kind of diversity, both in terms of consequences and measurement. Specifically, my dissertation explores diversity as variety through the heterogeneity that may occur in TMTs considering the following demographic characteristics: familial nature of the teams, tenure, age, and number of generations of family involved in the business. In addition, it considers diversity as disparity through the possible creation of subgroups within the team as a consequence of the alignment between the demographic features mentioned above.

As I previously mentioned, few studies have used upper echelon theory to examine the diversity of the TMT in the specific context of family firms (e.g. Ling & Kellermanns, 2010; Sciascia, Mazzola & Chirico, 2012). Likewise, the faultline perspective has been also little used, though paradoxically the TMT in family-controlled firms may include salient demographic attributes (e.g. family managers versus non-

family managers), which may lead to divide the team in subgroups. Minichilli, Corbetta and MacMillan (2010) used the faultline approach to explain their hypothesized U-shaped relationship between the ratio of family members in the TMT and firm performance. These authors, drawing on the group dynamic perspective, state that the coexistence of family and non-family members could produce "schisms", which cause emotional disagreements and tensions into the group. These conflicts lead to a disruptive behavior, consequently affecting firm performance. Particularly, when both groups are balanced regarding its composition (i.e. a strong faultline), the conflict and dysfunctional behavior increases. Meanwhile, when there are few members of one group or the other, the minority faction has less power to affect the decisions and the organizational outcomes (Minichilli et al., 2010:210). In this vein, my dissertation expands the considerations presented by Minichilli et al. (2010), since it directly operationalizes the group faultlines of TMTs in family firms.

Furthermore, my research considers the generational perspective to address another shortcoming identified in the literature on entrepreneurship in family firms (Hoy, 2006; Cruz & Nordqvist, 2010). Specifically, as argued by Cruz and Nordqvist (2010: 34), the impact of the generational phase of family firms must be considered in this kind of research because "family firms go through different stages depending on the generation in control and thus, the firms' strategic behaviors often change from stage to stage" (Bammens, Voorderckers & Van Gils, 2008, Schulze, Lubatkin, & Dino, 2003; Gersick et al. 1997). Following this line of thought, I included the family generation that currently has the decision power in the firm (i.e. generation in control) as a moderating variable between diversity of TMT and entrepreneurial behavior. Particularly, I contend

that since the first stages of family firms are founder-centered (Salvato, 2004), the benefits of TMT heterogeneity are not exploited because the decision-making process is centralized on him or her. As the firm moves to second-generation and later-generation of family firms, the notion of management team becomes a key element in strategic decisions, including entrepreneurial initiatives, therefore the diversity of TMT does matter in these stages of family firms.

Contribution

In general, my dissertation contributes to the literature on entrepreneurship and family business in several ways. Firstly, I add to entrepreneurship literature, since the majority of studies have focused on the antecedents of entrepreneurial behavior in non-family firms, while little research has been conducted on how family involvement affects the entrepreneurial behavior in family firms. Specifically, by combining insights from the literature on entrepreneurial orientation, family firms, strategic leadership and faultline theory, the research contributes to a better understanding of the different drivers of entrepreneurship in family firms. In this regard, the strategic leadership approach and the faultline perspective seem suitable to identify how different configurations of family involvement affect entrepreneurial behavior in family firms. It is important to highlight that precisely this aspect has been one of the shortcomings frequently reported by scholars in research on entrepreneurship in family firms (e.g. Chrisman et al., 2005a; Kellermanns et al., 2008), thus this dissertation contributes to fill this gap of the literature.

Secondly, my dissertation also addresses the impact of generational perspective in family firms, which has been frequently neglected in research on entrepreneurship in

family business (Hoy, 2006; Cruz & Nordqvist, 2010). Likewise, whereas so far researchers have mainly focused on comparing family and non-family businesses regarding certain determinants of entrepreneurial behavior, this dissertation will emphasize the differences among the group of family businesses. In this vein, my research pays attention to different types of family firms, rather than treating them as a homogenous group, providing a differentiated analysis in studying predictors of entrepreneurship in family firms. Specifically, I include the generation in control in family firm as a moderating variable between diversity of TMT and entrepreneurial behavior to study the stage that the family business is experiencing.

Thirdly, my research includes the strategic leadership approach and the group faultline perspective, in order to provide a complete study of how TMT heterogeneity could affect the entrepreneurial behavior in family firms. In this regard, the use of faultline theory is a relevant contribution because this novel approach offers a better way to understand why heterogeneity may have an impact on organizational outcomes. Specifically, in the context of family firms, my dissertation expands the considerations presented by Minichilli et al. (2010), since it explicitly operationalizes the faultline of TMTs in family firms.

Fourthly, by combining insights from the literature on entrepreneurial orientation, family firms and strategic leadership, my dissertation also contributes to the development of a theory of family business. In this regard, according to Chrisman et al. (2005a), there is currently no dominant theory of the family business and therefore a good starting point to build a theory is to consider whether existing theories of the firm are applicable to explain family firm behavior. Indeed, my research contributes in this regard since it uses

the strategic leadership perspective and the faultlines theory in the context of the family business.

Fifthly, my study may also provide novelty value in the characteristics of its sample. Specifically, most research on family firms and different organizational outcomes (e.g. firm performance, entrepreneurial behavior) have been carried out using samples of large quoted firms in United States and Europe. In this regard, my dissertation contributes to validate these findings considering private family firms in another cultural context.

Finally, the last contribution of my dissertation is related to the managerial implications. Particularly, the research contributes to a better understanding of the notion of "professionalizing" in family business, considering how the heterogeneity of TMTs influences the decisions regarding entrepreneurial behavior of this kind of firms.

Dissertation Structure

The dissertation is structured as follows: Chapter 2 provides a review of the relevant literature. Since the research focuses on the overlap of family business and entrepreneurship research, theoretical and empirical contributions from both fields shall be considered. Likewise, the strategic leadership approach and the faultline theory are integrated into the study, to understand the way different configurations of family involvement affect the entrepreneurial behavior in family firms. Prior research is used to develop a theoretical framework to guide the study of the research issues. Based on the literature review previously conducted, a set of hypotheses related to the heterogeneity in the TMT composition of family firms and its relationship with the entrepreneurial orientation is developed in Chapter 3. The Chapter 4 describes the research method that

was used to test the set of hypotheses suggested in the previous chapter. In the Chapter 5 the results and corresponding statistical analysis are presented. Finally, Chapter 6 address the discussion of the findings obtained and the main conclusions that emerge from them.

CHAPTER 2: LITERATURE REVIEW

This chapter reviews different theoretical approaches and past research, in the fields of family business, strategic leadership and entrepreneurial behavior. Prior research is used to develop a theoretical framework to guide the study of the research issues. Specifically, the chapter is organized as follows: The first section provides a brief overview of the family business that includes definitional issues and some features of this kind of firms. The second section offers a review of the existing literature on TMT heterogeneity and some insights to understand this notion in the specific context of family firms. Finally, the third section introduces the literature on entrepreneurship and discusses research that has examined entrepreneurial orientation in the context of family business.

Family Firms: Definition and Characteristics

As mentioned earlier, family firms are the dominant organizational form in today's corporate world (La Porta et al., 1999; Sharma, Chrisman, & Gersick, 2012). Particularly, some researchers have suggested that family businesses are the primary drivers for economic development and growth (Gedajlovic et al., 2004), given that approximately two thirds of all businesses around the world are family firms (Bennedsen et al., 2007; Westhead & Howorth, 2006).

Therefore, not surprisingly, the studies on family business have shown a dramatic increase in recent years (Bird, Welsch, Astrachan, & Pistrui, 2002; Zahra & Sharma, 2004). However, though the research on family business has made considerable progress, much remains to be done. Precisely, one shortcoming to resolve is to achieve a minimum

of agreement between researchers regarding the theoretical issues on the definition of family firm. In this sense, some scholars (e.g., Chua et al., 1999; Handler, 1989) have tried to consolidate thoughts and formulate new conceptualizations on the definition of family firms, but none of these proposals has yet gained widespread acceptance (Sharma, 2004). Nevertheless, it is important to note that most of the researchers coincide in terms of the importance of the role played by family regarding vision, control mechanisms used in the firm, and creation of unique resources and capabilities (Chrisman, Chua, & Litz, 2004; Habberson et al., 2003; Sharma, 2004). Likewise, another aspect that remains challenging in this field is the development of a rigorous theory of the family firm (Chrisman et al., 2005a). "A starting point for achieving this objective is to examine whether and how current theories of the firm can be applied and combined to study family businesses" (Chrisman et al., 2005a: 566-567). Unquestionably, these aspects show the limitations and obstacles of a field of research in its early development stage. In the following sections, I will present in a more extensive way some issues related to family firm definitions as well as certain differential features that shows this kind of firms.

What is a family firm?

One of the main obstacles the research faces in the field of family business is the lack of a definition widely accepted by scholars, regarding what distinguishes a family firm from other types of organizations (Handler, 1989; Chrisman et al. 2005a). Specifically, the existence of a wide variety of definitions within the specialized literature has not allowed developing accurate estimations on the importance and impact that this kind of enterprises have on the economies of each country (Shanker & Astrachan, 1996).

Likewise, previous works have shown that the results of empirical studies are highly sensitive to the definition selected. For example, Miller, Le Breton-Miller, Lester and Cannella (2007), found that the out-performance of family business compared to non-family businesses was closely related to the way these firms are defined.

In general, family firms can be defined as business controlled and usually managed by family members (Shanker & Astrachan, 1996). In this regard, one of the approaches frequently used to define this type of organizations is based on the components of a family's involvement in the business: ownership and voting control (e.g. La Porta et al., 1999; Anderson & Reeb, 2003), involvement of multiple generations (e.g. Villalonga & Amit, 2006), active management by family members (e.g. McConaughy et al., 1998), among others. Nevertheless, these approximations to the definition of family business have faced significant limitations regarding accuracy of the referred components. Specifically, according to Chrisman et al. (2005a), this type of definitions lack of theory basis to explain how the family involvement leads different outcomes compared to non-family firms. These limitations have been attributed by some authors to the heterogeneity found in the universe of the family firms regarding family involvement (Sharma, 2004).

Another group of researchers has tried to elude these limitations focusing on the essence of a family firm, which has been conceptualized from different approaches that do not exclude themselves (Chrisman et al. 2005a). Specifically, Shanker and Astrachan (1996) define it as the influence that the family has on the strategic direction of the firm. Liz (1995) identifies the essence of a family firm as the intention of the family in keeping the business control of the family beyond current generation. Likewise, Chua et al. (1999)

highlight that it is necessary to include the behavior shown by the dominant coalition of the firm, manifested in the management, the government or both. On the other hand, Habbershon et al. (2003) add another element, by characterizing *familiness* as unique, inseparable, and synergistic resources and capabilities derived from family involvement in the business.

The main difference between both perspectives is what each of them considers as sufficient conditions so that an organization can be defined as a family business. Specifically, Chrisman et al. (2005a) state that the components of involvement approach assume implicitly that family involvement is sufficient to consider a firm as a family business. Conversely, for the essence approach, a certain form of family involvement is only one of the necessary conditions for an organization to be considered a family firm. For this, it is required that family involvement be directed towards determined types of behavior, such as maintaining control throughout different generations, maintaining participation in management and government, among others (Chrisman et al., 2005a).

Likewise, another aspect considered by some authors as an obstacle in the advance towards a consensual definition of family business is related to the fact that several theoretical approaches treat family and non-family firms as dichotomous types of organizations and rather than as a continuous variable (Chrisman et al., 2005a). Precisely because of this, Shanker and Astrachan (1996) propose a definition of family firm taking into consideration three modes of family involvement. These authors suggest that family businesses can be narrowly defined as those in which the family retains voting control of the business and multiple generations of family members are involved in the daily management of the firm, while the broad definition only requires family to retain voting

control over the strategic direction of the business (Sharma, 2004). Taking this work as a reference point, Astrachan, Klein and Smyrnios (2002) designed and validated a scale for assessing the family influence on any business organization (i.e. F-PEC scale). This instrument includes three sub-scales relative to power, experience, and family culture. This scale permits characterizing family firms in a continuous spectrum using the components ownership, governance, management, generation-in-charge, family values and, business values (Astrachan et al., 2002). According to Chrisman et al. (2005a), one of the main contributions of this framework is its potential to reconcile the components of involvement and essence approaches. Specifically, if the components are defined as result of the influence the family exerts on the business both approaches may converge.

Taking into consideration the aforementioned aspects, as well as the objectives and scope of my dissertation, a family firm will be defined as "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: 25). Thus, a family firm must meet three criteria: to be governed/managed by family, to have a vision of the firm consistent with the strategic direction held by the family, and to be potentially sustainable across multiple generations (Kellermanns, et al., 2008). According to Birley (2002), "this definition has the advantage of considering the attitudes and the behavior of both current and future generations toward family business ownership and management, focusing on more than just purely arbitrary quantitative measures" (as cited in Chua, Chrisman & Bergiel, 2009: 355).

Furthermore, this definition allows the identification and measure of characteristics that differentiate the study entity from others, elements that are critical when choosing any type of operational definition (Chua et al., 1999: 23). Additionally, Chua et al.'s (1999) definition is sufficiently inclusive as to enable different configurations of family involvement in the top management team and thus, identifying the possible relationship that exists between its heterogeneity and the entrepreneurial orientation.

Distinctiveness of family firms

One of the aspects in which most scholars seem to agree is that what makes family firms unique and different regarding other type of firms is the family involvement in management and ownership structure (Sharma, 2004; Westhead & Howorth, 2006). However, this feature not only distinguishes family firms from their non-family counterparts, but also differences among themselves (Sharma, 2004). The heterogeneity that characterizes the universe of family firms can be associated with the changes experienced by the different subsystems that coexist in family business. Specifically, the family firms, besides the natural changes endured by any business, they have to face changes associated with the familial dynamic – the inclusion of younger generations to the business, changes in the ownership structure, succession processes, among others (Gersick et al., 1997). Hence, some scholars have suggested different typologies related to the development stage of a family business in order to better characterize and understand this type of organization (e.g. Gersick et al., 1997; Jaffe & Lane, 2004; Salvato, 2004).

In this vein, Gersick et al. (1997), drawing on the three-circle model proposed by Taguri and Davis (1996), suggest an approach able to characterize family business considering the temporal dimension in the analysis. Particularly, these authors indicate the potential differences that family firms can show depending on the stage they go through in the dimensions: family, ownership, and business. Specifically, in the ownership dimension, these authors define the stages taking into account the number of family members involved in the ownership structure: controlling owner, sibling partnership and cousin consortiums. Regarding family as subsystem, Gersick et al. (1997) included different stages of family involvement in the business, which ends up in generational succession. Particularly, the stages associated with the family are the following: young business family, entering the business, working together, and passing the baton. Finally, regarding the business dimension, the authors classify firms as being in the start-up, expansion/ formalization, and maturity phase

Likewise, Salvato (2004) using a similar logic suggests another classification for differentiating family firms. Specifically, this author distinguishes three types of family firms: founder-centered, sibling/cousin consortium, and open family firms. This taxonomy takes into consideration the role of the founder and the possible changes in the ownership throughout time. The founder-centered family firms are organizations in which the founder plays a leading role. Generally, in this type of firms, the succession has not taken place or the founder remains the majority owner, thus the power is centralized in this character and he or she is the one to make all the decisions related to the business (Salvato, 2004). The sibling/cousin consortium firms are organizations in which the second, the third or late generations have majority ownership, and they play an important

role in the managerial activities of the firm (Salvato, 2004). Finally, open family firms are companies in which a family or a family group does not have the majority ownership, and the business is managed by non-family executives.

On the other hand, Jaffe and Lane (2004), based on the model proposed by Gersick et al. (1997), propose a model on family firms that show the characteristics of these kinds of organizations as it evolves to become a business dynasty. Specifically, these authors characterize the evolution of family firms through three stages: entrepreneur, family partnership, and business dynasty. The entrepreneur stage characterizes firms in which the control is exercised by the founder or a reduced group of family owners. Likewise, the strategic process of these firms is determined by the vision of this reduced group of family members and besides the governance are established ad hoc (Jaffe & Lane, 2004). The family partner stage typifies a firm controlled by a sibling team that generally coincides with a mature business, and therefore the strategies focus on renovation. In this stage, the governance structures are informal, and the organizational rules and policies are generally implied. The last stage referred as business dynasty characterizes firms usually type holding where the owner family has different branches. The business strategy in this stage focuses on sustaining profitability and generating new wealth for the owner families. Moreover, in this stage the governance structures are formal, including boards with outside members, and formal policies (Jaffe & Lane, 2004). In this sense, Jaffe and Lane (2004) indicate that the evolution of the family towards a dynastic model may occur in two ways. The first one results when the original family business goes public, or becomes quite large. In this case, the family can still control the company, but through a board of directors that includes other non-family

shareholders (Jaffe & Lane, 2004). The second way results when the family has sold its core business and has a portfolio of investments of various asset types. In this case, the family controls and directs everything through several business entities with different legal and financial structures (Jaffe & Lane, 2004).

In summary, the diverse taxonomies previously presented suggest that family firms may be significantly different among themselves, according to the generational stage that they are crossing. These taxonomies will be particularly useful to understand how family business' life-stage influences the relationship between TMT diversity and entrepreneurial orientation of the firm – i.e. one of the hypotheses that I propose.

TMT Heterogeneity in Family Firms: An Integrative View

Since the seminal article of Hambrick and Mason (1984), researchers have devoted significant attention to study how characteristics of TMT influence different organizational outcomes (e.g. turnover, consensus, and performance). Without question, the notion that organizations are the reflection of top managers created the necessity to search for empirical evidence, particularly due to the possible practical implications that a proposition of this kind entails.

Two competing views of TMT diversity have been frequently used to explain the mechanisms underlying the relationship among heterogeneity, group process, and performance: social-categorization theory and cognitive-resource perspective (Bezrukova et al., 2007; Horwitz & Horwitz, 2007). Specifically, cognitive diversity suggests that the degree to which team members differ in their expertise, experiences, and perspectives could have a positive impact on organizational outcomes because of unique cognitive

attributes that members bring to the team (Cox & Blake, 1991; Hambrick et al, 1996). Ultimately, as argued by Horwitz and Horwitz (2007), cognitive diversity among heterogeneous members promotes creativity, innovation, and problem solving, and thus it results in a superior performance in comparison to homogeneous teams. In contrast, social-categorization theory posits that "individuals classify themselves and others into familiar categories in order to make predictions about subsequent interactions" (Jehn, Bezrukova, & Thatcher, 2008: 180). These categorization groupings are also used to define an individual's social identity (Turner, 1987). Specifically, individuals categorize themselves and others into in-groups and out-groups and then they base part of their social identity on the characteristics of their in-group (Tajfel & Turner, 1986). This categorization process usually tends to create stereotypes, prejudice, and out-group discrimination that may result in conflict and lead to substandard performance (Pelled, Eisenhardt & Xin, 1999; Jehn et al., 2008). Therefore, the supporters of this perspective consider that the varying member characteristics (e.g. age, expertise) are associated negatively with team outcomes (Jackson, May & Whitney, 1995; Horwitz & Horwitz, 2007).

On the other hand, much of the research related to the composition of TMT has focused on diversity defined as the distribution of staff attributes among interdependent members of a work unit (Jackson, Joshi & Erhardt, 2003; Nielsen, 2009). However, as suggested recently by Harrison and Klein (2007: 7), "diversity is itself diverse" implying that the application of a single perspective to explain the performance of a team is not the most suitable (Boone & Hendriks, 2009). Specifically, Harrison and Klein (2007) define diversity in three different ways: diversity as separation, as variety, and as disparity.

Diversity as separation is related to the differences in position or opinion among unit members, and reflects disagreement or opposition in a particular attitude or value. Diversity as variety represents the differences in kind or category primarily on information, knowledge or experience among unit members. Finally, diversity as disparity indicates differences in concentration of valued social assets or resources such as payment and status among group members. In this vein, the review made by Nielsen (2009) show that most of the studies based on the upper echelon perspective use the notion of heterogeneity or diversity as a general construct. Thus, the author remarks the importance that decomposing the construct to single elements should have for empirical research. Specifically, Nielsen (2009) states that group effectiveness theories establish differences among the effects of various types of diversity (Milliken & Martins 1996; Williams & O'Reilly 1998).

Precisely for those reasons, after more than 25 years of research, the findings regarding TMT heterogeneity have been mixed and inconsistent, and thus it still remains unclearly defined the impact of team composition on performance as well as the moderating and mediating variables potentially affecting this relationship (Cannella, Park & Lee, 2008). In response to these disappointing cumulative results, several scholars have refined their theories and analyses, typically by elaborating possible mediators and moderators of connections between within-unit diversity and unit outcomes (Harrison & Klein, 2007). Specifically, several researchers have moved towards examining social psychological processes, perceptions and beliefs of individuals, and linking the demographic variables with team-level variables such as cohesion, consensus, and cognitive heterogeneity, among others (Beckman & Burton, 2011). Meanwhile, others

scholars (e.g. Barkema & Shvyrkov, 2007) have responded focusing more on the issue of demographic alignment as put forth in the group faultline theory introduced by Lau and Murnighan (1998). This approach considers simultaneously multiple aspects of individual members' characteristics and estimates the possibility of forming sub-groups based on similarity in more than one attribute (Nielsen, 2009).

In the specific context of family firms, with few exceptions (e.g. Ensley & Pearson, 2005; Kellermanns et al., 2008; Ling & Kellermanns, 2010), there has been little research on how the different compositions of top management teams affect organizational outcomes. Paradoxically, as mentioned by Ling and Kellermanns (2010), family firms offer a very rich field for the research of diversity. Indeed, as a consequence of the overlapping between family and business, family firms incorporate additional sources of heterogeneity that must be taken into consideration (Ling & Kellermanns, 2010). Specifically, the heterogeneity of top management teams in these types of firms necessarily requires considering aspects related to the number of family managers occupying high management positions, the generation in charge of the firm, the number of generations involved, among other elements.

In the next sections, I review the main insights by the upper echelon perspective and group-faultline theory. Likewise, I discuss the contributions made by the diverse theoretical approaches regarding the family involvement in family business.

The upper echelon perspective: a brief overview

The upper echelons perspective has its roots in the behavioral theory of the firm (Cyert & March, 1963). Specifically, Hambrick and Mason (1984: 93) proposed that "organizational outcomes – strategic choices and performance levels – are partially

predicted by managerial background characteristics" given that firms are "reflections of the values and cognitive bases of powerful actors".

The seminal paper of Hambrick and Mason (1984) is based on the notion that the dominant coalition of an organization has the decision power and thus they can influence organizational outcomes. Furthermore, these authors suggest that strategic choices of top executives have a large behavioral component. Therefore, TMTs make strategic decisions and lead organizations in concordance with their own values and cognitive bases (Hambrick et al., 1996, Wiersema & Bantel, 1992, Kilduff, Angelmar & Mehra, 2000). Particularly, Hambrick and Mason (1984) center their attention on executive cognitions, values, and perceptions, and on how these psychological elements influence the process of strategic choice and performance outcomes. These authors suggested that the internal and external situations of organizations are filtered and interpreted through the cognitive characteristics and values of TMTs. Nonetheless, since these psychological constructs are difficult to measure, the upper echelon approach suggests that managers' characteristics are reasonable proxies for underlying differences in cognitions, values, and perceptions (Hambrick & Mason, 1984; Carpenter et al., 2004). In their framework, Hambrick and Mason (1984) use upper echelon characteristics such as age, functional tracks, other career experiences, education, socioeconomic roots, financial position and group characteristics. These observable proxies of psychological constructs, which configure the interpretation made by the team over internal and external situations, facilitate the formulation of appropriate strategic alternatives (Carpenter et al., 2004).

The upper echelon theory, "which was later called strategic leadership, in general suggests a positive relation between certain demographic characteristics of the top

management teams and firm outcomes" (Certo, Lester, Dalton & Dalton, 2006: 813). Nonetheless, after more than 20 years of research, the empirical findings have been ambiguous and even contradictory. Specifically, some researchers have obtained results that support the relationship between managerial characteristics and organizational performance (Carpenter et al., 2004). For example, Bantel and Jackson (1989), Lyon, and Ferrier (2002), found that heterogeneity in top management teams might be associated with innovation. In addition, top management team heterogeneity has been positively linked with strategy formulation (e.g. Knight, Pearce, Smith & Olian, 1999), strategic decision-making processes, and related issues (e.g. Smith, Smith, Olian & Sims, 1994). On the other hand, another group of researchers has suggested that heterogeneity in top management teams generates tension and conflict, which constrains the information exchange and therefore adversely affects firm performance (e.g. Chatman & Flynn, 2001; Ancona & Caldwell, 1992). For this precise reason, there is no conclusive evidence that permits suggesting the direction in which heterogeneity in these teams affects organizational outcomes. As mentioned by Finkelstein and Hambrick (1996), one of the conclusions that may derive from the empirical evidence is that top management team heterogeneity acts as a *"double-edged sword"*.

Nevertheless, beyond the inconsistency of the empirical findings, this approach has also been criticized for using the demographic characteristics of TMT as predictors of organizational outcomes without exploring "the psychological and social processes by which executive profiles are converted into strategic choices", that is, without analyzing what the literature on this field recognizes as "the black box" (Hambrick, 2007: 337). In this sense, as mentioned by Certo et al. (2006), some researchers have made important

efforts towards understanding the process underlying top management team decision making (e.g. Priem, 1990; Eisenhardt, Kahwajy & Bourgeois, 1997).

In this regard, the work of Finkelstein, Hambrick and Cannella (2009) presents the *state of the art* regarding this stream of research. Specifically, these authors extend the theoretical propositions put forward by Hambrick and Mason (1984) responding to many of the critiques on the original framework. Drawing on social psychology, organizational demography, and strategic management, these authors suggest that the relationships among TMT can be explored through the following elements: composition, structure, and process. Specifically, the composition refers to the collective characteristics of top team members, such as their values, cognitive bases, personalities, and experiences. The composition is related to the notion of heterogeneity in TMTs. Likewise, they suggest that "demographic heterogeneity may be seen as a proxy for cognitive heterogeneity, representing innovativeness, problem-solving abilities, creativity, diversity of information sources and perspectives, openness to change and willingness to challenge and be challenged" (Finkelstein et al., 2009: 132). On the other hand, structure is defined as the roles performed by members and the relationships among those roles. A fundamental element for this definition is the role interdependence of team members, which is defined as the degree to which the performance of the firm depends on information and resource sharing, as well as other forms of coordination within the top management teams (Finkelstein et al., 2009). The last conceptual element of top management teams are their processes, that is, the nature of interaction among top managers as they engage in strategic decision making. Specifically, Finkelstein et al. (2009), review two dimensions of this process: social integration and consensus. Social integration is defined as "the

attraction to the group, satisfaction with other members of the group, and social interaction among the group members" whilst consensus is "the extent of agreement of all parties of a group decision" (Finkelstein et al., 2009: 124). In this regard, these authors state that cognitive heterogeneity and social integration should be negatively associated. Specifically, they argue that similarity within the team facilitates the social integration. In contrast, demographic heterogeneity can create conflicts that it may negatively affect social integration and cohesion of TMT.

In the context of family firms, some studies (e.g. Ling & Kellermanns, 2010; Sciascia et al., 2012) have used upper echelon perspective to examine diversity of the TMT and its impact on organizational outcomes. Specifically, Ling and Kellermanns (2010) integrate upper echelon theory and team process perspective to examine the relationships among family firm specific sources of TMT diversity and firm performance. They found that generation in charge of the family firm, the number of family employees, and the number of employed generations have a more positive influence on family firm performance when the information exchange among TMT members was more frequent. Likewise, Sciascia et al. (2012), explore the relationship between generational involvement and entrepreneurial orientation in family business. These authors argue that moderate levels of generational involvement lead task-related constructive conflicts that foster knowledge integration and thus entrepreneurial orientation. However, high levels of generational involvement undermine this potential advantage because of the increased kinship distance and disruptive relationship conflicts. My dissertation is aligned with these studies. Particularly, I will use demographic heterogeneity as proxy of cognitive diversity to evaluate the effect of diversity TMT in entrepreneurial orientation in family

firms. In addition, as it will be discussed in the next section, I will use the faultlines theory as proxy of social integration.

Heterogeneity and faultline: two sides of the same coin

The traditional diversity approach investigates the heterogeneity within teams and its connection to different organizational outcomes (e.g. group cohesiveness, innovation, creativity, performance), through different measures of dispersion, such as the Blau index, the Euclidean distance or the standard deviation (Van Knippenberg & Schippers, 2007). However, as previously discussed, diversity is not one thing but three things –i.e. separation, variety and disparity. Therefore, as suggested by Harrison and Klein (2007: 7), "the substance, pattern, operationalization, and likely consequences of those three things differ markedly".

One of the more interesting advances in this regard is the one provided by the group faultline introduced by Lau and Murnighan (1998). Faultline perspective is rooted in social-identity and self-categorization theories and it addresses the creation of subgroups within diverse teams. This approach suggests that in order to have full understanding of the consequences of diversity, it is necessary to take into account the configuration of team member attributes rather than the degree or type of diversity present in work teams (Jackson & Joshi, 2011; Sawyer et al, 2006). More particularly, the supporters of group faultline approach suggest that two teams can have the same amount and type of diversity, but they could also have completely different diversity structures. Thus, these teams are likely to generate completely different outcomes (Sawyer et al., 2006).

Specifically, a group faultline can be defined as a "hypothetical dividing lines that may split a group into subgroups based on one or more attributes" (Lau & Murnighan, 1998: 328). "This partition provides the impetus for group members with different demographics to differentiate themselves and potentially fracture into competing subgroups within the group" (Bezrukova, Jehn, Zanutto & Thatcher, 2009: 35). The strength of a faultline is related to the number of salient attributes within a team, the extent to which these attributes are aligned, and the number of subgroups that are formed (Lau & Murnighan, 1998). Particularly, Shaw (2004) defines a faultline with maximum strength as two subgroups with perfect internal alignment, and zero cross-subgroup alignment.

These demographic alignments produce more direct and pervasive effects on group processes and outcomes, in comparison to the simplest dispersion of member differences (Lau & Murnighan 2005; Li & Hambrick, 2005; Bezrukova, Thatcher, Jehn, & Spell, 2012). Nevertheless, the studies have been less conclusive regarding the direction of the effects of faultlines. Specifically, some studies have reported negative impacts as tension within the group and low performance. For example, Early and Mosakowski (2000) found that teams with faultlines perform more poorly than teams with low or high levels of heterogeneity. Likewise, these authors stated that faultlines are most likely to emerge in teams with moderate heterogeneity. In similar vein, Li and Hambrick (2005) observed that faultlines are negatively related to TMT group performance. More specifically, the results of these authors suggest that strong factional faultline is created when factional groups converge with demographic attributes. At the same time, these subgroups generate task and emotional conflicts, behavioral

disintegration, and finally poor performance. Similarly, the findings of Barkema and Shvyrkov (2007) show that strong faultline settings in TMTs are detrimental and decrease strategic innovation in the context of entering into new geographical areas. Furthermore, Homan, Van Knippenberg, Van Kleef, and De Dreu (2007) found that when informational diversity converged with other diversity attributes (e.g. gender and personality traits), the teams experience more conflicts, a more negative team climate, lower satisfaction and a decreased ability to process information. Finally, Lau and Murnighan (2005) found that faultlines explained more variance in perceptions of team learning, psychological safety, satisfaction, and expected performance than single-attribute heterogeneity indexes. However, their results showed that cross-subgroup work communications were effective for groups with weak faultlines, but were not effective for groups with strong faultlines.

Although a significant number of studies have shown a negative relationship between faultline strength and team outcomes, other research has found that group faultlines can be associated with positive team outcomes. Gibson and Vermeulen (2003) showed that moderate faultlines are positively related to learning behavior, in opposition to teams with extremely high or weak faultlines. Similarly, Thatcher, Jehn, and Zanutto, E. (2003) found a curvilinear relationship between faultline strength and team outcomes such as morale, team learning and performance. Moreover, the findings of Sawyer et al. (2006) suggest that even though faultlines eliminated the potential positive effects of informational diversity, these do not generate worse performance than homogeneous teams.

On the other hand, Lau and Murnighan (1998) argued in their original theoretical framework that the faultlines can go unnoticed for years without affecting group processes. Specifically, the faultlines need to be activated in the minds of individual team members, in order to affect team processes. However, as noted by Thatcher and Patel (2011), most of the recent work on faultlines examined it based on objective demographic characteristics such as gender, age, and race (e.g., Lau & Murnighan, 2005; Li & Hambrick, 2005), neglecting to consider whether team members actually perceive these subgroup splits based on demographic characteristics. In this regard, it is important to state that my research considers the decisions related to entrepreneurial activities as a context that can activate faultlines in TMTs.

In the context of family businesses, this theoretical approach has been little used, though paradoxically the TMT in family-controlled firms can include salient demographic attributes (e.g. family managers versus non-family managers), which may lead to divide the team in subgroups. In this regard, recently, Minichilli et al. (2010) used this approach to explain their hypothesized U-shaped relationship between the ratio of family members in the TMT and firm performance. Specifically, the authors argue that the coexistence of "factions" in family and non-family managers within the TMT has the potential to create schisms among the subgroups and consequently hurt firm performance. In the same line of thought, my dissertation considers faultline theory for predicting the possible negative impact that subgroups within TMTs may have on entrepreneurial orientation in family firms.

The family involvement in top management team (TMT)

Family involvement is a broad construct with no precise definition (O'Boyle, Rutherford & Pollack, 2010). For this reason, the researchers have defined and operationalized this construct in different ways: family ownership, family members employed, and family members in top managerial positions, among others. Three theoretical streams of research have dominated the study of the family involvement and the way it influences different organizational outcomes: resource-based view (RBV) of the firm, agency theory, and stewardship theory.

Drawing on RBV of the firm, Habbershon and Williams (1999) developed a theoretical framework to identify possible advantages in the family firms. These authors introduced the notions of *familiness* by identifying the bundle of idiosyncratic internal resources and capabilities resulting from the involvement of the family in the firm and matching them with firms' strategic capabilities. More specifically, Habbershon and Williams (1999: 11) defined "*familiness* as the unique bundle of resources a particular firm has because of the systems interaction between the family, its individual members, and the business". Accordingly, many of the recent theoretical developments in the field of family firms have been based on RBV (e.g., Eddleston, Kellermanns & Sarathy, 2008; Ensley & Pearson 2005).

Specifically, the work of Eddleston et al. (2008) explores how reciprocal altruism (i.e. a family specific resource) and innovative capacity (i.e. a firm specific resource) contribute to the explanation of the family firm performance. The findings of these authors demonstrate that not only firm specific resources contribute to family firm performance, but also family relationships can be a source of advantage for family firm.

Similarly, Ensley and Pearson (2005) suggest that certain dynamics created by the social relations produced in the family firms, result in TMTs with higher cohesion, potency, positive task conflict and shared strategic consensus. These authors distinguish between two categories of family business teams: teams with parental ties and teams consisting of family members, but without parental ties. Their main findings show that parental TMTs, with few exceptions, manage their behavioral processes more efficiently that non-family TMT (Nordqvist, 2005).

Other recent studies extend social capital theory to the *familiness* construct, exploring how unique resources and capabilities of family firms are created through the interaction between the family and the firm (e.g. Arregle, Hitt, Sirmon &Very, 2007; Pearson, Carr & Shaw, 2008; Sharma, 2008). Most of these theory studies consider that the existence of social capital in family firms can contribute to reduce transactional costs, create and accumulate knowledge, increase creativity, and promote alliances, among other aspects (Arregle et al., 2007).

Regarding agency theory, it suggests the existence of an inherent conflict of interests between principals and agents because they have incongruent goals (Shapiro, 2005). The principal's major concern is related to survival, stability, and long-term growth of the organization, whereas the agent will concentrate on what is prescribed in the contract (Howard-Greenville, 2005). Hence, as suggested in Shapiro (2005), the agent is specifically role-oriented, rule-bound and risk-averse while the principal is entrepreneurial by nature (i.e. innovative, proactive and risk-taking). This approach also assumes that agents can behave opportunistically, taking advantage of their office or loopholes in the contract with the aim of maximizing their utility at the expense of

principals (Chrisman et al., 2004; Schulze, et al., 2003). The application of the agency theory to family firms assumes that these organizations incur fewer agency costs because the goals of a firm's principals (owners) are aligned with its agents (managers) who are typically the same or at least related (Fama & Jensen, 1983; Dyer, 2006). Likewise, some authors suggest that the family members are expected to be altruistic toward each other as result of kinship obligations that are part of the axiomatically binding normative moral order in most cultures (Chrisman et al., 2004; Kellermans & Eddleston, 2002, 2004).

Nevertheless, altruism can also lead to other agency costs, for example, free riding by family members, entrenchment of ineffective managers, or even predatory managers (Chrisman, et al., 2004). Thus, Schulze, Lubatkin, Dino and Buchholtz (2001: 102) highlight that "this agency threat is likely to be pronounced in family firms, because control over the firm's resources makes it possible for owner-managers to be unusually generous to their children and relatives". Specifically, these authors indicate that generally the firms of this nature give their family members secure employment, as well as certain prerequisites and privileges that other employees in the same position do not perceive. Several studies have supported the premise that altruism can have a significant impact on the behavior and performance of family firms, because family relationships make more difficult to solve certain kinds of conflicts and consequently stop unproductive behaviors (Chrisman, Chua, Kellermanns & Chang, 2007; Schulze et al., 2001, 2003).

On the other hand, Chrisman et al. (2004) claim that possible problems inherent to altruism in family firms can only be considered agency costs if it is assumed that economic performance is the only goal that family business pursue. Yet, as the same

authors refer, this kind of business may have both economic and non-economic goals. That is the reason why the agency costs associated with altruism will only exist when managers pursue their own interests contravening those of the owners. Indeed, "if the owners decide that providing jobs for its less able members is in its interest and management does provide the jobs, there is consumption of perks, which would be an agency cost in a non-family firm, but not in family firm" (Chrisman, et al., 2004: 338).

In contrast to the agency theory, the stewardship perspective considers organizational actors (i.e. managers and employees) as self-actualizing stewards whose individual goals are aligned with objectives of the organization such as sales growth, profitability, innovation, international expansion and company reputation (Davis, Schoormann, & Donaldson, 1997; Corbetta & Salvato, 2004). Accordingly, managerial motivation to improve organizational outcomes is generated by the belief that, along with the owners (principals), they (stewards) will benefit from the good performance of the organization (Davis et al., 1997). The steward-manager, working under the premise that both the steward and the principal will benefit, maximizes the performance of the organization (Davis et al., 1997). In this sense this perspective assumes that the manager behaves without self-interest; however, as pointed out by the literature on stewardship, this presumption does not preclude the presence of selfishness. Therefore, the analysis of stewardship attitudes among managers suggests a combination of both altruism and self-interest (Mustakallio, Autio & Zahra, 2002; Schulze et al., 2003).

In this regard, Chrisman, et al. (2005a) suggest, that the application of the stewardship perspective to the family business only requires that owners and family managers value the interests of the others as much as their own. Following this statement,

Corbetta and Salvatto (2004) point out that since family firms pursue not only financial but also non-financial goal, it will motivate family managers to focus on higher order intrinsic needs. In addition, these authors suggest that emotionality related to long-term relational contracts between family business owners and family managers will motivate family managers to pursue owners' interests. In summary, "the stewardship theorists believe the interests of family managers and family business owners will be aligned if family managers are intrinsically inclined to pursue the interests of owners, so if this occurs the agency problems would not exist (Chrisman et al., 2007: 1032).

However, stewardship theory does not lack of criticisms. For some authors, the problems regarding this perspective are inherent in the concept of altruism, on which the theory rests. In the context of family firms, altruism could contribute to building a competitive advantage at the beginning of the business and the business could use family members regardless of their suitability for the job (Schulze et al., 2003; Habbershon, 2006). However, once the business grows, it will require professionally trained managers, who can face dynamic and competitive environments, that are not necessarily available in the familiar system. In these circumstances, the altruism of the principal might hinder the establishment of meritocracy in the business and thereby increase agency costs. Moreover, Mustakallio et al. (2002) note that while altruism in family firms could reduce some agency costs it could also generate other costs, such as those resulting from nepotism.

Recently, Miller, Le Breton-Miller and Scholnick (2008), suggested a new approach for studying the influence of family involvement in family firms: stagnation perspective. This approach shows the "dark side" of family owned businesses and, as the

same authors claim, it is not exactly a new perspective; it is a systemic combination of proposals from different scholars (e.g. Gersick et al., 1997; Schulze et al., 2001; Bertrand & Schoar, 2006; Morck & Yeung, 2003). The supporters of the stagnation perspective consider family firms as inferior organization types with critical weaknesses that result in stagnation (Miller et al., 2008).

In general, stagnation approach characterizes family firms as organizations with insufficient resources, conservative, with a slow growth and a short life (Miller et al., 2008). The lack of resources is connected to the limited access that family firms have to capital markets, which is also emphasized by the desires of keeping the ownership of the firm inside the family (Grassby, 2000). This aspect is also related to the deficit in other resources such as modern technology and qualified staff (Miller et al., 2008). Likewise, nepotism, familiar conflicts and the possible negative consequences that leads altruism characteristic of family firms, also contribute to the deficit of executive staff in family business (Lubatkin, Ling, & Schulze, 2007; Schulze et al., 2003). The conservativeness of family firms is associated to its risk aversion along with its various expressions. This characterization includes conservative strategies, myopia that hinders them from moving forward from the narrow market boundaries, as well as the incapacity of going with the market changes (Habbershon et al., 2003; Allio, 2004; Schulze et al., 2003). On the other hand, some scholars have suggested that the characteristic lack of resources and conservatism of family firms make them reluctant to grow or show a slow growth (Miller et al., 2008). Finally, based on the previous characteristics, several studies have suggested that family owned businesses tend to disappear on their early development phase (Tsui-Auch, 2004; Miller et al., 2008).

These theoretical approaches regarding family involvement in family firms are critical to examine how diversity of TMTs influences entrepreneurial activities of this kind of businesses. In this regard, my dissertation includes the number of family managers in TMT and generations involvement in the family firms to study the influence of family in entrepreneurial orientation.

Entrepreneurship and Family Firms

The entrepreneurial behavior of established businesses is viewed as a key prerequisite for growth and performance in today's competitive environment (Covin & Slevin, 1991). However, the studies in this field does not explicitly focus on specific types of businesses, such as family firms (Hall, Melin, & Nordqvist, 2001; Weismeier-Sammer, 2011). Specifically, family-business and entrepreneurship fields have been developed as two parallel streams of theory and practice that have lacked of integration (Dyer & Handler, 1994). However, as noted by Nordqvist and Melin (2010) recently some indications suggest that both perspectives are moving closer to each other. In this regard, the next sections provide a brief overview of the literature on entrepreneurship, as well as discuss some theoretical approaches on entrepreneurial behavior in the specific context of family business.

Entrepreneurship: an overview

Entrepreneurship can be associated with the discovery and exploitation of profitable opportunities (Shane & Venkatamaran, 2000). However, the researchers in this field do not seem to agree when giving a specific name of the phenomenon studied. Indeed, innumerable labels have been used: corporate entrepreneurship (Burgelman, 1983; Zahra, 1993) intrapreneurship (Carrier, 1996), strategic posture (Covin & Slevin,

1988; 1989), internal entrepreneurship (Schollhammer, 1982; Vesper, 1984), strategic renewal (Guth & Ginsberg, 1990) venturing (Hornsby, Naffziger, Kuratko & Montagno, 1993), entrepreneurial orientation (Lumpkin & Dess, 1996; Knight, 1997), among others. Hence, some scholars (e.g., Shane & Venkataraman, 2000; Ireland, Reutzel, & Webb, 2005) have concluded that the development of a cumulative body of knowledge in this field has been limited due to the lack of agreement on many issues regarding what really constitutes entrepreneurship. However, according to Covin, Green and Slevin, (2006), entrepreneurial orientation (EO) has become a central concept in the domain of entrepreneurship, receiving a substantial amount of theoretical and empirical attention.

In this regard, Lumpking and Dess (1996) deal this shortcoming by differentiating the concepts of entrepreneurship and entrepreneurial orientation (EO). This "distinction is comparable to the one made in the strategic management literature between content and process" (Bourgeois, 1980, as cited in Lumpkin & Dess, 1996: 136). Specifically, Lumpkin and Dess (1996) state that the act of entrepreneurship is "new entry" that can be achieved through the entrance in new or established markets with new or existing goods or services. Subsequently, these authors expand this analysis, indicating that "new entry" also includes the entrepreneurial activities such as exploitation and pursuit, new products and new market, the finding of resources and so on, in both starting-up and existing firms. On the other hand, the definition of EO has its origins in Miller's (1983: 771) work, which defines entrepreneurial firms as "those that are geared towards innovation in the product-market field by carrying out the risky initiatives, and which are the first to develop innovations in a proactive way in an attempt to defeat their competitors". Likewise, Lumpkin and Dess (1996: 1995) clarify the definition of EO even more stating

that it refers to the "processes, practices, and decision-making activities that lead to new entry". This definition emerges from the intention and actions of the key actors in the organization (Lumpkin & Dess, 1996).

Following the same line of thought, Sharma and Chrisman (1999) develop a framework to clarify and reconcile most of the definitions used in corporate entrepreneurship. These authors differentiate the entrepreneurial activities developed in an independent way and those carried out within the context of an organization. Particularly, these authors define corporate entrepreneurship as "the process whereby an individual or a group of individuals, in association with an existing organization, create a new organization or instigate renewal or innovation within that organization" (Sharma & Chrisman, 1999: 18). This definition can be characterized as inclusive, since it represents an effort to systematize the different terminology used in corporate entrepreneurship. In this sense, it is important to indicate that my dissertation builds on this definition, as it focuses on the entrepreneurial activities in established firms.

Specifically, corporate entrepreneurship can be studied from different theoretical approaches. In this regard, Stevenson and Jarillo (1990: 18) suggest that the studies on entrepreneurship can be classified in three main categories: "what happens when entrepreneurs act, why they act, and how they act". In the first category, the authors include the researches that focus on the results of the actions of the entrepreneurs, and not on the entrepreneur or even his or her actions per se. According to Stevenson and Jarillo (1990), this is the point of view used by many studies about the overall economic system (e.g. Schumpeter, 1934). The second category includes the studies that focus on the entrepreneur as an individual. The general idea is that individual human with their

background, environment, goals, values, and motivations are the real objects of analysis. Finally, the third category describes how entrepreneurs act, including the studies that analyze the characteristics of entrepreneurial management –i.e. "how entrepreneurs are able to achieve their aims, irrespective of the personal reasons to pursue those aims and oblivious to the environmental inducements and effects of such actions" (Stevenson & Jarillo, 1990: 18).

Taking into consideration this classification, my research is aligned with the third category, that is, with the study of entrepreneurship as an organizational phenomenon, focusing on the preconditions to entrepreneurial orientation.

The construct of entrepreneurial orientation (EO)

Following the previous discussion about definitions of entrepreneurship and corporate entrepreneurship, this section reviews the entrepreneurial orientation construct, as framework to measure entrepreneurial behavior. More specifically, this assumption builds on the view that entrepreneurship is an organizational-level phenomenon, an element of a firm's strategic posture that can be analyzed in the processes, attitudes and behaviors of the organization (Covin & Slevin, 1991).

Entrepreneurial orientation (EO) is closely linked to strategic management and the strategic decision-making process that provides organizations with a basis for entrepreneurial decisions and actions (Lumpkin & Dess, 1996; Rauch, Wiklund, Lumpkin & Frese, 2009). Specifically, this construct "may be viewed as the entrepreneurial strategy-making processes that key decision makers use to enact their firm's organizational purpose, sustain its vision, and create competitive advantages" (Rauch et al., 2009: 763).

The origins of the EO construct can be found in Miller and Friesen's (1978) work; they initially identified eleven strategy-making process dimensions. Later, Miller (1983) gave the operationalization of the EO construct through three dimensions: innovation, risk-taking and proactiveness. In particular, innovativeness refers to the "pursuit of creative or novel solutions to challenges confronting the firm, including the development or enhancement of products and services, as well as new administrative techniques and technologies for performing organizational functions" (Knight, 1997: 214). Proactiveness is an "opportunity-seeking, forward-looking perspective characterized by the introduction of new products and services ahead of the competition and acting in anticipation of future demand" (Rauch et al., 2009: 763). While that "risk taking involves taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments" (Rauch et al., 2009: 763).

On the other hand, Covin and Slevins (1989) and Miller (1983) proposed a linkage between entrepreneurial orientation of the firms and the taxonomies of the suggested strategies by Miles and Snow (1978) and Mintzberg (1973). Specifically, Covin and Slevin (1989) state that entrepreneurial firms are those in which their TMTs are inclined to take business-related risks to favor change and innovation, thus to get a competitive advantage for the firm, as well as to compete aggressively with others firms. This kind of entrepreneurial orientation, according to the authors, is similar to those of Miles and Snow's (1978) prospector firms and Mintzberg's (1973) entrepreneurial organizations. Whereas the conservative firms are those, in which the TMTs styles are risk-averse, non-innovative, and reactive. According to Covin and Slevin (1989), this

type of strategic orientation is close to the defender firms of Miles and Snow (1978) and Mintzberg's (1973) adaptive organizations.

Afterwards, Lumpkin and Dess (1996) drawing on the work of Miller's (1983) suggested two additional dimensions to operationalize entrepreneurial orientation: competitive aggressiveness and autonomy. The competitive aggressiveness is the intensity of a firm's effort to outperform rivals, which are also characterized by a strong offensive posture as an answer to competitive threats (Lumpkin & Dess, 1996; Rauch et al., 2009). While the autonomy is the independent action undertaken by, entrepreneurial leaders or teams directed at bringing about a new venture and guiding it to success (Rauch et al., 2009).

Another aspect of the EO construct is related to the one-dimensional or multi-dimensional condition of the concept. This issue has become an important source of debate in this study field. Particularly, some scholars have argued that the entrepreneurial orientation construct is a one-dimensional concept (e.g., Covin & Slevin, 1989; Knight, 1997) and consequently, the different dimensions of EO should relate to the organizational outcomes in similar ways. In contrast, recent studies (e.g., Lumpkin & Dess, 2001; Covin et al., 2006) suggest that the dimensions of EO may occur in different combinations, and each of them representing a different and independent aspect of the multi-dimensional concept of the EO. In this regard, the meta-analysis conducted by Rauch et al., (2009) support the idea that EO dimensions (i.e. innovation, risk-taking, proactiveness) have equal importance in explaining business performance. Specifically, the authors stated that it is reasonable the use of a summed index of the three dimensions in future studies.

Entrepreneurial orientation in family firms: empirical evidence

In general, the entrepreneurial behavior is considered a critical element for ensuring the long-term survival and success of any type of business. This statement becomes even more relevant in the context of family firm, because "a basic goal of this type of business is to remain in the family across generations" (Eddleston et al., 2010: 3). In this regard, the entrepreneurship is not only relevant to family firms' profitability and growth but also, to preserve the founder legacy and to ensure the welfare of family members across generations (Cruz & Nordqvist, 2010).

Two opposing views have prevailed in the literature on entrepreneurship in family business (Nordqvist & Melin, 2010). One of them presents the family firms as a creative context, dynamic and change oriented, that promotes the entrepreneurial behavior in the organization. On the other hand, there is another perspective that suggests that family firms are conservative, risk-averse and inflexible organizations in which entrepreneurship seems to be hampered by elements related to the family tradition and the power dynamics created inside the families (Nordqvist & Melin, 2010).

In this vein, some researchers have suggested that the characteristic kinship of family firms has a positive effect over the entrepreneurial activities. For instance, Zahra, et al., (2004) examined the relationship between four dimensions of organizational culture (i.e. external orientation, organizational culture, orientation toward decentralization, and long-term vs. short-term orientation) and entrepreneurship in family and non-family firms. These authors concluded that, except for the external orientation, each of these dimensions is significantly more influential upon entrepreneurship in family firms when compared with non-family firms. Likewise, Kellermanns et al. (2008)

explored as certain characteristics of the CEO (i.e. tenure and age) and the family involvement influence the entrepreneurial behavior. Their findings suggest that generational involvement is a strong predictor of entrepreneurial behavior. Similarly, Zahra (2005), adopting a broad definition of entrepreneurial risk taking, studied 209 manufacturing family firms and found that family involvement in the ownership and management promoted entrepreneurship, whereas long tenures of CEO founders have the opposite effect.

Moreover, Gomez-Mejía et al. (2007) provided evidence that family firms make choices depending on the reference point of the firm's dominant principals. Specifically, these authors argue that the principals of family firms make decisions in such a way to preserve the "socio-emotional wealth" (SEW) of the family (e.g. the family's desire to exercise authority, enjoyment of family influence, maintenance of clan membership). Therefore, Gómez-Mejía and colleagues argue that, to avoid the loss of their SEW, the owners are willing to accept a significant risk to the performance of the firm; yet at the same time, they avoid risky business decisions if these choices allow preserving the socio-emotional wealth of family. Likewise, Gomez-Mejia, Makri, & Larraza (2010) reported that family-controlled firms tend to diversify less, even though this implies greater business risk. In this regard, the authors state that diversification reduces the SEW of family by having to appoint non-family members to different business units, reducing family influence over the units, decreasing centralization of decision making, among others elements.

Opposite to this view, some scholars state that family firms show lower levels of entrepreneurial activities, as they are considered to be risk-averse, conservative and

resistant to change and adaptation over time. In this vein, Naldi et al. (2007) studied the risk taking as one important dimension of entrepreneurial orientation and its impact in family firms. These authors' findings show that risk taking is positively associated with proactiveness and innovation and negatively related to performance. In addition, the authors concluded that even though family firms do take risks while engaged in entrepreneurial activities, these firms take risk to a lesser extent than non-family firms. Similarly, McConaughy et al. (2001) suggested that the family-owned business use less risky capital structures. Short, Payne, Brigham, Lumpkin and Broberg (2009), using content analysis of shareholders' letters from S&P 500 firms, found that family firms tended to use relatively less language indicating autonomy, proactiveness and risk taking. Martin and Lumpkin (2003) found that founding generations are more motivated regarding the entrepreneurial activities, while subsequent generations replace this motivation with family concerns (e.g. issues of control, strategic conservatism, protection of the family), which leads to a decreasing entrepreneurial orientation (EO).

The contradictory findings previously mentioned suggest the need of further research to understand the different drivers of entrepreneurship in family firms. In this regard, Kellermanns et al. (2008) suggest that to understand entrepreneurial behavior and firm success in this kind of firms, it is imperative to take into consideration the impact of family involvement in the business. Following this same line of thought, Chrisman et al. (2005a) state that many questions remain unanswered and much interesting research remains to be done to determine how family involvement affects firm behavior and performance. Likewise, Nordqvist and Melin (2010) recommend that research on family firms must consider the heterogeneity that characterizes the universe of family firms.

More specifically, these authors suggest to include into the research differences between publicly listed and privately held family firms, differences between firms owned but not managed by a family and firms with active family involvement in the managerial roles, differences related to the generation that have the control of business, among other aspects.

In summary, the different streams of research previously discussed are the foundations of the hypotheses that are proposed in the next Chapter. In this regard, my research focuses on entrepreneurial orientation. Specifically, I combine insights of the strategic leadership approach and some theoretical foundations related to family firms to study the influence of TMT heterogeneity in entrepreneurial orientation in this type of business. Likewise, drawing on faultline perspective, my research also evaluates the impact that the formation of subgroups within the TMT may have on entrepreneurial orientation.

CHAPTER 3: HYPOTHESES DEVELOPMENT

Based on the literature review conducted in Chapter 2, I developed a set of hypotheses related to the heterogeneity in the TMT composition of family firms and its relationship with entrepreneurial orientation. The research focuses on entrepreneurial orientation, which refers to the strategy-making processes that provide organizations with a basis for entrepreneurial decisions and actions (e.g., Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). Specifically, entrepreneurial orientation reflects the entrepreneurial attitude of a firm and covers the entire organizational behaviors and attitude including management's strategic philosophies and organizational operations.

In general, the hypotheses suggested are based on the idea that senior managers dominate the processes related to strategic decisions (Hambrick & Mason, 1984), and thus the composition of TMT can be considered an antecedent of entrepreneurial orientation. Specifically, I proposed, based on cognitive-resource perspective, that heterogeneous TMTs can be associated with a broader set of perspectives for decision making (Sawyer et al., 2006; Tuggle et al., 2010), a greater diversity of information sources and perspectives, as well as a more creative or innovative discussion (Milliken & Martins, 1996; Wiersema & Bantel, 1992) and therefore can promote more entrepreneurial activities.

In the context of family firms, the statement that "an organization is reflection of its top executives" (Hambrick & Mason, 1984: 193) could prove to be most relevant since a significant amount of the upper echelon executives are members of the family, as well as owners of the firm. Therefore, the study of heterogeneity of the TMT in this kind

of organizations implies taking into consideration the salient elements related to the family involvement in the business. In this regard, my research considered the following variables related to familial nature of the firms: the proportion of family managers in top managerial positions, family generations in the TMT, and the family generation in control, as moderator between the heterogeneity of TMT, and entrepreneurial orientation.

Furthermore, I included three additional variables: TMT organizational tenure, age of team and the faultlines inside the team. The tenure as job-related variable was incorporated because it is predictable that family managers show long organizational tenure as consequence of their familial ties. This feature could be extended to non -family managers, since some authors have suggested that family firms show higher stability and labor safety than non-family firms (Lee, 2006). Thus, the tenure of TMT is an important variable to study entrepreneurial orientation in family businesses. Likewise, the age of TMT was included in the research as some authors (e.g. Levesque & Minniti, 2006) have suggested that it may be a triggering factor of entrepreneurial orientation. Finally, I used faultlines to study the potential dysfunctional behavior that can be generated into TMT, as consequence of the creation of homogeneous subgroups based on the alignment of demographic attributes (Lau & Murnighan, 1998). In this regard, as suggested by Bezrukova et al. (2007), the faultline approach provides an additional vision in understanding the effects of group composition on organizational outcomes. Particularly, the faultline perspective rather than studying the amount or type of diversity is concerned with the structure of team diversity (Sawyer et al., 2006).

The hypotheses of this research are summarized in the framework showed in Figure 1.

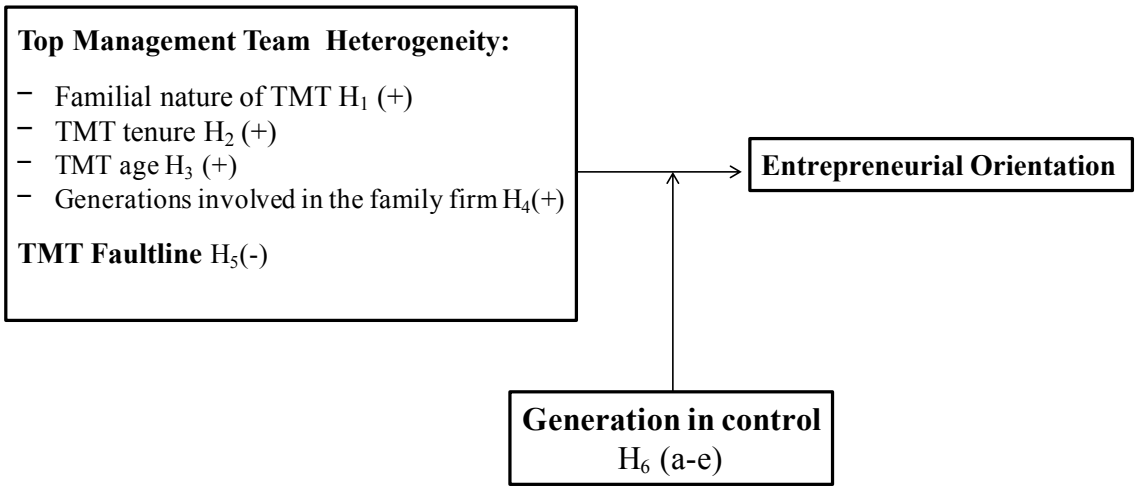


Figure 1. Research Model

Familial Nature of TMT

Two opposing views have prevailed in the literature regarding the possible relation between the family involvement and organizational outcomes in family firms. One of the perspectives highlights the positive side of the family participation in the business. Specifically, the promoters of this point of view consider that the competitive advantage of these organizations are related to the *familiness* originated by the control that the family has in terms of unique or distinctive resources and capabilities that lead to advantage-based rents (Habbershon et al., 2003; Minichilli et al., 2010). Some of these resources include the entrepreneurial spirit of founders, the firm's reputation, family networking, its management practices, the trust and communication among family members, among others (Chrisman et al., 2005b; Lumpkin et al., 2011).

Recent theoretical developments have used the social capital perspective to study the *familiness* construct (e.g. Arregle et al., 2007; Pearson et al., 2008, Sharma, 2008). This theoretical approach is particularly suited to understand as the familiness is generated in top management teams. Specifically, the social capital that arises from the

familial relationship among top managers can contribute to reduce transactional costs, create and accumulate knowledge, increase creativity, and promote alliances, among other aspects (Arregle et al., 2007). Therefore, it is possible to suggest that the inclusion of non-family managers in family businesses can reduce the *familiness* and dilute the family system (Sonfield & Lussier, 2009), influencing negatively entrepreneurial orientation in family firms.

Likewise, another group of scholars based on the stewardship perspective (e.g. Arregle et al., 2007; Gomez-Mejia et al., 2007; Eddleston & Kellermanns, 2006; Miller & Le Breton-Miller, 2005) also suggests a significant number of benefits linked to the family involvement in the business. The exponents of this view argue that the family members have a special connection with the firm, given the overlap of family and business, common in this type of organizations. Specifically, Miller et al. (2008) state that this connection is a consequence of the economic dependence that the family has with the business. In this regard, these authors note that the difficult moments that the firm might experiment are not only expressed in a decrease of the incomes, but also in an impact in the family's welfare through lost capital, eroded reputation, and diminished job opportunities for the family members. These are the reasons for the promoters of this perspective to consider that the interests of the family members are aligned with the firm and therefore, they are motivated for doing both maximizing their firm's performance and carrying out entrepreneurial activities that ensure the success across generations (Eddleston et al., 2010).

The agency theory can be also used to support the positive view of family involvement in family firms. The inclusion of non-family managers in TMTs of family

firms involves typical agency costs, resulting of the separation between agent and principal. This differentiation could have consequences in terms of the entrepreneurial activities, since the agent is specifically role-oriented, rule-bound and risk-averse while the principal is entrepreneurial by nature (Shapiro, 2005; Jones & Butler, 1992). Specifically, "the agents are risk averse because though they have to bear the uncertainty of entrepreneurial activities (the principal's job), many of which will fail, they are only rewarded on the basic of undertaking risk –normal salary (the agent's reward). For the principal, the reward is the entrepreneurial profit for undertaking uncertainty; the reward to the agent is the salary for normal risk taking. In this sense, the agents do not have incentive to behave entrepreneurially given the aforementioned reward structure" (Jones & Butler, 1992: 736). Following the same line of thought, Lubatkin, Schulze, Ling and Dino (2005) suggest that "family owners perceive non-family managers as a source of risk and potential erosion of family's socio-emotional wealth, due to the asymmetry of information, the potential loss of control and the potential loss of discretionality to use firm's resources for private goals" (Casillas, Moreno & Barbero, 2011: 92).

Opposite to the perspective of the advantages of family involvement, another group of scholars (e.g. Lubatkin et al., 2005; Schulze et al., 2001, 2003) emphasizes the "dark side" of the family participation in the business. The supporters of this point of view suggest that the characteristic altruism of family firms could create greater agency problems (Gómez-Mejía, Nunez-Nickel, and Gutierrez 2001; Schulze et al. 2001). Specifically, Minichilli et al. (2010) point out that the family ties generate incentives for the family members to behave opportunistically. In this regard, several research has shown that "family members seek additional compensation in the form of perquisites or

through non-pecuniary rewards, such as withholding of information, misappropriation of firm resources, or simply reducing the efforts in the job" (Minichilli et al., 2010: 209). Likewise, restricting promotional opportunities and top management position to family members can be problematic as the risk of hiring low quality employees increases, and it can lead to conflict due to non-merit-based promotion criteria (Sonfield & Lussier, 2009). Precisely for those reasons, some authors suggest that family firms have difficulties on building human capital and therefore, they find obstacles to identify entrepreneurial opportunities or to facilitate the organizational learning –key elements in corporate entrepreneurship (Eddleston et al., 2010).

On the other hand, Miller, Le Breton-Miller and Lester (2011), state that the family involvement, in both management and ownership, can make that the strategic decisions of the business overlap the family agenda, which implies providing stability, secure income and even careers to family members, and preserving family control. This situation may force family firms to adopt a conservative position towards their investments, avoiding initiatives that might jeopardize family control of the firm by current and later generations (Miller et al., 2011). The findings of Naldi et al. (2007) and McConaughy et al. (2001) suggest this possibility.

In this sense, it is important to note that although there are a number of theoretical developments related to family involvement in family firms, little research has been carried out regarding the relationship between the composition of their TMTs and the entrepreneurial orientation. Nevertheless, it is possible to find certain general evidence in this direction. For instance, Ensley and Pearson (2005) found that parental TMTs in family firms result in more effective behavioral dynamics than the non-family TMTs.

Specifically, this kind of teams has a stronger belief in their abilities, greater sense of belonging to the team, greater consensus on the strategic direction of the firm, and less detrimental conflict (Ensley & Pearson, 2005). Likewise, other studies focused principally on the entrepreneurial activities (e.g. Salvato, 2004; Zahra, 2005; Kellermanns et al., 2008) have found that the family involvement in management has a positive influence on entrepreneurial behavior. Conversely, Sciascia and Mazzola (2008) found a negative quadratic relationship between family involvement in management and performance. These authors suggest that hiring non-family managers with prior developed capabilities could be a way to overcome the problems associated with familial management structures. In the same vein, Minichilli et al. (2010) find support for a hypothesized U-shaped relationship between the ratio of family members in the TMT and firm performance. This finding has a special importance regarding heterogeneity of the TMTs in family firms, by suggesting that the best performance can be achieved only in teams composed merely by family managers or non-family managers.

Considering the arguments suggested by both points of view, as well as the different empirical findings, I propose that heterogeneous TMTs in family businesses can be linked positively to entrepreneurial orientation. Specifically, I suggest that the inclusion of non-family managers in TMTs enable the access to more sources of information, to a larger variety of interpretations for decision making (Sawyer et al., 2006; Tuggle et al., 2010), as well as to more creative or innovative discussion (Milliken & Martins, 1996; Wiersema & Bantel, 1992), features that promote entrepreneurial activities. In short, I contend that heterogeneous TMTs can be associated with a greater access to human and social capital and financial resources and, as a result, family firms

would have an extensive window of possibilities to exploit identified opportunities. Hence:

> *Hypothesis 1: There will be a positive relationship between the heterogeneity regarding the involvement of family and non-family managers in TMT and the entrepreneurial orientation in family firms.*

TMT Tenure

TMT's tenure[4] can be associated with the commitment to the status quo, informational diversity, and risk propensity, and therefore it may influence organizational outcomes (Finkelstein & Hambrick, 1990; Zimmerman, 2008). Specifically, tenure homogeneity has been linked with team members' familiarity of organizational policies and procedures, that result in less communication interruptions, power struggles, and conflicts (Horwitz, 2005). In this vein, the studies of O'Reilly, Caldwell and Barnett (1989) found that tenure heterogeneity was related to lower levels of team cohesion and higher turnover. Likewise, the results of O'Reilly, Snyder, and Boother (1993) also showed that tenure diversity was related to less open communications among members in TMTs.

Conversely, some authors have suggested that heterogeneity in the tenure of the TMT could be positively relate to firm performance, strategic change, and the degree of international diversification (e.g. Finkelstein & Hambrick, 1996; Tihanyi et al., 2000; Wiersema & Bantel, 1992). In this regard, Horwitz (2005) argues that the heterogeneous

[4] As suggest Finkelstein et al. (2009), executive tenure has been conceived in various ways: tenure in the position, tenure in the organization, and tenure in the industry. These types of tenure covary as well as being conceptually connected. This research uses tenure in the organization as a variable of study, since it is likely to assume that the family managers show long organizational tenure because of their familial ties.

organizational tenure implies that team members differ in their organizational experiences and thus they have different perspectives that improve the skills for developing strategic alternatives and team decision quality (Cox & Blake, 1991; Pelled, 1996). Likewise, Hambrick and Canella (1993) suggest that teams that work together for long periods are likely to have strong psychological and political commitments to the status quo, and therefore are unlikely to make strategic changes in their organizations. In this direction, Wiersema and Bantel (1992) found that TMTs with shorter and heterogeneous tenure initiated more corporate strategy changes that TMTs with longer and homogeneous tenure. Similarly, Boeker's (1997) research concludes that TMT tenure diversity can be associated positively with strategic changes. Finkelstein and Hambrick's (1990) findings also show similar evidence, suggesting that the organizational tenure of the top executives is associated positively with strategic persistence or absence of strategic change.

On the other hand, Finkelstein et al. (2009) note that top executive tenure is not only related to the strategic change, but also to the specific type of strategy pursued by the executives. These authors base this statement on the findings of some studies (e.g. Chaganti & Sambharya, 1987; Barker & Mueller, 2002), that associate executive tenure with the strategic taxonomy suggested by Miles and Snow (1978). Specifically, Finkelstein et al. (2009) point out that long-tenure executives tend to pursue "Defense" strategies, which are emphasized on the stability and efficiency in the organizations. Whereas those short-tenure executives are more exposed to pursue "Prospector" strategies, which are emphasized on the product or market innovation and they characterize the entrepreneurial firms (Finkelstein et al., 2009).

Regarding family firms, little research has been developed related to the organizational tenure of the top executives and the different organizational outcomes; therefore, it is not possible to find specific empirical evidence in this field. Nevertheless, the familial bonds among the members of the dominant coalition suggest that the family executives could have long organizational tenures. Likewise, this feature could be extended to non -family managers, since some authors have suggested that family firms show higher stability and labor safety than non-family firms (Lee, 2006).

Drawing on the theoretical foundations and empirical findings previously referred, I propose that TMT members with a diverse set of tenures could positively affect entrepreneurial orientation in family firms. Specifically, I suggest that older tenured executives could provide knowledge and resources while newer managers may bring their experiences from other firms as well as a fresh view of the family firm, new perspectives and broader contacts. The varied experiences of team members provide a wide range of knowledge and skills that encourage strategic choices that are more innovative and risk-taking (Wiersema & Bantel, 1992). Likewise, tenure's heterogeneity could increase information flow due to the broader outside connections of the members and thus it enhances the opportunity-seeking actions of the team (Williams & O'Reilly 1998). Additionally, tenure heterogeneity in TMTs could avoid the "groupthink" bias that might stem from homogeneous groups regarding this characteristic and it may stimulate task-related constructive debate (Barkema & Shvyrkov, 2007; Jehn, Northcraft & Neale, 1999; Janis, 1982). In summary, I argue that heterogeneous TMTs related tenure in family firms may create an internal organizational environment that promotes creativity,

innovation, change, and the search for new opportunities in the market, and therefore they encourage entrepreneurial activities. Thus, I contend:

Hypothesis 2: There will be a positive relationship between tenure heterogeneity within TMT and the entrepreneurial orientation in family firms.

TMT Age

Lately, different studies about heterogeneity of TMTs have focused on the potentially positive consequences of age diversity. Specifically, some scholars have suggested that younger managers are more disposed to pursue aggressive, risky, novel and unprecedented strategies and they are more receptive to change; whereas senior managers look for more information to evaluate different situations and they require more time to take action (Boeker, 1988; Hambrick & Mason, 1984; Wiersema & Bantel, 1992; Horwitz, 2005; Zimmerman, 2008).

On the other hand, Zimmerman (2008) states that age heterogeneity in the TMTs increases the variety of perspectives used in strategic decision-making, as the group has access to a broader set of information and different points of view. Nonetheless, other groups of scholars (e.g. O'Reilly et al. 1989; Williams & O'Reilly, 1998) have suggested that age heterogeneity in a group can be also associated to communication problems, lower levels of social integration, and conflicts. However, Pelled, Eisenhardt, and Xin (1999), argue that diversity in age would have beneficial effects in TMTs, because there are signs of less emotional conflict. Specifically, the authors suggest that conflict arises because there is jealousy among people from similar age when comparing career achievements.

Furthermore, Levesque and Minniti (2006) suggest that entrepreneurial behavior is contingent on intrinsic characteristics of the organizational decision makers, that is, the TMT. Thus, the age of dominant coalition can be considered a key antecedent of entrepreneurial activities. In this regard, Parker (2006) found that younger entrepreneurs adjust their expectations faster than older entrepreneurs. More specifically, older managers have less capacity of dealing with challenging situations and of identifying new ideas and opportunities, which could be the reason for adopting more conservative strategic positions (Herrmann & Datta, 2006; Parker, 2006). In the same vein, Boeker (1988) suggests that younger entrepreneurs are better able to understand recent innovations.

In the context of family firms, although I have not been able to identify research on the age of management teams, some authors (e.g. Gallo & Sveen, 1991; Gallo, 2005) have indicated various elements suggesting that the age of the members of TMTs is relevant to study the organizational outcomes in this kind of firms. Specifically, Gallo (2005) refers to a phenomenon known as “triple coincidence”. The triple coincidence is concerned to the generational overlapping that is observed in the succession process in family business –particularly during the transition from the first to the second generation. This phenomenon is characterized by a business that has reached maturity and requires refreshing to continue, a founder-owner, which management skills are declining and, who is unwilling to risk their family's financial status, which prevents them from assuming new challenges in the firm. Likewise, Gallo (2005) suggests that the “triple coincidence” is enhanced by the age structure that usually exhibits the management team. Specifically,

the author notes that the age structure is generally similar to the founder and therefore, the changes and new ideas are hampered.

Following the same logic used for Hypothesis 2, I propose that age heterogeneity of TMTs has positive effects on entrepreneurial orientation in family firms. In this regard, I consider that the counterbalance between the energy, creativity, and risk propensity of the younger executives and the experience, wisdom, and facility to locating resources of older executives could be favorable to the challenges implied within entrepreneurial activities. In sum, the age heterogeneity in TMTs provides family firms a broader set of perspectives, experiences, knowledge, networks, and different resources to facilitate the identification and exploitation of business opportunities. Accordingly, I state:

Hypothesis 3: There will be a positive relationship between the age heterogeneity within TMT and entrepreneurial orientation in family firms.

Generations involved in the family firm

Much research in the field of family business has focused on how the mix of different family generations could affect organizational outcomes. The impact of generational heterogeneity can be explored through the age diversity that it brings along. Thus, the previously referred arguments are a very good starting point to understand how generational involvement affects the performance of family firms.

In this regard, several scholars suggest that multigenerational family involvement is positively related to entrepreneurial activities (e.g. Salvato, 2004; Zahra, 2005; Kellermanns & Eddleston 2006; Kellermanns et al. 2008). For example, Kellermanns and Eddleston (2006) state that the multigenerational involvement favors the cohesion within the family and promotes the search of opportunities that guarantee the growth and

sustainability of business across generations. Therefore, the inclusion of younger generations in the familial business can represent the driving force for a change and innovation. In addition, these generations can have tendency of perceiving more easily the importance of entrepreneurial orientation to the long-term survival of the firm (Kellermanns et al., 2008).

The empirical findings of Zahra (2005) and Kellermanns et al., (2008) are consistent to this point of view. Specifically, Zahra (2005) found that the more generations of the family are involved in the business, the more focused on innovative activities the firms will be. On the other hand, the study of Kellermann et al. (2008) show that generational involvement is the only strong predictor of entrepreneurial orientation. Additionally, Marchisio, Mazzola, Sciascia, Miles and Astrachan (2010), in a study regarding corporate venturing in family business based on case studies, concluded that this type of activities helps to develop entrepreneurial skills and entrepreneurial propensity of the new generations, besides of being useful for incumbents to evaluate the next generation's managerial skills and entrepreneurial propensity. Likewise, the findings of Sciascia et al. (2012) show an inverted U-shaped relationship between generational involvement in the family firm's TMT and entrepreneurial orientation. Particularly, these author argue that moderate levels of generational involvement stimulate task-related constructive conflicts for entrepreneurial orientation whilst, when increased kinship distance, the relationship conflicts led by high levels of generational involvement undermines this potential advantage.

In line with the theoretical foundations and empirical findings discussed previously, I expect that when more than one generation of the owner family is involved

in the firm, the entrepreneurial orientation will be fostered. Specifically, when a generation works alone, it is more difficult to identify and exploit market opportunities (Salvato, 2004; Sciascia et al., 2012). Particularly, I consider that multiple family generations involved in the firms imply more cognitive heterogeneity, therefore it leads to diversity of knowledge, experiences, perspectives, new ways of doing things, and creativity that promote entrepreneurial activities in this kind of firms (Kellermanns & Eddleston, 2006; Kellermanns et al., 2008; Ling & Kellermanns, 2010). Thus, I hypothesized that:

> *Hypothesis 4: There will be a positive relationship between the heterogeneity regarding the number of family generations involved in the family firms and entrepreneurial orientation.*

TMT Faultlines

As discussed in Chapter 2, the faultlines are "hypothetical dividing lines that may split a group into subgroups based on one or more attributes" (Lau & Murnighan, 1998: 328). These divisions are most likely to occur in groups of moderate diversity and they are unlikely to occur in groups with either little or great heterogeneity. An example of a team with strong faultlines is a group consisting of two male financial analysts and three female human resource managers. In this example, gender and job function align with each other, creating two homogeneous subgroups. Conversely, a TMT of five persons, with five men, two of whom have marketing backgrounds and three with accounting backgrounds would be a weak faultline, since gender overlaps between the two subgroups.

According to several scholars, strong faultline settings can be associated with processes that adversely affect organizational outcomes (e.g. Barkema & Shvyrkov, 2007; Bezrukova et al., 2009). In this regard, Barkema and Shvyrkov (2007; 667) suggested that a strong faultline "may enhance feelings of security within a subgroup, leading members of the team to identify with the subgroup rather than with the TMT". Li and Hambrick (2005), refer to the phenomenon known as "behavioral disintegration" likely to occur in groups with these characteristics. The behavioral disintegration is linked with lower levels, or even the total absence of information exchange, joint decision-making, and interaction between subgroups (Hambrick, 1994; Barkema & Shvyrkov, 2007). Likewise, Thatcher et al. (2003) note that a strong faultline not only reduces communication between subgroups, but also affects the communication related to the tasks. For instance, cross-subgroup interactions and information exchanges that are necessary for accomplishing a task in common-goal groups will be limited in such groups (Lau & Murnighan 2005). Additionally, Bezrukova et al. (2009) argue that tension and personal attacks resulting from the categorization processes may also decrease efforts to share critical information in groups with strong faultlines. In short, the existence of a strong faultline in TMT could reduce the cognitive advantages regarding heterogeneity.

In the context of family firms, Minichilli et al. (2010) introduce the notion of group faultlines to explain their hypothesized U-shaped between the ratio of family members in the TMT and firm performance. Specifically, these authors, drawing on the group dynamic perspective, state that the coexistence of family and non-family members could produce "schisms", which cause emotional disagreements and tensions into the group. These conflicts lead to a disruptive behavior and consequently, it affects firm

performance. Particularly, when both groups are balanced regarding its composition (i.e. a strong faultline), the conflict and dysfunctional behavior increases. Meanwhile, when there are few members of one group or the other, the minority faction has less power to affect the decisions and the organizational outcomes (Minichilli et al., 2010: 210). However, it is important to note that these scholars use the faultline perspective only from a theoretical point of view. Indeed, their research does not operationalize the group faultline in the sample.

Likewise, other researchers (e.g. Morck & Yeung 2003; Sonfield & Lussier, 2009) have also suggested indirectly that the heterogeneity in the composition of the TMTs in this type of firms can lead to the creation of subgroups that affect the performance of the business. For example, Sonfield and Lussier (2009) refer that the non-family managers can trigger too much firm growth, which in turn could weaken the financial and managerial control exercised by the family. Specifically, the fear of losing the "control" of the business can cause that family managers discourage non-family executives in terms of innovation and creativity and thus stifle desirable company growth (Sonfield & Lussier, 2009).

Based on the arguments previously discussed, I expect that strong faultline in TMT has a negative effect on entrepreneurial orientation in family firms. Specifically, I argue that the fragmentation that occurs in the TMT leads to "behavioral disintegration" between subgroups or coalitions (Hambrick, 1994). The "us versus them" (Bezrukova et al., 2009: 39) attitude may imply subgroups reluctance of sharing information, views, and perspectives regarding entrepreneurship strategic initiatives. In this way, such teams would be unable to capitalize their differences and similarities, leading to low-quality

decisions. Therefore, strong faultline in TMT becomes more difficult to make joint decision-making, achieve consensus and commitment that are critical keys in processes related to the entrepreneurial initiatives (Hambrick et al., 1996). Therefore, I contend:

Hypothesis 5: Strong faultlines in TMTs will be negatively associated with entrepreneurial orientation in family firms.

Finally, it is important to note, as suggested by Lau and Murnighan (1998) that the faultline strength depends on the number of salient attributes and the context for its activation. In this vein, my dissertation included the following salient attributes: tenure, age and whether the managers belong to the family. These demographic characteristics are considered salient because they may create divisions, when TMT discusses and evaluates entrepreneurship initiatives in family firms (e.g., managers over 50, with long tenure and family members *versus* managers under 40, with short tenure, and non-family members). Likewise, the context of entrepreneurship decisions may be considered as an activator of these salient attributes because it involves decisions that typically require consensus and commitment of TMT (Hambrick et al., 1996).

Generation in control as moderator

As Cruz and Nordqvist (2010) refer, family firms go through different stages depending on the generation in control, and thus their strategic behavior change from stage to stage (Bammens et al. 2008; Schulze et al., 2003). Specifically, the generational perspective suggests that members of different generations face different requirements from the environment and the business, as well as differ in their own capability of influencing the strategic direction of the firms (Sonfield & Lussier 2004; Cruz & Nordqvist, 2010).

In this regard, in the first-generation family firms, the owner and founder concentrates all decision's power. Specifically, "he/she have a direct and significant effect on the firm's major decisions and actions" (Salvato, 2004: 69). Consequently, all the development and expansion activities of the firm are based on intuition, business ideas, and strategies of the founder rather than TMT.

The founder centrality is reduced as the family firm moves to the second generation (Cruz & Nordqvist, 2010). In this stage, the members of the second generation have an active participation in the daily management and in the governance of the business (Gersick et al. 1997). This period is also characterized by the formalization and delegation of functions, the hiring of non-family professional staff, and by less centralized, decision-making processes (Kelly, Athanassiou & Crittenden, 2000). In definitive, the family firms tend to adopt a more professional style of management, in comparison to the more paternalistic, informal, and subjective management style that characterizes the first-generation family firms (Dyer, 1988). Therefore, the composition of the management team becomes a key element to management the firm. In this vein, Kellermanns and Eddleston (2006) noted that in this stage the family firm has a greater need for diverse opinions in order to generate and capture entrepreneurial opportunities.

As the firm moves to third and beyond-generations, the relationship between the family and the business change considerably. Specifically, there is a larger number of family shareholders, the ownership is further fractionalized, and generally the firm is managed by non-family members (Gersick et al. 1997). In this context, the decision-making related to entrepreneurial activities is performed by TMT and it becomes more planned and based of formal strategies (Miller, 1983; Cruz and Nordqvist, 2010).

According to the arguments put forward, I expect that the generation in charge moderate the relationships between TMT heterogeneity, faultline and entrepreneurial orientation in a way that these relationships become stronger as from the second-generation family firms. Specifically, I argue that in the first-generation family firms, the benefits of TMT heterogeneity are not exploited because the decision-making process is centralized on the founder-owner. As the firm moves to second-generation and later-generation of family firms, the notion of management team become a key element in strategic decisions, including entrepreneurial initiatives. Therefore, the cognitive diversity of TMT does matter in this context. However, the dysfunctional behavior generated into TMT, as consequence of the creation of homogeneous subgroups, also may be present –i.e. the faultlines. Hence:

Hypothesis 6a: The generation in control will moderate the relationship between the involvement of family and non-family managers in TMT and the entrepreneurial orientation in family firms. This relationship will be stronger in second-generation and-later-generations family firms than in first-generation family firms.

Hypothesis 6b: The generation in control will moderate the relationship between tenure heterogeneity within TMT and the entrepreneurial orientation in family firms. This relationship will be stronger in second-generation and-later-generations family firms than in first-generation family firms.

Hypothesis 6c: The generation in control will moderate the relationship between age heterogeneity within TMT and the entrepreneurial orientation in family

firms. This relationship will be stronger in second-generation and-later-generations family firms than in first-generation family firms.

Hypothesis 6d: The generation in control will moderate the relationship between the heterogeneity regarding the number of family generations involved in the family firms and the entrepreneurial orientation. This relationship will be stronger in second-generation and-later-generations family firms than in first-generation family firms.

Hypothesis 6e: The generation in control will moderate the relationship between TMT faultlines and the entrepreneurial orientation. This relationship will be stronger in second-generation and-later-generations family firms than in first-generation family firms.

CHAPTER 4: RESEARCH METHOD

The purpose of this chapter is to describe the method used to test the set of hypotheses developed in chapter 3. Firstly, the sample and the data collection process will be outlined. Secondly, the operationalization of the dependent, independent and control variables will be discussed. Lastly, the statistical method used to test the proposed hypotheses will be addressed.

Sample and Data Collection

The sample for this research was selected from the directory of the Venezuelan-American Chamber of Commerce and Industry (VenAmCham) and the database of Executive Education Program of Family Businesses at the Institute of Advanced Management Studies (IESA) between 2006 and 2015. The merging of both databases provided a total record of 1504 firms. The dataset included firms mainly from the following sectors: construction, manufacturing, wholesale/retail commerce, and service.

The data was collected through a survey because secondary data for Venezuelan private family firms were not available. In this regard, it is important to note that, generally, reliable information on family business is difficult to obtain, since the majority of those firms are privately held and have no legal obligation to disclose information (Schulze et al., 2001; Ling & Kellermanns, 2010). Therefore, as noted by Ling and Kellermanns (2010: 330), "researchers are forced to rely on self-reported data, to sample from a broad population, and to identify family-managed firms *ex post*".

In this vein, a questionnaire was sent to those individuals who hold the title of Chief Executive Officer (CEO) or an equivalent position (i.e. president, managing director or executive chair) of the 1504 firms included in the dataset. Regarding this aspect, it is important to note that several scholars (e.g. Hambrick, 1981; Zanhra & Covin, 1993) recommend using CEO as a key interlocutor in any research related to strategic issues. Particularly, Hambrick (1981: 271) states that when "researchers attempt to identify the current strategy of an organization through other executives different than chief executives, less accurate information can be received".

The communication sent to CEOs included the purpose of the study, a brief description of questionnaire, the approximate length of it, as well as a confidentiality statement regarding the information provided. Likewise, to encourage the participation of the firms in the study, they were invited to a seminar presenting the most relevant findings of the research. Moreover, to reinforce this process, some phone calls were made and additional electronic mailings were sent to encourage the non-respondent firms to participate in the research. The Appendices A and B respectively show the survey cover letter and the questionnaire used for gathering the data from CEOs.

However, using a single informant can be associated with the common variance problem. In order to reduce this concern, the following actions were taken (Podsakoff, MacKenzie, Lee & Podsakoff, 2003): (1) the demographic data of TMTs provided by CEOs –i.e. independent variables, were validated with Human Resource Departments of the firms that completed the questionnaire, through phone calls or email; (2) it was guaranteed to the informants that their answers would remain anonymous and that there were no right or wrong answers; (3) the questionnaire was checked to assure adequate

completion. Likewise, once the data had been gathered, Harman's one-factor test was conducted to evaluate the presence of common method bias, as suggested by Podsakoff and Organ (1986). All items related to the independent, moderator and dependent variables were entered into a factor analysis. The results showed six factors with eigenvalues higher than 1, accounting for 64.25 percent of the variance. The first factor explained 14.28 percent of the variance, and the remaining factors accounted for 49.96 percent. In this sense, since the analysis found multiple factors, and the first factor did not account for the majority of variance, the common method bias was not a concern for the research (see Appendix C).

The survey was developed through a series of steps. Firstly, the questionnaire was elaborated in English and translated into Spanish, and then it was back translated into English. A scholar fluent in both languages conducted this procedure. Secondly, the questionnaire was reviewed by three academics specialized in entrepreneurship, strategic management, and family firms to ensure construct validity. Finally, the revised version of the questionnaire was pre-tested by interviewing with five senior executives of family firms. This kind of procedure has been reported in similar studies to provide an instrument with high reliability (e.g. Escriba-Esteve, Sanchez-Peinado & Sanchez-Peinado, 2009; Chirico et al., 2011; Sciascia et al., 2012).

The final questionnaire included 29 items divided into four sections. In section one, bio-demographic questions about the informant were included –such as gender, position in the firm, organizational tenure, among others. In the second section, participants were asked for information about the family business, such as: firm age, firm size, family condition of business, number of generations involvement in the firm,

generation in charge, among others. In the third section, the informant was asked to identify the senior management team. Finally, questions about entrepreneurial orientation were included in the fourth section. The questionnaire was sent via email using a link. Also, the questionnaire could be sent through an editable PDF or on paper, if the informant required to previously verify the content of the questions. All the information gathered from the participants was processed through the SPSS, Amos, and R software. SurveyMonkey was used to send the online questionnaire.

An important aspect to consider regarding the survey is identifying the team members. In this sense, "there is no consensus among researchers regarding an appropriate operational definition of TMT membership, and definitional concerns have been largely ignored in published research" (Finkelstein et al., 2009: 127). Indeed, the scholars have used different measures to identify TMT members. For example: (1) all managers identified by the CEO as belonging to the TMT (e.g. Bantel & Jackson, 1989); (2) inside board members (e.g., Finkelstein & Hambrick, 1990); 3) the two highest executive levels (e.g. Wiersema & Bantel, 1992); 4) all founders of the organization (e.g. Eisenhardt & Schoonhoven, 1996); among others definitions. Therefore, as suggested by Finkelstein et al. (2009), it is not possible to favor one operationalization over another; rather than that, it should correspond to the research questions that guide a particular study. In this line of thought, my dissertation followed the recommendations suggested by Pettigrew (1992) and, therefore, the CEOs identified senior executives involved in the decision-making process related to entrepreneurial activities. Specifically, the CEO's questionnaire included an item based on the study of Bantel and Jackson (1989), who follow this procedure of identifying the members of the TMTs.

Data were collected between October 2015 and May 2016. Specifically, 606 questionnaires were received, out of which 148 were not fully completed, for a total of 458 properly completed questionnaires received. The response rate was 30.4 percent, in line with similar studies on family owned businesses (e.g. Naldi et al., 2007; Sciascia et al., 2012). The respondents' size and industry were compared to those of non-respondents, and no statistically significant differences were found. Moreover, no statistically significant differences were found between early and late respondents (see Appendices D and E).

Finally, out of the 458 valid questionnaires, only those firms that could be classified as family businesses were included in the sample. The final sample was 409 family businesses, given that 49 did not meet the criteria. The definition of family firms referred in Chapter 2 was operationalized according to two criteria widely used in studies of this nature: ownership and self-definition (Casillas et al., 2010; Naldi et al., 2007). The ownership refers to an objective criterion, whilst self-definition is a subjective criterion; through this, the senior executive provided their own perception of the familial condition of the firm (Astrachan et al. 2002; Chua et al., 1999). Specifically, the questionnaire included the following questions: a) whether one family or more than one have the control of the ownership of the firm; b) whether this business could be considered a family firm (Naldi et al., 2007; Casillas et al., 2010). Both questions had to be answered positively for the firm to be considered a family business and consequently to be included in the final sample.

The descriptive analysis of the firms in the sample indicates that 85 percent of those can be classified as small and medium-sized enterprises (SMEs)[5]: 130 medium-sized enterprises (50 to 249 employees), 167 small enterprises (10 to 49 employees) and 50 micro enterprises (fewer than 10 employees). The average amount of years that firms had been operating is 33 years, in which 89 percent of businesses reportedly had been founded for 10 years or more. From the sectorial point of view, 29.6 percent of firms belonged to the service sector, 27.1 percent to commerce sector (wholesale and retail), 24.2 percent to manufacturing sector and 7.6 percent to construction sector. Regarding the family nature of business, the first generation of the family was in charge in 56.7 percent of the firms included in the sample. On the other hand, the main characteristics of the key informants were the following: 76.3 percent of them held the title of General Manager, General Director, Executive Director or CEO, while the remaining 23.7 percent had the title of Vice-President or Director in an area of relevance; 76 percent were males, averaging 48 years old and an average organizational tenure of approximately 18 years; 60 percent were not founders of the family firm; 88 percent were family members and 77 percent hold shares.

Dependent variable

Entrepreneurial orientation

The nine-item scale developed by Covin and Slevin (1989) based on a previous work of Khandwalla (1977) and Miller and Friesen (1982), was used to measure EO construct, which includes three dimensions: innovativeness, proactiveness and risk

[5] Classification firm size was developed as indicated by Organization for Economic Cooperation and Development (OECD).

taking. In this regard, Kellermanns et al. (2008) note that although other measures of entrepreneurial orientation exist in the literature (e.g., Zahra, 1996; Lumpkin & Dess, 1996), this scale is frequently used by scholars to study entrepreneurial orientation in the family firm context (e.g. Kellermanns & Eddleston, 2006; Naldi et al., 2007; Cruz & Nordqvist, 2010).

The reliability of the scale was assessed through Cronbach's alpha. The value of alpha for the EO scale was 0.77, which is an acceptable level according to some authors (e.g. Nunnally & Bernstein, 1994; Tavakol & Dennick, 2011). Also, since Cronbach's alpha assumes the questions are only measuring one latent variable or dimension, I broke the test into parts, measuring the different dimensions of EO (See Table 1). Specifically, the review of the Cronbach's alpha of each of the dimensions showed that one item related to risk taking was problematic and therefore it was dropped.

Likewise, for assessing the convergent validity of the scale of EO, a confirmatory factor analysis (CFA)[6] was carried out for the eight items of the questionnaire. In this regard, the model fit the sample data reasonably well as indicated by the selected overall goodness-of-fit statistics (Chi-square = 24.149, Degrees of freedom = 17, Probability level = 0.115; comparative fit index [CFI] =0.993, Root-mean-square error of approximation [RMSEA] = 0.032) –see Figure 2 and Appendix F. Specifically, all factorial loadings were 0.61 or greater and significant ($p < 0.05$). Moreover, the value of the Bentler–Bonett normed fit index for our scale was 0.977, exceeding the recommended

[6] The confirmatory factor analysis was performed through the Amos program for SPSS.

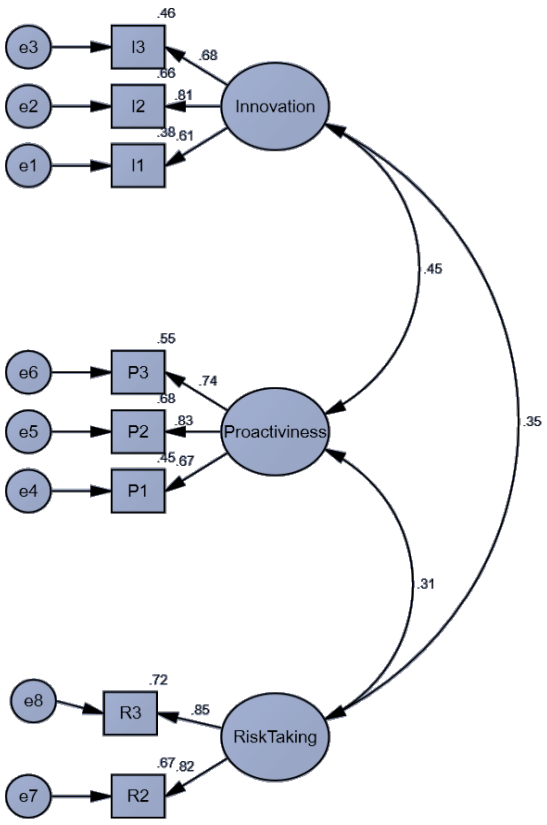
value of 0.95 and indicating convergent validity (Bentler & Bonett, 1980; Hair, Black, Babin, & Anderson, 2010).

Finally, it is also important to refer that consistent with Covin and Slevin's (1989) suggestion, the entrepreneurial orientation represents a one-dimensional construct, all dimensions of EO were summed to create a single variable.

Table 1. *Cronbach's Alpha of the Entrepreneurial Orientation*

				$\alpha_{EO\ overall}$=**0.773**
Innovativeness	1	…	7	
(I_1) In general, during the past three years, the top management team of the company has put the emphasis on:	The marketing of tried and true products or services		R&D, technological leadership, and innovations	$\alpha_{Innovativeness}$ = 0.734
* (I_2) How many new lines of products or services has your firm marketed in the past 3 years?	No new lines of products or services		Very many new lines of product or service	
(I_3) In the past 3 years the firm has introduced:	Small changes in the current products /services		Radical changes in the products or services	
Proactiveness	1	…	7	
(P_1) The firm's relation toward its competitors:	Normally it responds to actions, which competitors initiate		Typically, it initiates changes upon which the competitors	$\alpha_{Proactiveness}$ = 0.780
(P_2) In dealing with its competitors, the firm:	Is very seldom the first business to introduce new products /services, administrative techniques, methods of production, etc.		Is very often the first business to introduce new products /services, administrative techniques, methods of production,etc	
* (P_3) Regarding its competitors, the firm:	Typically, seeks to avoid competitive clashes, preferring a "live-and-let-live" posture		Typically, adopts a very competitive orientation, "'undo the competitors" position	
**_Risk taking_	1	…	7	$\alpha_{Risk\ taking}$=0.819
* (R_2) In general, the top managers of the firm believe that:	The business environment of the firm is such that it is better to explore it carefully and gradually in order to achieve the company's		The business environment of the firm is such that fearless and powerful measures are needed to obtain the firm's objectives	
(R_3) When confronted with decision-making situations involving uncertainty, the firm:	Typically adopts a cautious "wait and see" posture in order to minimize the probability of making costly decisions		Typically adopts a bold, aggressive position in order to maximize the probability of exploiting potential opportunities	

* In the applied questionnaire, the scale of this item was reversed.
** This is the Cronbach's Alpha once item 1 (R_1) of this dimension was dropped.



	Results	Cut-off for good fit
Absolute fit		
Chi-square ($\chi 2$)	24.149 *Probability level* = 0.115	p-value> 0.05
Chi-square/ Degrees of freedom	1,421	< 3
Goodness-of-fit index (GFI)	0.986	≥ 0.95
Adjusted Goodness-of-fit index (AGFI)	0.970	≥ 0.90
Root mean square residual (RMR)	0.064	Close to 0
Root-mean-square error of approximation (RMSEA)	0.032	< 0.05
Comparative fit		
Comparative fit index (CFI)	0.993	≥ 0.95
Tucker-Lewis index (TLI)	0.988	≥ 0.95
Normed fit index (NFI)	0.977	≥ 0.95
Parsimonious fit		
Parsimony normed fit (PNFI)	0.593	Close to 1

Figure 2. Confirmatory Factor Analysis and Fit Indices of the Entrepreneurial Orientation

Independent and moderator variables

Familial nature of TMT

The operationalization of this variable was done by following the proposal of Minichilli et al (2010). Specifically, the CEO identified the members of the TMT and then, this respondent indicated which of the members of the TMT have family ties. However, this information was validated with Human Resource Departments of the firms through phone calls or emails.

The variable was measured as a dummy variable, coded "1" if the member of the TMT has family ties and "0" if otherwise. Likewise, since hypothesis 1 was proposed in terms of heterogeneity and it is a categorical variable, the heterogeneity was measured through Blau's (1977) index, also known as the Hirschman-Herfindal index (Hirschman, 1964), and the entropy index or Teachman's index (Teachman, 1980), which are linearly correlated (McDonald & Dimmick, 2003). Specifically, according to Harrison and Klein (2007), the Blau index can be defined as follows:

$$B = 1 - \sum_{i=F}^{n} S_i^2$$

Where:

F is the set of categories (family member and non-family member).

S is the proportion of TMT in each category i.

i takes on values 1 to 2 (in this case) representing both categories.

The Blau index may vary within 0 and 1, indicating for values closer to 1, a higher heterogeneity among the TMT, while for values closer to 0, it will indicate that the TMT is dominated by one category.

TMT Tenure

The amount of years that members of the TMT have spent in the organization was requested in the questionnaire applied to CEOs. Also, this information was validated with Human Resource Departments of the firms through phone calls or emails.

Specifically, the tenure heterogeneity among the TMT was measured through coefficient of variation (i.e., the standard deviation divided by the mean), as recommended by some scholars for interval data with theoretically fixed zero point (e.g. Harrison & Klein, 2007; Bantel & Jackson, 1989). In this regard, as mentioned by Harrison and Klein (2007: 14), "the coefficient of variation captures the asymmetry that is fundamental to the conceptualization of diversity-as-disparity. Disparity reflects both the distances between unit members and the dominance of those who have higher amounts of a particular attribute". Specifically, the coefficient of variation (CV) was defined as the following:

$$CV = \frac{\sqrt{\frac{\sum_{i=1}^{n}(T_i - \bar{T})^2}{n}}}{\bar{T}}$$

Where:

$\bar{T}$: is the average tenure in the TMT.

T_i: is the tenure of member *i* of TMT

n: number of members of TMT.

TMT Age

The age of the members of the team was requested directly to the CEO and validated with Human Resource Departments of the firms through phone calls or emails. As in the case of tenure, the heterogeneity among the TMT was measured through the coefficient of variation as it is recommended for interval variables (Bantel & Jackson, 1989).

Generations involved in the family firm

As suggested by Kellermanns and Eddlestonm (2006) and Kellermanns et al. (2008), the CEOs were asked to indicate the number of generations currently working in the family firm. This variable was measured as a dummy variable, coded "0" if there was only one generation working in the firm and "1" if there were two or more generations involved in the management of the firm.

TMT Faultlines

The Fau calculation suggested by Thatcher at al. (2003) and developed in more detail by Zanutto, Bezrukova and Jehn (2011) was used to measure the faultline strength. "This statistic measures faultline strength as the proportion of total variation in overall group characteristics explained by the strongest group split" (Zanutto et al., 2011: 706). The faultline strength was calculated for all possible sub-groups of two or more members, considering the following demographic variables: familial nature of TMT, tenure, and age. The "generations involved in the family firm" was excluded of the calculation of this measure, because this variable can be only associated to family members. Additionally, it is important to note that for the calculation of faultline strength, no sub-group that would have only one member was included, as recommended by Zanutto et al. (2011).

Specifically, the *Fau* formula is the following:

$$Fau_g = \left(\frac{\sum_{J=1}^{p} \sum_{K=1}^{2} n_k^g \, (\bar{x}_{.jk} - \bar{x}_{.j.})^2}{\sum_{j=1}^{p} \sum_{k=1}^{2} \sum_{i=1}^{n_2^2} (x_{ijk} - \bar{x}_{.j.})^2} \right) \quad g = 1,2, \dots, S$$

Where:

X_{ijk} is the value of the j^{th} characteristic of the i^{th} member of subgroup k

$X_{j.}$ is the overall group mean of characteristic j

X_{jk} is the mean of characteristic j in subgroup k

n_k^g is the number of members of the k^{th} subgroup (k = 1, 2) under split g.

The variable *Fau* takes values between zero and one. Specifically, the larger values indicate greater faultline strength that implies a stronger the separation between subgroups or equivalently, the more attributes in which the subgroups are separable. In this regard, Zanutto et al. (2011) suggest that calculating *Fau* can viewed as a two-step

process. The first of them is the calculation of Fau_g using the previously mentioned formula; whereas the second step is the calculation of the maximum value of Fau_g over all possible splits g = 1, 2,…S.

The calculation of this variable was performed through the open source statistical environment R (R Development Core Team, 2011), using the asw.cluster package.

Generation in control

To determine the generation in charge of the family firms, the survey included a question for the CEO to indicate the generation currently having the decision-making authority in the firm. This definition is consistent with previous studies that have focused on generational issues in family firms (e.g. Bammens et al. 2008; Cruz & Nordqvist, 2010). Specifically, I recoded this variable in two categories: first generation and second and subsequent generations.

Control Variables

Five control variables were introduced in the study: firm age, firm size, industry, gender, and size of the TMTs. I controlled for firms age as throughout the life of an organization the level of EO may change (Miller & Friesen, 1984). Specifically, older organizations could perform less entrepreneurial activities as a result of the bureaucratic structures likely to characterize them (Tasi, 2001; Zahra et al., 2004). Firm age was measured as the amount of years since the firm's inception (Anderson & Reeb, 2003). Regarding the firm size, this variable was included, since large firms could have access more easily to external resources, and thus, it can affect the entrepreneurial activities (Chirico et al. 2011; Zahra & Nielsen, 2002; Kellermanns & Eddleston, 2006). This variable was measured through the number of direct employees. Also, I controlled for

industry type with four dummy codes (construction, manufacturing, wholesale/retail commerce, and service), since entrepreneurial activities may be more pronounced in some industries than others (Eddleston, Kellermanns & Zellweger, 2010). Further, I controlled for gender of TMT, since the entrepreneurial activities are more often associated with men than women (Olson, Zuiker, Danes, Stafford, Heck & Duncan, 2003; Kellermanns & Eddleston, 2006; Cruz & Nordqvist, 2010). Finally, previous research recommends that TMT size must be controlled in the analysis, as the measures of heterogeneity and group faultline are size dependent (Bantel & Jackson, 1989; Hambrick & D'Aveni, 1992; Bezrukova et al. 2007). The size of TMT was measured through the number of members that constitute the team (Wiersema & Bantel, 1992).

Analyses

Considering that the analytical model proposed by the research consists of a dependent variable, multiple independent variables, a moderator and multiple control variables, multiple regression is the most appropriate choice for the analysis (Hair et al. 2010). Therefore, all hypotheses were tested using hierarchical regression analysis. Specifically, the control variables were entered in the first step, while the different independent variables were introduced in the next one. To examine the hypothesis regarding moderation, multiplicative terms were introduced in the last step. It is important to mention that this procedure is recommended for comparing successive regression models and to determine the significance that each one has above and beyond the others. Moreover, the significance of each step was evaluated through the change in F ratio and it was also interpreted betas coefficients with *t* values. Likewise, the variance inflation factor was computed for each model to identify multicollinearity problems.

Table 2 summarizes the measurement of the variables used in the research, as well as the references used to operationalize them.

Table 2. *Constructs and Measures*

Constructs	Measures	Studies
Family firm	Two different criteria: ownership and self-definition	Adapted from Casillas, Moreno & Barbero (2010) and Naldi et al. (2007)
TMT	CEOs identify the members of the TMT involved in decisions related to entrepreneurial activities	Based on Bantel & Jackson (1989)
Dependent Variable		
Entrepreneurial Orientation	Nine-items and seven-point scale	Adapted from Covin & Slevin (1989) and Naldi et al. (2007)
Independent Variables		
Familial Nature of the TMT	Proportion of members of TMT with family ties Blau index	Based on Minichilli et al., (2009) and Harrison &Klein (2007)
TMT Tenure	Amount of years that members of the TMT have spent in the organization Coefficient of variation (CV)	Based on Bantel & Jackson (1989) and Harrison & Klein (2007)
TMT Age	Age of the members of TMT Coefficient of variation (CV)	Based on Bantel & Jackson (1989) and Harrison & Klein (2007)
Generations Involved in the Family firm	Number of generations currently working in the family firm	Based on Kellermanns & Eddleston (2006), Kellermanns et al. (2008)
Faultline	*Fau* calculation	Based on Thatcher at al. (2003) and Zanutto et al. (2011)
Generation in control	Generation currently having the decision power in the firm	Based on Bammens et al. (2008) and Cruz & Nordqvist (2010).

CHAPTER 5: RESULTS

In accordance with the presentation of all aspects related to the research method carried out in Chapter 4, this chapter shows the results and corresponding statistical analysis. Specifically, the chapter is divided in three sections. In the first one, the descriptive statistics and the correlation matrix of the sample are reviewed. In the second section the results of hypothesis tests are examined. Finally, a summary of the findings is presented in the third section.

Descriptive Statistics and Correlations Matrix

Table 3 shows the main characteristics of the TMTs included in the sample. Specifically, executive teams ranged in size from two to sixteen members, with average size being 5.56 executives (S.D. = 2.83). The average age of the 2226 executives on the teams was 47.67 years old (SD = 6.80). Likewise, they had been employed at their current firms 15.15 years on average (SD = 7.51). The executive team was conformed of 2.84 family members and 2.72 non-family executives on average (SD = 1.48 and S = 2.83 respectively).

Table 3. *Descriptive statistics of TMTs*

	Minimum	Maximum	Mean	Std. Deviation
Team size	2.00	16	5.56	2.83
Number of non-family members	0.00	13	2.72	2.83
Number of family members	0	9	2.84	1.48
Average age team	30	75	47.67	6.8
Average Tenure team	1.87	45	15.15	7.51

n=409

Table 4 provides the mean value, standard deviation, and Pearson correlation coefficient of the main variables used in the regression analysis. In this vein, some of the variables included in Table 3 were transformed to calculate the heterogeneity indexes (i.e. Blau's (1977) index for the categorical variables and the coefficient of variation for numerical data).

In general, Table 4 shows that the variety of TMTs considering family ties (i.e. family managers and non-family managers) is positively related to EO. Meanwhile, the disparity in team ages and the faultline strength are negatively correlated with entrepreneurial orientation. However, team tenure heterogeneity and the number of generations of the family involved in the business showed no significant relationship.

Moreover, the correlation coefficient between the independent or control variables were less than 0.50, threshold, suggesting that the estimates are not likely to be biased by multicollinearity problems (Tabachnick & Fidell, 1996). However, it is important to indicate that a more comprehensive diagnosis of collinearity was carried out for each of the regressions made, and the results will be presented in the next section.

Table 4. *Means, standard deviations, and correlations among variables*

	Mean	Std. Deviation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Firm age	33.00	21.68	1														
2. Firm size	194.71	628.01	0.273**	1													
3. Construction	0.08	0.27	-0.035	-0.048	1												
4. Manufacturing	0.25	0.43	0.151**	0.007	-0.164**	1											
5. Wholesale/retail trade	0.27	0.45	-0.043	0.023	-0.175**	-0.349**	1										
6. Service	0.29	0.46	-0.123*	-0.099*	-0.183**	-0.367**	-0.391**	1									
7. Number of women	2.11	1.89	0.172**	0.058	-0.041	-0.046	-0.065	0.151**	1								
8. Team size	5.56	2.83	0.362**	0.315**	0.005	0.068	-0.093	-0.027	0.692**	1							
9. Blau index-Familial Nature TMT	0.29	0.2	0.099*	0.035	-0.053	0.021	-0.059	0.074	0.212**	0.311**	1						
10. CV Tenure	0.44	0.26	0.341**	0.154**	0.01	0.099*	-0.034	-0.061	0.206**	0.344**	0.229**	1					
11. CV Age	0.19	0.09	0.039	-0.091	0.054	0.004	-0.02	-0.008	0.111*	0.115*	0.033	0.445**	1				
12. Generations Involved Family firm[a]	0.64	0.48	0.249**	0.047	0.063	-0.038	0.016	-0.063	0.171**	0.236**	0.118*	0.290**	0.391**	1			
13. Fau Thatcher (2003)	0.78	0.16	0.016	0	0.024	0.029	0.042	-0.058	-0.044	-0.022	-0.036	-0.032	-0.025	0.05	1		
14. Generation in charge[b]	0.43	0.5	0.491**	0.142**	-0.026	0.083	0.022	-0.158**	0.132**	0.269**	0.09	0.130**	-0.027	0.190**	0.041	1	
15. EO	3.88	0.93	0.008	0.138**	-0.083	0.024	-0.018	0.081	0.064	0.100*	0.259**	0.027	-0.246**	-0.071	-0.120*	0.109*	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

n=409

[a]This variable takes value 1 for more than one generation involved in the family business, and value 0 for a single generation involved in the firm.

[b]This variable takes the value 1 when the second generation or a later generation is in charge of the family business, and the value zero when the first generation is in charge.

EO= entrepreneurial orientation

Hypothesis Tests

All hypotheses were tested using hierarchical regression analysis. Specifically, the control variables were entered in the first step. In the second step, all the predictor variables were introduced. To examine the hypothesized interactions, the multiplicative terms were entered in the third step. The significance of each step was evaluated with Change F (ΔF) and interpreted betas coefficients with *t* values. Table 5 shows the results of the regression analyzes.

Following the process suggested by Aiken and West (1991) and Judd and McClelland (1989) for interactions between categorical and continuous variables, the continuous independent variables were centered to increases the interpretability of interactions and mitigates possible problems with multicollinearity. However, as noted by McClelland, Irwin, Disatnik, and Sivan (2017), the only purpose of those transformations is to facilitate the understanding of moderated multiple regression models.

Likewise, for each model, variance inflation factors (VIF) was computed (see Appendix G). The maximum VIF for the three models was 5.23, very close to the cut point of 5 suggested by Hair et al. (2010). Similarly, the eigenvalues were not close to 0, indicating that the predictors were not highly intercorrelated. Also, the condition indices were computed as the square roots of the ratios of the largest eigenvalue to each successive eigenvalue, none of these values were greater than 15, indicating that collinearity is not a problem in the data set.

Correspondingly, the normality of the residuals was checked through the non-parametric Kolmogorov-Smirnov test (see Appendix H). The Kolmogorov-Smirnov test

yielded a statistical value of 0.04, which had a *p-value* of 0.114 ($p > 0.01$), therefore, it is not possible to reject the hypothesis that the residuals are normally distributed.

The Breusch-Pagan test was used to evaluate the heteroscedasticity of the linear regression model (see Appendix I). Specifically, this test verified whether the estimated variance of the regression residuals depends on the values of the independent variables (Hamilton, 2006). The results suggested that heteroscedasticity was not a concern in the study (χ^2=16.783; p=0.6045).

TMTs heterogeneity in family firms

Model 1 of Table 5 is a baseline model, which only includes the control variables (i.e. firm age, firm size, industry, gender, and size of the TMTs). The model is statistically significant (F = 2,231, p <0.05), but only the 2.4 percent of the variance is explained by control variables. Specifically, the firm size measured as the number of direct employees had a positive effect on EO (β = 0.139, p <0.05). This result suggests that large family businesses could exhibit higher levels of entrepreneurial activities. Likewise, the variable related to the service sector was positively related to EO (β = 0.164, p <0.05), indicating that this type of industry encourages companies to develop new and innovative products, take risks, and be more proactive.

Regarding Model 2, this included all control and predictor variables considered in the research. The Model 2 was statistically significant (F = 6.515, p <0.01), showing that the 15.90 percent of the variance is explained by predictors and control variables. In this sense, the introduction of the predictor variables increased by 14.50 percent the explained

variance, suggesting that independent variables reliably predict the entrepreneurial orientation.

On the other hand, as found in Model 1, both firm size variable ($\beta = 0.119$, $p < 0.05$) and the variable related to the service sector ($\beta = 0.157$, $p < 0.05$) had a positive and significant effect on entrepreneurial orientation. However, in model 2, the firm age variable was also significant. Specifically, firm age had a negative and significant effect on EO ($\beta = -0.129$, $p < 0.05$), suggesting that older organizations perform less entrepreneurial activities.

Familial nature of TMT

The relationship between the heterogeneity regarding the involvement of family and non-family managers in TMTs and entrepreneurial orientation, was positive, as it was hypothesized. Specifically, Model 2 showed that this variable exercise a positive and strongly significant effect on EO ($\beta = 0.228$, $p < 0.01$), thus offering support for H1. Therefore, senior management teams that include both family and non-family members have a positive impact on the entrepreneurial orientation, compared to those teams formed only by members of some of these categories.

TMT Tenure

Model 2 also shows that the effect of TMT tenure's heterogeneity on entrepreneurial orientation in family businesses is positive, but marginally significant at $p = 0.10$ level ($\beta = 0.106$, $p < 0.10$). Therefore, these results partially support research hypothesis 2.

In this regard, it is important to remark that this result can be associated with the positive and significant correlation that exists between this variable and TMT age's heterogeneity, the number of generations of the owner family involved in the business, as well as the generation of the family in charge of the firm (see Table 4).

Considering these aspects, a regression analysis was performed excluding TMT age's heterogeneity and the number of generations of the owner family involved in the business as predictors, which results are shown in Table 6. The findings show that model 2a was statistically significant ($F = 4.825$, $p < 0.01$). However, only the 10.1 percent of the variance is explained by control and predictors variables, in contrast to the 15.90 showed in Model 2 of Table 5. Likewise, the effect on EO of TMT tenure's heterogeneity was negative and not significant ($\beta = -0.036$, n.s.). Definitely, these results suggest that the effect of TMT tenure's heterogeneity on entrepreneurial orientation in my sample is not statistically relevant.

Likewise, this finding is aligned with that suggested by Horwitz (2005). Specifically, this author highlights that the effect of tenure heterogeneity on team outcomes has not been entirely conclusive, since some studies have found null, positive or negative effects (e.g. O'Reilly, Snyder & Boothe, 1993; Ancona & Caldwell, 1992; Bantel & Jackson, 1989; Finkelstein & Hambrick, 1996; Velinov & Kubicek, 2013).

Table 5. *Results of regression analysis for TMT heterogeneity and EO*

	Model 1			***Model 2***			***Model 3***		
	Unstandardized Coefficients		**Standardized Coefficient**	**Unstandardized Coefficients**		**Standardized Coefficient**	**Unstandardized Coefficients**		**Standardized Coefficient**
	B	**Std. Error**	**ß**	**B**	**Std.**	**ß**	**B**	**Std.**	**ß**
(Constant)	3.563***	0.177		3.709***	0.179		3.699***	0.185	
Control Variables									
Company founded years	-0.002	0.002	-0.054	-0.006**	0.002	-0.129**	-0.005**	0.003	-0.127**
Number of employees	0.000**	0.000	0.139**	0.000**	0.000	0.119**	0.000**	0.000	0.12**
Construction	-0.056	0.215	-0.016	0.053	0.201	0.015	0.091	0.204	0.026
Manufacturing	0.242	0.164	0.112	0.246	0.154	0.114	0.261*	0.156	0.12*
Wholesale/retail trade	0.178	0.162	0.085	0.192	0.151	0.092	0.218	0.153	0.104
Services	0.336**	0.164	0.164**	0.324**	0.154	0.157**	0.333**	0.155	0.162**
Number of women	-0.005	0.036	-0.016	0.005	0.033	0.009	0.007	0.034	0.014
Team Size	0.029	0.026	0.088	-0.002	0.025	-0.006	0.000	0.025	0.000
Independent variables									
Blau Index Familial Nature (centered)				1.069***	0.229	0.228***	1.24***	0.290	0.265***
CV tenure (centered)				0.375*	0.203	0.106*	0.451*	0.242	0.127*
CV age (centered)				-2.800***	0.550	-0.282***	-2.855***	0.677	-0.288***
Generations involved Family Firm				0.000	0.101	0.000	-0.028	0.127	-0.014
Fau Thacher (centered)				-0.702**	0.274	-0.117**	-0.728**	0.355	-0.121**
Generation in charge				0.249**	0.101	0.132**	0.213	0.171	0.113
Interactions									
MOd_XBlauIndexcenter							-0.484	0.464	-0.063
Moderation x CV tenure centered							-0.282	0.405	-0.045
Moderation x CV age centered							0.097	1.168	0.006
Moderation x FAU Thacher 2003centered							0.079	0.567	0.008
Mod_XNoGenBincategorical							0.061	0.209	0.031
R^2			0.0430			0.1880			0.1920
Adjusted R^2			0.0240			0.1590			0.1530
ΔR^2			0.0430			0.1450			0.0040
F			2.231**			6.515***			4.868***
F Change			2.231**			11.7490***			0.3950

n=409
Dependent variable: EO
* p < 0.1; ** p < 0.05; *** p < 0.01

Table 6. *Results of regression analysis for TMT heterogeneity and EO (excluding age and number of generations of the family involved in the family business)*

	Model 1			***Model 2a***			***Model 3a***		
	Unstandardized Coefficients		**Standardized Coefficient**	**Unstandardized Coefficients**		**Standardized Coefficient**	**Unstandardized Coefficients**		**Standardized Coefficient**
	B	**Std. Error**	**ß**	**B**	**Std. Error**	**ß**	**B**	**Std. Error**	**ß**
(Constant)	3.563***	0.177		3.667***	0.178		3.648***	0.18	
Control Variables									
Company founded years	-0.002	0.002	-0.054	-0.005	0.003	-0.106*	-0.005	0.003	-0.106*
Number of employees	0.000**	0.000	0.139**	0.000	0.001	0.162***	0.000	0	0.16***
Construction	-0.056	0.215	-0.016	0.035	0.207	0.01	0.065	0.21	0.018
Manufacturing	0.242	0.164	0.112	0.275	0.158	0.127*	0.286	0.159	0.132*
Wholesale/retail trade	0.178	0.162	0.085	0.208	0.156	0.099	0.23	0.158	0.11
Services	0.336**	0.164	0.164**	0.342	0.158	0.166**	0.35	0.159	0.17**
Number of women	-0.005	0.036	-0.016	0.000	0.034	0.001	0.001	0.034	0.003
Team Size	0.029	0.026	0.088	-0.005	0.026	-0.014	-0.003	0.026	-0.01
Independent variables									
Blau Index Familial Nature (centered)				1.175	0.236	0.251***	1343	0.297	0.287***
CV tenure (centered)				-0.127	0.186	-0.036	-0.099	0.219	-0.028
Fau Thacher (centered)				-0.69	0.283	-0.115**	-0.686	0.366	-0.114*
Generation in charge				0.268	0.104	0.142**	0.273	0.104	0.145**
Interactions									
MOd_XBlauIndexcenter							-0.466	0.476	-0.06
Moderation x CV tenure centered							-0.141	0.374	-0.022
Moderation x FAU Thacher 2003centered							0.006	0.582	0.001
R^2			0.0430			0.128			0.13
Adjusted R^2			0.0240			0.101			0.097
ΔR^2			0.0430			0.085			0.003
F			2.231**			4825***			3929***
F Change			2.231**			9.63***			0.426

n=409
Dependent variable: EO
* p < 0.1; ** p < 0.05; *** p < 0.01

TMT age

In hypothesis 3 of the research, I proposed that there was a positive relationship between the age heterogeneity within TMT and entrepreneurial orientation in family businesses. However, the results presented in Model 2 show that this relationship is negative and strongly significant ($\beta = -0.282$, $p < 0.01$), thus H3 was not supported.

In this sense, it is important to indicate that this result is not surprising, since the literature in this regard is inconclusive, as some studies have found null or negative effects of diverse management team ages on entrepreneurial orientation (e.g. Olson, Parayitam & Twigg, 2006; Wiersema & Bantel, 1992; Naranjo-Gil & Hartmann, 2008).

Generations involved in the family firm

Following the empirical findings of Zahra (2005) and Kellermanns and Eddleston (2006), I proposed that there was a positive relationship between the number of family generations involved in the family firms and entrepreneurial orientation. Contrary to the expectations, the findings presented in Model 2 of Table 5 show that the effect of the number of family generations involved in the family firms on EO is very small and also statistically not significant ($\beta = 0.000$, n.s.). Therefore, hypothesis 4 was not supported.

In this vein, similar to what happened with the TMT tenure's heterogeneity variable, the number of family generations involved in the family firms was positive and significant correlated with the following variables: TMT tenure's heterogeneity, TMT age's heterogeneity and generation of the family in charge of the firm. Therefore, a regression analysis was performed excluding TMT age's heterogeneity and TMT tenure's heterogeneity as predictors, which results are shown in Table 7. The findings show that

model 2b was statistically significant (F = 3,987, p <0.01), showing that the 10.8 percent of the variance is explained by control and predictors variables, in contrast to the 15.90 percent obtained in Model 2 of Table 5. However, the effect of the number of family generations involved in the family firms on EO was negative and marginally significant at p = 0.10 level (β = -0.093 06, p <0.10).

Although the marginal statistical significance of this variable makes it irrelevant for research, the sign it exhibits deserves attention. In this regard, the findings of Sciascia et al. (2012) respond in some way to this concern. Specifically, these authors found an inverted U-shaped relationship between generational involvement in the family firm's TMT and entrepreneurial orientation. Therefore, they suggested that moderate levels of generational involvement stimulate task-related constructive conflicts for entrepreneurial orientation, while the relationship conflicts led by high levels of generational involvement undermines this potential advantage, when increased kinship distance.

TMT Faultline

In addition to the possible advantages that the heterogeneity of senior management team in family businesses could offer, I also proposed that it could generate the creation of homogeneous subgroups based on the alignment of demographic attributes (i.e. faultline) that would negatively impact EO. The results presented in Model 2 show that this relationship is negative and significant (β = -0.117, p <0.05), thus H5 was supported.

Table 7. *Results of regression analysis for TMT heterogeneity and EO (excluding age and tenure)*

	Model 1			***Model 2b***			***Model 3b***		
	Unstandardized Coefficients		**Standardized Coefficient**	**Unstandardized Coefficients**		**Standardized Coefficient**	**Unstandardized Coefficients**		**Standardized Coefficient**
	B	**Std. Error**	**ß**	**B**	**Std. Error**	**ß**	**B**	**Std. Error**	**ß**
(Constant)	3.563***	0.177		3.77***	0.177		3.763***	0.181	
Control Variables									
Company founded years	-0.002	0.002	-0.054	-0.004	0.002	-0.099*	-0.004	0.003	-0.101*
Number of employees	0.000**	0.000	0.139**	0.000	0.000	0.156***	0	0	0.153***
Construction	-0.056	0.215	-0.016	0.038	0.206	0.011	0.073	0.21	0.021
Manufacturing	0.242	0.164	0.112	0.244	0.158	0.113	0.259	0.159	0.119
Wholesale/retail trade	0.178	0.162	0.085	0.198	0.156	0.094	0.22	0.157	0.105
Services	0.336**	0.164	0.164**	0.322	0.158	0.157**	0.334	0.159	0.162**
Number of women	-0.005	0.036	-0.016	0.003	0.034	0.005	0.003	0.034	0.006
Team Size	0.029	0.026	0.088	-0.003	0.025	-0.01	-0.002	0.026	-0.007
Independent variables									
Blau Index Familial Nature (centered)				1176	0.233	0.251***	1365	0.29	0.291***
Generations involved Family Firm				-0.181	0.096	-0.093*	-0.198	0.121	-0.102
Fau Thacher (centered)				-0.656	0.282	-0.109**	-0.676	0.364	-0.113*
Generation in charge				0.284	0.103	0.151***	0.267	0.167	0.142
Interactions									
MOd_XBlauIndexcenter							-0.511	0.467	-0.066
Moderation x FAU Thacher 2003centered							0.034	0.195	0.017
Mod_XNoGenBincategorical							0.052	0.582	0.005
R^2			0.0430			0.134			0.137
Adjusted R^2			0.0240			0.108			0.104
ΔR^2			0.0430			0.092			0.003
F			2.231**			3.987***			3.253***
F Change			2.231**			10.47***			0.406

n=409
Dependent variable: EO
* p < 0.1; ** p < 0.05; *** p < 0.01

Generation in control as moderator

The generational stage of family businesses was also considered in the research as a moderator. In this vein, I hypothesized that the generation in charge of the family business moderates the relationships between TMT heterogeneity, faultline and entrepreneurial orientation in a way that these relationships become stronger as from the second-generation and later-generations of family businesses.

As it can be observed in Model 2 of Table 5, the generation in charge had a direct positive and significant effect on EO ($\beta = 0.132$, $p < 0.05$). However, when the multiplicative terms were included in Model 3 of Table 5, both the generation in charge ($\beta = 0.113$, n.s.) and all multiplicative terms were statistically non-significant ($\beta_{\text{Mod x Familial nature}} = -0.063$, n.s.; $\beta_{\text{Mod x tenure}} = -0.045$, n.s.; $\beta_{\text{Mode x age}} = 0.006$, n.s.; $\beta_{\text{Mod x FAU}} = 0.008$, n.s.; $\beta_{\text{Mod x NoGen}} = 0.031$ n.s.), thus the moderation hypothesis was not supported. Probably, this result can be associated to the sample size and to the fact that 56.7 percent of the senior management teams included in it came from family businesses in which the first generation was in charge.

Summary of Findings

Overall, the results showed that heterogeneity in senior management teams in family businesses could positively affect entrepreneurial activities if they combine the adequate compositional attributes. However, if teams are created without regard to compositional factors, it can become a potential source of disruptive behavior negatively affecting entrepreneurial orientation.

Accordingly, and despite not all hypotheses were supported, the results indicate clearly that the heterogeneity understood as a variation in team composition (i.e. family managers and non-family manager) has a positive and significantly statistical effect on EO. However, the dispersion in the ages of the senior management team showed a negative and significantly statistical effect on the entrepreneurial orientation, contrary to what I expected. Additionally, the possibility of conforming homogeneous subgroups based on the alignment of this demographic attributes (i.e. faultline), had a negative and significant effect on EO. Table 8 shows a summary of the results of the hypotheses tested.

Table 8. *Summary of Findings*

Hypothesis	Findings
H1: There will be a positive relationship between the heterogeneity regarding the involvement of family and non-family managers in TMT and the entrepreneurial orientation in family firms	Supported β = 0.228, p <0.01 (Model 2, Table 5)
H2: There will be a positive relationship between tenure heterogeneity within TMT and the entrepreneurial orientation in family firms.	Partially Supported β = 0.106, p <0.10 (Model 2, Table 5) Not supported β = -0.036, n.s. (Model 2a, Table 6)
H3: There will be a positive relationship between the age heterogeneity within TMT and entrepreneurial orientation in family firms.	Not Supported β = -0.282, p <0.01 (Model 2, Table 5)
H4: There will be a positive relationship between the heterogeneity regarding the number of family generations involved in the family firms and entrepreneurial orientation.	Not supported β = 0.000, n.s. (Model 2, Table 5) Not Supported β = -0.093 06, p <0.10(Model 2b, Table 7)
H5: Strong faultlines in TMTs will be negatively associated with entrepreneurial orientation in family firms.	Supported β = -0.117, p <0.05 (Model 2, Table 5)
H6a: The generation in control will moderate the relationship between the involvement of family and non-family managers in TMT and the entrepreneurial orientation in family firms. This relationship will be stronger in second-generation and third-and-later-generation family firms than in first-generation family firms.	Not Supported β = -0.063, n.s. (Model 3, Table 5)
H6b: The generation in control will moderate the relationship between tenure heterogeneity within TMT and the entrepreneurial orientation in family firms. This relationship will be stronger in second-generation and third-and-later-generation family firms than in first-generation family firms.	Not Supported β = -0.045, n.s. (Model 3, Table 5)

Table 8. *Summary of Findings (cont.)*

Hypothesis	Findings
H6c: The generation in control will moderate the relationship between age heterogeneity within TMT and the entrepreneurial orientation in family firms. This relationship will be stronger in second-generation and third-and-later-generation family firms than in first-generation family firms.	Not Supported β = 0.006, n.s. (Model 3, Table 5)
H6d: The generation in control will moderate the relationship between the heterogeneity regarding the number of family generations involved in the family firms and the entrepreneurial orientation. This relationship will be stronger in second-generation and third-and-later-generation family firms than in first-generation family firms.	Not Supported β = 0.031 n.s. (Model 3, Table 5)
H6e: The generation in control will moderate the relationship between TMT faultlines and the entrepreneurial orientation. This relationship will be stronger in second-generation and third-and-later-generation family firms than in first-generation family firms.	Not Supported β = 0.008, n.s. (Model 3, Table 5)

CHAPTER 6: DISCUSSION AND CONCLUSIONS

This chapter presents the analysis of the results exposed in chapter 5, as well as the main conclusions that emerge from them. The chapter is divided in four sections. In the first section, the discussion of results is presented. The second section identifies theoretical and managerial implications of research. The limitations and future research are addressed in the third section. Finally, the concluding remarks are shown in the fourth section.

Discussion

The purpose of this research was to study the composition of TMTs as an antecedent of entrepreneurial activities in family businesses. Specifically, I argued, based on the cognitive-resource perspective, that heterogeneous TMTs can be associated with a broader set of perspectives for decision making (Sawyer, Houlette, & Yeagley, 2006; Tuggle, Schnatterly & Johnson, 2010), a greater diversity of information sources and perspectives, as well as a more creative or innovative discussion (Milliken & Martins, 1996; Wiersema & Bantel, 1992), and therefore, they can promote more entrepreneurial activities. The heterogeneity of TMTs in family businesses was explored through the familial nature of the teams, tenure, age and number of generations of family involved in the business. The impact of the possible creation of subgroups within the team as a consequence of the alignment between the previously mentioned demographic attributes (i.e. Faultline), was also considered. Likewise, the generational perspective in family firms through the family generation that currently has the decision power in the firm (i.e.

generation in control) was included as a moderating variable between heterogeneity of TMT and entrepreneurial orientation.

Even though not all hypotheses were supported, overall the results showed that heterogeneity in senior management teams in family firms could positively affect entrepreneurial activities if they combine the right compositional attributes. However, if teams are created without regard to compositional factors, it can become a potential source of disruptive behavior negatively affecting entrepreneurial orientation. The findings suggest that heterogeneity understood as the variation in team composition (i.e. family managers and non-family managers) has a positive and significantly statistical effect on EO. On the other hand, contrary to my expectations, the disparity in the age of the senior management teams has a negative and statistically significant effect. Likewise, the strength of the faultline, that is, the creation of homogeneous subgroups based on the alignment of this demographic attributes, exhibits a negative and significant effect on EO.

Regarding the relationship between the heterogeneity defined as the variation in the composition of the team (i.e. family managers and non-family managers) and the entrepreneurial orientation, the results show a positive effect, as proposed in the first research hypothesis. Specifically, this finding suggests that heterogeneous teams have access to greater social capital and financial resources and, thus, family businesses would have an extensive window of possibilities to exploit identified opportunities (Sciascia & Mazzola, 2008). Similarly, the inclusion of non-family managers in TMTs enable the access to more sources of information, to a larger variety of interpretations for decision making (Sawyer et al., 2006; Tuggle et al., 2010), as well as to more creative or innovative discussion (Milliken & Martins, 1996; Wiersema & Bantel, 1992).

On the other hand, considering that the team composition between family and non-family managers was measured as heterogeneity (i.e. Blau index), the result indicates that when heterogeneity regarding this attribute, it reaches it maximum point and a major positive effect in EO is obtained. However, when senior management teams are composed of only family managers or non-family managers, that is, the minimum level of heterogeneity, the impact is the least we could find in the EO. This result suggests that the relationship between proportion of family manager and non-family managers and EO could be consistent with an inverted U-shaped. In this regard, this finding reconciles somehow the two positions that have prevailed in the literature regarding the family involvement in family businesses. Specifically, the incorporation of non-family managers counteracts the risks of stagnation associated with family members as managers (Mazzola, Sciascia, & Kellermanns, 2013). Likewise, the inclusion of family managers on the team reduces the potential erosion of family's socio-emotional wealth, caused by the asymmetry of information, the loss of control and the loss of discretion to use firm's resources for private goals, that could be associated with non-family managers (Casillas et al., 2011). Ultimately, the results suggest that a balanced combination between family managers and non-family managers will allow family firms to get low agency costs, high stewardship behavior, and managerial competences (González-Cruz & Cruz-Ros, 2016).

Likewise, although my research has not made the link between EO and performance of family businesses. There is general evidence suggesting that EO is positively related to a firm's financial performance (e.g. Rauch et al. 2009). Therefore, the aforementioned result can be perceived as consistent with the findings of De Massis, Kotlar, Campopiano and Cassia (2015), which reported the existence of an inverted U-

shaped relationship between the family ratio in the TMT and performance in small and medium family businesses. However, my results contradict findings of Minichilli et al. (2010), who find support for a hypothesized U-shaped relationship between the ratio of family members in the TMT and firm performance. According to De Massis, et al. (2015), a possible reason for such divergence may be related to the size of the companies included in the sample of the study. Minichilli et al. (2010) included large firms, both listed and private, whereas the sample of De Massis, et al. (2015), consisted of SMEs, defined as companies with 10 to 250 employees and with revenues ranging between 2 and 50 million euros. Accordingly, my sample is similar to the one presented by De Massis, et al. (2015) –85 percent of firms included could be classified as SMEs, and therefore, the size of the firms emerges as a key element to explain the relationship. The argument underlying this possible difference in the pattern of family involvement between large and small family businesses, could be related to the fact that small family businesses have limited availability of diverse knowledge, skills, and perspectives. Therefore, this type of companies requires complementing its management team with external professionals (De Massis, et al., 2015; Sciascia & Mazzola, 2008).

However, the above finding should be reviewed carefully, given that possibly not all non-family managers are similar to each other. In this sense, as suggested by Tabor, Chrisman, Madison and Vardaman (2018), family businesses prefer to employ non-family members with whom they have a cultural or social affinity. In the same line of thought, Luo and Chung (2005) found that family businesses include non-family managers with whom they had a previous relationship as a mechanism to ensure cooperation and trustworthiness. Therefore, not all non-family managers can be

considered completely outsiders, and thus any interpretation of heterogeneity regarding this attribute should consider this aspect.

Regarding the relationship between TMT tenure's heterogeneity and the EO, the findings were inconclusive. Specifically, in the first model considered (see Model 2, Table 5), the impact of this variable on EO was positive and marginally significant. However, when the variables that correlate positively with it (i.e. TMT age's heterogeneity and the number of generations involved in family business) were excluded, TMT tenure's heterogeneity showed a negative impact on entrepreneurial orientation, and were not statistically significant.

This result is not surprising, given that, as Horwitz (2005) suggests, the effect of tenure heterogeneity on team outcomes have been inconclusive, and it even showed contradictory findings among each other (e.g. Bantel & Jackson, 1989; Wiersema & Bantel, 1992; Pelled, Xin & Weiss, 2001). In this vein, although the variable was not significant, it is important to review the sign of the effect, particularly in the context of family businesses. The heterogeneity of the tenure in TMT is a variable that some authors have associated with task-related conflict (e.g. Pelled, Xin & Weiss, 2001; Horwitz, 2005). This type of conflict involves constructive debate, creative ideas and novel insights, which can promote activities related to innovation, entrepreneurship, strategic change, among others. In short, older tenured executives could provide knowledge and resources while newer managers may bring their experiences in other firms as well as a fresh view of the family firm, new perspectives and broader contacts. However, the finding seems to suggest that in family businesses, the heterogeneity in the tenure of senior management teams is associated with relational conflicts. This dysfunctional form

of conflict includes affective components, like annoyance, personal animosity and irritation of others (Pieper & Klein, 2007; Eddleston & Kellermanns, 2007). Thus, heterogeneous teams related to this attribute are less productive and have lower cohesion because of inherent tensions and relational conflicts arising from member differences.

Nevertheless, little research has been developed regarding the relationship between the organizational tenure of the top executives and organizational outcomes in family firms (D'Allura, 2019). Indeed, most studies in family businesses have focused their interest on the CEO tenure. Recently, Binacci, Peruffo, Oriani and Minichilli (2016) studied the relationship between non-family manager's tenure diversity and family firm performance. Specifically, these authors found a U-shaped relationship between both variables. According to Binacci et al. (2016), the diversity of tenure in non-family managers has a negative impact on the performance of family businesses. However, this effect becomes positive for a greater level of diversity in the tenure of non-family managers. Taking this finding as a reference, possibly in my sample the diversity in the tenure of non-family managers could be at a relatively low level, therefore, the effect is negative and not significant.

Contrary to my expectations, the third hypothesis of research was not supported. Explicitly, the findings showed a negative and significant relationship between age heterogeneity within TMT and entrepreneurial orientation in family businesses. This result is similar to that reported by some studies on TMTs, which suggests that dissimilarity in age is often assumed as having a negative influence on team outcomes (e.g. Tsui, Egan, & O'Reilly, 1992; Zenger & Lawrence, 1989; Olson et al., 2006). Specifically, age heterogeneity is more likely to cause relational conflicts through the

tendency of team members to sort each other into different social categories. This aspect has its origin in the differences in values, attitudes, and perspectives reported by team members with diverse ranges of ages (Olson et al., 2006; Wu, Wei & Liang, 2011).

In this sense, the result suggests that the advantages linked to task-related conflict (i.e. cognitive diversity), are probably overpassed by the relational conflict created by the age disparity among the members of the TMT, causing a negative effect on EO. On the other hand, it may also be related to the phenomenon known as "Triple coincidence" (Gallo, 2005). This is concerned to the generational overlapping that is observed when the family business is close to a process of generational change from the first to the second generation of the owner family. According to Gallo (2005), this phenomenon is observed as a firm that has reached it maturity and requires to be refreshed to continue, and a founder, whose managerial skills are declining and is reluctant to take risks that may compromise the family welfare. Likewise, the author suggests that the "triple coincidence" is enhanced by the age structure that usually exhibits the management team. When applying these criteria to my sample, we find that the average of the age of the firms is 33 years since their foundation, and approximately 56.7 percent of the companies are managed by the first generation. Therefore, it is likely that a generational change is imminent, and that the senior management teams show age disparity (i.e. some managers closer to the founder's age and others closer to the age of the successor) and thus the relational conflict may be exacerbated.

Regarding the relationship between the number of family generations involved in the firms and entrepreneurial orientation, the results were inconclusive. Specifically, in the first model considered, this variable was not significant (see Model 2, Table 5). On

the other hand, when the variables that were positively correlated with it (i.e. TMT age's heterogeneity and TMT tenure's heterogeneity) were excluded, this variable showed a negative and marginally significant effect, opposite that was proposed in hypothesis 4.

This result contradicts the findings of Zahra (2005) and Kellermanns et al., (2008), who observed that the multigenerational family involvement favors the cohesion within the family and promotes the search of opportunities that guarantee the growth and sustainability of business across generations. To them, the inclusion of younger generations in the familial business represent the driver for change and innovation.

However, the finding is aligned with the results reported by Sciascia and Mazzola (2009) and Sciascia et al. (2012). In this regard, Sciascia and Mazzola (2008), found a negative relationship between the generations involved in family businesses and profitability. Similarly, Sciascia et al. (2012) reported an inverted U-shaped relationship between generational involvement in the family firm's TMT and entrepreneurial orientation. These authors suggested that moderate levels of generational involvement stimulate task-related constructive conflicts for entrepreneurial orientation while, when increased kinship distance, the relational conflicts led by high levels of generational involvement undermines this potential advantage.

In accordance with the results aforementioned, the relational conflict seems to be again a key element to explain the negative effect that the heterogeneity in the TMT has on the EO. Specifically, when two different generations work along, it is likely to find personal incompatibility in terms of priorities and the task performance (Bertrand & Schoar, 2006). Likewise, as stated by Le Breton-Miller et al. (2011), as the new

generations join the firm, conflicts may raise that can cause problems of agency and stewardship drawbacks.

Regarding the relationship between faultlines in TMTs and entrepreneurial orientation, the results showed a negative and significant effect, as proposed in hypothesis 5. In this sense, the faultlines defined as a "hypothetical dividing lines that may split a group into subgroups based on one or more attributes" (Lau & Murnighan, 1998: 328), is related to lower levels or even the total absence of information exchange, joint decision-making and interaction between the subgroups. This characterization of the consequences of faultline is known as "behavioral disintegration" (Hambrick, 1994; Barkema & Shvyrkov, 2007). In the specific context of family firms and entrepreneurial orientation, the "us versus them" attitude (e.g. family managers versus non-family managers or young managers versus older managers), means that these subgroups become reluctant to share information, views and perspectives on entrepreneurship initiatives. Therefore, when strong faultline is present in TMTs, it becomes more difficult to make joint decision-making, achieve consensus and commitment that are critical keys in processes related to the entrepreneurial activities.

The possibility that the faultline appears within a team depends on the degree of heterogeneity that it includes. For example, considering the variables that were significant in the analysis, we could indicate that those teams with a moderate heterogeneity in terms of the composition between family and non-family managers, and moderate disparity in the ages of their members will have a stronger faultline, than a team in which heterogeneity is not present.

In this vein, the research of Minichilli et al. (2010) is congruent with this finding. Specifically, these authors report a U-shaped relationship between the ratio of family members in the TMT and firm performance. Drawing on the group dynamic perspective, Minichilli et al. (2010) state that the coexistence of family and non-family members could produce "schisms", which cause emotional disagreements and tensions into the group. These conflicts lead to a disruptive behavior and consequently, it affects firm performance. However, it is important to note that these scholars used the faultline perspective only from a theoretical point of view, whereas in this research the faultline was operationalized through *Fau* suggested by Thatcher at al. (2003).

Finally, regarding the moderator effect between the generation in charge and TMT heterogeneity variable, there was no support for this relationship. Specifically, although the generation in charge showed a direct positive effect on EO, none of the multiplicative terms was significant. This result was disappointing since most of the literature on family businesses recognizes the importance of adopting a generational perspective to study EO in this type of organizations (Cruz & Nordqvist, 2010).

In this sense, this finding can probably be associated with the sample size and certain characteristics that it presents. In fact, 56.7 percent of the 409 companies included in the sample are first generation companies. Therefore, it was not possible to separate the effect between each of the generations considered in the research.

Implications of the Study

Several implications come from the findings. In this regard, by combining insights from strategic leadership approach and the faultline perspective, my findings show that to study how the different configurations of TMTs affect the entrepreneurial orientation in

family businesses, it is important to consider not only the aspects related to family involvement, but also the characteristics of non-family managers. Indeed, the results suggest that the TMTs with a balance between family and non-family managers and more homogeneity among ages will reduce the associated costs of self-categorizations, and thus, it will affect the EO positively in small and medium family firms.

Likewise, the findings also highlight the need to simultaneously study the costs and benefits of heterogeneity in TMTs, in order to identify the conditions under which family businesses can benefit from the diverse composition of the team (van Knippenberg, De Dreu, & Homan, 2004). In this regard, the results of my dissertation reveal that the heterogeneity of TMT does not necessarily lead to positive results on EO. For example, balancing family and non-family members in TMTs has a positive effect because it allows access to greater social capital and financial resources, in addition to getting low agency costs and high stewardship behavior (Sciascia & Mazzola, 2009; González-Cruz & Cruz-Ros, 2016). However, when considering the variables organizational tenure heterogeneity, age heterogeneity and the number of generations of the family involvement in the firms, the effects are negative on the EO. The heterogeneity in these attributes seems to stimulate relational conflict more actively, rather than the task-related constructive conflict. Specifically, the relational conflict refers to personal incompatibilities regarding values, attitudes and intentions that have negative consequences on the priorities and the way of carrying out the tasks (Bertrand & Schoar, 2006). Additionally, when the heterogeneity of these attributes are considered simultaneously, the findings show that the way the TMT is formed can promote the appearance of faultlines, which leads to the reduction of the positive effect of the

heterogeneity or to deepen the negative effect of the latter. This "behavioral disintegration" (Hambrick, 1994; Barkema & Shvyrkov, 2007) exacerbates the "us versus them" attitude (e.g. family managers versus non-family managers or young managers versus older managers) and, therefore, makes it more difficult for a joint decision-making process, achieving consensus and commitment, critical aspects in the processes related to EO.

Another implication of my findings is related to their possible contingency with the size of the family business. Specifically, the results related to the composition of TMT between family and non-family managers and its impact on EO are consistent with those obtained by De Massis et al. (2015), which reported the existence of an inverted U-shaped relationship between the family ratio in the TMT and performance in small and medium family businesses. However, both findings are in contradiction with the results of Minichilli et al. (2010), who get support for a U-shaped relationship between the ratio of family members in the TMT and firm performance in large family businesses, both listed and private. In this sense, following the line of thought of De Massis et al. (2015), it is possible to suggest that small and medium family businesses have limited availability of diverse knowledge, skills, and perspectives and therefore require complementing their management team with external professionals (De Massis, et al., 2015; Sciascia & Mazzola, 2008). Specifically, the best possible result in terms of composition between family and non-family managers is achieved when there is a balance between both categories, allowing small and medium family firms to enjoy both the advantages of cognitive diversity and those derived from the involvement of the family in the business. However, as family firms grow, family members are likely to be more heterogeneous,

have greater access to professional education and external experiences, so the problems associated with family management decrease (De Massis, et al., 2015) justifying in this way the findings reported by Minichilli et al. (2010). On the other hand, when heterogeneity is considered in terms of tenure, age and the number of generations of the family involved in the management of the family firm, the size of the firm could be associated with the interactions that occur between team members. In small and medium family businesses, the interactions between the members of the TMT could be more frequent and, therefore, the relational conflict increases, while in large companies, the interaction between the senior managers could be less frequent and rather promote the task-related constructive conflict. Hence, my findings show that firm size can be an important moderator of the relationship between TMT composition and entrepreneurial orientation, although this relationship requires further investigation (O'Boyle, Pollack & Rutherford, 2011; De Massis, et al., 2015).

Similarly, the findings of the dissertation show, as also suggested by Binacci et al. (2016), the need to explore in detail the demographic characteristics of non-family managers and their effect on organizational outcomes in family businesses. Specifically, my dissertation emphasizes that not only the demographic characteristics of non-family managers should be considered, but also the possible previous links they have with the owner family. In this sense, as indicated by Tabor et al. (2018), not all non-family managers are equal to each other, some of them could have been included in the family firm because they had previous relationships with the owner family and, thus, the family tries to guarantee cooperation and trustworthiness (Luo & Chung, 2005). Precisely because of this, not all non-family managers can be considered completely outsiders, and

thus any interpretation of heterogeneity regarding this attribute should consider this aspect.

Finally, my dissertation also includes an important managerial implication. Specifically, the literature on family businesses has recognized as an important element to guarantee the survival of these organizations across generations, the need for professionalization of their management and government. Although "professionalization," it must be seen as a multidimensional construct, as Stewart and Hitt (2012) points out, the inclusion of non-family managers, particularly in small and medium family firms, has always been one of the main recommendations made as for this aspect. In this sense, the findings of the dissertation suggest that opening TMT to non-family members is necessary. The inclusion of non-family managers allows small and medium-sized family firms to access greater social capital and financial resources and, thus, family businesses would have an extensive window of possibilities to exploit identified opportunities (Sciascia & Mazzola, 2008). However, taking full advantage of cognitive diversity, without losing the benefits derived from stewardship over continuity and employees, requires maintaining an adequate balance between non-family managers and family managers.

Limitations and Future Research

The dissertation has several limitations that should be referred. First and foremost, the study design was cross-sectional, thus it does not allow me to argue causality. Similarly, the nature of the design may also involve common method bias problems. In this regard, although the results of the common method bias test suggested that this was

not a concern for research (Podsakoff & Organ, 1986), the cross-sectional design may have hampered the main conclusions.

Second, the sample is based on SMEs in Venezuela. Therefore, empirical results may be non-generalizable to large enterprises. Similarly, since entrepreneurship and family businesses may be different across countries and cultures, country-specific bias could be present in the study. Thus, the results may not be applied to the same extent in social and economic contexts that differ significantly from Venezuela. However, these data add empirical evidence to the relationship between family involvement and entrepreneurial orientation, which has been mostly studied in the United States and Europe (Dyer 2006; De Massis, et al. 2015).

Third, I relied on a single respondent, the CEO, from each firm. Specifically, I used self-assessment measure for entrepreneurial orientation. Even though, this is an often practice method in this field of research (Lyon, Lumpkin, & Dess, 2000; Naldi et al. 2007), the data could be biased and reflect wishful thinking rather than a factual state. Undoubtedly, responses from more executives within the firms would have given a more accurate picture about the entrepreneurial orientation of the firm. On the other hand, the CEOs were also the key informants both for the identification of senior management team members and their bio-demographic information. However, considering that when CEOs were not family members may have had difficulties answering some questions, particularly those related to family involvement, all bio-demographic information regarding senior management teams was validated with the Human Resources Department of the firms.

Fourth, from a theoretical point of view, research only addressed how the composition of senior management teams affects entrepreneurial orientation. However, a more accurate picture of this effect necessarily requires including the structure of the TMT, as well as the processes generated in it. Specifically, the team structure is defined as the roles played by the team members and the relationships between those roles. The processes refer to the nature of the interaction that occurs when top managers participate in strategic decision making (Finkelstein et al., 2009).

Finally, another limitation of the study is related to the shortcomings of the Thatcher et al., (2003) faultlines measure. Specifically, one main weakness of Thatcher et al., (2003) measurement is that it allows a maximum split of the team into two subgroups. In this regard, recent research has highlighted this weakness and provides ways for calculating faultlines based on multiple subgroups (e.g. Meyer & Glenz, 2013). Therefore, it is recommended that in future research, several measures of faultline strength be used, so that a more comprehensive picture to create regarding subgroup formation, and the effects on firms' outcomes.

In spite of these limitations, my study offers a wide variety of future research opportunities. Specifically, any future investigation in this line of study should include other demographic variables related to family involvement such as: birth order of family members, educational level, professional experience, type of kinship, among others. Likewise, it is also essential that the possible previous ties that non-family managers may have with the owner families be explored. The inclusion of these variables would allow us to know more precisely the role of the composition of TMTs in the entrepreneurial orientation of family firms.

Likewise, it is also relevant that future research includes variables related to the structure of TMTs, as well as the processes that are generated in them. The team structure refers to the roles played by the team members and the relationships between those roles, while the processes are linked to the interaction that occurs when top managers participate in strategic decision-making (Finkelstein et al., 2009). It is also recommended, as suggested in the preceding section, that future investigations include several measures of faultline strength be used, so that we can have a more comprehensive picture regarding subgroup formation, and the effects on organizational outcomes.

On the other hand, based on my findings and the results reported by De Massis, et al. (2015), it is essential that future research develops in depth how the composition of TMTs in family firms affects the different organizational outcomes according to the size of the companies.

Finally, it would be relevant for future research to study the composition of TMTs and entrepreneurial orientation over time. This type of research will allow to obtain more information on the way in which the evolution of family involvement affects the entrepreneurial orientation in family-owned firms.

Concluding Remarks

In summary, the results of my dissertation show unquestionably that the effect of the heterogeneity of TMTs on entrepreneurial orientation in small and medium family businesses is a *double-edged sword*. Specifically, the findings showed that heterogeneity in senior management teams in family businesses could positively affect entrepreneurial activities if they combine the right compositional attributes. However, if teams are created without regard to compositional factors, it can become a potential source of

disruptive behavior negatively affecting entrepreneurial orientation. In this vein, balancing family and non-family members in TMTs has a positive effect on EO, as it allows access to greater social capital and financial resources, as well as enjoying low agency costs and high stewardship behavior (Sciascia & Mazzola, 2008; González-Cruz & Cruz-Ros, 2016). However, when organizational tenure heterogeneity, age heterogeneity and the number of generations of the family involvement in firms are considered, the effects are negative on EO. In this case, the relationship conflict that implies personal incompatibilities regarding values, attitudes and intentions, has negative consequences on the priorities and the way of carrying out the tasks (Bertrand & Schoar, 2006). Additionally, when the effects of the heterogeneity of these attributes are considered simultaneously, the findings show that the composition of the TMT can promote the appearance of faultlines, which lead to the reduction of the positive effect of the heterogeneity or to deepen the negative effect of this. Specifically, this "behavioral disintegration" (Hambrick, 1994; Barkema & Shvyrkov, 2007) exacerbates the "us versus them" attitude (e.g. family managers versus non-family managers or young managers versus older managers) and therefore becomes more difficult to make joint decision-making, achieve consensus and commitment, critical aspects in the processes related to EO.

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APPENDICES

Appendix A: Survey Cover Letter

Dear participant,

I would like to extend to you my warm greetings and very sincere thanks for accepting completing the survey presented in the following pages.

The questionnaire is part of a research I am conducting about top management teams in family firms in Venezuela, as my PhD dissertation in Tulane University, New Orleans, LA, USA. In order to accomplish successfully this research, it is essential that you answer all the questions of the survey, which is strictly addressed to Chief Executive Officer (CEO), Managing Director, Executive President, Executive Vice-President or any other position that represent the top authority of an organization.

Specifically, the questionnaire is divided in four parts. Firstly, you will find bio-demographic questions. In the second part, you will find questions that will allow you to characterize the organization. In the third part, you will have to answer questions designed for identifying and describing your top management team. At last, you will find nine different affirmations to be assessed according to the organization's behavior in the last three years. The survey takes about 25 minutes to fill out.

All the provided information will be kept and handled in strict confidentiality. Since the information will be treated in aggregated form, it will be untraceable for individuals, families, or companies.

Once the study is completed, I will invite you to participate in an academic activity for presenting the findings and implications of the research.

Should you have any question or concern regarding this study, do not hesitate to contact me:

☏ (58) 212 5554429 - 212 555424- 412 6068807- 412 3068807
✉ patricia.monteferran@iesa.edu.ve patmonteferrante@gmail.com

Finally, I would like to reiterate my thanks for your participation.

Kind Regards,

Patricia Monteferrante M.
Professor at the Entrepreneurship Center of IESA

Appendix B: CEO Survey

PART I. BIO-DEMOGRAPHIC INFORMATION

1. **Please provide your name and surname:**

2. **Please indicate your current position in the firm:**

☐ Chief Executive Officer (CEO)
☐ Managing Director
☐ Executive President
☐ Executive Vice-President
☐ Chairman of the Board of Directors
☐ Other (specify):

3. **Please provide the year you joined the firm:**

4. **Please indicate your date of birth:**

5. **Please indicate your gender:**

☐ Male
☐ Female

6. **Are you founder or co-founder of this company?**

☐ Yes
☐ No

7. **Are you a member of the family that owns the company?**

☐ Yes
☐ No *(please go to question 11)*

8. Please mention what kind of kinship you have with the owners of the company:

☐ Blood-related *(please go to question 10)*
☐ In-laws

9. Please specify what kind of kinship you have with the owners of the firm:

☐ Son-in-law / Daughter-in-law
☐ Brother-in-law / Sister-in-law
☐ Father-in-law / Mother-in-law
☐ Other (specify):

Please after you answer, go to question 11

10. Please specify what kind of kinship you have with the owners of the firm:

☐ Grandfather / Grandmother
☐ Father / Mother
☐ Brother / Sister
☐ Son / Daughter
☐ Uncle / Aunt
☐ Nephew / niece
☐ Cousin
☐ Grandson / Granddaughter
☐ Other (specify):

11. Do you have company equities?

☐ No
☐ Yes
Please indicate the percentage of equities that you have:

PART II. COMPANY INFORMATION

12. Please provide the company name:

13. When was the company founded?

14. How many people are directly employed by this company?

15. Which of the following best describes your industry?

- ☐ Construction
- ☐ Manufacture
- ☐ Trade (wholesale and retail)
- ☐ Services
- ☐ Other (specify):

16. Please indicate whether the following statements describe this firm
(To complete your answer, both statements must be considered):

(a) One family (or more than one family) has the control of the ownership of the business

☐ Yes ☐ No

(b) This firm can be considered a family business

☐ Yes ☐ No

17. How many family generations are currently working in the firm:

- ☐ One generation
- ☐ Two or more generations
- ☐ More than two generations
  Please indicate exactly how many generations:
- ☐ Neither generation (Please go to question 19)

18. Currently, which family generation has the decision power in the firm? In case there are two or more generations working in the firm, think of those situations in which a decision must be made and there is no agreement in the executive team: which generation has the final say?

☐ First generation

☐ Second generation

☐ Third generation and later generations

Please indicate which generation you are referring: _____

PART III. IDENTIFICATION OF THE MANAGEMENT TEAM

In the following questions, you will have to identify and characterize your top management team. For that purpose, please consider those members who are regularly involved in decisions regarding products & services, marketing, delivery systems & operations, and general management & administration. Please, mention only individuals involved in these decisions on an ongoing basis and who have had this role for at least one year. Make sure the positions relate one person only.
It is imperative to include all team members that meet the aforementioned characteristics. **You must not be included in the team.**

19. Please identify each of your team members, with their names and surnames and their current positions in the company. Remember to include only those members who are regularly involved in decisions related to products, services, marketing, logistics, operations and general management and who have held the position for at least one year. Also, remember that a person can only hold one position.

Surname and name	Office Held

20. Taking as reference the executive team members that you have previously identified, please provide the year that they joined the organization, gender, age and the type of kinship with the family owning the company.

Year he/she joined the organization	Age	Gender	Kinship with the family owning the firm
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship

Year he/she joined the organization	Age	Gender	Kinship with the family owning the firm
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship
		☐ Male ☐ Female	☐ Blood-related ☐ In-laws ☐ No Kinship

PART IV. FIRM BEHAVIOR IN THE LAST THREE YEARS

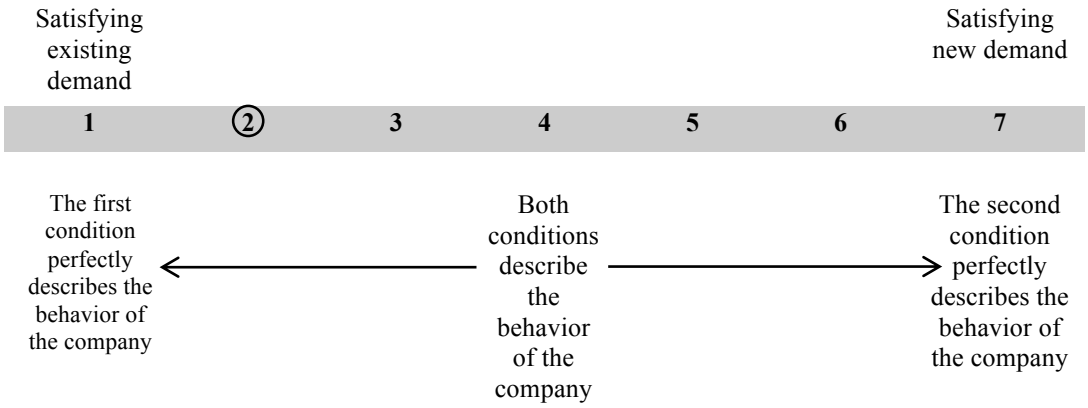
In this section of the questionnaire, you will find nine statements regarding the strategy of the firm. **You will assess these statements considering the behavior of the organization over the past three years.**

Instructions:

- Each question includes two different statements, which are represented in the lower and upper limit, respectively, on a scale from 1 to 7.
- Please circle a single number to indicate which out of the two statements better describes the firm strategy in the last three years.
- Circling a one (1) indicates a strong agreement with the first statement, while a seven (7) indicates strong agreement with the second statement, and a four (4) indicates both are equally true.
- The numbers 2, 3, 5 or 6, represent differing degrees of agreement with one of the two statements
- Remember, there are no correct or wrong answers.

Example:

In the last 3 years, the organization has emphasized on:



21. In general, during the past three years, the top management team of the company has put the emphasis on:

The marketing of tried and true products or services						R&D, technological leadership, and innovations
1	**2**	**3**	**4**	**5**	**6**	**7**

22. How many new lines of products or services has your firm marketed in the past 3 years?

No new lines of products or services						Very many new lines of product or services
1	**2**	**3**	**4**	**5**	**6**	**7**

23. In the past 3 years the firm has introduced:

Small changes in the current products /services						Radical changes in the products or services
1	**2**	**3**	**4**	**5**	**6**	**7**

24. The firm's relation toward its competitors:

Normally it responds to actions, which competitors initiate						Typically, it initiates changes upon which the competitors react
1	**2**	**3**	**4**	**5**	**6**	**7**

25. In dealing with its competitors, the firm:

Is very seldom the first business to introduce new products /services, administrative techniques, methods of production, etc.						Is very often the first business to introduce new products /services, administrative techniques, methods of production, etc.
1	**2**	**3**	**4**	**5**	**6**	**7**

26. Regarding its competitors, the firm:

Typically, seeks to avoid competitive clashes, preferring a "live-and-let-live" posture						Typically, adopts a very competitive orientation, ""undo the competitors" position
1	**2**	**3**	**4**	**5**	**6**	**7**

27. In general, the top managers of the firm have:

A strong proclivity for low risk projects (with normal and certain rates of return)						A strong proclivity for high risk projects (with chances of very high returns)
1	**2**	**3**	**4**	**5**	**6**	**7**

28. In general, the top managers of the firm believe that:

The business environment of the firm is such that it is better to explore it carefully and gradually in order to achieve the company's objectives						The business environment of the firm is such that fearless and powerful measures are needed to obtain the firm's objectives
1	**2**	**3**	**4**	**5**	**6**	**7**

29. When confronted with decision-making situations involving uncertainty, the firm:

Typically adopts a cautious "wait and see" posture in order to minimize the probability of making costly decisions						Typically adopts a bold, aggressive position in order to maximize the probability of exploiting potential opportunities
1	**2**	**3**	**4**	**5**	**6**	**7**

CONTACT INFORMATION

Company Address:	
City:	
State:	
Postal Code:	
Country:	
Email:	
Phone number:	

Thank you for taking the time to complete this survey

Appendix C: Harman's one-factor test

Factor Analysis

Communalities

	Initial	Extraction
Firm age	0.393	0.305
Firm size	0.219	0.085
Construction	0.364	0.000
Manufacturing	0.594	0.014
Wholesale/retail trade	0.605	0.006
Service	0.636	0.004
Number of women	0.54	0.288
Team size	0.637	0.653
Blau index-Familial Nature TMT	0.188	0.107
CV Tenure	0.373	0.29
CV Age	0.368	0.064
Generations Involved	0.246	0.16
Fau Thatcher (2003)	0.286	0.16
Generation in charge	0.032	0.000
EO	0.187	0.005

Extraction Method: Principal Axis Factoring.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.808	18.722	18.722	2.142	14.283	14.283
2	1.68	11.2	29.922			
3	1.615	10.769	40.691			
4	1.355	9.033	49.724			
5	1.124	7.491	57.214			
6	1.056	7.038	64.252			
7	0.991	6.605	70.857			
8	0.961	6.404	77.261			
9	0.895	5.97	83.231			
10	0.673	4.489	87.719			
11	0.619	4.124	91.843			
12	0.492	3.278	95.121			
13	0.36	2.397	97.519			
14	0.229	1.525	99.043			
15	0.144	0.957	100			

Extraction Method: Principal Axis Factoring.

Harman's one-factor test (cont.)

Factor Matrix[a]

	Factor 1
Firm age	0.553
Firm size	0.291
Construction	-0.016
Manufacturing	0.117
Wholesale/retail trade	-0.079
Service	-0.065
Number of women	0.537
Team size	0.808
Blau index-Familial Nature TMT	0.327
CV Tenure	0.538
CV Age	0.254
Generations Involved	0.4
Fau Thatcher (2003)	0.4
Generation in charge	-0.017
EO	0.071

Extraction Method: Principal Axis Factoring.
[a] 1 factors extracted. 7 iterations required.

Harman's one-factor test (cont.)

Factor Matrix[a]

	Factor 1
Firm age	0.553
Firm size	0.293
Construction	-0.017
Manufacturing	0.117
Wholesale/retail trade	-0.08
Banking	0.018
Service	-0.065
Number of women	0.536
Team size	0.808
Blau index-Familial Nature TMT	0.326
CV Tenure	0.537
CV Age	0.253
Generations Involved	0.4
Fau Thatcher (2003)	-0.017
Generation in charge	0.401
EO	0.071

Extraction Method: Principal Axis Factoring.
[a] 1 factors extracted. 7 iterations required.

Appendix D: Comparison of means between respondents and non-respondents

Number of employees

Group Statistics

	Not answered and Answered	N	Mean	Std. Deviation	Std. Error Mean
Number of employees	NR	898	180.88	552.735	18.445
	R	409	194.71	628.008	31.053

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number of employees	Equal variances assumed	1.042	.308	-.402	1305	.688	-13.839	34.440	-81.402	53.724
	Equal variances not assumed			-.383	706.675	.702	-13.839	36.118	-84.750	57.073

Industry

Group Statistics

	Not answered and Answered	N	Mean	Std. Deviation	Std. Error Mean
dConstruction	NR	898	.0947	.29290	.00977
	R	409	.0758	.26499	.01310
dmanufacturing	NR	898	.2929	.45533	.01519
	R	409	.2469	.43176	.02135
dtrade	NR	898	.2361	.42491	.01418
	R	409	.2714	.44522	.02201
dService	NR	898	.2684	.44336	.01480
	R	409	.2910	.45476	.02249

Comparison of means between respondents and non-respondents (cont.)

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
dConstruction	Equal variances assumed	5.043	.025	1.111	1305	.267	.01886	.01697	-.01443	.05215
	Equal variances not assumed			1.154	866.368	.249	.01886	.01635	-.01322	.05094
dmanufacturing	Equal variances assumed	12.750	.000	1.718	1305	.086	.04593	.02673	-.00651	.09837
	Equal variances not assumed			1.753	829.249	.080	.04593	.02620	-.00551	.09736
dtrade	Equal variances assumed	7.154	.008	-1.372	1305	.170	-.03531	.02573	-.08579	.01517
	Equal variances not assumed			-1.349	757.435	.178	-.03531	.02619	-.08672	.01609
dService	Equal variances assumed	2.762	.097	-.847	1305	.397	-.02258	.02666	-.07489	.02973
	Equal variances not assumed			-.839	771.918	.402	-.02258	.02692	-.07542	.03026

Appendix E: Comparison of means between early and later respondents

Number of employees

Group Statistics

	Response date	N	Mean	Std. Deviation	Std. Error Mean
Number of employees	First group of responses	247	185.04	598.442	38.078
	Second group of responses	162	209.46	672.225	52.815

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number of employees	**Equal variances assumed**	.457	.499	-.384	407	.701	-24.412	63.559	-149.357	100.532
	Equal variances not assumed			-.375	315.997	.708	-24.412	65.110	-152.517	103.692

Industry

Group Statistics

	Response date	N	Mean	Std. Deviation	Std. Error Mean
dConstruction	First group of responses	247	.08	.267	.017
	Second group of responses	162	.07	.263	.021
dmanufacturing	First group of responses	247	.28	.450	.029
	Second group of responses	162	.20	.399	.031
dtrade	First group of responses	247	.26	.441	.028
	Second group of responses	162	.28	.452	.036
dService	First group of responses	247	.26	.439	.028
	Second group of responses	162	.34	.475	.037

Comparison of means between early and later respondents (cont.)

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
dConstruction	Equal variances assumed	.045	.832	.106	407	.915	.003	.027	-.050	.056
	Equal variances not assumed			.107	348.404	.915	.003	.027	-.050	.055
dmanufacturing	Equal variances assumed	15.293	.000	1.880	407	.061	.082	.044	-.004	.167
	Equal variances not assumed			1.927	371.774	.055	.082	.042	-.002	.165
dtrade	Equal variances assumed	.836	.361	-.461	407	.645	-.021	.045	-.109	.068
	Equal variances not assumed			-.459	338.416	.646	-.021	.045	-.110	.068
dService	Equal variances assumed	11.246	.001	-1.753	407	.080	-.080	.046	-.171	.010
	Equal variances not assumed			-1.725	325.151	.086	-.080	.047	-.172	.011

Appendix F: Confirmatory Factor Analysis of the Entrepreneurial Orientation

****

Groups

Group number 1 (Group number 1)

Notes for Group (Group number 1)

The model is recursive.
Sample size = 409

Variable Summary (Group number 1)

Your model contains the following variables (Group number 1)

Observed. endogenous variables
I1
I2
I3
P1
P2
P3
R2
R3
Unobserved. exogenous variables
Innovation
e1
e2
e3
Proactiviness
e4
e5
e6
RiskTaking
e7
e8

Variable counts (Group number 1)

Number of variables in your model:	19
Number of observed variables:	8
Number of unobserved variables:	11
Number of exogenous variables:	11
Number of endogenous variables:	8

Confirmatory Factor Analysis of the Entrepreneurial Orientation (Cont.)

Models

Default model (Default model)

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	36
Number of distinct parameters to be estimated:	19
Degrees of freedom (36 - 19):	17

Result (Default model)

Minimum was achieved
Chi-square = 24.149
Degrees of freedom = 17
Probability level = .115

Group number 1 (Group number 1 - Default model)

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
I1	<---	Innovation	1.000				
I2	<---	Innovation	1.117	.110	10.174	***	par_1
I3	<---	Innovation	.996	.100	10.006	***	par_2
P1	<---	Proactiviness	1.000				
P2	<---	Proactiviness	1.284	.106	12.093	***	par_3
P3	<---	Proactiviness	.861	.072	11.903	***	par_4
R2	<---	RiskTaking	1.000				
R3	<---	RiskTaking	.944	.122	7.766	***	par_5

Confirmatory Factor Analysis of the Entrepreneurial Orientation (Cont.)

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
I1	<---	Innovation	.615
I2	<---	Innovation	.811
I3	<---	Innovation	.681
P1	<---	Proactiviness	.671
P2	<---	Proactiviness	.827
P3	<---	Proactiviness	.742
R2	<---	RiskTaking	.819
R3	<---	RiskTaking	.851

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Innovation	<-->	Proactiviness	.467	.082	5.721	***	par_6
Innovation	<-->	RiskTaking	.480	.101	4.759	***	par_7
Proactiviness	<-->	RiskTaking	.431	.096	4.510	***	par_8

Correlations: (Group number 1 - Default model)

			Estimate
Innovation	<-->	Proactiviness	.452
Innovation	<-->	RiskTaking	.352
Proactiviness	<-->	RiskTaking	.312

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Innovation	1.019	.170	5.996	***	par_9
Proactiviness	1.047	.152	6.888	***	par_10
RiskTaking	1.823	.286	6.373	***	par_11
e1	1.678	.144	11.628	***	par_12
e2	.662	.106	6.229	***	par_13
e3	1.171	.114	10.269	***	par_14
e4	1.278	.112	11.379	***	par_15
e5	.799	.119	6.695	***	par_16
e6	.632	.066	9.636	***	par_17
e7	.895	.231	3.873	***	par_18
e8	.617	.203	3.041	.002	par_19

Confirmatory Factor Analysis of the Entrepreneurial Orientation (Cont.)

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
R3	.725
R2	.671
P3	.551
P2	.684
P1	.450
I3	.463
I2	.658
I1	.378

Matrices (Group number 1 - Default model)

Factor Score Weights (Group number 1 - Default model)

	R3	R2	P3	P2	P1	I3	I2	I1
RiskTaking	.479	.350	.015	.018	.009	.014	.028	.010
Proactiviness	.017	.013	.262	.309	.150	.018	.035	.012
Innovation	.026	.019	.029	.034	.016	.186	.369	.130

Modification Indices (Group number 1 - Default model)

Covariances: (Group number 1 - Default model)

		M.I.	Par Change
e6	<--> Innovation	4.887	-.103
e3	<--> e4	5.109	.165

Variances: (Group number 1 - Default model)

	M.I.	Par Change

Regression Weights: (Group number 1 - Default model)

	M.I.	Par Change
P1 <--- I3	5.073	.093

Confirmatory Factor Analysis of the Entrepreneurial Orientation (Cont.)

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	19	24.149	17	.115	1.421
Saturated model	36	.000	0		
Independence model	8	1045.562	28	.000	37.342

RMR. GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.064	.986	.970	.466
Saturated model	.000	1.000		
Independence model	.666	.555	.428	.432

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.977	.962	.993	.988	.993
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.607	.593	.603
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	7.149	.000	24.303
Saturated model	.000	.000	.000
Independence model	1017.562	915.559	1126.957

Confirmatory Factor Analysis of the Entrepreneurial Orientation (Cont.)

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.059	.018	.000	.060
Saturated model	.000	.000	.000	.000
Independence model	2.563	2.494	2.244	2.762

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.032	.000	.059	.845
Independence model	.298	.283	.314	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	62.149	63.006	138.409	157.409
Saturated model	72.000	73.624	216.494	252.494
Independence model	1061.562	1061.923	1093.672	1101.672

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	.152	.135	.194	.154
Saturated model	.176	.176	.176	.180
Independence model	2.602	2.352	2.870	2.603

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	467	565
Independence model	17	19

Execution time summary

Minimization: .025
Miscellaneous: .317
Bootstrap: .000
Total: .342

****

Appendix G: Collinearity Diagnostics

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Company founded years	0.818	1.222
	Number of employees	0.815	1.227
	Construction	0.642	1.558
	Manufacturing	0.416	2.407
	Wholesale/retail trade	0.4	2.502
	Services	0.377	2.65
	Number of women	0.462	2.166
	Team Size	0.399	2.509
2	Company founded years	0.614	1.629
	Number of employees	0.79	1.265
	Construction	0.637	1.571
	Manufacturing	0.408	2.45
	Wholesale/retail trade	0.397	2.517
	Services	0.369	2.708
	Number of women	0.46	2.175
	Team Size	0.363	2.755
	Blau Index Familial Nature (centered)	0.859	1.164
	CV tenure (centered)	0.631	1.584
	CV age (centered)	0.672	1.487
	Generations involved Family Firm	0.754	1.326
	Fau Thacher (centered)	0.985	1.015
	Generation in charge	0.722	1.384
3	Company founded years	0.594	1.683
	Number of employees	0.773	1.293
	Construction	0.618	1.619
	Manufacturing	0.401	2.492
	Wholesale/retail trade	0.39	2.561
	Services	0.367	2.725
	Number of women	0.447	2.237
	Team Size	0.357	2.8
	Blau Index Familial Nature (centered)	0.543	1.842
	CV tenure (centered)	0.444	2.25
	CV age (centered)	0.447	2.239
	Generations involved Family Firm	0.483	2.069
	Fau Thacher (centered)	0.593	1.685
	Generation in charge	0.251	3.979
	MOd_XBlauIndexcenter	0.575	1.739
	Moderation x CV tenure centered	0.505	1.981
	Moderation x CV age centered	0.458	2.182
	Moderation x FAU Thacher 2003centered	0.587	1.702
	Mod_XNoGenBincategorical	0.191	5.231

[a] Dependent Variable: EOexcluR1

Collinearity Diagnostics (cont.)

Excluded Variables[a]

Model		Beta In	Collinearity Statistics	
			VIF	Minimum Tolerance
1	Blau Index Familial Nature (centered)	.252b	1.124	0.375
	CV tenure (centered)	-.003b	1.214	0.377
	CV age (centered)	-.245b	1.035	0.377
	Generations involved Family Firm	-.077b	1.117	0.376
	Fau Thacher (centered)	-.116b	1.007	0.377
	Generation in charge	.146b	1.361	0.372
	MOd_XBlauIndexcenter	.110b	1.072	0.375
	Moderation x CV tenure centered	-.042b	1.139	0.377
	Moderation x CV age centered	-.154b	1.036	0.377
	Moderation x FAU Thacher 2003centered	-.066b	1.009	0.377
	Mod_XNoGenBincategorical	.061b	1.301	0.372
2	MOd_XBlauIndexcenter	-.070c	1.662	0.362
	Moderation x CV tenure centered	-.048c	1.537	0.363
	Moderation x CV age centered	-.007c	1.558	0.359
	Moderation x FAU Thacher 2003centered	.011c	1.689	0.363
	Mod_XNoGenBincategorical	.007c	4.266	0.234

a Dependent Variable: EOexcluR1

b Predictors in the Model: (Constant), Team Size , Construction, Manufacturing, Number of employees, Company founded years, Wholesale/retail trade, Number of women, Services

c Predictors in the Model: (Constant), Team Size , Construction, Manufacturing, Number of employees, Company founded years, Wholesale/retail trade, Number of women, Services, Fau Thacher (centered), CV age (centered), Blau Index Familial Nature (centered), Generations involved Family Firm, Generation in charge, CV tenure (centered)

Collinearity Diagnostics (cont.)

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions																	
				(Constant)	Company founded years	Number of employees	Construction	Manufacturing	Wholesale/retail trade	Services	Number of women	Team Size	Blau Index Familial Nature (centered)	CV tenure (centered)	CV age (centered)	Generations involved Family Firm	Fau Thacher (centered)	Generation in charge	MOd_XBlau Indexcenter	Moderation x CV tenure centered	Moderat ion x CV age centered	Moderation x FAU Thacher 2003centered
1	1	4.404	1	0	0.01	0.01	0	0	0	0	0.01	0										
	2	1.06	2.038	0	0	0.12	0.02	0.04	0.04	0.13	0	0										
	3	1.006	2.092	0	0	0.01	0.19	0.09	0.1	0.01	0	0										
	4	1.002	2.096	0	0	0	0.33	0.07	0.04	0.02	0	0										
	5	0.837	2.293	0	0	0.65	0.01	0.03	0.04	0.01	0	0										
	6	0.359	3.503	0.02	0.04	0	0.01	0.02	0.02	0.09	0.34	0.01										
	7	0.215	4.524	0.01	0.8	0.1	0.04	0.15	0.07	0.06	0	0										
	8	0.076	7.625	0.08	0.14	0.09	0.17	0.25	0.21	0.18	0.44	0.55										
	9	0.041	10.401	0.89	0.01	0.02	0.22	0.35	0.47	0.5	0.2	0.43										
2	1	5.683	1	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0.01				
	2	1.559	1.909	0	0	0	0	0	0.01	0	0	0	0.06	0.18	0.16	0	0	0				
	3	1.154	2.219	0	0	0.01	0.03	0.01	0.02	0.08	0.01	0	0.12	0.01	0.01	0	0.17	0				
	4	1.116	2.257	0	0	0.13	0.15	0.03	0	0.02	0	0	0.1	0.01	0.08	0.01	0	0.01				
	5	0.998	2.386	0	0	0.02	0.06	0.1	0.14	0	0	0	0	0	0.01	0	0.04	0				
	6	0.963	2.43	0	0	0.03	0.02	0.01	0	0.02	0	0	0.09	0	0	0	0.74	0				
	7	0.927	2.476	0	0	0.11	0.26	0.05	0	0	0	0	0.16	0	0.06	0	0	0				
	8	0.826	2.623	0	0	0.34	0.01	0.01	0.04	0.05	0	0	0.24	0.02	0.01	0	0.04	0.01				
	9	0.501	3.367	0	0.02	0.16	0	0.04	0	0	0.01	0	0.07	0.27	0.17	0.01	0	0.27				
	10	0.447	3.567	0	0	0.04	0.01	0.01	0.02	0	0.05	0	0.06	0.31	0.23	0.02	0	0.3				
	11	0.338	4.1	0.01	0.02	0	0.01	0.02	0.02	0.06	0.3	0.01	0.03	0.06	0.04	0.08	0	0.08				
	12	0.228	4.99	0.01	0.01	0.01	0.06	0.05	0.08	0.07	0.02	0	0.02	0	0.21	0.79	0	0.02				
	13	0.151	6.13	0.01	0.88	0.04	0.03	0.08	0.04	0.06	0	0	0	0.1	0.02	0.03	0	0.29				
	14	0.073	8.85	0.07	0.06	0.1	0.17	0.25	0.2	0.17	0.43	0.55	0.01	0	0	0.03	0	0				
	15	0.036	12.549	0.9	0.01	0.02	0.19	0.34	0.43	0.46	0.18	0.43	0.03	0.04	0	0.03	0	0				

[a] Dependent Variable: EOexcluR1

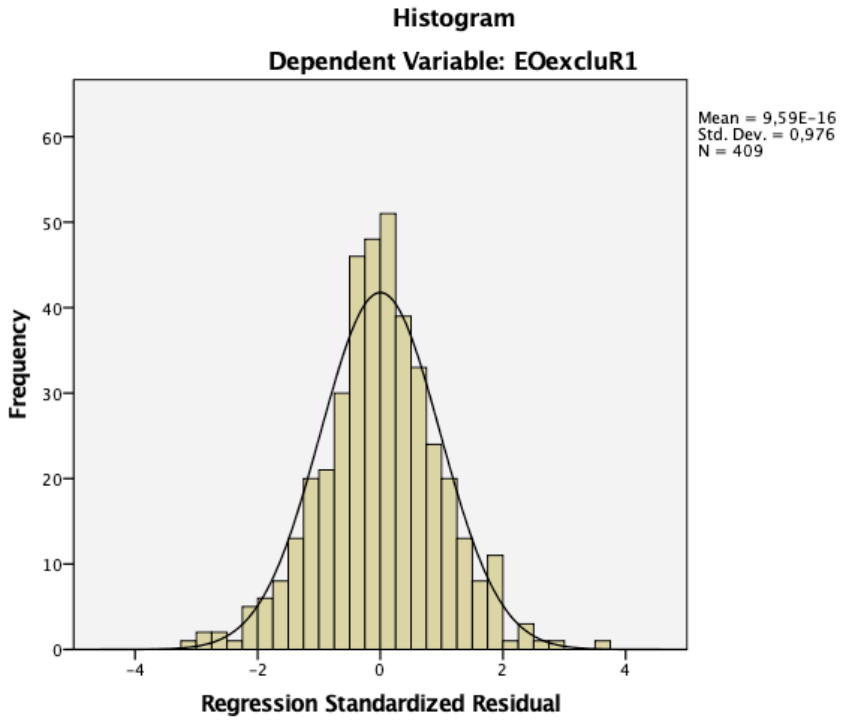
Collinearity Diagnostics (cont.)

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions																	
				(Constant)	Company founded years	Number of employees	Construction	Manufacturing	Wholesale/retail trade	Services	Number of women	Team Size	Blau Index Familial Nature (centered)	CV tenure (centered)	CV age (centered)	Generations involved Family Firm	Fau Thacher (centered)	Generation in charge	MOd_XBlauIndexcenter	Moderation x CV tenure centered	Moderation x CV age centered	Moderation x FAU Thacher 2003centered
3	1	6.328	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2.226	1.686	0	0	0	0	0	0	0	0	0	0.01	0.05	0.05	0	0	0	0.01	0.04	0.04	0
	3	1.697	1.931	0	0	0	0	0	0	0	0	0	0.04	0	0	0	0.12	0	0.04	0	0.01	0.12
	4	1.575	2.004	0	0	0	0	0	0	0	0	0	0.1	0	0.02	0	0.05	0	0.1	0	0.02	0.05
	5	1.226	2.272	0	0	0.14	0.01	0.02	0	0.04	0	0	0.01	0.03	0.02	0	0.01	0	0.01	0.04	0.03	0
	6	1.054	2.451	0	0	0	0	0.06	0.13	0.03	0	0	0	0.02	0	0	0	0	0.02	0	0.01	0.01
	7	1.016	2.496	0	0	0.01	0.42	0.01	0.01	0.03	0	0	0	0	0	0	0	0	0	0	0	0
	8	0.955	2.574	0	0	0.14	0.07	0.1	0	0.03	0	0	0	0.01	0.01	0	0.01	0.01	0	0.03	0.01	0
	9	0.767	2.872	0	0	0	0	0.03	0.07	0.02	0.01	0	0	0.01	0.04	0	0	0.04	0	0.01	0.01	0
	10	0.681	3.049	0	0	0.46	0	0	0.01	0	0.01	0	0.03	0.02	0.08	0	0	0	0	0.2	0.02	0
	11	0.623	3.188	0	0	0.06	0	0.04	0	0	0	0	0.01	0.18	0.04	0	0	0.01	0.05	0.1	0.2	0
	12	0.372	4.127	0	0.01	0.01	0.01	0	0	0.02	0.02	0	0.23	0	0.07	0	0.35	0	0.3	0	0.04	0.35
	13	0.361	4.186	0	0	0.01	0	0	0	0.01	0.02	0	0.24	0	0.02	0	0.44	0	0.28	0	0.04	0.43
	14	0.338	4.327	0.01	0.02	0	0.01	0.02	0.02	0.05	0.29	0.01	0.1	0.02	0.06	0.04	0	0.01	0.03	0	0.01	0
	15	0.256	4.975	0	0.03	0	0.03	0	0.03	0.03	0.01	0	0	0.03	0.01	0.38	0	0.09	0	0.04	0.06	0.02
	16	0.205	5.562	0	0.02	0	0	0	0	0	0.01	0	0.18	0.58	0.48	0	0	0.01	0.12	0.5	0.31	0
	17	0.152	6.456	0.01	0.81	0.05	0.05	0.14	0.08	0.1	0	0	0.01	0.02	0.01	0	0	0.04	0.02	0.02	0.04	0.01
	18	0.078	9.02	0.04	0.1	0.08	0.2	0.28	0.23	0.19	0.24	0.26	0.02	0	0	0.08	0	0.21	0.01	0.02	0	0
	19	0.057	10.506	0.01	0.01	0.02	0	0	0	0	0.25	0.38	0	0	0.08	0.37	0	0.53	0.01	0	0.15	0
	20	0.035	13.535	0.92	0.01	0.02	0.18	0.31	0.41	0.44	0.13	0.34	0.01	0.04	0.01	0.11	0.01	0.05	0	0	0.01	0

[a] Dependent Variable: EOexcluR1

Appendix H: One-Sample Kolmogorov-Smirnov Test

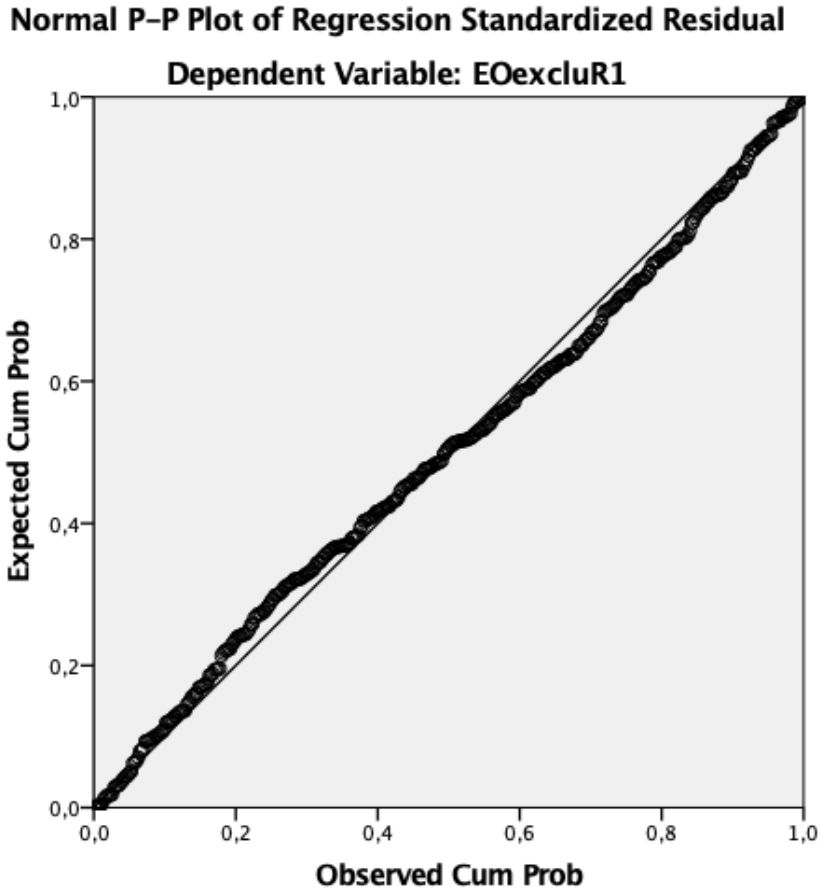


	N	Mean	Std. Deviation	Minimum	Maximum
Standardized Residual	409	0.0000000	0.97643810	-3.18733	3.61721

		Standardized Residual
	N	**409**
Normal Parameters[a,b]	**Mean**	0,0000000
	Std. Deviation	0.97643810
Most Extreme Differences	**Absolute**	0.040
	Positive	0.037
	Negative	-0.040
	Test Statistic	0.040
	Asymp. Sig. (2-tailed)	0.114[c]

[a]Test distribution is Normal
[b]Calculated from data.
[c]Lilliefors Significance Correction.

One-Sample Kolmogorov-Smirnov Test (cont.)



Appendix I: Breusch-Pagan test for Heteroscedasticity

Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	**Statistic**	**Std. Error**	**Statistic**	**Std. Error**
Unstandardized Residual	409	,001	,121	,723	,241
Valid N (listwise)	409				

Run MATRIX procedure:
BP&K TESTS
==========

Regression SS
33,5666

Residual SS
1070,579

Total SS
1104,146

R-squared
,0304

Sample size (N)
409

Number of predictors (P)
19

Breusch-Pagan test for Heteroscedasticity (CHI-SQUARE df=P)
16,783

Significance level of Chi-square df=P (H0: homoscedasticity)
,6045

Koenker test for Heteroscedasticity (CHI-SQUARE df=P)
12,434

Significance level of Chi-square df=P (H0: homoscedasticity)
,8663

------ END MATRIX -----

BIOGRAPHY

Patricia Monteferrante Marchesani received her Bachelor's Degree in Economics from Universidad Católica Andrés Bello, UCAB, Caracas, Venezuela, in 1990, her Specialization in Business Economics, from the same university in 1993, her Master's degree in Public Policies, from Instituto de Estudios Superiores de Administración, IESA, Caracas, Venezuela, in 2000 and her Master in Management from Tulane University, in New Orleans, Louisiana, in 2009. Since 2001, Mrs. Monteferrante is a full-time professor of Human Resource Management and Family Businesses Management at IESA, she teaches at graduate and executive programs. Additionally, she is the Coordinator of the Center for Entrepreneurship, the Executive Program of Family Business Management and the week of initiation of the new students of the IESA MBA Program. Her research interests include TMTs, Entrepreneurship, Human Resource Management, and corporate governance in family businesses. Since 2006, she is a member of the Successful Transgenerational Entrepreneurship Practices (STEP) Project, a global research initiative on family firms.