Journal of Family Business Strategy 14 (2023) 100552

Contents lists available at ScienceDirect

Journal of Family Business Strategy

journal homepage: www.elsevier.com/locate/jfbs

The influence of board social activity on firm performance

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ARTICLE INFO

Keywords:
Board of directors
Family firms
Board social activity
Firm performance
Board meetings

ABSTRACT

This study investigates the relationship between board social activity (i.e., frequency of board meetings) and firm performance in publicly traded family and non-family firms, focusing on the moderating effects of family involvement (i.e., family ownership and at least one family member on the board of directors). Our investigation is based on a database of 172 family and non-family firms listed on the Italian Stock Exchange over a 10-year period (1098 observations). The results indicate a curvilinear (inverted U-shaped) relationship between board meeting frequency and firm accounting performance. Moreover, family involvement positively moderates this curvilinear relationship, leading to an optimal level of board meetings, which is higher in firms with increasing family involvement than in other firms. Applying behavioral governance theory, we contribute to explain how boards of directors influence firm performance through the board context (i.e., family involvement) and arrangements (i.e., frequency of board meetings/social interactions), providing evidence for family firm heterogeneity.

1. Introduction

Boards are the highest authority of public companies (Finkelstein, Hambrick, & Cannella, 2009). While numerous studies have investigated board composition, structure, and the impact of these characteristics on firm performance (e.g., Anderson & Reeb, 2003; Barontini & Caprio, 2006; Villalonga & Amit, 2006), behavioral governance theory emphasizes the need to consider board functioning (Huse, 2018, Westphal & Zajac, 2013). In this study, board effectiveness is considered as boards' ability to "improve the performance and effectiveness of the firm" (Boivie, Withers, Graffin, & Corley, 2021: 1664). Behavioral governance theory argues that board effectiveness depends on its "decision-making behavior" (van Ees, Gabrielsson, & Huse, 2009: 310)—in particular, on social learning (i.e., the potential learning effects and knowledge acquisition occurring through social interaction) and on the possibility of reducing groupthink and pluralistic ignorance (i.e., an individual privately rejects an idea, but the entire group accepts it; Westphal & Bednar, 2005; Westphal & Zajac, 2013).These are key aspects, especially in publicly traded firms, wherein boards' strategic and monitoring roles are emphasized (Anderson & Reeb, 2004). Thus, investigating publicly traded firms allows the consideration of how the extent of improved board functioning through increased social interactions leads to more effective strategic decision-making, thus improving firm performance.

One aspect of board functioning that has been studied from a behavioral perspective is the frequency of board meetings, because it is an indicator that provides a measure of interaction opportunities (Adams & Ferreira, 2008). Studies on board meeting frequency have predominantly focused on the consequences on small-medium family firms' strategic involvement with their boards of directors (e.g., Pugliese & Wenstøp, 2007), their ability to turn entrepreneurial orientation into innovation (Arzubiaga, Kotlar, De Massis, Maseda, & Iturralde, 2018), and sharing specific information (Uhlaner, De Massis, Jorissen, and Du, 2021). Studies considering the board meeting frequency of larger public firms and its effects on firm performance are scant (Brick & Chidambaran, 2010; Vafeas, 1999).

Although board meetings' frequency is considered a significant element in describing board functioning (Post & Byron, 2015; Vafeas, 1999), its overarching effects on firm performance remain obfuscated with inconsistent empirical findings. For example, some scholars have found a positive linear relationship (e.g., Vafeas, 1999), while others have discovered that board meeting frequency is weakly associated with firm performance (e.g., Grove, Patelli, Victoravich, & Xu, 2011; Parker, 2007). We argue that these inconsistent findings pertaining to the linear

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https://doi.org/10.1016/j.jfbs.2023.100552

Available online 6 April 2023

relationships between board meeting frequency and firm performance can be attributable to a nonlinear relationship and contingencies such as the extent of family firm involvement over time. Specifically, we subscribe to the idea that the frequency of board meetings is characterized by the "too-much-of-a-good-thing" effect, according to which the positive relationship reaches an inflection point after which it turns negative. Indeed, at least conceptually, scholars acknowledge that the extent of board activity may be a double-edged sword producing both positive and negative effects on firm performance (see Post & Byron, 2015). This perspective motivates us to consider the benefits of a higher frequency of board meetings to reach an optimal point; that is, firm accounting performance benefits and reaches its maximum owing to a certain number of board meetings, and conversely, firm accounting performance diminishes if this number is not reached or is exceeded. We argue that this shift to detrimental effects occurs for two reasons. First, excessively frequent meetings may cause saturation of learning opportunities and decrease the marginal effects of social interactions. Second, they may result in excessive control over the top management team, thus reducing their discretionary power.

Furthermore, as boards of directors are socially situated and constituted (Westphal & Zajac, 2013), it is likely that the extent of family involvement (i.e., family ownership and at least one family member on the board of directors) in a firm explains, at least in part, the potential benefits associated with social learning that can occur through board interactions. Indeed, the presence of a dominant coalition, such as the owning family, may imply the existence of needs and expectations different from cases wherein the owing family is absent (Kotlar, De Massis, Wright, & Frattini, 2018). In cases of firms with family involvement, frequent board meetings may represent a key opportunity for internal directors to interact with external ones, access external knowledge, and avoid groupthink and pluralistic ignorance, thus improving board effectiveness and firm performance (Westphal & Bednar, 2005). Accordingly, this study aims to explore the connection between board meeting frequency as a proxy for social activity and accounting performance (i.e., return on equity [ROE]), considering the dynamics of family involvement that influence the relationship between board social activity and firm performance. To this end, we use a sample of family and non-family firms listed on the Italian Stock Exchange over 2004–2013. Our findings identify an inverted U-shaped relationship between board meeting frequency and firm performance for all firms, while revealing that this relationship is positively moderated by an increase in family involvement—which, in our study can be attributable to an increase in family ownership with a family member on the board of directors and/or to the entry of family members on a board previously composed only of non-family members).

This study makes several contributions to the literature. We argue that, even with the same board composition, a board may affect firm performance in different ways depending on the meeting frequency. In particular, we highlight that the relationship between board meeting frequency and firm performance is curvilinear, suggesting an optimal level of meeting frequency for all firms. By doing so, we contribute to the research on boards of directors by integrating data on board composition with data on board meeting frequency, thereby offering a deeper understanding of how boards relate to firm performance.

Additionally, we show that firms with increasing family involvement tend to benefit more from a higher frequency of meetings (i.e., the inflection point of the inverted U-shaped curve is shifted to the right) than firms with decreasing family involvement. Thus, the optimal meeting frequency is higher in the presence of increasing family involvement. Considering that family involvement emphasizes some problems in board functioning (e.g., group thinking and pluralistic ignorance), greater effort—in terms of board meetings—is needed to overcome these problems and increase the board's effectiveness. Our use of a continuous measure of family involvement allows us to overcome the simplistic dichotomy of family versus non-family firms and contribute to the family firm heterogeneity literature (Memili & Dibrell, 2019). Specifically, we provide further empirical evidence that adds to the research stream on family firm variational heterogeneity (Daspit, Chrisman, Ashton, & Evangelopoulos, 2021). Our findings demonstrate how variational heterogeneity (i.e., changes in family involvement) affects the relationship between board social activity and firm performance.

Furthermore, with a few exceptions (e.g., Catuogno, Arena, Cirillo, & Pennacchio, 2018), empirical studies considering board meeting frequency and family involvement variables are relatively scarce. We believe that focusing on boards of family firms is crucial as it represents varied features and decision-making processes (Anderson & Reeb, 2004; Corbetta & Salvato, 2004) that impact a firm's trajectory. Indeed, understanding the conditions favoring the effective functioning of boards of directors in publicly traded family firms has relevant practical implications for family firms accessing financial markets, non-family and family shareholders, and these firms' other stakeholders. Overall, because the frequency of board meetings can be controlled by firms, which can define a policy concerning meeting frequency, we investigate the role played by a lever that is measurable and can be managed.

2. Literature review and hypotheses

The literature indicates that the board of directors exists to provide resources and strategic direction (service task), and monitor top managers (control task) (e.g., Bammens, Voordeckers, & Van Gils, 2011; Chadwick & Dawson, 2018; Forbes & Milliken, 1999; Hillman & Dalziel, 2003; Kao, Hodgkinson, & Jaafar, 2018; Merendino & Melville, 2019; Pettigrew, 1992). If a board of directors accomplishes these tasks, the board is considered effective, thus enhancing firm performance. This perspective is further extended by Huse (2018) and Westphal and Zajac (2013), who emphasize the governance aspect associated with behavioral governance theory; they stress the need to better consider key aspects, such as the director interactions occurring within the boardroom, various interests that animate board decision-making, and "bargaining" that lead to effective decision-making (Huse, 2018; van Ees et al., 2009). Scholars have considered the antecedents of board power and politics (e.g., Finkelstein & D'aveni, 1994; Westphal & Zajac, 1995) by analyzing primary data (e.g., Kanadlı, Torchia, Gabaldon, & Calabrò, 2020; Westphal & Bednar, 2005; Westphal & Stern, 2006) as well as secondary data (e.g., Finkelstein & D'aveni, 1994; Westphal & Zajac, 1995; Zajac & Westphal, 1996). Among the latter, major themes refer to the effects of board composition and interactions in discussing entrepreneurial issues (Tuggle, Schnatterly, & Johnson, 2010), board influences on organizations' responses to firm performance shortfalls (Desai, 2016), the choice of new CEOs (Zajac & Westphal, 1996), and the role of CEO informal power within the board (Finkelstein & D'aveni, 1994). Overall, seeing boards as decision-making groups, these studies tended to consider how board social activity relates to board effectiveness (e.g., Dalton & Dalton, 2005).

We focus on board social activity, which is a proxy for the extent of social interactions, opportunities for social learning, and how much effort the board invests into performing its duties (Brick & Chidambaran, 2010; Garg, Li, & Shaw, 2018; Post & Byron, 2015; Vafeas, 1999). Board meeting frequency is a key indicator of board social activity because it reflects opportunities for interactions and social learning (Adams & Ferreira, 2008; Brick & Chidambaran, 2010; Vafeas, 1999).

First, the frequency of interaction and information exchange opportunities affects a firm's capability to exploit board members' various competencies and experiences. For these reasons, Eisenhardt suggested that board meeting frequency is an effective indicator of the "richness of information" used and shared by the board (Eisenhardt, 1989:65). Second, the frequency of board meetings affects the extent of routinization of board decision-making and top management team (TMT) monitoring, influencing how frequently board members exploit their heterogeneous experiences and perspectives (Forbes & Milliken, 1999),

and contribute to the phases of problem identification and definition (van Ees et al., 2009). These aspects reflect the scope of opportunities offered to directors to jointly discuss and analyze key firm issues and, overall, to jointly accomplish their legal responsibilities and duties. Third, increasing the frequency of board meetings amplifies occasions for interceding between coalitions, which is a board role recognized by behavioral theory (van Ees et al., 2009).

2.1. Board meeting frequency and firm performance

Behavioral governance theory stresses that board meetings are an arena for key social interactions that can exert a major strategic impact on the organization (Westphal & Zajac, 2013) affecting board effectiveness, that is, a board's ability to impact firm performance (Boivie et al., 2021). These meetings are occasions for monitoring (controlling top management activities) and acting as a resource for the TMT, such as sharing knowledge regarding strategic decisions (Forbes & Milliken, 1999; Garg et al., 2018). We argue that an optimal frequency level may exist for such social interactions. A low frequency of board meetings may negatively affect the board's capability to manage its tasks and adequately exploit the potentialities related to the heterogeneity of board members' backgrounds and competencies. If the board rarely meets, board members are less involved in the information exchange. This may contribute to increased information asymmetry between the management and the board (in particular, non-executive independent members), as well as reduce the opportunities for managers to access information available to board members and potentially useful for identifying and solving problems (Forbes & Milliken, 1999). If board members meet infrequently during the year, they do not have the opportunity to participate in the early stages of decision processes, including problem identification, and this, in turn, reduces the full exploitation of their competencies and previous experience (van Ees et al., 2009).

Fewer board meetings reduce interaction opportunities among board members and may increase the risk of pluralistic ignorance (Westphal & Bednar, 2005; Westphal & Zajac, 2013). Infrequent board meetings limit the potential for social learning owing to fewer opportunities to share board members' knowledge and experiences, and decrease the likelihood that they develop mutual trust and understanding as a group (Boivie, Bednar, Aguilera, & Andrus, 2016, Westphal & Zajac, 2013).

Thus, we contend that increasing the number of board meetings is beneficial because board meetings are opportunities for benefiting (e.g., social learning) from the heterogeneous resources provided by individual board members (Forbes & Milliken, 1999). Especially in the case of publicly traded firms, access to information can be more challenging for directors, who only meet periodically, than for management, which is more active in day-to-day operations and can easily access firm-specific information (Lorsch & MacIver, 1989). This represents a key issue, considering that critical firm-specific information is essential for boards to operate effectively (Catuogno et al., 2018). Thus, a higher meeting frequency can counteract the weakness of a board's periodic working pattern and its effect on information exchange. With a higher frequency of meetings, it is easier for the board to receive and analyze continuous reports on different key issues, implement adequate strategic decisions important for improving firm performance, and actively monitor the TMT (Conger, Finegold, & Lawler, 1998; García-Ramos & García-Olalla, 2011; Lorsch, 1995; Rutherford & Buchholtz, 2007).

Simultaneously, more frequent board meetings represent greater opportunities for facilitating cooperation and discussion between external and internal directors, building trust and cohesiveness (Boivie et al., 2016), and lessening pluralistic ignorance among board members (Westphal & Bednar, 2005). Board meeting frequency can also be interpreted as a result of how much effort and motivation board members bring to performing their roles, representing a sense of collective responsibility for outcomes (Kanfer, 1992; Wageman, 1995).

A greater board meeting frequency promotes social interactions among directors, thus making it possible to address significant strategic concerns (Forbes & Milliken, 1999; Tuggle et al., 2010), such as coping with emergencies and resolving issues responsively and quickly (Lorsch, 1995). Moreover, frequent board meetings may enhance the decision-making process, enhancing the board's ability to identify strategies that lead to a competitive advantage and, thus, improved firm performance. As highlighted earlier, frequent board meetings' positive aspects include the following: They generate opportunities for social interactions that promote information access, social learning, trust, and understanding among board members (Tuggle et al., 2010), and potentially reduce the risk of pluralistic ignorance (Westphal & Bednar, 2005). These conditions allow for a more accurate and comprehensive board decision-making process, which is based on more insightful information, with the potential benefits of more experiences and perspectives producing a more effective board. This, in turn, helps the firm better identify and evaluate opportunities and risks, making strategic decisions that favor firm survival and foster firm performance. Indeed, the board can be considered a tool that addresses external environmental constraints by providing key resources (Chadwick & Dawson, 2018; Hillman & Dalziel, 2003; Pfeffer, 1972) as well as a source of input that contributes to generating better decisions (Boivie et al., 2021). Frequent board meetings can create conditions that help the firm exploit these resources to gain a competitive advantage. In essence, social interaction opportunities unleashed by frequent board meetings promote information access (Adams & Ferreira, 2007), social learning (Åberg, Bankewitz, & Knockaert, 2019), and trust (Boivie et al., 2021), which are all considered key elements of board effectiveness (Åberg et al., 2019; Adams & Ferreira, 2007; Boivie et al., 2021), improving the board's ability to positively affect firm performance (Forbes & Milliken, 1999; Cheng, Groysberg, Healy, & Vijayaraghavan, 2021). Regulations for publicly traded firms and recommendations of best practices align with this perspective and tend to favor active boards with frequent meetings (Brick & Chidambaran, 2010).

Conversely, excessively frequent board meetings can be onerous to manage and might even indicate board ineffectiveness, as boards may become inefficient and, ultimately, ineffectual in their timely decision-making, with a diminishing utility arising from each additional board meeting. Likewise, excessively frequent board meetings may prove detrimental to the quality of the board's decision-making and, thus, negatively affect firm performance. For example, discussions may become redundant and the focus on strategic tasks may be lost (Huse & Gabrielsson, 2012). Furthermore, board members may be distracted by excessive focus on the details and operational aspects that typically emerge when decision makers repetitively reflect on a matter (Monks & Minow, 1995), thus reducing the effectiveness of these social interactions. For instance, this can occur when board social activity increases excessively owing to the fear of shareholder litigation (Brick & Chidambaran, 2010). Similarly, frequent meetings may also be interruptions or inconveniences for directors and may even disrupt their primary tasks (Luong & Rogelberg, 2005), precipitating a greater sense of personal fatigue and workload (Zijlstra, Roe, Leonora, & Krediet, 1999; Zohar, 1999). Attending frequent meetings generally implies that individuals have to leave other tasks unfinished or reduce the level of attention to manage new information and tasks created by the new meetings, thus generating increased subjective role overload and stress (Kirmeyer, 1988; Rogelberg, Leach, Warr, & Burnfield, 2006).

When board meetings are excessively frequent, the level of attention may decrease, eventually distracting directors from a clear focus (e.g., causing to reconsider already-initiated strategies or excessively emphasize details). Likewise, excessively frequent meetings are associated with increased feelings of exhaustion that can drain mental and emotional resources (Luong & Rogelberg, 2005), thereby reducing the board's effectiveness and its ability to positively affect firm performance. After a certain point, the potential benefit in terms of additional information, competencies and perspectives are hindered by the difficulties in managing them. This, in turn, affects the quality of

decision-making processes that risk being excessively complex, slower, and not focused on the key issues, thus precipitating decisions that are suboptimal for firm performance. Further, meetings that are excessively frequent might be perceived as related to an excessive form of control by a firm's dominant coalition, which might even lead to short-termism and, consequently, a potential negative impact on firm competitiveness and performance (Porter, 1992).

For these reasons, we argue the presence of the "too-much-of-a-good-thing" effect, according to which social interactions' positive effects reach an inflection point after which they turn negative (Pierce & Aguinis, 2013). Therefore, we hypothesize an inverted U-shaped relationship between the board meeting frequency and firm performance.

Hypothesis 1. An inverted U-shaped relationship exists between the board of directors' frequency of meetings and firm performance.

2.2. Moderating role of family involvement

According to Mace (1971), in our knowledge of boards of directors, a gap exists between myth and reality; that is, the presence of family relationships "constitute the extra ingredient which profoundly influences what directors do or do not do" (Mace, 1971:174–175). Hence, understanding the family influence through family involvement is imperative (Miller, Minichilli, & Corbetta, 2013). We argue that increasing family involvement changes the relationship of the inverted U-shaped curve posited in Hypothesis 1, as boards of family businesses can play a key role in explaining the differences in governance outcomes (e.g., Gentry, Dibrell, & Kim, 2016). Specifically, the extent of increasing family involvement may intervene in the curvilinear relationship between board meeting frequency and firm performance. We anticipate that in the presence of increasing family involvement, board meetings' optimum frequency is higher, and thus, the inflection point of the curve representing the hypothesized inverted U-shaped relationship shifts to the right.

Consistent with a behavioral governance approach, the controlling family can be considered as a social institution and directors as members of a socially situated context wherein the context's interpretation is socially constituted (Westphal & Zajac, 2013). In other words, individuals' socialization and cumulative personal experiences in a specific social context—such as the board and/or the owning family—shape directors' socio-cognitive orientations and what they perceive as situationally possible (Little, 2012).

A strong family coalition constitutes a social institution *per se* with its own values, common history, and priorities (Chrisman & Patel, 2012), with relatively high stability in its schemas and a tendency to be entrenched in its own positions (Dane, 2010). Such cognitive entrenchment emphasizes cultural and background differences between family coalitions and non-family directors, thereby limiting within-board collaboration, trust, and the willingness to exchange knowledge and skills. In these situations, the negatives associated with a limited number of board meetings are further exacerbated, as the constrained social activity among both the family and non-family board members favors the persistence of cognitive entrenchment by the family board coalition. This entrenchment negatively impacts the board's capability to exploit its potential in strategic decision-making processes, thus reducing the board's effectiveness. Thus, an extremely low number of meetings may be particularly detrimental to publicly traded family firms' performance, with complexities associated with family influence. Limited information exchange, scant collaboration, and cognitive entrenchment reduce the board's ability to identify opportunities and threats in a timely manner, correctly evaluate them, and find adequate solutions to manage them.

Considering the aforementioned reasons, we expect that, in the presence of increasing family involvement, the benefits associated with an increase in board meeting frequency will be higher than in other firms, given the importance of having an effective board, thus improving the strategic decision-making quality. Generally, we hypothesized that an increase in the number of board meetings to a certain extent may exhibit positive effects on board functioning and, thus, on its capability to enhance firm performance. Moreover, in family firms, having more frequent interactions helps reduce information asymmetries, potential distrust, and separation between the family coalition and non-family directors. In these firms, an "additional" benefit is related to the contribution of social activity during board meetings in overcoming the difficulties associated with a strong family coalition. The board's need to manage family influences fruitfully and professionally should create a situation wherein a high frequency of meetings is particularly beneficial to the firm.

Indeed, when there is increasing family involvement, decision-making is influenced by the trade-offs between economic and non-economic goals (Kotlar et al., 2018); thus, it is likely that board members need more board meetings to discuss and coordinate. In these situations, more meetings and discussions may boost communication activities and the diffusion of trust among board members (Stevenson & Radin, 2009). A firm can be considered a nexus of coalitions between family and non-family shareholders, and the board mediates these various coalitions (van Ees et al., 2009). Especially in family firms, board meeting frequency can be considered the dominant coalition's inclination toward actively using the board as a key element in the strategic decision-making process (Stiles, 2001). Thus, more frequent board meetings may mirror the dominant coalition's ability to leverage active support from the board during the decision-making process (Stiles, 2001). Moreover, for family firms' boards of directors, the collaboration between coalitions may be particularly critical because family and non-family members' joint presence leads to potentially significant faultlines—that is, "hypothetical dividing lines that may split a group into subgroups based on one or more attributes" (Lau & Murnighan, 1998:328)—which can be detrimental to board effectiveness in both control and service roles (Kaczmarek, Kimino, & Pye, 2012). Under these conditions, more frequent meetings are needed to favor information sharing, collaboration, and trust generation, which may help reduce the relevance of these potential faultlines between family and non-family members, thereby improving firm performance.

More meetings may increase opportunities for constructive cognitive conflict, the consideration of new ideas, external knowledge acquisition (Forbes & Milliken, 1999) and objectivity in assessments (Clarke & Branson, 2012). Frequent meetings' benefits are particularly important in firms with increased family involvement, especially when they are publicly traded. These family firms tend to be excessively dependent on the family coalition (Anderson & Reeb, 2004) and, subsequently, exposed to higher risks of groupthink and pluralistic ignorance (Dane, 2010; Westphal & Bednar, 2005). Indeed, family ties may favor the tendency to align with the opinions of other group members or to avoid expressing concerns and disagreements, with potentially detrimental effects on the outcomes of the strategic decision-making process. Therefore, we anticipate that in firms with increasing family involvement, increasing board meeting frequency encourages cognitive conflict. This, in turn, allows the board to exploit the heterogeneity of members' competencies, past experiences, and perspectives. Overall, these aspects can help improve the direction, clarity, and effectiveness of the board's monitoring and strategic decision-making, thus enhancing its effect on firm performance by increasing the firm's ability to identify timely opportunities and threats.

Simultaneously, we envisage that the difficulties and potential problems associated with frequent meetings are similar in firms with different family involvement levels. Consequently, we argue that increasing family involvement moderates the curvilinear relationship between board social activities and firm performance. In firms with increasing family involvement, we expect that increasing the number of board meetings will imply net benefits in terms of enhancing firm performance, to a higher level of board meeting frequency. We expect that, all else being equal, a higher number of board meetings is required to

obtain similar effects in firms with increasing family involvement than in other firms. Considering that family involvement emphasizes some problems (e.g., groupthink and pluralistic ignorance) in board functioning, we anticipate that a higher meeting frequency is needed to overcome these biases and increase board effectiveness, thus enhancing firm performance.

Thus, while an increase in board meetings can cause problems—such as inefficiency, fatigue, and excessive workload—in firms with increasing family involvement, the benefits obtained from frequent meetings may compensate for these problems more than in firms with decreasing family involvement. Formal board meetings typically open the decision-making process to non-family directors (Bammens et al., 2011), which helps them benefit from other competencies and provide better monitoring; this, in turn, should improve firm performance while reducing family cognitive entrenchment and pluralistic ignorance among non-family board members. Moreover, adequate facilitation between coalitions—recognized as a crucial board role (van Ees et al., 2009)—may require more meetings in the presence of the family. Increases in family involvement strengthen board social activity's positive effects, leading to a shift to the right of the curve and, thus, to a different optimum level (corresponding to a higher number of board meetings than in other firms). Consequently, we propose Hypothesis 2.

Hypothesis 2. Increasing family involvement moderates the inverted U-shaped relationship between the board's meeting frequency and firm performance, such that the inflection point at which more board meetings begin harming firm performance occurs at a higher level of board meeting frequency (i.e., shifts right).

3. Data and method

3.1. Sample

This study is based on publicly traded firms on the Italian Stock Exchange. In Italy, family firms are the most widespread type of enterprise, and a high concentration of family owned firms characterizes publicly traded firms (Barontini & Caprio, 2006; Corbetta & Salvato, 2012). Thus, in Italy, family ownership and control characterize firms of all sizes, even publicly traded firms (Franks, Mayer, Volpin, & Wagner, 2012). Moreover, Colli, Pérez, and Rose (2003), in a cross-country study, demonstrated a persistence of political and economic power of family firms over time in Italy, thus making it an interesting context for the study of family firms' peculiarities and heterogeneity.

We performed our analysis using a database created from diverse sources—namely, the AIDA Bureau van Dijk database, Mediobanca annual report on Italian publicly traded companies *Il Calepino dell'Azionista*, and "Notes to the Financial Statements" and "Corporate Governance Reports" of each sampled company. The database used for the analyzes required the manual collection of several variables. More precisely, for each firm in each year of our panel, we carefully studied the firm's governance structure in terms of ownership structure, board composition, and the board number of meetings. By integrating the AIDA, *Calepino dell'Azionista*, and Notes to the financial statements with corporate governance reports, we identified the names of the individuals involved in both ownership (registered owners) and the board of directors. Thereafter, we reconstructed their eventual kinship ties based on their last names. In Italy, spouses generally maintain their original family names; hence, we also included publicly available information (press, blogs, news online) to identify kinship ties as precisely as possible between owners and/or directors. Additionally, Corporate Governance Reports were useful for computing the number of board meetings.

Our sample included firms with and without a family influence. Specifically, we analyzed an unbalanced panel of 172 non-financial publicly traded companies over the 2004–2013 period for 1,098 year-firm observations. This observation period is advantageous as it is an extremely long panel, and it straddles the 2007–2008 economic crisis period. Indeed, in our sample, we considered the period long preceding the financial crisis outbreak (2007–2008) and the years after the recovery from the recession, which led us to the chosen time frame (i.e., 2004–2013). This timeframe is broad and includes years with different macroeconomic conditions, thereby allowing us to test the hypotheses in the presence of heterogeneous contingent conditions. We take steps to address any year-specific variance in the model below.

3.2. Dependent variable

Firm performance, the dependent variable in this study, can be measured through market-based or accounting measures. Market-based measures reflect a firm's future performance or, more precisely, investors' perception of a firm's future performance, while accounting measures reflect the firm's past performance. Previous research has suggested that these two types of measures have limited empirical overlap and, thus, cannot be used as equivalent and interchangeable (Gentry & Shen, 2010). As previously mentioned, we are interested in measuring the results obtained by the firm and not the market expectations regarding its future performance. Thus, we used an accounting measure that reflects past performance to better consider how the frequency of board meetings and increasing family involvement are related to firm performance. More precisely, we measured firm performance using ROE—a firm's net income divided by its shareholder equity—with the data collected one year after the independent and control variables.

ROE is a measure of the return obtained by shareholders and is, thus, a crucial indicator of board capability to nurture shareholder interests. Additionally, it synthesizes the effects of firm management's different dimensions, influenced by decisions concerning both competitive strategies and financial structure (Damodaran, 2010). Considering that the board plays a crucial role in influencing various aspects of business activity, this variable is more adequate than other performance measures as the dependent variable in this study.

3.3. Independent variables

Our study focused on board social activity proxied by *Board Meeting Frequency*, which is the number of board meetings during the calendar year. We counted the number of meetings during the calendar year and used the natural log of this number in our regressions to adjust for skewness. Subsequently, we interpret the results adjusting for this transformation.

To assess family involvement, we utilized a continuous measure calculated following Chrisman and Patel's (2012) approach. We distinguished family firms from non-family firms based on ownership and family involvement in governance and management (Anderson & Reeb, 2003; Gomez-Mejia, Makri, & Kintana, 2010; Villalonga & Amit, 2006). When a family owns a minimum of 30 % of shares and at least one family member (a person related by blood or marriage to the owning family) serves as a board member, the *Family Involvement* measure represents the family's ownership as a percentage of shares outstanding (Chrisman & Patel, 2012)[1]. Any firm without at least 30 % family ownership and/or one family director was considered a non-family firm, and *Family Involvement* was coded as 0. We employed a threshold higher than Chrisman and Patel (2012) to adjust for the higher prevalence of

[1] Chrisman and Patel (2012) relied on family participation in the Top Management Team (TMT); we relied on *family participation in the board of directors* to make the measure more consistent with the Italian context, where formalized data regarding the TMT does not invariably exist, whereas reliable data regarding the board of directors is deposited at the chamber of commerce and included in the AIDA database. Moreover, this choice is consistent with our hypotheses because it allows us to distinguish between boards characterized by the presence of members of the controlling family and boards without this kind of member.

family ownership in Italian firms; however, our results do not change by employing the 5 % threshold that they used. In our sample, 38.98 % of the observations corresponded to firms with at least 30 % family ownership and at least one member on the board. In our sample of 172 firms, 66 firms exhibited positive family involvement at some point in the observation period.

3.4. Controls

We controlled for factors impacting firm performance at the CEO, board and firm levels. This is a broad literature, and, as such, we included a wide selection of performance-relevant variables. Decision-making in behavioral theory can be considered an experiential learning process based on trial and error (van Ees et al., 2009). Boards develop routines (Cyert & March, 1963; March & Simon, 1958) based on their previous experience, which may help them solve problems and make future decisions. Past behavior, previous experiences, and shared beliefs affect current decision-making behavior. A longer CEO tenure corresponds to greater experience in the specific firm, and thus, a high likelihood of developing problem-solving heuristics and routinized board decision-making processes. This may favor effective decision-making, but it may also lead to suboptimal choices. In this regard, the literature has highlighted that, for example, long-serving CEOs are more risk-averse (Hambrick & Fukutomi, 1991). As these elements may affect firm performance, we control for the *CEO's Tenure* (Hambrick & Fukutomi, 1991); as the chair of the board plays an important managerial role in Italy (Minichilli, Brogi, & Calabrò, 2016), we controlled for the *Chair of the Board Tenure*. Additionally, the *CEO's Departure* can upset firms' existing norms and strategies (Finkelstein et al., 2009) and, in turn, firm performance. Thus, we controlled for a CEO's departure in the previous year.

To control for board characteristics already considered in prior work, we used a series of board-level controls. We controlled for *Board Size* as a proxy for monitoring effectiveness (Johnson, Schnatterly, & Hill, 2013). Our focal independent variable is the frequency of board meetings; hence, we controlled for the following three factors that may shape the board's interpersonal dynamics and performance: the *Percentage of Independent Directors on the Board* (Johnson et al., 2013), *Percentage of Women on the Board* (Hillman, Shropshire, & Cannella, 2007; Zhu, Shen, & Hillman, 2014), and *Percentage of Family Members on the Board* (Cruz, Gómez-Mejia, & Becerra, 2010). A highly independent board will be less focused on owning families' interests when making decisions and more willing to objectively assess the TMT, potentially benefiting other shareholders and firm performance (Bammens et al., 2011). Boards with more balanced gender representation also have different decision-making dynamics than male-dominated boards (Cruz, Justo, Larraza-Kintana, & Garcés-Galdeano, 2019). The presence of women on the board is positively related to monitoring and strategy involvement (Post & Byron, 2015), which may promote the consideration of different perspectives and board effectiveness (Bettinelli, Del Bosco, & Giachino, 2019). As the proportion of the board represented by family members may significantly impact board activity and dynamics that are important for board effectiveness (Corbetta & Salvato, 2004), we included—as a control—the percentage of family members in the board . To consider the role played by the family in the firm in greater detail, additionally, we controlled for the presence of a CEO belonging to the family (*CEO from Family*).

Moreover, we include the *Number of Committees* that the board hosts as a further control for individual director opportunities to interact, beyond full board meetings, and affect performance. Finally, we controlled for the *Firm's Size* using the natural log of firm assets; the *Firm's Age* in years; and a measure of its capital structure, the *Debt-to-Equity Ratio* (which might influence ROE). Moreover, the models included a fixed effect for year, ensuring that we controlled for the possible effects of the 2007–2008 financial crisis or the broader economic cycle. We lagged independent and control variables (*t-1*) by one year from the dependent variable (*t*) and winsorized at the 2nd and 98th percentiles (Bromiley, Rau, & Zhang, 2017). Table 1 provides a description of all the variables used.

3.5. Analysis

This study explores the effects of the dynamics of board meeting frequency and changing family involvement on firm performance. Consequently, we employed a fixed-effect regression equation, and this preference was confirmed through the Hausman test, which rejected the use of random effects ($X^2 = 70.18$, $p < 0.001$). These regressions modeled the variance of a particularly variable "within" the firm, rather than across firms, in the panel. We used a fixed-effect model; hence, all the variables can be interpreted as "change within the firm over time," because all the between-firm variances that might arise from differences in firm size, industry, innovativeness, or other comparisons are subsumed into the fixed-effect term and removed from other independent variables (Certo, Withers, & Semadeni, 2017). Robust standard errors are employed in the models presented in Table 3. Examining the variance inflation factors from the presented models did not exhibit a statistic greater than 5, well below the traditional threshold of 10. Our measure of the percentage of the board composed of family (% Family on Board) has a VIF of 4.97. Removing this did not impact our results, and the highest VIF was 1.88, suggesting that multicollinearity did not impact our findings.

4. Results

Table 2 presents the correlation matrix for the studied variables, along with descriptive statistics. The mean value of the logarithm of board meeting frequency was 2.25 corresponding to 9.22 meetings per year. Family firms have fewer board meetings per year (7.6 versus 10.2, $t = 11.18$, $p < 0.00$). The matrix reveals that ROE is negatively associated with the frequency of board meetings. Moreover, family involvement was positively associated with ROE.

Overall, as presented in Table 3, there is significant support for Hypothesis 1, suggesting a curvilinear relationship between the number of board meetings and firm performance. The main effect of board meeting

Table 1
Variable description.

Variable	Description
Return on Equity (ROE)	Firm's net profit divided by the book value of equity
Board Meeting Frequency	Natural log transform of a count of board meetings held by the firm annually
Family Involvement	Percent ownership of the family if the family also has a board seat—value replaced with zero if the ownership is less than 30 % and/or the family does not have a board seat
Board Size	Number of members on the board
Firm Size	Natural log transform of the firm's book value of assets
Debt-to-Equity Ratio	Firm's liabilities divided by the book value of its equity
Firm Age	Number of years since the firm's founding
% Women on Board	Number of women on the firm's board as a percent of the total board seats
% Family on Board	Number of family members on the firm's board as a percent of the total board seats
CEO's Tenure	Number of years the CEO has served
Chair of the Board Tenure	Number of years the firm's chair of the board has served
CEO's Departure	An indicator variable that takes the value of 1 if the CEO departed in the prior year
% Independent Directors	Number of independent directors on the firm's board as a percent of the total board seats
Number of Board Committees	Number of committees that the board hosts
CEO from Family	An indicator variable that takes the value of 1 if the CEO is a family member

Table 2
Summary statistics and correlations.

	Mean	Std. Dev	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Return on Equity	1.61	21.14														
2. Board Meeting Frequency	2.25	0.37	-0.13*													
3. Family Involvement	0.23	0.29	0.14*	-0.30*												
4. Board Size	9.91	3.26	0.09*	0.00	0.03*											
5. Firm Size	12.97	1.71	0.22*	0.1*	-0.06*	0.51*										
6. Debt to Equity Ratio	0.66	1.28	-0.14*	0.15*	-0.04	-0.1*	-0.08*									
7. Firm Age	37.47	32.58	-0.04*	-0.06	0.09*	0.19*	0.17*	-0.05								
8. % Women on Board	0.07	0.09	-0.07*	-0.07*	0.20*	-0.13*	-0.19*	-0.01	0.09*							
9. % Family on Board	0.14	0.18	0.1*	-0.32*	0.87*	-0.12*	-0.17*	-0.05	0.05	0.18*						
10. CEO's Tenure	6.71	7.65	0.16*	-0.25*	0.36*	-0.09	-0.08*	-0.02	0.02	-0.01	0.39*					
11. Chair of the Board Tenure	8.76	10.16	0.1*	-0.19*	0.40*	-0.07*	-0.12*	-0.04	-0.04	0.06*	0.41*	0.43*				
12. CEO's Departure	0.18	0.38	-0.18*	0.11*	-0.15*	0.01	-0.08*	-0.02	-0.02	-0.01	-0.13*	-0.3*	-0.12*			
13. % Independent Directors	0.39	0.19	-0.03	0.2*	-0.18*	0.11*	0.33*	-0.01	0.04	-0.1*	-0.21*	-0.1*	-0.09*	0.03		
14. Number of Committees	2.03	0.80	-0.01	0.05*	-0.07*	0.32*	0.27*	0.01	0.07*	-0.06*	-0.12*	0.03	-0.02	-0.02	0.15*	
15. CEO from Family	0.29	0.45	0.07	-0.24*	0.60*	-0.07*	-0.15*	-0.04	0.13*	0.07*	0.68*	0.44*	0.3*	-0.13*	-0.15*	-0.01

* $p < 0.05$; all statistical tests were two-tailed. N = 1098.

frequency is positive and significant in Model 4 ($b = 29.80$, $p < 0.10$, two-tailed) and Model 5 ($b = 42.93$; $p < 0.05$, two-tailed) in Table 3, and there is a significant negative effect when the frequency of board meetings is interacted with itself (in Model 4 $b = -6.70$; $p < 0.10$; in Model 5 $b = -9.78$; $p < 0.05$, two-tailed). Board meeting frequency appears to increase performance but begins exhibiting a negative relationship with performance after nine meetings per year (about one meeting a month, excluding summer), as illustrated in Fig. 1.

For Hypothesis 2, which proposed that increasing family involvement moderates this effect on firm performance, we find support (Model 5, $b = 41.13$; $p < 0.05$, two-tailed). Increasing family involvement shifts board meeting frequency's inflection point (i.e., in firms wherein family involvement increases, the optimal number of board meetings is higher), thus supporting Hypothesis 2. These findings and Fig. 2 are consistent with the inverse U-shaped relationship shifting to the right and an increase in the predicted return on equity from more meetings.

Interestingly, when family involvement decreases, increasing board meeting frequency exhibits diminishing returns more quickly than when family involvement increases (i.e., in presence of increasing family involvement, the curve is flatter). Fig. 2 depicts our results, which support Hypothesis 2. In Fig. 2, a one-standard deviation increase in family involvement is plotted against a one-standard deviation decrease in involvement. The plot presents a difference in the peak of board meetings' effectiveness in the two cases. When family involvement increases, the optimal (best predicted ROE) number of board meetings in the sample is about 11 (2.4 on the plot, transformed from the logged value), while the optimal number when family involvement decreases is about 8.2 (2.1 on the plot, transformed from a logged value).

A Sasabuchi test (Lind & Mehlum, 2010)—as an implementation of the *utest* procedure in STATA for the presence of an inverse curvilinear relationship—supports our hypothesis ($t = 2.36$, $p < 0.01$), as does a graphical depiction of the relationship unmoderated by change in family influence in Fig. 2. This plot also suggests that the moderation that we identify is consistent with a rightward shift in moderation (Haans, Pieters, & He, 2016).

5. Robustness checks

Several alternative models were constructed to verify the model's construction. First, we ran the models without control variables, and found the same interactions and significance as those presented in Table 3 and the figures. Second, we ran a hybrid regression model (including and separating between and within-firm variance) and replicated Model 5 in Table 3 (Certo et al., 2017). Third, we introduced a lagged dependent variable employing a Quasi-maximum likelihood estimator (Allison, 2015; Bhargava & Sargan, 1983; Kripfganz, 2016), which yielded the same significant interaction and family results as Model 5.

Furthermore, we analyzed several alternatives to our chosen proxy variables to establish our results' robustness. We estimated models using growth in earnings before interest and taxes (EBIT) as our dependent variable, rather than ROE, and found results consistent with those presented above. Additionally, we estimated models that used the number of the audit committee meetings as a proxy for board social activity, following Brick and Chidambaran (2010); we separately estimated models using the number of compensation committee meetings, considering that such a committee has also been explicitly recommended by the Italian Corporate Governance Code (2002, 2020). We found the same pattern of results as those for the board meetings. Furthermore, these meetings reveal that greater participation is beneficial to firm performance, and that this relationship shifts the curvilinear relationship to the right when family involvement increases. Advantageously, these subcommittee meetings are less likely to increase if the firm is in a crisis or other situation that requires the full board to meet more frequently, thus reducing endogeneity concerns.

We operationalized our family involvement measure using a 30 %

Table 3
Fixed-effects regression (ROE is the dependent variable).

	Model 1		Model 2		Model 3		Model 4		Model 5	
Board Meeting Frequency			29.81	!	29.81	!	29.80	!	42.93	*
			(15.40)		(15.40)		(15.39)		(17.09)	
Family Involvement							3.71		173.51	*
							(17.43)		(75.70)	
Board Meeting Frequency Squared					-6.69	!	-6.70	!	-9.78	*
					(3.70)		(3.70)		(3.86)	
Family Involvement * Board Meeting Frequency									-169.55	*
									(70.72)	
Family Involvement * Board Meeting Frequency Squared									41.13	*
									(17.83)	
Board Size	-0.16		-0.14		-0.20		-0.21		-0.22	
	(0.68)		(0.66)		(0.65)		(0.67)		(0.66)	
Firm Size	-1.95		-1.98		-1.91		-1.88		-1.94	
	(3.19)		(3.21)		(3.19)		(3.21)		(3.21)	
Debt to Equity Ratio	2.86	!	2.83	!	2.98	!	3.00	!	3.01	!
	(1.59)		(1.61)		(1.58)		(1.58)		(1.54)	
Firm Age	-1.80	**	-1.79	*	-1.80	**	-1.80	**	-1.77	**
	(0.56)		(0.55)		(0.55)		(0.55)		(0.54)	
% Women on Board	30.64	*	30.34	*	31.02	*	30.76	*	30.24	*
	(15.48)		(15.12)		(14.96)		(14.53)		(14.15)	
% Family Members on Board	17.51		17.71		19.09		16.16		11.52	
	(18.69)		(18.73)		(18.67)		(15.86)		(15.25)	
CEO Tenure	-0.17		-0.16		-0.18		-0.18		-0.16	
	(0.16)		(0.16)		(0.16)		(0.16)		(0.16)	
Chair of the board Tenure	-0.02		-0.02		-0.03		-0.04		-0.18	
	(0.12)		(0.12)		(0.12)		(0.12)		(0.12)	
CEO's Departure	-5.79	**	-5.89	**	-5.50	**	-5.46	**	-5.14	*
	(2.14)		(2.13)		(2.10)		(2.07)		(2.02)	
% Independent Directors	-17.37	*	-17.41	*	-18.21	*	-18.38	**	-18.35	*
	(8.45)		(8.48)		(8.26)		(8.30)		(8.17)	
Number of Board Committees	-0.94		-0.96		-1.17		-1.18		-1.32	
	(1.50)		(1.51)		(1.51)		(1.51)		(1.49)	
CEO from Family	5.72		5.64		6.08		6.11		6.07	
	(4.38)		(4.35)		(4.33)		(4.36)		(4.37)	
Year Indicator Variables	(Included)		(Included)		(Included)		(Included)		(Included)	
Constant	97.34	*	94.86	*	65.75		65.02		52.25	
	(39.88)		(39.05)		(42.30)		42.37		(41.70)	
X^2 Test	3.35	**	3.21	**	3.21	**	3.14	**	3.08	**
R^2	0.11		0.11		0.12		0.12		0.13	
Improvement R^2 F-Test			0.37		6.80	**	0.50		8.72	**

N = 1098 for 172 firms. All statistical significance levels were determined using two-tailed tests. Robust standard errors are presented in parentheses below the coefficient estimate.
! = $p < 0.10$.
* = $p < 0.05$.
** = $p < 0.01$.

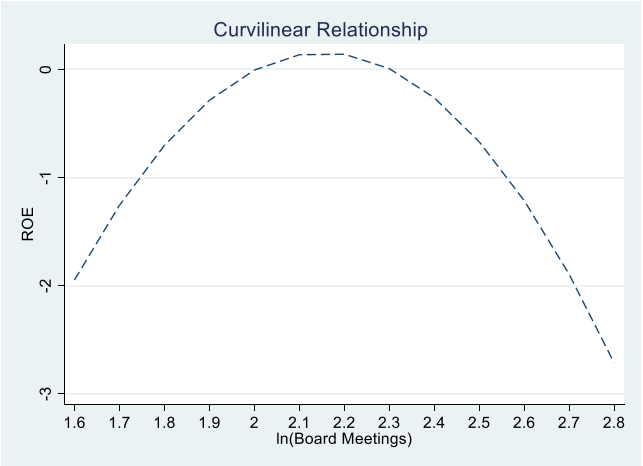

Fig. 1. Curvilinear relationship between board meeting frequency and firm performance.

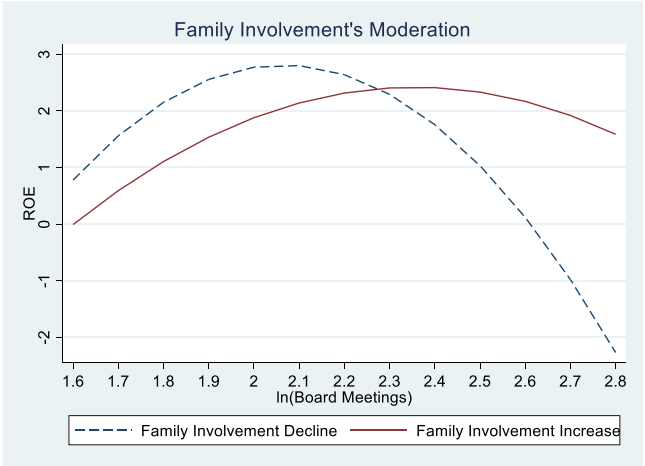

Fig. 2. Moderating effect of family involvement.

cutoff because Italian firms tend to exhibit significantly higher levels of ownership than is common in the US context, which is frequently employed in family governance research. Therefore, some studies in Italy have previously used this threshold (Minichilli, Nordqvist, Corbetta, & Amore, 2014) or even a higher one (Cascino, Pugliese,

Mussolino, & Sansone, 2010). As a robustness check, we estimated our main models using a threshold of 5 %, as suggested by Chrisman and Patel (2012), and found the same relationships as presented in Table 3. Additional models using intermediate cutoffs (10 % and 15 %) and a 50 % cut-off did not reveal significantly altered results. The results are presented in Appendix 1.

Fixed-effects models ignore between-firm comparisons. In other models, we estimated the main effects using a hybrid model (Certo et al., 2017) that separated the between-firm and within-firm variance into distinct factors and estimated the model with random effects. We did not find between-firm differences in family influence to meaningfully explain firm performance variation, but we found within-firm variance to have the same results as the models presented in Table 3.

6. Discussion

The literature on the relationship between the features of boards of directors and firm outcomes draws largely from linear quantitative models (Ben-Amar, Francoeur, Hafsi, & Labelle, 2013; Minichilli, Zattoni, & Zona, 2009; Zona, Zattoni, & Minichilli, 2013). Instead, we hypothesize and find the presence of an inverted U-shaped relationship between board meeting frequency and firm performance. Boards of directors can be considered governance tools implemented to solve the problems associated with the distinction between control and ownership in publicly traded companies (Jensen & Meckling, 1976), and to allow negotiation and political bargaining among various coalitions (van Ees et al., 2009). Boards of directors also perform strategy tasks and offer new knowledge and skills, helping identify and define critical strategic decisions (Finkelstein & Mooney, 2003). According to the literature, boards contribute to firm performance by executing control and strategic tasks (Hillman & Dalziel, 2003). This study proposes a behavioral governance approach that stresses the significance of boards' behavioral aspects and, analyzing a sample of family and non-family firms, provides evidence that more frequent board meetings can enhance the performance up to a certain level by producing more effective boards. Boards can perform their control tasks more accurately and regularly through frequent board meetings and resulting social interactions. Frequent board meetings offer the opportunity to dedicate the requisite effort to knowledge sharing and offer appropriate strategic advice to the TMT, thereby creating avenues for social learning. Similarly, our findings reveal that the beneficial effect of increased board meeting frequency occurs up to an inflection point, as excessively frequent meetings can become inefficient and even counterproductive, thus making a board to ineffective. Our results contradict the traditional agency theory assumption of a linear relationship between meeting frequency and firm performance (Vafeas, 1999), but are in line with the behavioral assumption that board effectiveness is shaped (in a nonlinear manner) by board members' socialization, confrontation, cooperation, and cumulative experiences (Westphal & Zajac, 2013). A possible explanation is that, as boards are socially constituted entities, their effectiveness can be explained more by the quality of board members' interactions—in particular, by the relative benefits derived during board meetings and by the fact that such quality and benefits may reach a saturation point after excessively frequent meetings.

For family firms, we discover that increasing family involvement moderates this relationship and mitigates the reduction in returns associated with frequent board meetings. When the number of board meetings is relatively low (i.e., in the first part of the curve in Fig. 2), the same number of meetings corresponds to a lower firm performance level in firms with increasing family involvement, in which the maximum of the curve (i.e., the inflection point) corresponds to a higher number of meetings. The curve representing the case of firms with increasing family involvement suggests, all else being equal, that it takes more board meetings in these family firms to obtain comparable firm performance benefits. Moreover, our findings confirm that when family involvement in firms increases, the curvilinear relationship between board meeting frequency and firm performance improves, as diminishing returns are not as significant for firms with decreasing family involvement.

In the presence of increasing family involvement, the optimal frequency of meetings increases, suggesting that growing family involvement creates conditions that require more board meetings to benefit from related social activities. The presence of a family coalition may increase suspicion as well as cultural and background differences (compared with external board members) that may exacerbate difficulties (e.g., groupthink and pluralistic ignorance) characterizing family firm board functioning and limiting board effectiveness. Thus, considering the greater difficulties in firms with increasing family involvement, even more interactions are needed to "unlock" the board's potential and to see benefits in firm performance.

Greater effort in terms of meeting frequency seems needed to overcome problems that limit processes of information and knowledge exchange, trust development, and consequentially effective board functioning (Stevenson & Radin, 2009). For similar reasons, increasing the number of meetings beyond the optimal point exhibits a less detrimental effect (i.e., a flatter curve) in firms with increasing family involvement (compared to those with decreasing family involvement). Even if the disadvantages associated with extremely frequent meetings appear to outweigh the benefits, in the presence of growing family involvement, returns diminish more slowly, suggesting that frequent meetings provide significant advantages in these family firms.

These results are consistent with the behavioral governance assumption that boards are socially situated (i.e., contingent on the social context in which they are embedded) and family relationships, at least in part, shape directors' behaviors. In particular, the positive moderating effects detected can be a result of the reduction in board groupthink and pluralistic ignorance among non-family board members through social learning obtained via board meeting social interactions (Westphal & Zajac, 2013). Specifically, increasing family involvement—which, in our study, can be driven by an increase in family ownership with a family member on the board of directors and/or by the entry of family members on a board previously composed only of non-family members—can result in the need for more frequent meetings to benefit from social learning and avoid groupthink and pluralistic ignorance (Westphal & Zajac, 2013).

Applying a behavioral governance approach, we view the controlling family as a social institution that shapes the board's behaviors and emphasizes specific concerns related to agency and resource management problems. Increasing family involvement in a business affects governance dynamics in several ways. First, earlier studies assumed that family businesses usually do not suffer traditional agency problems related to the distinction between ownership and control (e.g., Fama & Jensen, 1983), because their ownership structure is concentrated in the hands of a single family that also manages the firm. However, numerous other problems related to agency (e.g., family economic and non-economic self-interest, parents' altruism, intra-family divergence of interests) may arise when minority shareholders are involved (particularly in publicly traded firms), and the board is a key element that can contribute either to accentuating or solving these problems. The behavioral governance approach recognizes that the board plays an important role in facilitating the cooperation of stakeholders with different objectives. Negotiation and political bargaining may be particularly relevant in the presence of a coalition with peculiar characteristics and exigencies.

Second, the board can be a significant contributor to firm performance in family firms insofar as it allows family board members' firm-specific knowledge to be shared with—and complemented by—that of outside members' general business knowledge (Bammens et al., 2011; Dibrell, Marshall, Palar, & Gentry, 2019), thereby creating a resource for the firm. When family involvement in the firm grows, the actual and effective participation of board members in decision-making processes is particularly relevant to avoid the tendency for groupthink, pluralistic

ignorance, and the risk that boards ratify decisions already taken.

These monitoring and resource issues that are typical of family firms highlight the need for family business boards to dedicate specific time and effort. Thus, in the case of family firms, whether the board can positively contribute to firm performance also depends on its ability to effectively handle the aforementioned monitoring and resource concerns. Frequent meetings expand the firm's ability to manage these issues and represent a precondition for board effectiveness. An increase in the frequency of board meetings counters family cognitive entrenchment's negative effects on boards. This leads to a higher optimal number of meetings in the presence of increasing family involvement and lessens the negative impact associated with an increase in board meetings beyond the optimal level.

This study contributes to the literature in multiple ways. First, in line with a behavioral governance perspective, we provide a deeper understanding of how board social interactions—through the frequency of board meetings—are related to firm performance (Forbes & Milliken, 1999), while controlling for the composition, size, and structure of the board, which previous literature has suggested as relevant drivers of board effectiveness. Further, our measure of board social activity demonstrated a significant relationship with firm performance, providing evidence that board effectiveness is also related to how the board organizes its activities. Our results demonstrate the relevance of formal board meeting frequency, suggesting that both low and very high frequencies may be detrimental to firm performance. This finding corroborates the meta-theoretical principle of the "too-much-of-a-good--thing" effect (curvilinear relationship), whereby seemingly positive relationships reach context-specific inflection points, after which they turn negative or asymptotic (Pierce & Aguinis, 2013).

Additionally, we contribute to the literature that has specifically studied boards in family firms by surpassing the analysis of board composition, to investigate the relationship between board social activity and firm performance. A preponderance of prior research has empirically investigated the relationship between board features and firm performance in the context of publicly traded family firms. These studies indicate that, on the one hand, owning families' desire to protect their wealth strongly incentivizes them to monitor the TMT (Barontini & Caprio, 2006), and on the other hand, balancing family influence with board structures that reduce the risk of expropriation of firm wealth at the expense of non-family shareholders is needed (Anderson & Reeb, 2004). Various relationships between board demography in publicly traded family firms and outcome measures have been studied, though the findings lack a consensus. For example, while some studies have demonstrated that board independence increases firm performance (Anderson & Reeb, 2004; Yeh & Woidtke, 2005), others have found the opposite (Klein, Shapiro, & Young, 2005). Similarly, several studies have identified board size and heterogeneity as positive for firm performance, while others have found opposite results or no relationship (Di Pietra, Grambovas, Raonic, & Riccaboni, 2008). Our study includes the variables typically adopted in the literature (on board composition) while also considering the frequency of board meetings, an important indicator of how boards behave (Brick & Chidambaran, 2010; Garg et al., 2018; Post & Byron, 2015). Our study integrates the inconsistent findings on the board structure–firm performance relationship by offering a deeper understanding of how a board's features relate to its financial outcomes.

Moreover, using a continuous measure of family involvement allows us to investigate family firms' heterogeneity, thus overcoming the simplistic dichotomy of family and non-family firms (Memili & Dibrell, 2019). The identified moderating effect contributes both to studies on the specificities of family firms and to studies on how boards function. Even if the curvilinear relationship between board social activity and firm performance characterizes our sampled firms in general, an increase in the frequency of meetings is less detrimental for firms with increasing family involvement than for other firms. In this way, we add to the literature that incorporates nonlinear reasoning in family business studies. While several previous studies have focused on demographic variables as proxies for family firm behavior to test nonlinear relationships (Basco, Hair, Ringle, & Sarstedt, 2022), we used an independent variable that measures a specific behavior (the frequency of board meetings). Thereafter, we tested the demographic variables' moderating effect on the relationship between this variable and firm performance.

This study has several practical implications; it suggests the presence of an additional lever that firms can use to enhance the effectiveness of their directors' work. The frequency of board social interaction through formalized board meetings is a lever that firms can manage. The extent of board frequency interaction is measurable, and firms can control this variable and define the number of meetings per year, as well as implement decisions regarding board size and composition. Our findings suggest that considering a board's structural characteristics, the frequency of formal meetings influences how board resources are exploited to improve firm performance. However, the findings also highlight that more board meetings may be beneficial up to a given point and that this point differs in accordance with ownership and governance structures. This implies the need for firms to find the right equilibrium: When family involvement is increasing, the most effective board meeting frequency appears higher than that in family firms wherein family involvement is decreasing.

Like any other study, this research has limitations that offer opportunities for future research. Owing to our secondary data collection method, our findings do not provide all the information needed for an in-depth investigation of the reasons and mechanisms underlying the curvilinear relationship observed. We are unaware of the actual happenings during board meetings, or whether and how the organization and content of these meetings change when their frequency increases. These aspects should be better investigated in future qualitative studies (Parker, 2008; Pugliese, Nicholson, & Bezemer, 2015). Another direction for future qualitative research might be investigating perceptions, opinions, and experiences of different board member categories (CEO, independent members) pertaining to the frequency of board meetings and their impact on overall board effectiveness. Additionally, collecting data on other measurable aspects of board functioning—such as the duration of meetings and/or the participation of various board members—to study how these variables interrelate with the frequency of meetings and interact to affect firm performance would be interesting. Moreover, to understand the factors driving the observed curvilinear relationship, future studies can analyze how conflict and cohesion among board members change in the presence of more or less frequent meetings. Incorporating measures of board-level conflict (i.e., relationship, cognitive, and process conflicts) as well as cohesion and trust among board members may provide useful insights (Bettinelli et al., 2022). For example, if a board is characterized by high levels of conflict and low levels of cohesion, more frequent board meetings may backfire as the conflict would flow more readily into the business and handicap decision-making and firm performance. Building on existing conceptualizations (for a review see Bettinelli et al., 2022) and measurement approaches (Shah, Peterson, Jones, & Ferguson, 2021) future research can explore this aspect further, meaningfully supplementing data on board meeting frequency and firm performance, with some relational aspects of board dynamics, which can be studied through surveys. Additionally, a deeper understanding of how board composition (e.g., with respect to gender) affects family board meetings' frequency and ultimate effectiveness would provide greater clarity, as gender has been demonstrated to influence the board-to-firm performance relationship (Chadwick & Dawson, 2018).

We focus on how board social activity influences firm performance. However, theoretically, the arrangement of board meetings and, in particular, their frequency may, at least in part, be influenced by the need to face critical situations (e.g., poor firm performance). Therefore, we adopted several precautions to mitigate for the risk of endogeneity. In particular, we used time-series data, and all independent and control variables were lagged by one year from the dependent variable.

Moreover, we performed robustness checks using the number of meetings of the audit committee and compensation committee meetings as proxies for board social activity, obtaining results that are consistent with those of the main model. Thus, as subcommittee meetings are less likely to increase in the case of a crisis or scarce financial performance, endogeneity concerns are mitigated. However, we did not directly test for past poor performance, leading to increased social interaction, which is a limitation of our study. We believe that to enrich our understanding, qualitative inquiries may be particularly suitable for exploring how financial performance shapes—and is shaped by—board context and functioning, including board meeting frequency.

Furthermore, we only tested for economic firm performance, not for family centered non-economic goals, which is another limitation of our findings. Considering that family centered non-economic goals are, possibly, a higher priority than economic performance gains for some family firms (e.g., Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007), researchers can consider the role of non-economic goals in relation to behavioral governance theory and the extent of board social interaction. For instance, whether family firms that are more focused on non-economic goals are more likely to have fewer meetings—resulting in greater pluralistic ignorance among non-family board members—is unclear. We encourage additional studies focusing on non-economic goals in relation to board processes. Finally, another limitation of this study is its focus on publicly traded Italian firms. Future scholars can replicate our study in other countries to compare the national contexts characterized by different cultures, corporate governance rules, and the roles of family firms.

7. Conclusion

Overall, our findings demonstrate the complexity of board functioning and its effects, suggesting that the behavioral governance perspective provides a valuable basis for explicating such complexity. Specifically, our study contributes to behavioral governance theory by focusing on the boards of directors and explaining how they affect firm performance. We highlight the importance of the board context (i.e., family involvement) and arrangements (i.e., frequency of board meetings) that emerge as relevant elements worth considering when organizing firms' governance.

By proposing an inverted U-shaped relationship between the frequency of board meetings and firm performance, we contribute to explaining *how* board dynamics affect firm performance. Finally, by theorizing that the extent of increasing or decreasing family involvement exerts a moderating effect, based on the idiosyncrasies associated with family firms, we identify a possible boundary condition surpassing the simplistic dichotomy of family and non-family firms, thereby providing a greater understanding of family firms' heterogeneity and the behavioral governance effects of board social activity on firm performance.

CRediT authorship contribution statement

Cristina Bettinelli: Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Barbara Del Bosco:** Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Richard J. Gentry:** Methodology, Data curation, Formal analysis, Writing – original draft, Writing – review & editing. **Clay Dibrell:** Conceptualization, Supervision, Writing – original draft, Writing – review & editing.

Data Availability

The Authors do not have permission to share the data.

Acknowledgements

Previous versions of this paper were presented at the Strategic Management Society Conference (SMS 2017), and at the International Family Enterprise Research Conference (IFERA 2018). We thank the participants for their comments and feedback. We would like to thank Chiara Mariani, Gabriele Vacca, Betzabè Annibali, Stefano Marchi and the team of research assistants who supported us during the years to build this database. Lastly, we thank the Editor in Chief Prof. Pieper, the Associate Editor Prof. Dawson and the reviewers for their comments and suggestions that allowed us to greatly enhance the quality of our manuscript. Cristina Bettinelli acknowledges financial support from the University of Bergamo (grants ex 60%, n. 60BETT19 and n. 60BETT20).

Appendix 1. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.jfbs.2023.100552.

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