

**They are not all the same! Investigating the effects of executive versus non-executive family
board members on firm performance**

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Abstract

Drawing on faultlines and challenging the assumption that family board members form a homogenous subgroup, we hypothesize that the distinction between executive and non-executive family board members can create faultlines that affect firm performance. Additionally, integrating faultlines with behavioral agency model we propose that the discrepancy between results and goals can activate and exacerbate faultlines. Using a sample of 421 family SMEs, we find a U-shaped relationship between the ratio of family executive board members and firm performance showing the consequences of relationship-based and task-related faultlines. Moreover, we find that the U-shaped relationship occurs when firms perceive that they under-achieve their objectives, whereas a reverse J-shaped relationship appears when firms over-achieve their objectives. We draw implications from this more fine-grained analysis of board composition intertwined with goal attainment perception.

Keywords: family business; board composition; family board members, executive family directors; objective-result discrepancy; faultlines.

Introduction

In 2012, Porsche and Piëch family members, who owned more than half the voting shares in Volkswagen, elected Ursula Piëch—wife of Mr. Ferdinand Piëch, who was, at that time, chairman of the supervisory board—to join the supervisory board to represent the families’ interests (Stewart 2015). This decision was questioned due to Ursula Piëch’s lack of qualifications and independence. Governing a family business is a critical task, especially when dealing with family members with diverse preferences, expectations, and goals. Thus, having arenas where these differences can be balanced, such as boards of directors, is of utmost importance for the transgenerational sustainability of family firms. Understanding how family members are assigned to different positions within such governing bodies (e.g., executive versus non-executive family directors) is often crucial to having effective corporate structures. Nevertheless, research on board composition in family businesses has largely been developed by looking at the effect of board members’ demographic characteristics (Xi, Kraus, Filser, and Kellermanns 2015), such as family membership (Bartholomeusz and Tanewski 2006; O’Boyle, Pollack, and Rutherford 2012; Sciascia, Mazzola, Astrachan, and Pieper 2013), on firm performance (Siebels and zu Knyphausen-Aufseß 2012).

The current investigation on family members’ involvement in boards of directors (Brenes, Madrigal, and Requena 2011) assumes that while the subgroup of non-family directors has greater managerialism and market focus (Bammens, Voordeckers, and Van Gils 2011; Dekker, Lybaert, Steijvers, and Depaire 2015; Johannisson and Huse 2000), family directors mainly focus on balancing business- and family-oriented objectives. Hence, when the board splits into subgroups based on family membership, as a board demographic attribute, it is possible to identify hypothetical division lines between these subgroups, also known as “faultlines” (Lau and Murnighan 1998, p. 328), being detrimental to family firm performance (Kim and Gao 2013; Minichilli, Corbetta, and MacMillan 2010). There are two potential issues when identifying subgroups within family firm boards through the faultline

approach: 1) identifying faultlines solely based on family membership does not help capture the complex dynamics taking place in boards, and 2) understanding what triggers do activate those faultlines can be difficult. These issues are especially true if we consider that, in the apparently homogenous subgroup of family directors, there might be some attributes (being an executive and non-executive family director) that create additional hypothetical dividing lines that may further split the subgroup of family directors. Especially in difficult times (Minichilli, Brogi, and Calabrò 2016), one issue that can activate and exacerbate faultlines is the discrepancy between results and goals. Indeed, studying whether firm objectives have been achieved or not may help clarify what causes schisms within the subgroup of family directors.

In order to address the aforementioned gap, we integrate arguments from the faultline approach (Lau and Murnighan 1998; Lau and Murnighan 2005; Li and Hambrick 2005) with the behavioral agency model (Wiseman and Gomez-Mejia 1998). We hypothesize that compared to cases with either only executive or only non-executive family directors—situations that are not subject to faultlines—the presence of individuals from both groups engenders *relationship-based faultlines* based on social identification/social categorization and *task-related faultlines* based on knowledge, information, skill, and task demarcations (Bezrukova, Jehn, Zanutto, and Thatcher 2009; Chung, Liao, Jackson, Subramony, Colakoglu, and Jiang 2015; Veltrop, Hermes, Postma, and Haan 2015). In particular, we assert that boards with the same proportion of executive and non-executive family directors can trigger a relationship-based faultline because of the “us against them” logic, leading to lower firm performance. However, when one group prevails over the other, task-related faultlines can emerge due to “healthy divides” as a result of the group’s diverse cognitive resources (e.g., information and knowledge). In turn, these task-related faultlines can stimulate effective decision-making processes and foster learning (Bezrukova et al. 2009; Gibson and Vermeulen 2003), thus alleviating the negative effect of the relationship-based faultline on performance. We thus predict the existence of a curvilinear U-shaped

relationship between family board member composition and firm performance. Furthermore, the behavioral agency model helps contextualize the circumstances under which faultlines are activated (Veltrop et al. 2015), suggesting that the extent to which firm objectives (both economic and non-economic) are achieved is an important trigger of faultlines between subgroups. Accordingly, we hypothesize that the U-shaped relationship is strengthened when family firm objectives are under-achieved, because individuals weigh negative future events more heavily in the case of a perceived negative discrepancy between objectives and results.

By empirically testing the hypothesized effects on a sample of 421 small and medium family enterprises, this study contributes to the discussion begun by Basco and Voordeckers (2015); Sciascia et al. (2013); and Vandebek, Voordeckers, Lambrechts, and Huybrechts (2016), focusing on a more fine-grained view of the effect of board composition on family firm performance. Moreover, the literature on goals in family businesses may benefit from this study, which acknowledges that perceptions of objective over-achievement stifles the activation of relationship-based faultlines, spurring the positive association between the emergence of task-related faultlines in boards comprising an even distribution of executive and non-executive family board members and firm performance. Integrating the faultline approach with predictions from behavioral agency model thus enriches the scope of the faultline perspective itself and its application to the family business context.

Theoretical background

Board heterogeneity and firm performance according to the faultline approach

Scholars interested in corporate governance have broadly discussed the direct relationship between board composition and firm performance (Molz 1988), suggesting that board composition is a proxy for what happens inside the boardroom (Finkelstein, Hambrick, and Cannella 2009). Within a board of directors,

one of the most debated demographic demarcations leading to factional faultlines is related to the distinction between *executive* and *non-executive directors* as both groups play a distinct role on the board as representatives of diverse interest groups (Li and Hambrick 2005). While executive directors have a particular leadership role in the firm with greater access to internal information (Nicholson and Kiel 2007), non-executive directors—thanks to their different backgrounds and experiences—have diverse and more objective perspectives of the firm’s situation (Filatotchev 2006). In this context, heterogeneity can be beneficial if non-executive directors collaborate with executive directors, remaining engaged, supportive, and involved while maintaining their challenging and independent status (Roberts, McNulty, and Stiles 2005). However, because members of these two groups tend to differ in their cognitive frames, the way directors allocate time to discussing issues among the board may change depending on the subgroup to which they belong, thus potentially engendering faultlines (Tuggle, Schnatterly, and Johnson 2010).

The effect of heterogeneity, in this context, can be modeled according to social categorization (i.e., individuals self-categorize to compare themselves with others in the organization, creating social categories based on salient characteristics), similarity/attraction (i.e., individuals communicate easily with those who have a comparable background as they may share analogous life experiences and values), and information/decision making (i.e., variance in group composition) (Williams and O’Reilly III 1998). Relationship-based faultlines, rooted in social categorization and similarity/attraction logics, may prevent communication, cohesion, and trust, thereby contributing to subgroup conflict and behavioral disintegration and thus negatively affecting group efficiency (Lau and Murnighan 1998) and firm-level performance (Jehn 1995; Li and Hambrick 2005; Mathieu, DeShon, and Bergh 2008). Conversely, task-related faultlines, caused by information heterogeneity and decision-making differences, may contribute to finding creative solutions to problems by leveraging a greater variety of experiences, knowledge, and information (Chung et al. 2015; Crucke and Knockaert 2016). However, when differences in knowledge,

information, skills, and tasks lead individuals in the two subgroups to define themselves as being affiliated with their specific group, the resulting social categorization causes a relationship-based faultline and its accompanying negative effects (Chung et al. 2015).

Consequently, studies on heterogeneity and faultlines have suggested that board composition and firm performance may follow a curvilinear path (Basco and Voordeckers 2015; Naldi, Chirico, Kellermanns, and Campopiano 2015). Indeed, although board heterogeneity has a positive relationship with firm performance, when one or more directors' attributes align, the board could split into subgroups. If such split occurs, board functionality may be negatively influenced in terms of monitoring and resource provision (Kaczmarek, Kimino, and Pye 2012), which may in turn hinder firm performance. In the following section, we advance this reasoning in the context of family firms.

Board composition and firm performance in family businesses

The direct relationship between board composition and firm performance has largely been investigated in the context of family firms, but this work has provided inconclusive findings (Arosa, Iturralde, and Maseda 2010; Basco and Voordeckers 2015; Klein, Shapiro, and Young 2005; Schulze, Lubatkin, Dino, and Buchholtz 2001). The inconsistencies in this research stream might stem from the different proxies used for measuring board composition. Indeed, many studies have focused on how family directors affect firm performance (Calabrò and Mussolino 2013; González-Cruz and Cruz-Ros 2016; Mazzola, Sciascia, and Kellermanns 2013; Silva and Majluf 2008) and entrepreneurial orientation (Arzubiaga, Iturralde, Maseda, and Kotlar 2018; Bauweraerts and Colot 2017; Calabrò, Campopiano, Basco, and Pukall 2017b; Pitchayadol, Hoonsopon, Chandrachai, and Triukose 2018; Powell and Eddleston 2017). These contributions have leveraged the idea that the family affiliation of board members is a specific characteristic that makes them different from other board members (Wilson, Wright, and Scholes 2013). Previous studies adopting the faultline approach to investigate family firms (Kim and Gao 2013; Minichilli et al. 2010) have not challenged the assumption that the subgroup of family directors is

homogenous even though the debate regarding their heterogeneity has also been nurtured in the family business literature (Bammens et al. 2011; Daspit, Chrisman, Sharma, Pearson, and Mahto 2018; Li and Lau 2014). For instance, it has been found that a higher family control over the business leads to a lower presence of outsiders in the board of directors, a higher compensation of the family affiliates – also called “gray” directors – and large shareholdings in the hands of few family members who also seat on the board (Bartholomeusz and Tanewski 2006). Moreover, family involvement in both management and ownership affect board composition, its function and power (Ahluwalia, Mahto, and Walsh 2017; Nordqvist, Sharma, and Chirico 2014), including the decision whether to retain profits or increase dividend payouts (Vandemaele and Vancauteran 2015).

Not all family directors have the same affiliation with the firm as, for instance, we can distinguish those who are directly involved in managing the business (i.e., executives) from non-executive family board members (Bammens et al. 2011; Calabrò, Mussolino, and Huse 2009). Executive and non-executive family board members may have different perceptions of the firm, goals, and expectations, which could cause relationship-based faultlines. Nevertheless, although existing research has argued that an excessive number of non-executive family directors can be deleterious to firm performance (Naldi et al. 2015), there is a lack of knowledge on the co-presence of executive and non-executive family board members and their effect on firm performance. Even more, thus far, no study has contextualized the co-presence of executive and non-executive family board members to better understand what may trigger the positive and negative effects derived from relationship-based and task-related faultlines.

Integrating the faultline approach and the behavioral agency model

To theoretically explore the aforementioned gap—namely, what may activate relationship-based faultlines and the associated negative effect on firm performance—we link the faultline approach with the behavioral agency model. In particular, whether relationship-based or task-related faultlines prevail might not only depend on the composition of the board and thus the relative presence of family members

in the executive and non-executive director subgroups. Instead, it may also depend on the activation of one type of faultline, thus making the other type fades away. Indeed, the literature on faultlines offers a lens to explain group behaviors and their implications for the firm based on the diversity and heterogeneity of board attributes (Lau and Murnighan 2005). In particular, this literature advances the idea that separating individuals into subgroups based on specific attributes may have different effects on the activation of dividing lines that isolate subgroups (Bezrukova et al. 2009). One activation mechanism could come from perceptions of how well the firm has achieved its objectives, particularly if there is a discrepancy between results and objectives.

Relying on the predictions of the behavioral agency model (which blends concepts from agency theory, prospect theory, and the behavioral theory of the firm) (Wiseman and Gomez-Mejia 1998), over- and under-achievement of objectives lead to differently perceive wealth-at-risk—that is, risk bearing, among family members (Calabrò, Minichilli, Amore, and Brogi 2018; Chrisman and Patel 2012). Scholars have mostly used this theory to study the decisions made by managers, using a loss-aversion tenet to predict risk-averse behavior in case of over-achievement of objectives (e.g., looking at performance above historical or social aspirations) and risk-seeking behavior in case of perceived losses or performance below aspirations (Hoskisson, Chirico, Zyung, and Gambeta 2017). However, we assert that this theoretical lens is much more powerful and can be adopted to predict performance if applied not only to the executive board but also to the board of directors while considering the co-presence of executive and non-executive members therein.

Indeed, when results surpass objectives, family executive board members are expected to frame the situation as a gain and thus become risk averse. Non-executive family members, who represent shareholders' interests without being involved in operations, align their interests with those of risk-averse executives. In so doing, their different roles contribute to strategies that preserve accumulated endowments that are perceived as being at risk—namely, both economic and non-economic wealth—

thus creating task-related faultlines. Conversely, when objectives are not achieved and the firm experiences poor results with respect to aspirations, executives become risk seeking and are more likely to make decisions and undertake strategies with uncertain outcomes (Hoskisson et al. 2017). Non-executive family board members, on the other hand, may primarily be concerned with the “conservation” of family shareholder interests (Miller, Le Breton-Miller, and Lester 2011), making executives the scapegoat for the negative results. This situation causes the two groups to split, thus creating a strong dividing line—a relationship-based faultline—if the board is composed of an equal proportion of executive and non-executive family members. The aforementioned theoretical integration allows us to make predictions on the moderating effect of objective-result discrepancies on the relationship between the composition of the board and firm performance.

Hypothesis development

The ratio of executive to non-executive family board members and firm performance

Although all family members might have inherited the firm, not all of them actively manage it (Lubatkin, Schulze, Ling, and Dino 2005). Thus, being an executive or not can lead family board members to split into two groups. Indeed, executive and non-executive family board members might have different cognitive relationships with the firm. For instance, executives may believe they sustain more costs and risks from managing the firm compared to non-executive family board members, who merely represent shareholders (Singla, Veliyath, and George 2014).

When the subgroup of family directors is composed of few executive members compared to non-executive members, there may be a positive association with firm performance. Boards with mostly non-executive family directors will likely act based on an investor logic as the family firm is primarily seen as a way to maximize family shareholders’ personal income (Bertrand and Schoar 2006; Calabrò,

Campopiano, and Basco 2017a). Indeed, non-executive family directors are often mainly concerned with satisfying the principals' interests (Bammens et al. 2011). From one perspective, non-executive family directors ensure that performance is not jeopardized by nepotistic or entrenchment logics (Ng and Roberts 2007). They focus on business-oriented control tasks and family-oriented control tasks (Basco and Voordeckers 2015), especially supervising succession and controlling management performance (Van Den Heuvel, Van Gils, and Voordeckers 2006). Thus, non-executive family board members may dominate the family subgroup on a board and impose their interests, thereby avoiding factional faultlines. However, this relationship is negative because both groups have equal weight and different goals, leading to clashing expectations.

When executive and non-executive family board members are present, the board may benefit from the heterogeneity of experience of the two groups of family directors, with non-executive board members contributing general business knowledge and capabilities and executive directors providing more firm-specific knowledge (Goel, Mazzola, Phan, Pieper, and Zachary 2012). Nevertheless, the different tasks that executive and non-executive family board members have to fulfill may jeopardize these positive effects due to the social categorization of executive family directors as a distinct group with respect to non-executive family board members. That is, when executive family directors develop a social identity that differentiates them from non-executive family board members, a relationship-based faultline can emerge (Bezrukova et al. 2009), dividing family board members into two factions with different perceptions about what interests should be pursued in the family business. In turn, firm performance may suffer considerably.

In contrast, when there are a high number of executive family board members, this means that most family board members are involved in managing the business, thus supporting the long-lasting success of the business by focusing on establishing and handling capital allocation in favor of the family firm's various needs. Indeed, the board, which is frequently composed of executive family directors only

in smaller organizations (Vandebeek et al. 2016), is less concerned about monitoring business operations; instead, it prioritizes firm strategies that leverage the unique human and social capital of its members (Wilson et al. 2013), which limits any detrimental effects on firm performance.

In sum, the aforementioned three hypothetical situations lead us to predict that the internal composition of the group of family board members exhibits a U-shaped relationship with firm performance, as the following hypothesis postulates:

Hypothesis 1: In private family firms, there is a U-shaped relationship between the ratio of family executive board members and firm performance.

The moderating effect of the objective-result discrepancy

The association between the composition of executive/non-executive family board members and firm performance needs to be contextualized. In line with Corbetta and Salvato (2004), we complement the aforementioned discussion with a contingency model of family business boards of directors, which “should hence link board composition variables to variables that simultaneously define different family business types, and bear relevance in determining governance needs” (p. 125). In particular, we suggest that perceptions of objective achievement may trigger the activation of faultlines within the subgroup of family directors, leading to detrimental effects on firm performance.

The extant literature on the role of goals in family business boards has shown that they determine the extent to which a board is needed or not (Pieper, Klein, and Jaskiewicz 2008), its composition and size (Jaskiewicz and Klein 2007), and its role (Corbetta and Salvato 2004). Pursuing goals related to family longevity seems to moderate the relationship between family involvement in management and performance (Kim and Gao 2013). Moreover, in general, the negative effect of relationship-based faultlines decreases when board members share the same objectives (Van Knippenberg, Dawson, West, and Homan 2011). However, the contingent effect of having achieved family firm objectives has not been considered within the extant literature to date.

According to the behavioral agency approach, results are assessed in light of a reference point (i.e., the objectives that are set and pursued) so that board members can frame the actual situation either as a gain—when the results are above the reference point—or as a loss—when the results are below the set reference point (Kahneman and Tversky 1979). Once there is an implicit or explicit agreement about family business goals, perceptions of whether they have been achieved are important because they can mobilize and activate particular behaviors, such as strategy making. For example, under-achieving in meeting objectives may spur a change in strategy to adjust aspirations and results (Chrisman, Chua, Pearson, and Barnett 2012). Accordingly, the perception of having over-achieved objectives may increase cohesion and trust within the family group of directors leading to the creation of task-related faultlines. The task-related faultless leverage and bridge the various experiences and expectations of executive and non-executive directors who align their interests in this situation (Knapp, Dalziel, and Lewis 2011). Conversely, perceiving a negative discrepancy between set objectives and actual results suggests that aspirations have not been fulfilled, so board members are more likely to frame the situation as a loss (Wiseman and Gomez-Mejia 1998). This may lead executive family directors to look for a scapegoat among individuals belonging to the other group (Kepner 1991), which may in turn create additional relationship-based faultlines (Bezrukova et al. 2009).

Following this line of reasoning, we argue that the over-achievement of family firm goals, which may frame the situation as a gain, may lower the negative association between an evenly proportional group of executive and non-executive family board members and performance since task-related faultlines are more likely to arise and relationship-based faultlines are likely to be avoided. Conversely, in the case of under-achieving family firm objectives, the situation is framed as a loss, and the U-shaped association described in Hypothesis 1 may be intensified, with a further detrimental effect on firm performance when non-executive family members are over-represented and a positive effect on firm

performance when executive family members are over-represented. Therefore, we propose the following moderation hypothesis.

Hypothesis 2: In private family firms, under- and over-achieving family business objectives moderate the U-shaped relationship between the ratio of executive family board members and firm performance such that (1) under-achievement leads to a U-shaped relationship and (2) over-achievement alleviates the U-shaped curve.

Method

Data collection and sample description

Our hypotheses are tested using a sample of small and medium family enterprises from Spain. Spain is a special context for analyzing the relationship between board composition and firm performance, especially due to some specific characteristics of both its formal and informal institutions. The country is characterized by a weak legal system for protecting minority shareholders' interests (Gutierrez and Surroca 2014) and by a high overlap between the institutions of family and business (Gupta and Levenburg 2010). Some of these characteristics are similar to other European countries. Additionally, the Spanish economy is the fourth-largest in the Eurozone in term of gross domestic product.

To identify family firms, we considered two criteria: firms had to have family members on the board of directors or on the top management team and/or at least 50% of the shares had to be owned by the family (Basco 2013). We relied on two different databases—SABI (Sistema de Anàlisis de Balances Ibéricos) and DUN (Dun & Bradstreet)—extracting 4,450 firms out of 16,000 available companies¹. Academic experts (professors belonging to the Spanish network of Family Business Chairs) and family business experts were asked for their feedback about the questionnaire, reinforcing the validation process. We used a stratified random sample with two stratification variables comprising the sector of economic

¹ We conducted an exhaustive review of ownership, board of directors, and management composition based on name and surname. The system of surnames in Spain enables the identification of family relationships since women do not take their husband's surname, whereas children take both their father's and mother's surnames.

activity and the autonomous community (first-level political division of Spain). In total, 732 firms answered our telephone survey, which was administered by a professional Spanish survey research firm to ensure quality and reliability. The interviewees were the CEOs or board members.

The response rate was 16.45%, in line with previous research conducted in the Spanish context (Arosa et al. 2010). χ^2 analyses and t-tests confirmed that there were no significant differences between the sample and the population in relation to legal form, sector of economic activity, enterprise location, and number of employees. Out of the initial 732 privately owned family firms that answered the telephone survey, 311 firms were excluded due to the missing values for some dependent or independent variables, resulting in a final sample of 421 firms (see Table 1).

----- Insert Table 1 about here -----

On average, the sampled family SMEs were 26 years old and had a mean of 110 employees. The average board size was five. Family representation was, on average, 89.0% of the total number of board members, with 74% of them working in the firm. Considering the characteristics of firm management, about 34.0% of the sampled firms were in their first generation, while 44.0% were in their second generation, and 22.0% were in their third or later generation. The sample represents 17 autonomous regions and 23 sectors of economic activity (according to the Spanish National Classification of Economic Activities).

Variables

Dependent variable. The dependent variable for this study is firm return on assets (*ROA*), which is net operating income before extraordinary items divided by total assets. We used an objective measure of ROA collected from secondary data publicly available in Spain through SABI. Previous studies analyzing the impact of family involvement in firm management and governance have adopted this

measure of firm performance (Basco 2013). Moreover, we used lagged performance data, considering ROA lagged between one and three years (average of three years—2005, 2006, and 2007), a practice that improves methodological design and rigor (Mazzola et al. 2013).

Independent variables. Based on prior literature (Lee 2006; Mazzola et al. 2013; Silva and Majluf 2008), to test Hypothesis 1, we used the ratio of executive family directors (*REFD* = the number of executive family directors divided by the total number of family directors) and its quadratic term.

Moderating variables. To test Hypothesis 2, our instrument contained 15 items (objectives) measured on a five-point Likert-type scale based on the importance of each objective (1 = “very little importance” to 5 = “extremely important”) and their level of achievement (1 = “highly dissatisfied” to 5 = “highly satisfied”). For each item, we calculated the difference between objective importance and objective achievement. The value of this difference was used to determine the over- or under-achievement discrepancy. When the importance of the objective is larger than the perceived achievement, the value of the variable is positive, and it represents under-achievement of objectives. However, when the importance of the objective is smaller than the perceived achievement, the value of the variable is negative, and it represents over-achievement. Finally, we determined the average score by grouping the items into five dimensions following Basco (2017): 1) *short-term business-oriented objective discrepancy* (sales growth, market share, net profit, cash flow, sales ratio, return on investment), 2) *stewardship business-oriented objective discrepancy* (adapting to client needs, staff development, environmental protection, customer satisfaction, and service quality), 3) *short-term family-oriented objective discrepancy* (money available for the family, quality of life at work, firm-generated family security, and time to be with family), 4) *stewardship family-oriented objective discrepancy* (family loyalty and support, family unity, development of children’s skills, opportunities for children), and 5) *long-term family-oriented non-economic objective discrepancy* (reputation of the family name in society, customer loyalty to the family name, good reputation in business).

Control variables. We controlled for *firm age* (number of years since founding) to account for liability of newness and *firm size* (full-time employees) as a proxy for firm resources (Dhanaraj and Beamish 2003). To ensure normality, we used a logarithmic transformation of these variables in the regression analysis. We also controlled for *generational stage* of the firm, referring to the generation controlling the family firm (Davis and Henrekson 1999; Kellermanns and Eddleston 2006). We asked each CEO which generation managed the firm, coding the answers using three categories: “first generation,” “second generation,” or “subsequent generations.” We controlled for *board size* using the logarithmic transformation of the number of total board members. To control for industry, we created a dummy variable taking the value 1 for manufacturing firms and 0 for non-manufacturing firms. Finally, because the proportion of family and non-family members could also have an effect on firm performance (Silva and Majluf 2008), we controlled for the *ratio of family members* and its quadratic potential effect (Minichilli et al. 2010).

Results

The correlations for the dependent, independent, and control variables are shown in Table 2. Bivariate correlations among the independent variables are below the critical value of 0.5 (Hair, Black, Babin, and Anderson 2009), thereby suggesting that the risk of collinearity in the linear regression models is not a concern (Wold, Ruhe, Wold, and Dunn 1984).

----- Insert Table 2 about here -----

We tested our two hypotheses via multiple regression analysis. In line with the recommendation made by Hair et al. (2009), all the variance inflation factor (VIF) values for the variables involved in the model are below the cutoff ($VIF < 10$). The regression results are shown in Table 3.

----- Insert Table 3 about here -----

In Model 1, we introduced our control variables: firm age, firm size, board size, generation, industry, proportion of family members, and its squared term. The control variables do not significantly influence firm performance, except for firm age and the family membership of board members. The former is negatively related to the dependent variable ($p < .05$), indicating that over the years, performance declines, whereas the latter shows there is an inverted U-shaped relationship between the proportion of family and non-family board members and ROA.

With respect to Hypothesis 1, the test for curvilinear effects of the ratio of executive family directors shows that both the ratio and its squared term are significant ($p < .05$). While the former has a positive effect, the latter has a negative effect, thereby supporting the existence of a U-shaped relationship, in accordance with our hypothesis. As recommended by Haans, Pieters, and He (2015), the significance of the quadratic term is not enough to determine the existence of a non-linear relationship; hence, we performed a Sasabuchi test (Lind and Mehlum 2010) to assess the robustness of this relationship by considering two conditions: 1) the turning point where the data change direction is within the data range and 2) there are two different slopes before and after the turning point. The Sasabuchi test confirms the existence of a U-shaped relationship ($p < .05$). This relationship is plotted in Figure 1. The derivative calculation shows that the suboptimal point is at $X = 0.56$ (turning point). That is, firms reach their minimum firm performance (i.e., ROA is lowest) when executive family directors occupy 56% of the family seats in the boardroom.

----- Insert Figure 1 about here -----

We carried out additional tests to determine the robustness of our findings. First, we ruled out the possible existence of an S-shaped relationship between the ratio of executive family directors and ROA. Second, because the turning point should demarcate two different relationships between the ratio of executive family directors and ROA, we used it to split the sample into two groups and tested their slopes.

The regression analyses confirm that the slopes in each sample are consistent with the predicted shape of the curve (U-shaped).

Models 2 to 6 test the moderation effect of objective-result discrepancy for our five moderator variables. Model 2 captures the moderation effect of short-term business-oriented objective-result discrepancy. The moderation effect is significant and is plotted in Figure 2. Model 3 tests the moderation effect of stewardship business-oriented objective-result discrepancy, showing no significant results. Model 4 and 5 capture the moderation effect of short-term family-oriented and stewardship family non-economic objective-result discrepancy, respectively, showing non-significant moderation in both cases. Finally, Model 6 tests the moderation effect of long-term family non-economic objective-result discrepancy, showing a significant effect. The moderation effect is plotted in Figure 3. As shown in Figures 2 and 3, when family firms under-achieve the set objectives, the U-shaped relationship between the ratio of executive family directors and performance emerges. Firm performance is maximized with either a high proportion of family executives or a low proportion of family executives with respect to non-family executives (the extremes of the curve). Instead, when family firms over-achieve their objectives, the data analyses suggest there is no U-shaped relationship.

----- Insert Figure 2 about here -----

----- Insert Figure 3 about here -----

To test our hypotheses, we relied on cross-sectional data. In this sense, reverse causality may lead to biased and inconsistent parameter estimates. For instance, firm performance may affect board composition when poor results force changes in the board of directors or when good results encourage the admission of more family members. We carried out a two-stage least squares estimation procedure with instrumental variables to address this particular problem (Wooldridge 2000). We selected two instruments that are correlated with the suspected endogenous variables (ratio of executive family

directors) but are unrelated to the error term: top management team size and existence of a plan related to CEO succession. We performed a Sargan test (Murray 2006), showing that it is not possible to reject the null hypothesis of endogenous instrumental variables (p-value of 0.86), which was necessary for us to continue with our analysis. The Wu-Hausman test is not significant, indicating that we cannot reject the null hypothesis of exogeneity. Based on this test, we can argue that endogeneity is not a significant concern.

Discussion

This study shows that the relationship between the ratio of executive family board members and firm performance is contingent on perceptions of over- or under-achievement of objectives. In the context of under-achievement (specifically, for short-term economic and long-term non-economic objectives), there is a U-shaped relationship between the ratio of executive family board members and firm performance. However, in the context of objective over-achievement, the U-shaped relationship flattens. This study thus reveals novel and compelling findings to contribute to the ongoing debate on board composition, firm performance, and the role of family firm objectives.

First, we challenge the underlying assumption that family board members form a homogenous group (Bammens et al. 2011; Daspit et al. 2018). Indeed, Model 1 shows that the composition of the family subgroup on the board of directors matters, as we explained in terms of the creation of faultlines (i.e., hypothetical dividing lines) between executive and non-executive family board members (Lau and Murnighan 2005). Thus, we contribute to research that considers the association between the proportion of family/non-family board members and firm performance (that in our Model I results in an inverted U-shaped, which supports previous hypothesized effects of family involvement on performance, see Mazzola et al. 2013; Sciascia et al. 2013). These results can be explained by considering the effects of both relationship-based and task-related faultlines. We assume that firm performance suffers from the former, jeopardizing the positive effects of task-related faultlines in the case of a similar proportion of

executive and non-executive family board members. These faultlines do not depend on family affiliation (Minichilli et al. 2010) but on the association between the business and the interests directors are called to protect. Indeed, the role of executive or non-executive provides new insights into extant findings on the effects of sole relationship-based faultlines due to the alignment of attributes, such as family membership and gender in boards of directors (Basco and Voordeckers 2015; Vandebeek et al. 2016)—as we have broken board composition down to understand differences within the family board member group.

Furthermore, under- and over-achievement of family firm objectives moderates the negative relationship between a similar proportion of executive and non-executive family board members and firm performance, thus strengthening the relevance that goal pursuit might have as a moderating effect. Our results suggest that objective-result discrepancy moderates the board composition–performance relationship, with an U-shaped relationship characterizing the cases framing a loss situation (i.e., under-achievement of objectives) and a reverse J-shaped relationship characterizing the cases framing a gain situation (i.e., over-achievement of objectives). This finding corroborates what the behavioral agency model predicts in other contexts (e.g., Chrisman, Memili, and Misra 2014; Chrisman and Patel 2012; Mahto and Khanin 2015). Our study thus contributes novel insights regarding the impact of economic objectives and long-term family-related objectives that are in line with previous findings on this issue (Kim and Gao 2013). Our findings indeed suggest that a situation framed as a gain leads to a positive relationship between the ratio of executive family board members and performance for both economic and non-economic objectives. Thus, these findings offer compelling insights into the role of family firm objectives (Chrisman et al. 2012), proposing that the under- or over-achievement of objectives matters more than the objectives themselves when investigating board composition and its association with firm performance.

Conclusions

Contributions and implications

This study makes three main contributions. First, the family business literature can benefit from this study by taking into account the effects of involving family members with diverse associations with the family business (i.e., executive versus non-executive) on boards of directors. These findings challenge the assumption that family board members are homogenous (Bammens et al. 2011; Sciascia et al. 2013) and contribute to the debate on type of family involvement and board composition (González-Cruz and Cruz-Ros 2016; Vandebek et al. 2016). It is not only about the size of the family board group in relation to the board size but also the context (contingency), as family firm perception of objective-result achievement seems to trigger a positive or negative effect of board composition on firm performance. Our findings contribute to better understand the importance of family firm heterogeneity from the governance perspective (e.g., Daspit et al. 2018).

Second, along with the previous contribution, our article also informs the stream of literature on family business objectives (Aparicio, Basco, Iturralde, and Maseda 2017). Our research shows that besides the specificities of family firm goals, the level of agreement among family members plays an important role in family firm well-being (Jaskiewicz and Klein 2007) and—more importantly—the extent to which these objectives have been achieved plays an important role as a reference point in family firms (Kotlar, De Massis, Fang, and Frattini 2014). More interestingly, what matters in the relationship between family board composition and firm performance is whether there is an under- or over-achievement objective perception rather than the economic versus non-economic nature of the objectives themselves. This finding also supports the relevance of adopting behavioral agency model in the family business context because we can observe that the group of family board of directors have different effects on firm performance based on the contextual perception of objective achievement (under- or over-achievement).

Third, adopting the faultline approach in the family business field has offered an alternative lens to investigate the relationship between board composition and performance, which can in turn contribute to the theoretical perspective itself. Indeed, relationship-based faultlines in the family subgroup of board members do not depend on family involvement (Minichilli et al. 2010) but actually depend on multiple attributes that create dividing lines within the board of directors (Vandebeek et al. 2016). Indeed, breaking board composition down and considering the subgroups within the family board director group show that the association with performance depends on two types of faultlines—relationship-based faultlines and task-related faultlines—with relationship-based faultlines offsetting the potential positive effects of task-related faultlines (Bezrukova et al. 2009).

Finally yet importantly, our findings also have practical implications. Even though the study was carried out in Spain and can thus not be generalized to other geographical contexts, Spain is a good laboratory for analyzing the family business phenomenon because of the historical importance of the family in social and economic activities and the civil law legal system. Therefore, to a certain extent, our results could—with limitations—be extended to similar social, historical, and economic contexts in Continental Europe, such as Italy and France, for instance. We provide new insights for family firm owners and managers, who should carefully consider whether and which family members should be invited to be part of the board of directors. This study's findings suggest that researchers should consider a possible demarcation between executive and non-executive family board members as a condition that can boost or hinder firm performance. Furthermore, taking into account the challenges of growing a business while a family grows (Brenes et al. 2011; Calabrò et al. 2017a), such demarcation is particularly important for determining the psychological position of directors and their relationship with the firm (Singla et al. 2014), both of which affect board behavior and firm performance. Additionally, it is important to highlight the potential contribution of our results for policymakers responsible for defining corporate governance good practices in private firms. It has been a common suggestion to encourage

private firms to incorporate independent board members due to their contributions to firm performance. However, we complement this view by claiming that the sub-configuration of family board members (executive and non-executive family members) also matters but that the advantage or disadvantage of this configuration is determined by the perceptions of objective achievement.

Limitations and Future Research Directions

This study has tackled a novel research question to further investigate the effect of board composition on family firm performance. However, it is not free from limitations, which spur future research avenues. First, in light of the low level of explanation for our models (Adjusted R-squared), it is important to acknowledge that the demarcation between executive and non-executive family board members could be further explored. For instance, it is difficult to distinguish between an “actual” non-executive family board member and a “fill the position” family board member (e.g., when a family member’s partner or child is appointed without a definite role), especially in family SMEs (Voordeckers, Van Gils, and Van den Heuvel 2007). Future research can further break board composition down to include this category and further clarify which type of family directors should be appointed to the board.

Second, even though the CEO is considered the most knowledgeable person in an organization, future studies should also focus on other perspectives—for example, asking questions about goals and performance to both family and non-family directors and to executive and non-executive directors. A multi-respondent research design can indeed prove particularly insightful for further investigations of board composition, especially in the family business context (Holt, Madison, and Kellermanns 2017). This is a critical path for future lines of research in the field of family business, to better understand the dynamics the family brings to the firm, specifically in the corporate governance arena.

Third, due to the cross-sectional nature of the data used in this study, it is difficult to infer about the effect and evolution of board composition over time. In particular, it would be relevant for future research to investigate whether the co-presence of executive and non-executive family directors has a

different effect on performance over time. Moreover, other contingencies could affect the emergence of task-related rather than relationship-based faultlines. Thus, studies on such contingencies could further our understanding of the sources of heterogeneity within the family director group. In addition, future research could develop ad hoc measures for task-related and relationship-based faultlines in the family business context, for example, borrowing and adapting existing measures from mainstream literature (Bezrukova et al. 2009).

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Table 1. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Firm Age	421	2.00	94	25.88	13.46
Firm Size (Number of Employees)	421	50.00	500	109.83	93.65
Board Size (Number of Board Members)	421	2.00	9.00	4.53	1.97
Proportion of Family Directors (PFD)	421	.13	1.00	.89	.20
Ratio of Executive Family Directors (REFD)	421	.00	1.00	.74	.33
Firm Performance (ROA)	421	-26.15	39.00	4.52	6.87

Table 2. Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 ROA	1													
2 Firm Age	-0.10*	1												
3 Firm Size (lg)	0.053	0.09	1											
4 Board Size (lg)	0.01	0.15*	0.21*	1										
5 Generation1	-0.01	-0.21*	0.05	-0.07	1									
6 Generation2	-0.02	0.01	-0.10*	-0.04	-0.64*	1								
7 Industry	-0.07	0.16*	0.04	0.023	-0.04	0.03	1							
8 Proportion of Family Members (PFM)	-0.05	-0.04	-0.09	-0.29*	-0.02	-0.01	-0.02	1						
9 Ratio of Executive Family Directors (REFD)	0.03	-0.28*	-0.19*	-0.26*	0.07	0.05	-0.07	-0.02	1					
10 Stewardship Business-Oriented Discrepancy	-0.13*	0.11*	0.01	-0.01	-0.02	-0.07	0.08	0.05	-0.08	1				
11 Stewardship Family-Oriented Discrepancy	-0.08	0.16*	0.04	0.04	-0.05	0.01	0.04	-0.02	-0.10*	0.60*	1			
12 Short-Term Business-Oriented Discrepancy	-0.08	0.04	-0.06	-0.05	-0.02	0.01	0.05	0.03	0.04	0.45*	0.56*	1		
13 Short-Term Family-Oriented Discrepancy	-0.01	0.10	-0.01	0.03	-0.01	0.02	0.10*	-0.01	-0.04	0.39*	0.53*	0.64*	1	
14 Long-Term Family Non-Economic Discrepancy	-0.02	0.013	-0.04	-0.03	-0.01	0.06	0.05	-0.00	-0.06	0.39*	0.56*	0.52*	0.50*	1

Table 3. Regression analysis

VARIABLES	Model 1 ROA	Model 2 ROA	Model 3 ROA	Model 4 ROA	Model 5 ROA	Model 6 ROA
Firm Age	-0.0495* (0.0268)	-0.0455* (0.0265)	-0.0419 (0.0267)	-0.0503* (0.0267)	-0.0514* (0.0269)	-0.0600** (0.0268)
Firm Size (lg)	0.558 (0.609)	0.471 (0.598)	0.704 (0.600)	0.410 (0.606)	0.495 (0.611)	0.636 (0.607)
Board Size (lg)	0.302 (0.860)	0.336 (0.844)	0.400 (0.848)	0.241 (0.851)	0.432 (0.864)	0.366 (0.855)
Generation1	-1.005 (0.954)	-1.187 (0.935)	-1.170 (0.938)	-1.086 (0.945)	-1.066 (0.955)	-1.067 (0.948)
Generation2	-0.820 (0.891)	-0.975 (0.873)	-0.919 (0.876)	-0.809 (0.881)	-0.803 (0.891)	-0.803 (0.887)
Industry	-0.932 (0.675)	-0.991 (0.665)	-1.102* (0.665)	-1.010 (0.674)	-1.096 (0.681)	-0.797 (0.675)
Proportion of Family Members (PFM)	28.59** (12.56)	14.14 (13.11)	10.39 (13.46)	19.22 (12.74)	18.52 (13.16)	24.44* (12.53)
PFM ²	-21.06** (8.809)	-11.56 (9.230)	-8.879 (9.422)	-15.19* (8.925)	-14.55 (9.185)	-18.07** (8.801)
Hypothesis 1 (Plotted—Figure 1)						
Ratio of Executive Family Directors (REFD)	-11.23** (4.498)	-5.813 (5.020)	-7.915 (4.983)	-9.771** (4.636)	-9.718** (4.653)	-8.267* (4.781)
REFD ²	10.04*** (3.862)	5.935 (4.238)	8.309* (4.234)	9.155** (3.959)	8.958** (3.955)	7.821* (4.027)
Short-Term Business-Oriented Discrepancy (STBOD)		-2.595*** (0.993)				
STBOD * PFM		8.620** (3.478)				
STBOD * PFM ²		-5.680** (2.560)				
Hypothesis 2 (Plotted—Figure 2)						
STBOD * REFD		-2.220** (0.959)				
STBOD * REFD ²		1.707** (0.853)				
Stewardship Business-Oriented Discrepancy (SBOD)			-4.925*** (1.818)			
SBOD * PFM			17.24*** (5.806)			
SBOD * PFM ²			-11.82*** (4.095)			
SBOD * REFD			-1.957 (1.494)			
SBOD * REFD ²			0.978 (1.374)			
Short-Term Family-Oriented Discrepancy (STFOD)				-6.065*** (1.953)		
STFOD * PFM				17.61*** (6.155)		
STFOD * PFM ²				-11.26*** (4.310)		
STFOD * REFD				-1.314 (1.949)		
STFOD * REFD ²				0.829 (1.624)		
Stewardship Family-Oriented Discrepancy (SFOD)					-5.994** (2.703)	
SFOD * PFM					18.70** (8.070)	
SFOD * PFM ²					-12.05** (5.501)	
SFOD * REFD					-2.817 (2.247)	
SFOD * REFD ²					2.282 (1.826)	
Long-Term Family Non-Economic Discrepancy (LTFND)						-9.647* (5.522)
LTFND * PFM						35.96** (15.89)
LTFND * PFM ²						-25.53** (10.50)
Hypothesis 2 (Plotted—Figure 3)						
LTFND * REFD						-5.187** (2.632)
LTFND * REFD ²						3.864* (2.307)
Constant	-2.104 (5.191)	2.228 (5.345)	2.062 (5.455)	1.807 (5.247)	1.250 (5.412)	-1.879 (5.163)
Observations	421	421	421	421	421	421
Adj. R-squared	0.025	0.070	0.060	0.050	0.031	0.040
F-test	2.09**	2.99***	2.78***	2.39***	1.88**	2.19***

Standard errors in parentheses, *** p < 0.01, ** p < 0.05, * p < 0.1

Figure 1. Effect of the ratio of executive family directors on performance (ROA)

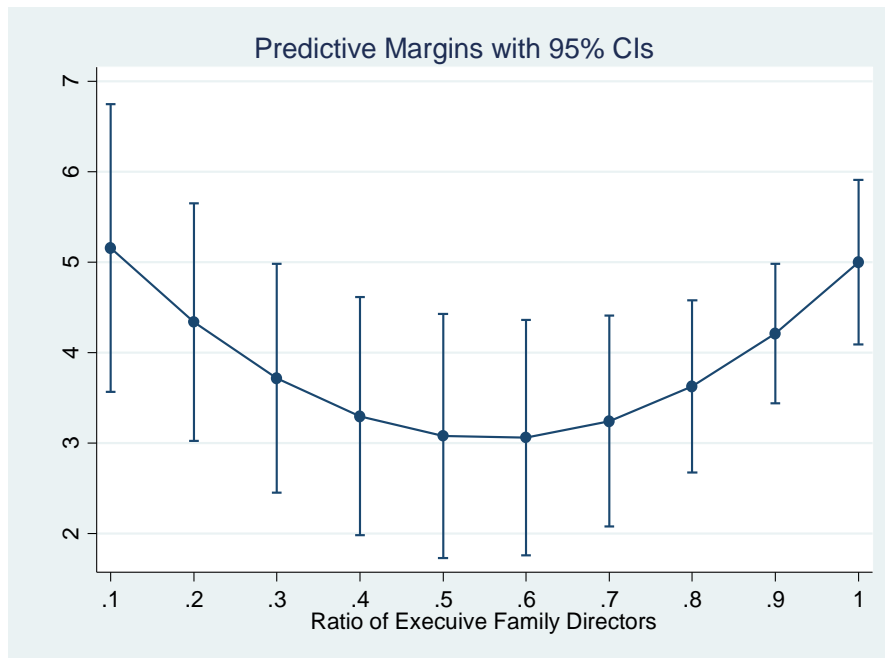


Figure 2. Effect of the ratio of executive family directors on performance (ROA) moderated by short-term business-oriented objective-result discrepancy

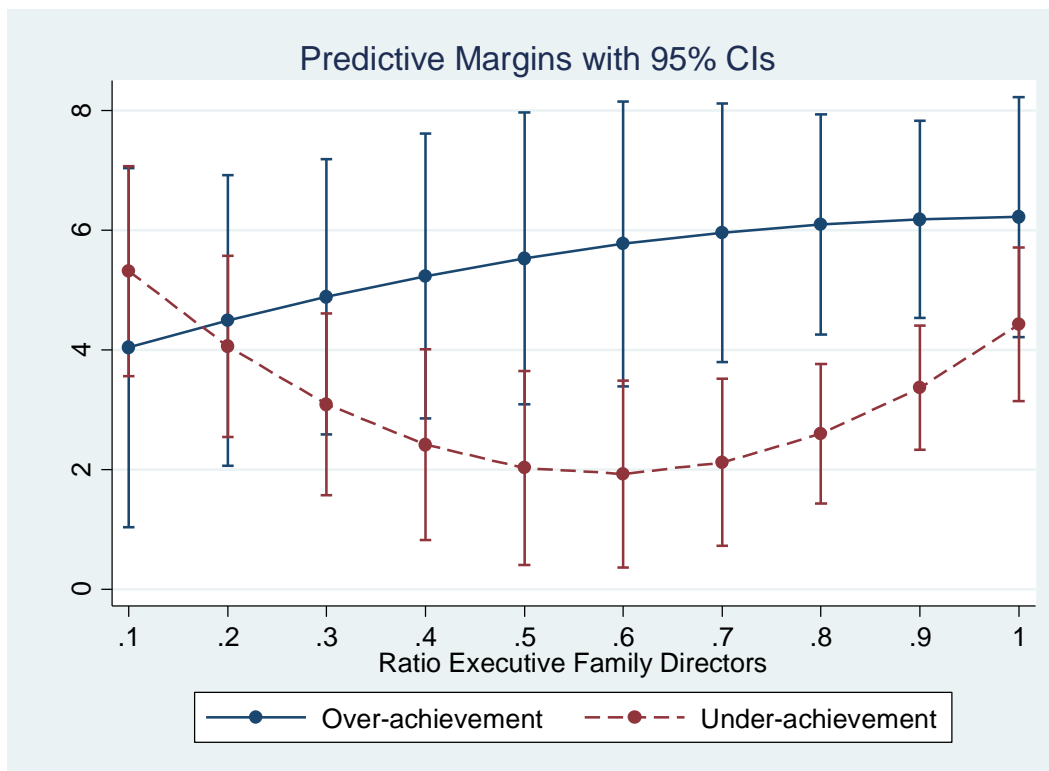


Figure 3. Effect of the ratio of executive family directors on performance (ROA) moderated by long-term family non-economic objective-result discrepancy

