RBGN REVISTA BRASILEIRA DE GESTÃO DE NEGÓCIOS
© FECAP

ISSN 1806-4892
e-ISSN 1983-0807

Testing the contributions of outside directors: should family firms respond differently?

Samy Sznajder Mesnik[1]
Marina Amado Bahia Gama[1]
Jorge Manoel Teixeira Carneiro[1]

Received on:
Sept/30/2022
Approved on:
July/12/2023

Responsible editor:
Prof. Dr. Wlamir Xavier

Reviewers:
Alex Borges; Leticia Bellato

Evaluation process:
Double Blind Review

This article is open data

Abstract

Purpose – This paper demonstrates that the effects of the presence of outside directors on the board of directors can be different across family vs. non-family firms, regarding the financial performance. We propose that the presence of outside directors in the board is relevant to explain the performance of family firms, because they better deal with mechanisms that reduce the type II agency conflicts.

Theoretical framework – Based on agency theory and its derivatives, we capture the specificities of family firms relative to non-family firms.

Design/methodology/approach – Drawing from an extensive and updated database of over 370 publicly listed companies in Brazil, this study conducted panel data regressions with fixed effects on three different response variables, in order to have a broader perspective and reduce the bias of the results. Moreover, we performed robustness tests with different measurement methods. In addition, we tested the selection of variables by addressing both internal and external validity criteria, in addition to convergent and nomological validity, according to the literature.

Findings – The empirical results indicate that there is a relationship between board independence and short-term financial performance for a cohort of family firms.

Practical & social implications of research – This research contributes to various stakeholders by providing relevant insights about an important ESG criterion, which opens up a path for further studies.

Originality/value – This is a novel approach to relevant phenomena from the perspective of family firms compared to non-family firms. Also, this paper deepens the study of family businesses and considers different cohorts of firms.

Keywords: Corporate governance, family firms, outside directors, firm performance, emerging markets.

1. *Getúlio Vargas Foundation, São Paulo School of Business Administration, Business Strategy, São Paulo, SP, Brazil*

How to cite:
Mesnik, S. S., Gama, M. A. B., & Carneiro, J. M. T. (2023). Testing the contributions of outside directors: should family firms respond differently? *Revista Brasileira de Gestão de Negócios*, *25*(3), p.405-420. https://doi.org/10.7819/rbgn.v25i3.4228

Revista Brasileira de Gestão de Negócios

https://doi.org/10.7819/rbgn.v25i3.4228

1 Introduction

Investor protection depends on a firm's ability to mitigate agency problems through internal and external oversight. This is particularly true for family firms that involve family owners and non-family owners (González et al., 2019). Shleifer and Vishny (1997) suggest that when the family's control exceeds its ownership rights, the potential for expropriation by the company's controllers from minority shareholders is increased. Agency problems in family firms primarily manifest themselves in the misalignment of interests among shareholders, managers, controlling family shareholders, and non-controlling shareholders (Villalonga et al., 2015).

The board of directors represents a crucial internal corporate governance mechanism to validate and monitor managerial decisions (Fama and Jensen, 1983a), even more so when the governance structure of family firms is complex because of the interrelationships and overlapping forms of family, ownership, and management influence (Gnan et al., 2015; Tagiuri & Davis, 1996). The governance mechanisms in family firms depend on the influence of family members, top management, and the board of directors (Khlif et al., 2016), who carry out multiple roles in managing and governing the firm (Tagiuri & Davis, 1996), and are likely to differ from public corporations, which have a board with predominant influence, separate from the ownership structure (Gnan et al., 2015). The prevalence of significant family ownership, and the incentives that go with it, raise questions about whether the board of directors can serve as an effective deterrent to prevent the family from expropriating the wealth of minority shareholders (Anderson & Reeb, 2004).

Most family business studies have consistently shown the need for more active and external boards, even in privately owned family businesses (Corbetta & Salvato, 2004a). Similarly, board behavior and engagement on strategic issues deserve more attention compared to structure and composition (Judge & Talaulicar, 2017). According to Fama and Jensen (1983a), outside directors bring valuable knowledge and potentially important connections to companies. They also have the responsibility to monitor, discipline, and remove inefficient managers. Carter et al. (2003) focused on one of the key elements of agency theory, board independence, which is crucial to meet the interests of shareholders. These agents contribute to better credit ratings (Ashbaugh Skaife et al., 2006) and fraud prevention (Beasley, 1996).

Based on this discussion, our research question is: How does the presence of outside directors on the board affects the performance of family firms versus non-family firms? We propose a theoretical-empirical investigation of the impact of outside directors on financial performance, using intrinsic and extrinsic indicators to assess their contributions to different cohorts of firms, both family and non-family. We argue that the presence of outside directors positively affects the financial performance of companies, in short, due to their capabilities and the role they perform on the board, and this effect is more pronounced in family firms, where the family usually has more control and influence over the business.

Our theoretical contribution is related to the type II agency conflict (Purkayastha et al., 2022), in that the presence of outside directors functions as a mechanism to mitigate the conflict between board members (family majority shareholders) and the CEO (an executive director within the same family nucleus), bringing a balance that contributes to superior financial performance. We capture the effect of outside directors on financial performance, highlighting differential effects for family versus non-family firms, and we present a comprehensive and new quantitative analysis that provides contributions to both academics and practitioners. For this study, the largest database on the board composition of family and non-family businesses was built for an emerging country, where family firms are more prominent. Our results showed that outside directors positively affect financial performance for family firms when CEO duality is not present, and when it is present the effect is the opposite.

2 Family firms

The literature converges on the definition of a family business as, among other things, an organization with controlling ownership and management within the same family nucleus (Chua et al., 1999). Research often shows that family-owned firms make decisions differently from non-family firms, considering that the former seek utility to preserve the socio-emotional wealth generated by the non-economic characteristics of family firms, such as the association of the family name with the business, emotional ties to the firm, and the satisfaction of family members working for the company (Gómez-Mejía et al., 2011). One of the unique aptitudes of family businesses is the ability to consider different trade-offs to achieve their goals and maintain family control across generations, which

brings important resources that are used at different times (Goel & Jones, 2016). This investigation gains importance since family firms are usually better managed and have longer-term planning horizons than non-family firms. In addition, family firms tend to be more innovative, more involved with their local communities, and longer–lived than non-family firms (Kaslow & Friedland, 2021).

The academic research explicitly recognizes the prevalence and superior performance of family businesses (FBs) worldwide (Allouche et al., 2008; Astrachan & Shanker, 2003; Heck & Stafford, 2001; Sharma, 2004). Family firms are comparatively more profitable from the point of view of shareholders and other stakeholders or fund providers. The results suggest that FBs use their resources more efficiently and outperform non-family businesses when a family member acts as CEO, and performance is even better than with an external CEO, making family ownership an effective organizational structure (Anderson & Reeb, 2003). Because the family's wealth is so closely linked to the company's well-being, families may have strong incentives to monitor managers and minimize the free rider problem inherent to small shareholders (Anderson & Reeb, 2003). Anderson and Reeb (2003) suggest that the continued presence of the family in the company also creates powerful reputational effects that provide incentives for family managers to improve the company's performance. As a result, the active participation of the family in the firm's management may lead to differential performance compared to non-family companies.

The peculiarities of family businesses in terms of agency conflicts (Corbetta & Salvato, 2004a) are usually ignored or underestimated since many corporate governance problems are ownership related and most FBs have not yet added qualified outsiders to their boards (Heidrick, 1988). The low family power resulting from the presence of non-family owners and managers will increase the goal conflict due to the separation of ownership and control (Corbetta & Salvato, 2004a). Shleifer and Vishny (1997) suggest that when the family's control is greater than its ownership rights, the potential for expropriation between the company's controllers and minority shareholders is increased. Similarly, family managers may prioritize the family interest approach to decision making (Newbert & Craig, 2017) over stakeholders or minority shareholders. In addition to reducing the possibility of type II agency problems, family ownership can also produce good results not only for the company but also for shareholders. Some examples are based on the long-term orientation and socio-emotional wealth sought by these structures. Such characteristics allow family businesses to make decisions geared towards growth and profitability, since the family is dependent on the success of the business (Hoopes & Miller, 2006).

According to agency theory, in family firms, Chairperson of the Board/Chief Executive Officer (COB/CEO) duality reduces the effectiveness of monitoring activities and could lead to the expropriation of firm resources by controlling family members (Chen et al., 2012). Generally, without appropriate monitoring, CEOs may abuse their power, put their own interests first, and make decisions that are detrimental to the firm (or to some of the firm's owners), such as hiring well-connected but incompetent individuals (Combs et al., 2011). In cases of significant family influence, the separation of the two roles is more effective when the family is not entrenched (Braun & Sharma, 2007). This suggests that the simultaneous occurrence of COB/CEO duality and entrenchment could have a negative effect on firm performance (Garcia-Castro & Aguilera, 2014).

Based on the available data, this study established two clusters of family firms, both with at least 15% of equity ownership within the same family nucleus. The first cluster is composed of companies where the CEO and the Top Management Team (TMT) are members of the same family nucleus. The second cluster is composed of companies where the CEO and COB is the same individual. These two cohorts are consistent with the suggestions of Gomes-Mejia et al. (2013), Anderson et al. (2012), and Anderson and Reeb (2003).

3 Board of directors

Corporate governance topics in emerging countries are relevant because governance systems developed for established economies may prove less effective in emerging market environments (Chen et al., 2012). Corporate scandals and executive failures persist, despite the growing emphasis on governance reforms around the world and increased activism by shareholders, governments, and other stakeholders (Armitage et al., 2017). According to Giannetti and Simonov (2006), research on foreign investors reinforces the preference for investing in companies with higher levels of corporate governance in emerging markets. These agents also avoid buying

stocks of companies with poor corporate governance in emerging markets or developed economies.

In emerging economies, family businesses predominate and are determined by closed ownership and controlling shareholders (Armitage et al., 2017), making corporate governance more divergent from in advanced economies. Additionally, family control accounts for a large proportion of the corporate sector in regions with different institutional characteristics and regulatory frameworks (Pindado & Requejo, 2015). Academic research recognizes not only the prevalence and better performance of family businesses worldwide, but also their better profitability and resource use efficiency compared to non-family businesses (Allouche et al., 2008). Further analysis reveals that the relationship between family ownership and company performance is not linear, and when family members run the organization, the performance is even better than with an external CEO. Thus, family ownership is effective in the organizational structure (Anderson & Reeb, 2003).

The presence of an active and influential shareholder can simplify decision making and lead to controversial situations involving conflicts of interest inherent to a specific group (Turnbull, 2000; Müller et al., 2018), such as the amount of director compensation, biased choices for positions, and retirement of the CEO or board members, in addition to the manipulation of accounting procedures, among others. According to this argument, family wealth is closely linked to the well-being of the firm, therefore families may have strong incentives to monitor managers and minimize the free rider problem inherent to small shareholders (Anderson & Reeb, 2003). In addition, the author suggests that a significant family presence in the company also creates powerful reputational effects that provide incentives for family managers to improve company performance. As a result, the active participation of the family in the management of the company can lead to superior performance in relation to non-family businesses.

On the one hand, families that hold most of the shares and control the managerial positions have significant informational advantages over the other shareholders of the company. Thus, family members are better able to assess the company's prospects, suggesting that they renew their ties only with companies with favorable prospects. On the other hand, when family control is greater than family ownership rights, the potential for expropriation between the company's controlling shareholders and minority shareholders is preeminent (Shleifer & Vishny, 1997). In many countries, the dominant shareholder is a multinational corporation that has established a publicly traded subsidiary in another country. In emerging economies, the dominant shareholders are typically the founding entrepreneurs (Turnbull, 2002).

Among the reasons for studying Latin America is the importance of family businesses in the region, as they account for more than 85% of companies, 60% of GDP, and 70% of the workforce (Aguinis et al., 2020).

In Brazil, corporate governance issues have become more important in recent decades, as more data from publicly traded companies were disclosed in 2010 and there is a significant presence of foreign investors in the Brazilian stock market, historically over 40% according to B3 (Brazilian Stock Exchange) data.

In the last decade, Brazil has undergone major political, social and economic changes that have required more research on corporate governance issues. One relevant event of the decade was the Federal Police's Lava-Jato (Car Wash) operation, which began in mid-2014 and has continued until recent times. This operation investigated and detained executives and shareholders of large companies for corruption, illegal donations to political parties, and other actions characterized as white-collar crimes (Lagunes et al., 2021). Since then, there has been a growing emphasis on board independence.

4 Outside directors and hypotheses

Modern corporate governance theory postulates that director independence is essentially a mechanism for reducing agency costs and a form of protection against managerial self-dealing. Board independence from management is essential to improve the quality of board monitoring and provide better protection of shareholder value (Shaw et al., 2021). In this sense, various countries have forced listed firms to maintain a minimum proportion of outside directors on the board (Joseph et al., 2014).

Global stock exchanges, such as the NYSE (New York Stock Exchange), Nasdaq, LSE (London Stock Exchange) and BSE (Bombay Stock Exchange), require that each specific corporate governance level meets respective minimum membership quotas for outside directors. According to the Financial Reporting Council in the UK, an outside director or independent non-executive director is someone who has not been an employee of the company or group within the last five years; has not had a material business relationship with the company, either directly or as a partner, shareholder,

director or senior employee of an organization that has had such a relationship with the company within the last three years; has not received or does not receive any additional remuneration from the company other than a director's fee, does not participate in the company's stock option or a performance-related pay scheme, and is not a member of the company's pension scheme; does not have close family ties with any of the company's advisers, directors or senior employees; does not have cross-directorships or significant links with other directors through involvement in other companies or entities; does not represent a significant shareholder; and has not served on the board for more than nine years from the date of their initial appointment. The Instituto Brasileiro de Governança Corporativa (Brazilian Institute of Corporate Governance) also takes into account pertinent issues related to shareholdings, sources of income, previous experience and interpersonal relationships of the outside director.

On the one hand, the literature indicates that these agents make several contributions to the company, such as valuable knowledge and potentially important connections to other companies (Fama & Jensen, 1983a), responsibility for monitoring, disciplining, and removing inefficient managers (Fama & Jensen, 1983a), better pursuit of shareholder interests (Carter et al., 2003), more careful monitoring of acquisitions, particularly when they involve the diversification of core competencies that are not in the long-term interests of the firm (Zajac & Westphal, 1996), better credit ratings (Ashbaugh Skaife et al., 2006), and better reputation and fraud prevention (Beasley, 1996). Board diversity, including outside directors, has been shown to contribute to financial profitability indicators (Van Ness et al., 2010); moreover, companies with a higher proportion of outside directors are considered to be more socially responsible (Dunn & Sainty, 2009).

On the other hand, the literature presents several potential implications of outside directors on the board, such as limited knowledge about the company and, therefore, higher risk aversion (Iwu-Egwuonwu, 2010) and possible lack of conciseness and consensus in corporate decisions by possibly bringing different points of view (Guest, 2009). The fact that most outside directors serve on multiple boards, among their other activities, may lead to their limited ability to understand in depth the business they are serving, potentially making their contribution less effective and linked to financial performance (Fich & Shivdasani, 2006). Based on the above, we propose the following basic hypothesis:

Hypothesis H1. The level of board member independence is positively related to financial performance.

The literature on family businesses suggests that controlling shareholders may underestimate or ignore agency conflicts (Corbetta & Salvato, 2004a), indicating that these companies add qualified outsiders to their boards to address corporate governance questions and public ownership concerns (Heidrick, 1988). To illustrate, the inclusion of active, external board members is justified by the inability of family executives to understand the limits of their behavior (Alderfer, 1988), due to the gap between their goals and values as both family members and executives (Müller et al., 2018). The risk that the CEO's personal values and preferences may excessively influence ethical and economic rationality justifies the recruitment of qualified outsiders onto the board (Gallo, 1993). Notwithstanding, outside directors typically accelerate firms' compliance with requirements (Shaw et al., 2021), which is especially important in countries with weaker shareholder protection, consequently facilitating the obtainment of foreign investments.

Important contributions of outside directors in family businesses relate to the mitigation of socio-emotional wealth (Mensching et al., 2014), risk aversion (Cucculelli et al., 2016), capital constraints that can inhibit the financing of entrepreneurial activities (Kellermanns & Eddleston 2006), aversion to external financing (Chrisman et al., 2012), propensity to preserve the legacy or inheritance of the entrenched family (Gomes-Mejia et al., 2013; Kellermanns et al., 2012), and less efficient managers (Berrone et al., 2012; Cennamo et al., 2012) or a lack of specific knowledge such as in finance, auditing, technology or ESG among board members. Moreover, outside directors promote and galvanize important issues on the board agenda that may accentuate firm performance (Shaw et al., 2021). Thus, we propose the following hypothesis:

Hypothesis H2a: The effect of board independence on financial performance is greater in family firms than in non-family firms.

Family firms also commit to more transparent financial reporting and disclosure practices when outside directors are part of the board (Duru et al., 2016). To further explore the aforementioned phenomena, we investigate the CEO duality parameter, which is more prominent in family firms, since this parameter increases the power the CEO has over the board, hindering the independence between the board and the president

(Duru et al., 2016) and resulting in negative performance effects (Jensen, 1993). In summary, the contributions of outside directors to family businesses can be associated with the mitigation of conflict between the board and the CEO, both from the same family nucleus. Hence, we propose the following hypothesis:

Hypothesis H2b: CEO duality in family firms hinders the contribution of board independence to financial performance.

5 Methods and data

In this study, we conducted panel data regressions with firm and period fixed effects. The methodology and variables selected are analogous to those of González et al. (2019), Wong et al. (2019), Turrent and Hughes (2017), Khanna et al. (2015), Garcia-Castro and Aguilera (2014), Müller et al. (2018), Anderson et al. (2012), Arosa et al. (2010), Guest (2009), Allouche et al. (2008), Perry and Shivdasani (2005), and Carter et al. (2003).

The database (Supplementary Material – Appendix. Supplementary Data 1 – Database) consists of 372 publicly traded companies, including large and small caps, listed on the Brazilian stock exchange (B3) from 2010 to 2021. It is important to mention that the CVM (Brazilian Securities and Exchange Commission) only made the publication of the board of directors mandatory for publicly traded companies in Brazil in 2010. The number of companies analyzed is largely representative and extensive, since the Brazilian stock market is not very numerous in terms of the number of listed companies. For comparison, at the end of 2012 there were only 353 firms listed, while in the US there were more than 4,000. The data collection process was extensive and meticulous, considering the unstructured data from multiple sources, therefore one of the main challenges of this study was to build the largest database of board member composition in an emerging economy.

Brazilian companies were sampled as the country is the leading economy in Latin America, where family businesses play a crucial role in the region, accounting for more than 85% of all companies, 60% of GDP, and 70% of the workforce (Aguinis et al., 2020). It is important to mention that there is a scarcity of published quantitative studies related to family firms with Brazilian data (Borges et al., 2012), which highlights the relevant gap in the literature that this research aims to fill with a broader understanding and possible generalizations about the aforementioned topics.

The period analyzed is specific to Brazil, since it has undergone major political, social and economic changes that have led to more corporate governance policies for companies operating in the country, including the Federal Police's Lava-Jato (Car Wash) operation focused on white-collar crimes, which began in mid-2009 and has continued until recent times.

Financial sector companies, including banks, were not considered in this study due to the financing characteristics of the financial services industry. Unlike other sectors of the economy, bank leverage can exceed 90% of equity (Adams & Ferreira, 2007). Comparatively, Gornall and Strebulaev (2018) show that the average leverage of banks typically ranges from 87% to 95%, while the average leverage of non-financial companies ranges from 20% to 30%.

Board membership data were obtained from the CVM (Brazilian Securities and Exchange Commission), and accounting or financial indicators were extracted from the Economatica software.

To eliminate outliers in financial performance indicators, the database went through a winsorization process with a 1% rate because the top three companies in market capitalization cause a large gap in total assets, revenues and net worth in relation to the rest of the database. These top three companies in market share are Petrobras, Vale, and Ambev. After this, the cases where the book values were very different from the averages of the database, such as the cases of companies undergoing judicial reorganization, were removed so as not to unduly influence the results.

5.1 Response variables

Garcia-Castro and Aguilera (2014) present a recent systematic literature review of performance measures that empirically explore the relationship between family involvement in the business and financial performance, which were considered for this study.

The response variables selected for the equations were ROE, ROA and Tobin's Q, as chosen by other authors such as Carter et al. (2003) and Erhardt et al. (2003), since they capture both efficiency and expectations regarding financial performance. The joint analysis of the financial indicators allows a broader perspective of the

effects studied, given the characteristics of each indicator, and reduces the bias of the conclusions.

5.2 Explanatory variables

The board independence indicator is the ratio of outside board members to the total number of board members for each company and year (Anderson & Reeb, 2003). This study also considered a dummy variable indicating whether the outside directors were appointed by the controlling shareholder. The family firms considered in this study include companies with family ownership of 15% or more of ordinary shares, and CEO (Chief Executive Officer), COB (Chairperson of the Board), or TMT (Top Management Team) with members from the same family nucleus (González et al., 2019; Newbert & Craig, 2017; Berrone et al., 2012; Miller & Friesen, 1983; Aldrighi & Mazzer, 2007; Miller & Le Breton-Miller, 2006). To differentiate the levels of family firms, we created two clusters of firms encompassing the levels of family influence in the business. The first one (FAM1) considered only the cases of family members in the Top Management Team and a family CEO, and the second one (FAM2) also considered the cases of a family COB. The cohorts are consistent with the proposals of Gomes-Mejia et al. (2013), Anderson et al. (2012) and Anderson and Reeb (2003). The information on family members in the TMT or as CEO and COB is endogenous and publicly disclosed by the firms through the CVM (Brazilian Securities and Exchange Commission) forms.

5.3 Control variables

The literature shows that the size of the board is relevant to a firm's profitability, revenue, cash flow, and leverage (Van Ness et al., 2010; Guest, 2009). Moreover, it can justify the development of interpersonal trust and predicts more affiliated board members than outside directors in family firms (Siebels & Zu Knyphausen-Aufseß, 2012). The literature has shown that it can be related to company performance (Van Ness et al., 2010) and that small boards (less than nine members) may not provide the necessary diversity of views, while large boards (nine or more members) can be detrimental to performance because of communication problems and difficulty in reaching agreement, among other reasons.

Regarding board independence, Perry and Shivdasani (2005) show that the larger the company, the greater the tendency to have more outside directors. However, this variable also controls for the proportion of outside directors and changes in the number of members in each firm and year, as family firms are expected to have fewer members on the board (Siebels & Zu Knyphausen-Aufseß, 2012). This variable also moderates possible different outcomes when outside directors are a minority on the board (Koerniadi & Tourani-Rad, 2012).

The selected financial performance indicators are robust in terms of internal and external validity criteria, as well as convergent and nomological validity. The four financial indicators capture the key financial performance issues that are typically discussed by the board and that reinforce the contributions that outside directors typically bring to the table: organic or inorganic growth strategies, financing alternatives, financial leverage, and optimization of operating expenses. As a result, we included the following variables: total assets in natural logarithm, net revenue growth, net debt to total assets ratio, and EDITDA to total assets ratio. Notwithstanding, the selected financial indicators represent growth, profitability and market value to maintain superior robustness in accordance with Santos and Brito (2012), as shown in Figure 1.

6 Robustness tests

Related studies have presented the results using only OLS (ordinary least squares) or panel data methods. This study also considered the system GMM (generalized method of moments) with two lags analysis, for a better instrumentation and comparison of the parameters. The methodology was chosen due to the fact that a small

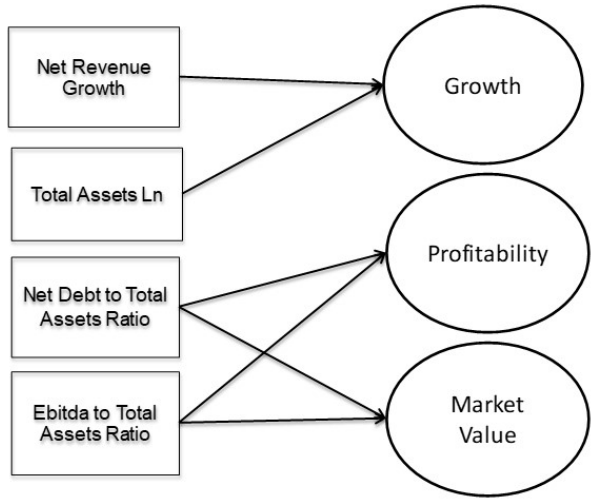

Figure 1. Control variables
Source: Developed by the authors

part of the sample went public or private during the period, therefore the use of system GMM based on forward orthogonal deviations is appropriate for unobservable firm heterogeneity.

7 Results

The results presented in this section empirically support the hypotheses and thus the research problem regarding the contributions of outside directors to family and non-family firms. The descriptive statistics of the entire database, in Table 1, showed an average ROE (return on equity) of -10.303% and an average ROA (return on assets) of -8.817%. In comparison, the average nominal Brazilian interest rate (Selic rate) in the same period was 8.85% per annum, with maximum and minimum nominal values in the period of 14.15% per annum and 2.00% per annum, respectively. When family firms are compared to non-family firms, the three response variables proved superior for family firms, these being the ROE (1.9489 vs. -12.5471), ROA (-1.4274 vs. -10.1518), and Tobin's Q (1.1412 vs. 1.1923). These data are consistent with those of Allouche et al. (2008), Astrachan and Shanker (2003), Heck and Stafford (2001), and Sharma (2004). Thus, family firms show better performance and are comparatively more profitable from the point of view of shareholders when comparing ROE and from the point of view of other stakeholders or fund providers when comparing ROA. The results also converge with those of Anderson and Reeb (2003), who argues that family businesses use their resources more efficiently and outperform non-family businesses, especially when a family member is the CEO, therefore family ownership is an effective organizational structure (Anderson & Reeb, 2003).

For Tobin's Q, the average value is 1.229 and the average percentage of outside directors in the sample is 21.36%, which can be explained by the 247 companies listed in the Good Governance Index (Nível II and Novo Mercado) of the Brazilian Stock Exchange in 2021, which requires at least 20% of outside directors on the firm's board.

During the period analyzed, the number of outside directors increased in quantity and representativeness, and an insignificant number of companies reported the presence of a representative of minority shareholders on the board. This finding means that almost all the companies reported that the outside directors were nominated by the controlling shareholders. The average number of board members was 8.0, indicating an increase compared to the number presented in the paper by Black et al. (2010), who reported an average of 6.8 members in Brazilian companies in 2005.

The correlation matrix and the quartiles analysis of the data regarding the companies' market capitalization (Table 2) show that ROE, ROA and Tobin's Q move in the same direction, even though their correlation is below 0.50. The higher the market capitalization of the companies, the less efficient they are in terms of ROE and ROA, while the Tobin's Q indicator increases. As for the average board independence index, as well as the size of the board in terms of number of members, they move in the same direction, that is, as the market capitalization of the companies increases. For the sample analyzed, the profile of the companies with the largest representation of outside directors presents a similar result to in the article by Perry and Shivdasani (2005), which shows that the larger the company, the greater the tendency to have more outside directors. The quartiles analysis of the data regarding the companies' market capitalization shows that the ROE and ROA financial indicators move in the same direction, contrary to the Tobin's Q indicator. The higher the market capitalization of the companies, the less efficient they are in terms of ROE and ROA, while the Tobin's Q indicator increases.

In Table 3, it is possible to see the econometric models with ROE and ROA as response variables, which show that the board independence variable is statistically insignificant (b = -14.6366, p = 0.2920, and b = -5.5937, p = 0.1357, respectively). The results obtained with the econometric models are consistent with those of Batista et al. (2012), rejecting the hypothesis that board independence does not affect the financial performance of companies and that the presence of outside directors increases over time. The results are also consistent with those of Fuzi et al. (2015), who found that board independence does not guarantee better financial performance of companies.

The Tobin's Q response variable equation (Model 3) determined that the board independence variable was not statistically significant, although the cross-variables board independence X family firm1 (p = 0.0080, b = 2.1803) and board independence X family firm2 (p = 0.0689, b = -1.7471) were statistically significant and had positive and negative coefficients, respectively. The adjusted R^2 in the econometric model with the Tobin's Q response variable was also representative (0.7014). The results indicate that financial analysts and investors have a positive perspective on

Table 1
Summary of the Descriptive Statistics

	Complete Sample (N = 372)					Non-Family Firms (N = 254)					Family Firms (N = 118)				
	Mean	**Median**	**Max**	**Min**	**SD**	**Mean**	**Median**	**Max**	**Min**	**SD**	**Mean**	**Median**	**Max**	**Min**	**SD**
Dependent Variables															
Board Independence	0.2136	0.1666	1,0000	0.0000	0.2356	0.2136	0.1666	1,0000	0,0000	0.2396	0.2137	0.1666	08571	0,0000	0.2123
Control Variables															
Board Size	8,0000	7,0000	32,0000	1,0000	4.4126	8,0000	7,0000	32,0000	1,0000	4.5529	7,0000	6,0000	30,0000	2,0000	3.3083
Revenue Growth	0.1881	0.0990	6.5483	-1,0000	0.6795	0,1951	0.0999	6.5483	- 1,0000	07032	0.1502	0.0892	6.5483	- 1,0000	0.5325
Total Assets (Ln)	13.2177	14.4341	20.7106	0.0000	0.6795	13.2380	14.5178	20.7106	0,0000	4.6280	13.1052	14.0707	20.33342	0.0000	4.0589
Debt/Assets Ratio	0.1319	0.1358	2.7989	-0.9794	0.3887	0.1255	0.1335	2.7989	-0.9794	0.3874	0.1676	0.1410	2.7989	-0.8570	0.3944
Ebitda/Assets Ratio	-0.0107	0.0762	0.5944	-6.5442	0.6368	-0.0231	0.0753	0.5944	-6.5442	0.6881	0.0577	0.0817	0.5001	-1.3601	‘0.1501
Response variables															
ROE	-10,3025	8.5355	195.0020	-1127.3809	118.1185	- 12,5471	8.4977	195.0020	-1.127,3810	126.2454	1,9489	8.7902	195.0020	-676.5136	54.2760
ROA	-8,8173	3.0885	48.5472	-677.7778	71.3308	-10.1518	3.0796	48.5472	-677.7778	76.4096	- 1,4274	3.1190	48.5472	-357.3099	29.5255
TOBIN’S Q	1.2295	0.7320	36.1937	-0,2499	2.9603	1.1923	0.7524	36.1937	-0.2499	2.6812	1.4212	0.6556	36.1937	-0.2499	4.1057

Descriptive statistics of the dependent, control and independent variables used in the study. The variables definitions are provided in the section Database and methodology; Family Firms: Companies with controlling ownership above 15% and CEO within the same family; Board Independence; Board Size; Total assets in natural logarithm; Net Revenue Growth; Net Debt to Total Assets Ratio; Ebit to Total Assets Ratio; ROE (Return on Equity); ROA (Return on Assets) and Tobin’s Q; SD (Standard Deviation).

Table 2
Correlation Matrix

Correlation Matrix	BOARD INDEPENDENCE	BOARD IND. X FAMILY FIRM1	BOARD IND. X FAMILY FIRM2	BOARD SIZE	DIR. CHOSEN BY THE CONTROLLER	REVENUE GROWTH	TOTAL ASSETS (LN)	DEBT/ ASSET RATIO	EBITDA/ ASSET RATIO	ROE	ROA	TOBIN’S Q
BOARD INDEPENDENCE	1											
BOARD IND. X FAMILY FIRM1	0.0728	1										
BOARD IND. X FAMILY FIRM2	0.0506	0.7635	1									
BOARD SIZE	-0.0873	0.0083	0.0163	1								
DIR. CHOSEN BY THE CONTROLLER	-0.2965	0.0327	0.0267	0.1148	1							
REVENUE GROWTH	0.0119	0.0024	-0.0009	0.0417	0.0220	1						
TOTAL ASSETS (LN)	0.1655	0.0394	0.0455	0.3480	0.1529	0.0254	1					
DEBT/ASSET RATIO	0.0686	0.0348	0.0317	0.1490	0.1008	-0.0335	0.3130	1				
EBITDA/ASSET RATIO	-0.0862	-0.0002	0.0163	0.1137	0.1084	0.0558	0.1468	0.0603	1			
ROE	-0.0273	0.0224	0.0250	0.0671	0.0259	0.0457	0.1027	-0.0969	0.3217	1		
ROA	-0.1183	-0.0083	-0.0032	0.0535	0.0933	0.0646	0.0449	0.1917	0.8131	0.4784	1	
TOBIN’S Q	0.0869	0.0737	0.0174	0.0315	0.0098	0.0693	-0.0250	-0.0830	0.2865	0.0929	0.2419	1

Table 3
Summary of the Regressions

Summary of the Regressions - Board Independence						
Variables	**ROE**		**ROA**		**Tobin's Q**	
	(Model 1)		**(Model 2)**		**(Model 3)**	
	Panel Data FE	**System GMM**	**Panel Data FE**	**System GMM**	**Panel Data FE**	**System GMM**
BOARD INDEPENDENCE	0.2741	0.3534	0.1445	**0,0000*****	0.8132	**0,0000*****
	-157.560	362.809	-56.475	-1.845.410	-0.0644	53.835
BOARD IND. X FAM1	0.8796	0.2636	0.6470	0.2113	**0.0080*****	**0.0076*****
	-64.418	-2.882.063	-54.908	-3.695.744	21.803	79.203
BOARD IND. X FAM2	0.9657	0.8725	0.8104	0.4973	**0.0689***	**0.0003*****
	21.351	752.122	33.583	-2.259.225	-17.471	-135.876
BOARD SIZE	0.5775	0.1880	0.8169	**0.0976***	0.7906	0.7557
	-0.5624	-84.339	-0.0633	52.870	0.0051	-0.0176
NOMINATED BY SHAREHOLDERS	0.3475	0.3781	0.1629	0.7224	0.7037	0.6839
	-90.741	384.673	-36.010	-52.870	0.0669	0.2100
REVENUE GROWTH	0.1103	**0.0283****	0.3201	**0.0235****	0.1724	0.1134
	47.945	218.650	0.8207	158.238	0.0816	0.2636
TOTAL ASSETS (LN)	**0,0000*****	**0,0000*****	**0,0000*****	**0,0000*****	**0,0000*****	0.4468
	327.093	549.224	111.178	349.274	-0.4188	0.2383
DEBT/ASSET RATIO	**0,0000*****	**0.0111****	0.1318	0.1628	**0,0000*****	**0,0001*****
	-1.047.175	839.052	41.501	186.512	38.043	26.146
EBITDA/ASSET RATIO	**0,0000*****	**0,0000*****	**0,0000*****	**0,0000*****	**0.0595***	**0,0000*****
	1.304.921	-967.627	921.428	-836.427	0.3863	10.052
C	**0,0000*****	-	**0,0000*****	-	**0,0000*****	-
	-4.680.623	-	-1.647.817	-	65.624	-
ADJUSTED R^2	0.4564		0.8611		0.6572	

Summary table of the regression results with control variables: Board Size, Total Assets (ln), Revenue Growth, Debt / Asset Ratio, Ebit / Asset Ratio. Response variables are: ROE, ROA, and Tobin's Q. Panel Data Analysis Fixed Effects and System GMM, respectively. The results presented are in order: P-Value and Coefficient, respectively. Results for P-Value are in bold when corresponding to ≤ 10% and indicating *, ** and *** to represent statistical significance at the 10%, 5% and 1% levels, respectively.

Source: Developed by the authors.

companies with such board composition characteristics, but CEO duality creates a negative perception that may not be mitigated by outside directors. The results are consistent with the literature that states that outside directors can increase the informativeness of stock prices and reduce the incidence of firm-specific stock price crashes (Sila et al., 2017).

According to Haynes & Hillman (2010), greater board independence in family-owned businesses would yield better results, and more heterogeneous boards are more likely to encourage changes in business strategies. The author also argues that the presence of outsiders with their breadth and depth of knowledge can benefit board decisions. In cases of CEO duality, he showed a significant negative impact on financial performance, which can be justified by less influence of outside directors, so a strong leadership structure or duality need more outside board members to compensate for CEO influence, where board independence is an important corporate governance mechanism (Duru et al., 2016).

The results of the system GMM were consistent with the regression model presented earlier and showed higher coefficients for board independence X fam1 (p = 0.0129, b = 9.3097) and board independence X fam2 (p = 0.0011, b = -14.3412). The literature indicates that system GMM coefficients are better parameters for robustness to firm-specific patterns of heteroskedasticity and serial correlation, along with sample gaps in unbalanced panels.

8 Conclusions and future directions

This study aimed to answer the following research question: How do outside directors on the board affect the performance of family firms versus non-family firms? We find that there is an association between board independence in family firms and company financial performance, even though the ROE and ROA indicators might be interpreted as meaning that outside directors do not have a direct impact on the companies' short-term results. On the contrary, these agents play an important role for the capital market and compliance, as evidenced by the fact that the Tobin's Q variable is statistically significant in the models. The capital market may understand the contributions of outside directors as agents that, among other things, ensure transparency and compliance and promote corporate decisions that value long-term and sustainable results for the organization. The positive contributions of these agents for family firms have been shown and suggest that these agents can add more value to family firms than to non-family firms, except in cases of CEO duality.

We contribute to agency theory in the perspective of family firms, since we find that the presence of outside directors on the board proves to be beneficial in terms of mitigating agency problems, leading to better financial performance for family firms, particularly those that show more decentralized decisions and roles. The contributions of outside directors can be associated with the mitigation of risk aversion, capital constraints that inhibit the financing of entrepreneurial activities, reluctance to seek external financing, the propensity to preserve the family legacy, the presence of entrenched managers, among others. In cases of CEO duality, the measured results are the opposite, indicating that overly powerful CEOs may inhibit the contributions of outside directors.

The managerial contribution is also relevant since family firms are a prominent organizational form in Brazil and account for a significant part of the country's GDP. Thus, managers and family owners could benefit from outside board members, since the number of outside directors on the boards of publicly traded companies in Brazil increased sharply in the period analyzed, generally associated with the implementation of corporate governance levels, especially the "Novo Mercado," which requires more transparency and investor protection.

This study has some limitations. First, it did not consider qualitative issues regarding the contribution of outside directors to the companies analyzed, or positive and negative factors identified by the directors regarding board independence or board size. Second, the study does not include different cohorts of family firms, for example, considering the generational evolution phase or tacit firm characteristics that can be correlated with the presence of outside directors on the board. There is a promising avenue for future research that demonstrates the possible contributions of outside directors to family firms at different levels of corporate governance, especially companies with a greater degree of controlling family influence. Lastly, future studies could explore the relationship between the CEO and board, since shareholders can obtain additional benefits apart from the increased quality of advice that the members can provide, and it is important that projects approved by the board of directors, in accordance with the shareholders' preferences, are implemented by the company.

References

Adams, R. B., & Ferreira, D. (2007). A theory of friendly boards. *The Journal of Finance*, *62*(1), 217-250. http://dx.doi.org/10.1111/j.1540-6261.2007.01206.x.

Aguinis, H., Villamor, I., Lazzarini, S. G., Vassolo, R. S., Amorós, J. E., & Allen, D. G. (2020). Conducting management research in Latin America: Why and what's in it for you? *Journal of Management*, *46*(5), 615-636. http://dx.doi.org/10.1177/0149206320901581.

Alderfer, C. P. (1988). Understanding and consulting to family business boards. *Family Business Review*, *1*(3), 249-261. http://dx.doi.org/10.1111/j.1741-6248.1988.00249.x.

Aldrighi, D., & Mazzer, No. R. (2007). Evidence on the ownership and voting structures of limited liability firms in Brazil. *Revista Brasileira de Economia*, *61*(2), 129-152.

Allouche, J., Amann, B., Jaussaud, J., & Kurashina, T. (2008). The impact of family control on the performance and financial characteristics of family versus nonfamily businesses in Japan: A matched-pair investigation. *Family Business Review*, *21*(4), 315-329. http://dx.doi.org/10.1111/j.1741-6248.2008.00132.x.

Anderson, R., & Reeb, D. (2003). Founding-family ownership and firm performance: Evidence from the S&P

500. *The Journal of Finance*, *58*(3), 1301-1328. http://dx.doi.org/10.1111/1540-6261.00567.

Anderson, R., & Reeb, D. (2004). Board composition: Balancing family influence in S&P 500 Firms. *Administrative Science Quarterly*, *49*(2), 209-237. http://dx.doi.org/10.2307/4131472.

Anderson, R., Duru, A., & Reeb, D. (2012). Investment policy in family-controlled firms. *Journal of Banking & Finance*, *36*(6), 1744-1758. http://dx.doi.org/10.1016/j.jbankfin.2012.01.018.

Armitage, S., Wenxuan, H., Sarkar, S., & Talaulicar, T. (2017). Corporate governance challenges in emerging economies. *Corporate Governance*, *25*(3), 148-154. http://dx.doi.org/10.1111/corg.12209.

Arosa, B., Iturralde, T., & Maseda, A. (2010). Outsiders on the board of directors and firm performance: Evidence from Spanish non-listed family firms. *Journal of Family Business Strategy*, *1*(4), 236-245. http://dx.doi.org/10.1016/j.jfbs.2010.10.004.

Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. (2006). The effects of corporate governance on firms' credit ratings. *Journal of Accounting and Economics*, *42*(1-2), 203-243. http://dx.doi.org/10.1016/j.jacceco.2006.02.003.

Astrachan, J., & Shanker, M. C. (2003). Family business contribution to the U.S. Economy: A closer look. *Family Business Review*, *16*(3), 211-219. http://dx.doi.org/10.1177/08944865030160030601.

Batista, F., Silva, B., & Augusto, V. (2012). Board diversity and firm performance: An empirical investigation in the Brazilian market BBR. *Brazilian Business Review*, *9*, 55-77.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review*, *71*(4), p. 443-465.

Berrone, P., Cruz, C., & Gomez-Mejia, L. R. (2012). Socioemotional wealth in family firms. *Family Business Review*, *25*(3), 258-279. http://dx.doi.org/10.1177/0894486511435355.

Black, B. S., Carvalho, A. G., & Gorga, É. (2010). Corporate governance in Brazil. *Emerging Markets Review*, *11*(1), 21-38. http://dx.doi.org/10.1016/j.ememar.2009.09.004.

Borges, A. F., Lescura, C., & Oliveira, J. L. (2012). O campo de pesquisas sobre empresas familiares no brasil: Análise da produção científica no período 1997-2009. *Organizações & Sociedade*, *19*(61), 315-332. http://dx.doi.org/10.1590/S1984-92302012000200008.

Braun, M., & Sharma, A. (2007). Should the CEO also be chair of the board? An empirical examination of family-controlled public firms. *Family Business Review*, *20*(2), 111-126. http://dx.doi.org/10.1111/j.1741-6248.2007.00090.x.

Carter, A., Simkins, B., & Simpson, J. W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review*, *38*(1), 33-53. http://dx.doi.org/10.1111/1540-6288.00034.

Cennamo, C., Berrone, P., Cruz, C., & Gomez-Mejía, L. R. (2012). Socioemotional wealth and proactive stakeholder engagement: Why family–controlled firms care more about their stakeholder. *Entrepreneurship Theory and Practice*, *36*(6), 1153-1173. http://dx.doi.org/10.1111/j.1540-6520.2012.00543.x.

Chen, V., Li, J., Shapiro, D., & Zhang, X. (2012). Ownership structure and innovation: An emerging market perspective. *Asia Pacific Journal of Management*, *31*(1), 1-24. http://dx.doi.org/10.1007/s10490-013-9357-5.

Chrisman, J. J., Chua, J. H., Pearson, A. W., & Barnett, T. (2012). Family involvement, family influence, and family–centered non–economic goals in small firms. *Entrepreneurship Theory and Practice*, *36*(2), 267-293. http://dx.doi.org/10.1111/j.1540-6520.2010.00407.x.

Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the family business by behavior. *Entrepreneurship Theory and Practice*, *23*(4), 19-39. http://dx.doi.org/10.1177/104225879902300402.

Combs, J., Crook, T., Todd, S., & Woehr, D. (2011). The relationship between knowledge of human development and ability to use such knowledge. *The Journal of Applied Psychology*, *96*(3), 443-456.

Corbetta, G., & Salvato, C. (2004a). Self-serving or self-actualizing? Models of man and agency costs in different types of family firms: A Commentary on "comparing the agency costs of family and non-family firms: conceptual

issues and exploratory evidence". *Entrepreneurship Theory and Practice*, *28*(4), 355-362. http://dx.doi.org/10.1111/j.1540-6520.2004.00050.x.

Cucculelli, M., Le Breton-Miller, I., & Miller, D. (2016). Product innovation, firm renewal and family governance. *Journal of Family Business Strategy*, *7*(2), 90-104. http://dx.doi.org/10.1016/j.jfbs.2016.02.001.

Dunn, P., & Sainty, B. (2009). The relationship among board of director characteristics, corporate social performance and corporate financial performance. *International Journal of Managerial Finance*, *5*(4), 407-423. http://dx.doi.org/10.1108/17439130910987558.

Duru, A., Iyengar, R., & Zampelli, E. (2016). The dynamic relationship between CEO duality and firm performance: The moderating role of board Independence. *Journal of Business Research*, *69*(10), 4269-4277. http://dx.doi.org/10.1016/j.jbusres.2016.04.001.

Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of directors diversity and firm financial performance. *Corporate Governance*, *11*(2), 102-111. http://dx.doi.org/10.1111/1467-8683.00011.

Fama, E. F., & Jensen, M. C. (1983a). Agency problems and residual claims. *The Journal of Law & Economics*, *26*(2), 327-349. http://dx.doi.org/10.1086/467038.

Fich, E., & Shivdasani, A. (2006). Are busy boards effective monitors? *The Journal of Finance*, *62*(2), 951-989.

Fuzi, S. F., Syahrina, H., & Julizaerma, M. K. (2015), Board independence and firm performance. In *Fifth International Conference on Marketing and Retailing*, 37, 460-465. Elsevier.

Gallo, M. A. (1993). *Governing bodies in the family company*. Research Department at IESE, University of Navarra.

Garcia-Castro, R., & Aguilera, R. (2014). Family involvement in business and financial performance: A set-theoretic cross-national inquiry. *Journal of Family Business Strategy*, *5*(1), 85-96. http://dx.doi.org/10.1016/j.jfbs.2014.01.006.

Giannetti, M., & Simonov, A. (2006). Which investors fear expropriation? Evidence from investor's portfolio choices. *The Journal of Finance*, *61*(3), 1507-1547. http://dx.doi.org/10.1111/j.1540-6261.2006.00879.x.

Gnan, L., Montemerlo, D., & Huse, M. (2015). Governance systems in family SMEs: The substitution effects between family councils and corporate governance mechanisms. *Journal of Small Business Management*, *53*(2), 355-381. http://dx.doi.org/10.1111/jsbm.12070.

Goel, S., & Jones 3rd, R. J. (2016). Entrepreneurial exploration and exploitation in family business: A systematic review and future directions. *Family Business Review*, *29*(1), 94-120. http://dx.doi.org/10.1177/0894486515625541.

Gomes-Mejia, L., Campbell, J. T., Martin, G., Hoskisson, R. E., Makri, M., & Sirmon, D. G. (2013). Socioemotional wealth as a mixed gamble: Revisiting family firm R&D investments with the behavioral agency model. *Entrepreneurship Theory and Practice*, *38*(6), 1351-1374. http://dx.doi.org/10.1111/etap.12083.

Gómez-Mejía, L. R., Cruz, C., Berrone, P., & De Castro, J. (2011). The bind that ties: Socioemotional wealth preservation in family firms. *The Academy of Management Annals*, *5*(1), 653-707. http://dx.doi.org/10.5465/19416520.2011.593320.

González, M. M., Guzmán, A., Pablo, E., & Trujillo, M. A. (2019). Is board turnover driven by performance in family firms? *Research in International Business and Finance*, *48*, 169-186. http://dx.doi.org/10.1016/j.ribaf.2018.12.002.

Gornall, W., & Strebulaev, I. (2018). Financing as a supply chain: The capital structure of banks and borrowers. *Journal of Financial Economics*, *129*(3), 510-530. http://dx.doi.org/10.1016/j.jfineco.2018.05.008.

Guest, P. M. (2009). The impact of board size on firm performance: Evidence from the UK. *European Journal of Finance*, *15*(4), 385-404. http://dx.doi.org/10.1080/13518470802466121.

Haynes, K. T., & Hillman, A. (2010). The effect of board capital and CEO power on strategic change. *Strategic Management Journal*, *31*(11), 1145-1163. http://dx.doi.org/10.1002/smj.859.

Heck, R. K. Z., & Stafford, K. (2001) The vital institution of family business: economic benefits hidden in plain

sight. In McCann, G.K. and Upton, N. (Eds.), *Destroying myths and creating value in family business* (pp. 9-17.). Stetson University.

Heidrick, G. (1988). Selecting outside directors. *Family Business Review*, *1*(3), 271-277. http://dx.doi.org/10.1111/j.1741-6248.1988.00271.x.

Hoopes, D. G., & Miller, D. (2006). Ownership preferences, competitive heterogeneity, and family-controlled businesses. *Family Business Review*, *19*(2), 89-101. http://dx.doi.org/10.1111/j.1741-6248.2006.00064.x.

Iwu-Egwuonwu, R. C. (2010). Some empirical literature evidence on the effects of independent directors on firm performance. *Journal of Economics and International Finance*, *2*(9), 190-198.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, *48*(3), 831-880. http://dx.doi.org/10.1111/j.1540-6261.1993.tb04022.x.

Joseph, J., Ocasio, W., & McDonnell, M. (2014). The structural elaboration of board independence: Executive power, institutional logics, and the adoption of CEO-only board structures in U.S. corporate governance. *Academy of Management Journal*, *57*(6), 1834-1858. http://dx.doi.org/10.5465/amj.2012.0253.

Judge, W. Q., & Talaulicar, T. (2017). Board involvement in the strategic decision making process: A comprehensive review. *Annals of Corporate Governance.*, *2*(2), 51-169. http://dx.doi.org/10.1561/109.00000005.

Kaslow, F. W., & Friedland, L. (2021). Similarities and differences between family and nonfamily business enterprises. In: F. W. Kaslow & L. Friedland (Eds.), *Consultation to family business enterprises* (pp. 23-38). Springer. http://dx.doi.org/10.1007/978-3-030-72022-3_3.

Kellermanns, F. W., & Eddleston, K. A. (2006). Corporate entrepreneurship in family firms: A family perspective. *Entrepreneurship Theory and Practice*, *30*(6), 809-830. http://dx.doi.org/10.1111/j.1540-6520.2006.00153.x.

Kellermanns, F. W., Eddleston, K. A., & Zellweger, T. M. (2012). Extending the socioemotional wealth perspective: A look at the dark side. *Entrepreneurship Theory and Practice*, *36*(6), 1175-1182. http://dx.doi.org/10.1111/j.1540-6520.2012.00544.x.

Khanna, V., Kim, E. H., & Lu, Y. (2015). CEO connectedness and corporate fraud. *The Journal of Finance*, *70*(3), 1203-1252. http://dx.doi.org/10.1111/jofi.12243.

Khlif, W., Karoui, L., Ingley, C., & El Manaa, W. (2016). Family contingencies and board composition: Evidence from Tunisia. *Journal of African Business*, *17*(1), 16-32. http://dx.doi.org/10.1080/15228916.2016.1096705.

Koerniadi, H., & Tourani-Rad, A. (2012). Does board independence matter? Evidence from New Zealand. *Australasian Accounting, Business and Finance Journal*, *6*(2), 3-18.

Lagunes, P., Odilla, F., & Svejnar, J. (2021). *Corrupção e o escândalo da Lava Jato na América Latina.* FGV Editora.

Mensching, H., Kraus, S., & Bouncken, R. B. (2014). Socioemotional wealth in family firm research: A literature review. *Journal of International Business and Economics*, *14*(4), 165-172. http://dx.doi.org/10.18374/JIBE-14-4.11.

Miller, D., & Friesen, P. H. (1983). Strategy-making and environment: The third link. *Strategic Management Journal*, *4*(3), 221-235. http://dx.doi.org/10.1002/smj.4250040304.

Miller, D., & Le Breton-Miller, I. (2006). Family governance and firm performance: Agency, stewardship, and capabilities. *Family Business Review*, *19*(1), 73-87. http://dx.doi.org/10.1111/j.1741-6248.2006.00063.x.

Müller, C. G., Botero, I. C., Cruz, A. D., & Subramanian, R. (2018). *Family firms in Latin America.* London: Routledge. http://dx.doi.org/10.4324/9781315098630.

Newbert, S., & Craig, J. B. (2017). Moving beyond socioemotional wealth: Toward a normative theory of decision making in family business. *Family Business Review*, *30*(4), 339. http://dx.doi.org/10.1177/0894486517733572.

Perry, T., & Shivdasani, A. (2005). Do boards affect performance? Evidence from corporate restructuring. *The Journal of Business*, *78*(4), 1403-1432. http://dx.doi.org/10.1086/430864.

Pindado, J., & Requejo, I. (2015). Family business performance from a governance perspective: A review of empirical research. *International Journal of Management Reviews*, *17*(3), 279-311. http://dx.doi.org/10.1111/ijmr.12040.

Purkayastha, S., Veliyath, R., & George, R. (2022). Type I and type II agency conflicts in family firms: An empirical investigation. *Journal of Business Research, Elsevier*, *153*, 285-299. http://dx.doi.org/10.1016/j.jbusres.2022.07.054.

Santos, J. B., & Brito, L. A. L. (2012). Toward a subjective measurement model for firm performance. *Brazilian Administration Review*, *9*(spe), 95-117. http://dx.doi.org/10.1590/S1807-76922012000500007.

Sharma, P. (2004). An overview of the field of family business studies: Current status and directions for the future. *Family Business Review*, *17*(1), 1-36. http://dx.doi.org/10.1111/j.1741-6248.2004.00001.x.

Shaw, T. S., He, L., & Cordeiro, J. (2021). Delayed and decoupled: Family firm compliance with board independence requirements. *British Journal of Management*, *32*(4), 1141-1163. http://dx.doi.org/10.1111/1467-8551.12509.

Shleifer, A., & Vishny, R. W. (1997). A survey of Corporate Governance. *The Journal of Finance*, *52*(2), 737-783. http://dx.doi.org/10.1111/j.1540-6261.1997.tb04820.x.

Siebels, J. F., & Zu Knyphausen-Aufseß, D. (2012). A review of theory in family business research: The implications for corporate governance. *International Journal of Management Reviews*, *14*(3), 280-304. http://dx.doi.org/10.1111/j.1468-2370.2011.00317.x.

Sila, V., Gonzalez, A., & Hagendorff, J. (2017). Independent director reputation incentives and stock price informativeness. *Journal of Corporate Finance*, *47*, 219-235. http://dx.doi.org/10.1016/j.jcorpfin.2017.09.018.

Tagiuri, R., & Davis, J. (1996). Bivalent attributes of the family firms. *Family Business Review*, *9*(2), 199-208. http://dx.doi.org/10.1111/j.1741-6248.1996.00199.x.

Turnbull, S. (2000). Corporate governance: Theories, challenges and paradigms. Gouvernance. *Revue Internationale*, *1*(1), 11-43. http://dx.doi.org/10.2139/ssrn.221350.

Turnbull, S. (2002). The science of Corporate Governance. *Corporate Governance*, *10*(4), 261-277. http://dx.doi.org/10.1111/1467-8683.00291.

Turrent, G., & Hughes, J. (2017). Corporate governance compliance of family and non-family listed firms in emerging markets: Evidence from Latin America. *Journal of Family Business Strategy*, *8*(4), 237-247. http://dx.doi.org/10.1016/j.jfbs.2017.10.001.

Van Ness, R. K., Miesing, P., & Kang, J. (2010). Board of director composition and financial performance in a Sarbanes-Oxley world. *Academy of Business and Economics Journal*, *10*(5), 56-74.

Villalonga, B., Amit, R., Trujillo, M., & Guzmán, A. (2015). Governance of family firms. *Annual Review of Financial Economics*, *7*(1), 635-654. http://dx.doi.org/10.1146/annurev-financial-110613-034357.

Wong, S. S., Qiang, W., Koh, K., & Tong, Y. H. (2019). Does board turnover enhance firm performance? A contingency approach. *Academy of Management: Proceedings*, *2019*(1), 2019.91. http://dx.doi.org/10.5465/AMBPP.2019.91.

Zajac, E. J., & Westphal, J. D. (1996). Who shall succeed? How CEO/board preferences and power affect the choice of new CEOs. *Academy of Management Journal*, *39*(1), 64-90. http://dx.doi.org/10.2307/256631.

SUPPLEMENTARY MATERIAL

Supplementary material accompanies this paper.

Appendix A. Supplementary Data 1 – Database

This material is available as part of the online article from: https://doi.org/10.7910/DVN/SU6FCB.

Financial support:
This study was partially funded by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001.

Open Science:
Mesnik, Samy Sznajder; Gama, Marina Amado Bahia; Carneiro, Jorge Manoel Teixeira, 2023, "Supplementary data - Testing the contributions of outside directors: should family firms respond differently?", https://doi.org/10.7910/DVN/SU6FCB, Harvard Dataverse, V1.

Conflicts of interest:
The authors have no conflict of interest to declare.

Plagiarism analysis:
RBGN performs plagiarism analysis on all its articles at the time of submission and after approval of the manuscript using the iThenticate tool.

Authors:
1. Samy Sznajder Mesnik, PhD, Fundação Getúlio Vargas, São Paulo, Brazil.
E-mail: Samy.mesnik@gmail.com
2. Marina Bahia Amado Gama, PhD, Fundação Getúlio Vargas, São Paulo, Brazil.
E-mail: abgama@gmail.com
3. Jorge Manoel Teixeira Carneiro, PhD, Fundação Getúlio Vargas, São Paulo, Brazil.
E-mail: Jorge.carneiro@fgv.br

Authors' contributions:
1st author: definition of research problem; development of hypotheses or research questions (empirical studies); development of theoretical propositions (theoretical work); definition of methodological procedures; data collection; literature review; statistical analysis; analysis and interpretation of data; critical revision of the manuscript; manuscript writing.
2nd author: development of hypotheses or research questions (empirical studies); development of theoretical propositions (theoretical work); definition of methodological procedures; data collection; literature review; statistical analysis; analysis and interpretation of data; critical revision of the manuscript; manuscript writing.
3rd author: development of hypotheses or research questions (empirical studies).