

Family involvement in publicly traded firms and firm performance: a meta-analysis

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Abstract:

Purpose:

This study aims to investigate the effects of family involvement in corporations on firm performance. It remains unclear whether family-owned companies, or companies with other forms of family involvement in the corporate governance, perform better than firms with no family involvement. Furthermore, the study focuses on family involvement in publicly traded firms, which are different from private family firms. Hence, knowledge about family firms will be enriched through a closer look at the publicly traded family firms and shed further light onto the heterogeneity among family firms.

Design/methodology/approach:

The present study uses a meta-analysis of the extant research on family involvement and publicly traded family firm performance. The authors synthesize past research, identify and reconcile mixed findings and expand the understanding of the phenomenon.

Findings:

Involvement of the founding family members in firm governance tends to improve firm performance, albeit the effect is rather weak. However, the effect varies greatly depending on the type of family involvement and the measure of performance. The authors also identify regional differences, as well as variations by the firm size and study design. Furthermore, under-researched areas are identified for future research.

Practical implications:

The results of the study would be useful in guiding organizational design and investment decisions.

Originality/value:

By using the meta-analytic approach, the present study provides a comprehensive review of the empirical evidence available on the issue so far. Most importantly, the authors were able to

conduct a series of tests to assess the moderating effects of a number of factors that could not be evaluated in any individual study in the meta-analytic database.

Keywords: Corporate governance | Family business | Strategic management | Organizational structure | Meta-analysis | Strategic management and leadership | Integrative review

Article:

1. Introduction

Many corporations around the world involve a large shareholder group, typically founding families (Villalonga and Amit, 2006a, 2006b, 2009a, 2009b). Founders and/or family members are usually officers, directors or blockholders, either individually or as a group in those publicly traded firms (Villalonga and Amit, 2009a, 2009b). Family business research in general suggests that family involvement can lead to the pursuit of particularistic goals and strategies (Carney, 2005). The behavior and performance of publicly traded family firms are expected to be distinct from those of non-family enterprises and other family firms (De Massis et al., 2012). Indeed, prior research has investigated whether family firms outperform their non-family counterparts (Anderson and Reeb, 2003a) and explored the connections between founders and firm performance (Adams et al., 2009). A review of the literature suggests that generally, involvement of the founding family in firm governance improves performance, although the effect varies depending on the type of family involvement (Anderson and Reeb, 2003a, 2003b, 2003c; Villalonga and Amit, 2006a, 2006b; Miller et al., 2007; Barontini and Caprio, 2006). In fact, studies show that different types of family involvement can affect firm performance positively or negatively or have no significant impact (O'Boyle et al., 2012; De Massis et al., 2012). For example, Berrone et al. (2010) showed a negative effect of family control on accounting performance, Filatotchev et al. (2005) reported a negative effect on firm valuation, and Anderson et al. (2009) found a negative effect on firm's operational performance.

It is largely because of these inconsistencies in findings that we set out to investigate the issue more comprehensively and explore whether the inconsistencies in findings are due to sample differences, study designs or other factors despite extensive extant studies (see De Massis et al., 2012 for review of recent research). For example, firm performance is measured in various ways such as *firm market valuation*, *firm accounting performance* and *firm operational performance*. Hence, testing the effects of family involvement on firm performance across all these possible variations of the input and output variables is not feasible within the domain of a single study. Given the inherent differences between family and non-family firms and among family firms themselves, a thorough review of family involvement in publicly traded family firms can improve our understanding of governance dynamics in those companies, as well as their impact on the firm performance, which plays a major role in national economies. As family firms are key value creators around the globe (Gersick et al., 1997; Bertrand and Schoar, 2006; O'Boyle et al., 2012), reviewing the effects of family involvement on firm performance in corporations would help us also appreciate the research progress made to date and identify the areas deserving future research. This paper provides such a meta-analytic review and integration of studies investigating the link between family involvement and firm performance.

The meta-analytic approach is uniquely suited to reconcile the inconsistencies of prior findings through a quantitative integration of the results of previous studies. It allows for:

- calculating an overall effect; that is, consolidating available empirical evidence into a single quantitative effect size; and
- testing the role of various contingency factors, such as differences in the sample, study design, measures or regions.

Often, deviations in results of different studies can be explained by these external factors, and the meta-analytic approach enables us to show how the main effect tends to vary across different sample characteristics and how the results could be affected by various measurement and study design choices. Finally, a meta-analysis is still a research review. Not only does it help to integrate available empirical evidence but also detect under-researched areas pertaining to the issue at hand, as well as discover promising venues for future research.

Hence, this meta-analytic review contributes to the literature in several ways. First, the study highlights the importance of different forms of family involvement in publicly traded companies to explain how families control corporations differently. By doing so, this review contributes to a better understanding of the differences between publicly traded family and non-family firms that are likely to have an impact on firm performance. Second, this review adds to the literature by reviewing different publicly traded family firm governance contexts and contingencies that can influence firm performance. By this, our understanding of the heterogeneity among family firms is improved (Melin and Nordqvist, 2007). Third, new insights and future research directions regarding corporate governance differences between family and non-family firms, as well as among family firms, are provided. Fourth, the meta-analysis allows for identifying and reconciling inconsistencies in the findings of past research that may stem from methodological or contextual differences.

Our review paper progresses as follows. First, research with a focus on the link between family involvement and firm performance in publicly traded family firms is reviewed. To do so, the focus is on family involvement in publicly traded firms concerned with:

- context moderators (i.e. institutional environment and firm size);
- methodological moderators (i.e. operationalization of firm performance, family involvement measure, research design, such as family versus non-family firm comparison and heterogeneity among family firms, time period investigated and sample size); and
- conceptual moderators (i.e. definition of family firms and theoretical background).

By examining these issues, the review is better positioned to evaluate key findings and their theoretical and practical implications. This allows identification of several under-researched areas that require close scholarly attention. We examine the moderators by applying meta-analytical techniques. In the final section of the review, we discuss our findings and provide promising future research directions and insights for practitioners.

2.Literature review

2.1 Family involvement and firm performance in publicly traded firms

Among corporations, family firms are different from non-family and other family firms by the level and type of influence they exert on firm behavior through ownership, management, board membership and the use of governance mechanisms. Thus, our meta-analytical study is intended to examine moderator effects and the defining characteristics on the link between family involvement and firm performance (O'Boyle et al., 2012) and to consider the differences between private and publicly traded family firms (Chrisman et al., 2014). We are focusing on various forms of family involvement in publicly traded firms and its influence on firm performance. A special consideration is also given to the context, as well as methodological and conceptual moderators, that may be influential on this link.

Family involvement in ownership, management and/or board can enhance firm performance, as the controlling family can provide superior oversight through lengthy tenure, invest in long-term projects or exhibit reputation concerns that diminish the possibility of questionable or irresponsible business practices (Anderson and Reeb, 2003a; Dyer and Whetten, 2006). Indeed, family ties, loyalty and stability concerns tend to lengthen the horizons of family managers beyond their tenure and lifetime and provide incentives to make efficient investments in the firm, which can consequently maximize firm performance (James, 1999). As the family members' business actions are closely linked to the welfare of the current and future generations, they are less likely to pursue personal interests over family considerations (James, 1999). In addition to the extended horizons rooted in the primary desire for the family's continuity, unity and legacy (Anderson and Reeb, 2003a; Le Breton-Miller and Miller, 2008), there is a close link between family's wealth and company's performance, particularly when family's ownership of the business is relatively high (Anderson and Reeb, 2003a). The particularistic perceptions of co-ownership, parsimony owing to family's wealth at stake and the future generations in mind can lead to family business members' current sacrifice for the long-run benefits for family by avoiding on-the-job consumption through lower dividends and profit sharing (James, 1999; Miller and Le Breton-Miller, 2005a, 2005b). This can facilitate family owner-managers' efficient investment decisions (Carney, 2005). Accordingly, a prominent stream of research shows that family firms may outperform non-family firms (Hoy and Verser, 1994; Habbershon and Williams, 1999; Anderson and Reeb, 2003a; Lee, 2004, 2006; Andres, 2008). A recent comparative meta-analysis by O'Boyle et al. (2012) suggests that the link between family involvement and firm performance may be positive and stronger in publicly traded family firms than in their non-family counterparts. To ensure consistency and reliability of the findings, in our meta-analysis, we examine this link by only focusing on publicly traded family firms. Our sample is larger and includes more recent studies that specifically explored the effects of family involvement in publicly traded firms.

Nevertheless, as O'Boyle et al. (2012) highlight, the link between family involvement and firm performance is likely to be affected by contingencies, such as firm size and culture. Moreover, whether it is the lone founder or the founding family as a whole that involves in managing the firm may also differentially impact firm performance (Miller et al., 2007; Adams et al., 2009). In our paper, we further expand the study of contingencies by examining context and

methodological and conceptual moderators on the link between family involvement and firm performance.

2.2Context moderators

In our meta-analysis, we examine the moderation effects of institutional context and firm size.

2.2.1Institutional context.

A review by Gedajlovic et al. (2012) suggests that the effects of family firm governance on firm performance may depend on the existence of institutional forces. Indeed, institutional context (i.e. legal system, managerial labor market and takeover market) can shape family owners and managers' power relative to non-controlling minority shareholders (Liu et al., 2012). For example, in the USA, family owners and managers may not have high levels of discretion power as peers in some other countries owing to effective investor protection. Accordingly, Peng and Jiang (2010) suggest that the impact of family ownership and family's involvement in management and/or board on firm performance is associated with the level of shareholder protection embodied in legal and regulatory institutions of a country. When there is effective investor protection, family owners tend to dilute their equity to attract minority shareholders and delegate management to professional managers (Peng and Jiang, 2010). In this case, family owners and managers do not have the incentive to use control enhancing governance mechanisms that enhance their power. In contrast, when the legal system is weak, ownership becomes more concentrated by family owners who would seek to perpetuate their control by participating in management (Peng and Jiang, 2010). However, the downside of the enhanced power of the controlling family in an environment characterized by weak legal investor protection is the vulnerability to principal-principal agency problems, such as expropriation of non-controlling shareholder wealth and entrenchment of controlling family.

Heugens et al. (2009) provide a meta-analytical review of studies focusing on the Asian region where they show a positive link between concentrated ownership, firm performance and moderation effects of institutions. The authors argue that strong legal protection of shareholders result in redundancy in concentrated ownership, whereas weak protection of shareholders leads to ownership concentration efficiencies as minority shareholders lack the incentive and mean to address managerial agency problems, if any. Hence, family firms can help to fill the void left by the underdeveloped institutional environment by providing financial, legal and governance protections (Liu et al., 2012). However, a certain threshold level of institutional development is necessary to make concentrated ownership effective (Heugens et al., 2009). Accordingly, in our meta-analysis, when we compare North America, South America, Europe and Asia, we expect that family involvement will have the most substantial impact on firm performance in relatively less developed institutional environments, such as Asian and South American regions, and less influence in more institutionally developed regions, such as Europe and North America.

2.2.2Firm size.

An important internal contingency on the link between family involvement and firm performance is firm size (O'Boyle et al., 2012). Maintaining family control may be of greater concern in

small- and medium-sized organizations than in larger ones (Chrisman et al., 2014). Despite the common assumption regarding corporations as being large-sized enterprises, we expect firm size to vary among publicly traded family firms to some extent as well. Owing to the heterogeneity among family firms, and even more specifically among publicly traded family firms, size differences are likely to exist. When that is the case, we expect that family involvement will be more influential on firm performance in relatively smaller corporations owing to higher ownership stake rather than mainly a controlling interest and more discretion power by the family.

Hence, in our meta-analysis, we examine whether family involvement is more influential on firm performance in less institutionalized context such as Asia and relatively smaller publicly traded firms.

2.3Methodological moderators

2.3.1Operationalization of family performance.

Studies examine firm performance mainly from three perspectives, which are market valuation (Anderson and Reeb, 2004), accounting performance (Miller et al., 2013) and operational performance (McConaughy et al., 1998). The most commonly used market-based measure in research on corporation is Tobin's Q (Chung and Pruitt, 1994) (Anderson and Reeb, 2004; Villalonga and Amit, 2006a, 2006b, 2009b; Miller et al., 2007). This measure has the advantage of incorporating current operations, potential growth opportunities and future operating performance (Anderson and Reeb, 2004). Hence, it reflects both current and anticipated profitability. Additionally, this market-based measure of firm performance is reflective of shareholder wealth creation, which suits the main concerns of studies of corporations. Firm accounting performance, concerning profitability is measured via return on assets (ROA = net income/average total assets), return on equity (ROE = net income/shareholders' equity) and return on investment (ROI = net income/total assets) (Carton and Hofer, 2006). Operational firm performance is measured in the forms of sales growth, income growth, R&D to sales ratio and capital expenditure to sales ratio.

We expect that the type of firm performance measure will also be influential on the link between family involvement and firm performance as families may be more concerned with and effective in certain outcomes compared to others. For example, families with long-term orientation and future generations in mind tend to be more concerned with patient investments (Astrachan et al., 2003; Zahra, 2005; Zellweger, 2007), and in turn, these families may focus on returns on assets than market-based valuation such as stock performance.

2.3.2Family involvement measures.

Some studies measure *family involvement as a dummy variable* where 1 indicates the existence of family involvement and 0 indicates otherwise. This is a simplistic and limited way of measuring family involvement as the composition of the family involvement in publicly traded firms tends to be more complex than in widely owned non-family firms because of the ownership concentration by the controlling family and ownership by minority shareholders.

Additionally, heterogeneity of distribution of shares across members of an extended kinship group can increase the complexity. *Family ownership* in publicly traded firms tends to be universally common, despite legal restrictions on high levels of ownership within the domain of some nations' legal systems (Shleifer and Vishny, 1997; La Porta et al., 1999; Villalonga and Amit, 2009a, 2009b). On the one hand, family owners around the world can often hold relatively high percentages of ownership (Gedajlovic and Shapiro, 1998). On the other hand, in the USA and UK, shares in most large firms are relatively more diffused such that even the largest shareholder possesses a modest stake in the company rather than a large block. Moreover, US and UK courts hold the legitimate power and authority to intervene to ensure that shareholdings are dispersed (Morck and Steier, 2005). Furthermore, at least in the USA, minority shareholders tend to be the most litigious with the support of a well-developed corporate takeover mechanism, which can discipline or even remove ineffective corporate insiders, including relatively larger shareholders (Morck and Steier, 2005).

Per Schulze and Gedajlovic (2010), studies have not always distinguished between the different effects of family ownership and *family management and/or board* membership. On the one hand, family owners may desire to govern their firms in certain idiosyncratic ways. On the other hand, family's involvement in management and/or board can facilitate family's governing their firms in the ways they desire. Family involvement in management and/or board can legitimize family's authority and empower family members to take actions benefiting the family. When more family members are involved in management and the board, the resistance of non-family managers or non-controlling owners to controlling family's decisions and actions will be less effective. Hence, family owners and management's goals are expected be aligned (Chrisman et al., 2012). This can enhance the owners' ability to protect their voting rights and controlling status and limit non-controlling owners' rights through the adoption and use of governance provisions serving these purposes if they want to. Without active participation in management and/or board, family's influence over the corporation may not be as substantial. Hence, family management and/or board membership will strengthen the effects of family on firm performance.

In some cases, family's management and/or board may not always accompany family ownership. Indeed, some family owners may not be willing or able to be involved in management and prefer to play the investor role. However, it is uncommon for families to be solely involved in management without any ownership. Therefore, in our meta-analysis, family management and/or board is distinguished from family ownership and investigated as a family involvement type contingency in the relationship between family involvement and firm performance owing to its strengthening family's ability and willingness to be influential on the firm.

Furthermore, findings are mixed concerning the performance differences between family firms controlled by *different generations*. Research shows that founder-controlled firms can outperform not only non-family firms but also descendant-controlled family firms (Barontini and Caprio, 2006; Lee, 2006; Miller and Le Breton-Miller, 2006; Villalonga and Amit, 2006a, 2006b; Andres, 2008). Some scholars argue the opposite by showing that descendant-controlled firms are more efficient and profitable than founder-controlled firms (McConaughy et al., 1998; McConaughy and Phillips, 1999). According to Sraer and Thesmar (2007), family firms largely outperform non-family firms regardless of being controlled by the founding or descendant families, whereas Miller et al. (2007) show that only businesses with a lone founder,

rather than a founding family, outperform others. Miller and Le Breton-Miller (2006) point out that family-controlled businesses perform well when they mitigate agency costs and foster stewardship behaviors among leaders. We expect that generational differences would be an important contingency on the link between family involvement and firm performance in our meta-analysis.

Families in the USA are also able to sustain or strengthen their control by using control-enhancing *corporate governance mechanisms*, which protect controlling shareholders (e.g. by creating excess voting rights over their cash flow rights) and managers (Villalonga and Amit, 2006a, 2006b; Memili, 2011; Memili et al., 2012). The use of control enhancing corporate governance mechanisms may be one key factor to understand the differences between publicly traded family and non-family firms and among family firms themselves as this may frame opportunistic actions of owners and/or managers as legitimate and result in idiosyncratic agency relationships and associated problems. Control-enhancing governance mechanisms, such as unequal voting rights in favor of the controlling family, can strengthen the family's ability to pursue economic and non-economic goals primarily benefiting family members, rather than increasing shareholder wealth. Accordingly, Gompers, Ishii and Metrick (2003) show that control-enhancing governance provisions used in the USA can lead to higher agency costs, if managers use them to resist different types of shareholder activism, e.g. geared toward directing executives and directors to manage the firm in line with shareholders' long-term interests (Daily et al., 2003). Gompers et al. (2003) also suggest that such mechanisms may be associated with performance differences among firms; however, they do not differentiate between family and non-family firms.

Villalonga and Amit (2009a) highlight the importance of the use of control-enhancing governance mechanisms in corporations and find that the impact of control-enhancing mechanisms on firm performance depends on the mechanism used. Some family business studies focus on a few of the control-enhancing mechanisms such as voting agreements, dual-class stock, cross-holdings, pyramids[1] and their impact on firm performance have been studied within the framework of publicly traded family firms (Villalonga and Amit, 2006a, 2006b). These control enhancing mechanisms generally increase voting rights of the families relative to their share ownership (Villalonga and Amit, 2006a). With more voting rights, controlling families can decide "what businesses to enter and exit, what companies to acquire, what assets to sell, how much to invest, what officers and directors to select, how much to pay them, and how much money (if any) to distribute themselves and minority shareholders", whereas non-controlling owners' rights are "to participate in dividend or other cash-flow distributions (that controlling owners decide on), and to benefit from capital gains (if there are any, and if the shares can be freely sold so that minority shareholders indeed realize those gains)" (Villalonga and Amit, 2009b, pp. 1-2). The controlling family may pursue family-centered targets and strategies to achieve those goals, which may consequently be beneficial to the controlling family but not to the non-controlling owners and the firm in general and thus can harm firm performance. Family firms are likely to exhibit unique corporate governance characteristics owing to the existence of controlling families and non-controlling owners with different interests.

Memili (2011) and Memili et al. (2012) examine the impact of family ownership and family's involvement in management and/or board on the use of corporate governance provisions and the interaction effects of family involvement components (i.e. family ownership and family's involvement in management and/or board) and corporate governance provisions on firm performance in the USA. Still, studies investigating other control-enhancing governance mechanisms used in different countries are also needed to better understand corporate governance, to distinguish between publicly traded family and non-family firms and to appreciate the heterogeneity among family firms.

2.4Research design

Another contingency is the research design with regard to the composition of the sample. Thereby, we identify studies comparing family and non-family firms and those which focus on family firms only to take a closer look at the heterogeneity among family firms. The majority of articles we examine are in the *family versus non-family firm comparison* category. In cases in which more than one sample has been applied by the authors, we resort to the sample used for the main analysis and not to those applied in sub-analyses or robustness checks. We expect that both research designs would be equally influential on the link between family involvement and firm performance.

2.5Time period investigated

The findings may vary in different time periods, such as 1980s, 1990s and 2000s, owing to the changes in the legal systems across countries. For example, the Sarbanes-Oxley Act, also known as Investor Protection Act, became effective in the USA in 2002 as a reaction to corporate accounting scandals. This act enhanced the reliability of financial reporting, transparency and accountability through increased internal controls and auditing (Coates, 2007). Hence, we expect changes in the impact of family involvement on firm performance owing to changes in the nations' legislative systems in different time periods investigated in research such that families may be more influential on firm performance in earlier time periods.

2.6Sample size

Finally, we expect that sample size in studies will play a role in the link between family involvement and firm performance. As small samples can produce large correlation coefficients, which may be statistically insignificant, and the opposite (i.e. smaller, but statistically significant coefficients) tends to occur in large samples, we expect that the influence of family involvement on firm performance will be more substantial in relatively smaller samples.

2.7Conceptual moderators

2.7.1Definition of family firms.

As the findings on performance in previous studies might be affected by the composition of the sample, the applied family firm definition has been regarded as moderator. Being aware that some other options exist to systemize family business definitions, we use six different clusters

adopted from a current study by Harms (2014) to account for outcome differences which can be traced back to definitional issues. These clusters are targeted to reveal the main trends in family business research and have been developed by focusing on the most frequently used definitions in previous research.

Thereby, *components of involvement and essence approaches* have been grouped together, as this categorization by Chua et al. (1999) suggests that components factors, such as ownership or control, have to be combined with elements depicting the essence of family businesses, such as visions and intentions. Studies based on Chua et al. (1999) and more recent updates (Chrisman et al., 2005) systematically differentiate between family and non-family firms, as well as among family businesses themselves, bearing in mind that components and essence factors are jointly crucial to account for family firms' uniqueness.

Definitions with *empirical focus* are explicitly geared toward conducting empirical analyses. First introduced by Anderson and Reeb (2003a) and extended by Villalonga and Amit (2006b), this definitional approach specifies operational criteria to empirically measure family business characteristics, especially those with effects on the relationship between family ownership and firm performance.

Definitions applied before the publication of the aforementioned definitional concepts and those intended to account to specific research designs are summarized under *other definitions*. *Self-developed definitions* categorize studies in which the authors neglect previous definitions and base their studies on new sub-classification and self-developed approaches. In contrast to those assigned to the other clusters, studies *without explicit definition* do not refer to any family firm definition or solely point to the used data source without defining the object of investigation.

Furthermore, Harms (2014) assigns some studies to the cluster *F-PEC or familiness* which contains all studies targeted at discussing "soft factors", such as family's values or commitment to the business. These definitions partly build on the components of involvement or essence approach but highlight the importance of experience and culture to explain family firms' distinctiveness. However, none of the articles in our review builds on this cluster.

In general, we expect no significant differences in results with respect to the family firm definition applied. However, some deviations might exist in studies in which no explicit definition or self-developed definitions are used to demarcate family from non-family firms. Owing to the missing information about the family firm definition in those studies, we are not able to predict in which direction family involvement might drive firm performance.

2.7.2 Theoretical background.

Studies on publicly traded family firms mostly draw upon agency theory, suggesting that the equity level of the controlling family can influence the conflicts between family and non-family shareholders (Gilson and Gordon, 2003; Villalonga and Amit, 2006b). For example, in large US corporations, founding families appear to be the only blockholders whose control rights on average exceed their cash-flow rights (Villalonga and Amit, 2009b). The discrepancy between family's control rights and ownership can exacerbate the agency problem of the expropriation of

non-controlling owners, as families bear only a fraction of the costs associated with the private benefits they reap (Jensen and Meckling, 1976; Claessens et al., 2002; Miller and Le Breton-Miller, 2006; Villalonga and Amit, 2006a). Hence, principal-principal agency problems arising between controlling and non-controlling shareholders can sometimes be more severe than the principal-agent agency problems in publicly traded family firms (Ali et al., 2007). However, according to Gilson and Gordon (2003), non-controlling shareholders will continue to prefer the presence of a controlling shareholder so long as the benefits from reduction in principal-agent agency costs are greater than the costs of private benefits of control. Interestingly, the authors also suggest that some private benefits of control may be even necessary to encourage a party or a group to be the controlling shareholder, owing to the costs associated with holding a concentrated position and with monitoring, whereas a non-monitoring shareholder often enjoys the full benefits of the monitoring provided by a controlling shareholder without incurring any monitoring cost (Ang et al., 2000).

While *agency theory* (versus *stewardship theory*) with a focus on principal-principal agency problems is the predominantly chosen theoretical framework for studies about publicly traded family firms, *organizational theory* provides the basis for one study (i.e. McGuire et al., 2012) in our meta-analysis. Few studies (Le Breton-Miller et al., 2011) apply *other theories*, and some studies (Miller et al., 2007; Peng and Jiang, 2010) in this meta-analysis applied more than one theoretical domain. To account for this and the potential effects on family involvement and firm performance, the respective articles have been summarized in the category *multiple theories*.

Hence, in the following section, we apply meta-analytical techniques to examine how family involvement is influential on firm performance depending on methodological and conceptual moderators.

3.Method

To test the impact of family involvement on firm performance in publicly traded firms and to assess the importance of contextual and methodological moderators in past studies, we conducted a meta-analysis of extant empirical evidence available in the public domain. Meta-analysis is ideal to quantitatively summarize and integrate the results of multiple primary studies (Lipsey and Wilson, 2000; Arthur et al., 2011; Hunter and Schmidt, 2004). The advantages of meta-analysis include the ability to quantitatively integrate large bodies of literature, examine relationships that are not investigated in the original primary studies, correct for study artifacts, test the effects of various moderators and mediators and uncover subtle trends that may be obscured in other approaches to summarizing research findings (Lipsey and Wilson, 2000; Arthur et al., 2011; Hunter and Schmidt, 2004).

3.1Search for relevant studies and study inclusion criteria

To identify relevant studies, we used both electronic and manual searches of scholarly publication databases (Arthur et al., 2011; Cooper, 2014). The sample is limited to publication of a particular type, i.e. peer-reviewed journal articles, and excludes dissertations, conference presentations and unpublished studies.

Studies that involve a measurement or estimate of family involvement in ownership, management and/or board in publicly traded firms are included in our meta-analytic database. Special attention was given to publications that also provide estimates of the relationship between family involvement in several domains of firm operations and various indicators of firm performance (King et al., 2004).

We began with an electronic search through academic databases such as Google Scholar, ProQuest, EBSCO Host, Academic OneFile, JSTOR and Web of Science. Information from publications that met our selection criteria were coded and recorded in the meta-analytic database. Next, we manually reviewed the reference sections of all studies coded in the initial round to find additional work on the phenomena that we are investigating. Finally, we used Google Scholar's "cited by" function to identify papers that cited the studies already in our meta-analytic database and checked if any of them contain data suitable for the present meta-analysis.

The following two main criteria were used to guide our inclusion/exclusion decisions:

1. The study must empirically assess the relationship between (a) family involvement and (b) firm performance in publicly traded family firms only (not privately held).
2. A quantitative index of the association between (a) and (b) must be provided in the paper (a correlation coefficient, t , F , d , χ^2 or other association estimate).

Our initial pool of studies that directly or indirectly explored the relationship between family ownership and firm performance was around 150. Applying these criteria reduced the number of articles that fit our selection criteria to 33. Please note, however, studies that satisfied criterion (1), but not criterion (2) were also included in the database. Using the vote count method, as applied in earlier meta-analyses (Taras et al., 2010; Merkin et al., 2014), we recorded the results of the articles in terms of their general conclusion on the nature of the relationship between family involvement and firm performance. That is, the results were simply recorded as "significant positive relationship", "non-significant relationship" or "significant negative relationship". While studies of this kind do not allow for a precise estimate of the effect size, they still provide useful information as they indicate the direction and significance of the relationship. Typically, studies that simply discussed the conclusion but provided no quantitative estimates of the relationship or studies that only reported the results of multivariate regression were included in the vote count category, as they allow for deriving the overall conclusion, but not for a correlation-like estimate of the direct impartial relationship between the two variables.

All studies were initially coded by one of the co-authors of the paper. The coding was later independently checked by at least one other co-author. The inter-rater reliability was very high, exceeding 0.90 for every variable (Orwin, 1994; Stahl and Voigt, 2008). In the few cases when there were discrepancies in the coding, the co-authors reviewed the original publications to reach a consensus and corrected the data, if needed. Unclear cases and disagreements were resolved through discussions between the raters. After all inconsistencies were resolved, all coders were in an agreement that the coding was accurate.

Following prior meta-analytic studies in the management literature (King et al., 2004; Crook et al., 2013), we applied the Hunter and Schmidt (2004) meta-analysis procedures. The effect size,

i.e. the strength of the relationships between the variables of interest, was estimated using correlation coefficients reported in the coded studies (Aguinis et al., 2011; Crook et al., 2013). Correction for measure unreliability, i.e. attenuation, was used to estimate the effect sizes more precisely (Hunter and Schmidt, 2004).

3.2 Measures

The focus of the present meta-analysis is on empirical studies that tested the relationships between the impact of a family on a publicly traded firm and performance of the firm.

3.2.1 Predictor variables.

Upon reviewing the studies that we investigate in this paper, we find that the impact of a family on a public-traded firm is mainly manifested in the following aspects:

1. family ownership;
2. the degree of family involvement in management and/or board;
3. whether the firms studies are considered/identified as a family firm;
4. the generational differences; and
5. governance provisions used.

Correspondingly, we adopt *family ownership* as an umbrella term to summarize existing studies, which utilize the similar measures to represent the impact of family ownership. *Family involvement in management and/or board* categorizes existing studies, which investigate independent variables that represent the participation of family in management and/or board. *Family firm dummy* is a dummy variable indicating that the company is identified as a family firm by the study included in our sample. *Family generational impact* summarizes existing independent variables that differentiate the influences of founders or first-generation family owners with those of the second-generation family owners or later-generation family owners. *Governance mechanism* includes a variety of measures which represent the firm's corporate governance provision choices. If a measure cannot be summarized into these categories, we label it as *Other predictor*.

Because of inconsistencies in terminology, it was not always possible to rely on the variable labels to determine if the study meets our selection criteria. Accordingly, we reviewed the specific measures in each of the studies pre-selected for inclusion in the meta-analytic sample[2].

3.2.2 Outcome variables.

Across studies, firm performance is operationalized in a variety of ways. Accordingly, we used several coding categories to record our outcome variable, including the following:

- *firm market valuation*, which includes, among others, stock performance and Tobin's Q;
- *firm accounting performance*, which includes measures of accounting performance such as ROA, ROE and operating return on asset (OROA); and

- *firm operational performance*, which encompasses measures of firm operational performance such as sales growth, income growth, R&D/sales and capital expenditure to sales ratio.

In cases when the firm performance indicators did not fall into any of the categories listed above, the type of outcome was coded as *Other*.

3.2.3 Moderators.

To examine how the moderators affect the link between family involvement and firm performance, we additionally recorded such characteristics. Hence, in our meta-analysis, we investigate the following moderators.

We examine the region as *institutional context* to determine whether the link between family involvement and firm performance varies across different parts of the world. The available data did not allow for a fine-grained analysis at the country level, but we had enough data to conduct the comparative analysis across the different continents, such as Asia, South America, North America and Europe. In a few cases, when samples included companies from multiple continents, they were coded as *Mixed*.

Unlike the common assumption that corporations are all large firms and owing to the possible size differences even among corporations, we explore if *firm size* has a moderating effect on the relationship between family involvement and firm performance. We used the sample description information to classify our samples in the following categories: small, medium and large firms. Unfortunately, most studies did not provide consistent indicators of the firm size, such as the employee number or revenues, so we had to rely on how the firms in each sample were referred to in terms of their size. Typically, the *large* label was reserved for Fortune 500 or similar companies, *medium* for smaller national firms and *small* for small regional firms.

The *study design* in our meta-analytic database relied on two basic approaches to study the effect of family involvement: one group of the studies used a comparison of family business versus non-family business approach, where performance of family businesses was compared to performance of non-family enterprises. The other group of the studies used a degree or heterogeneity analysis approach, where all firms in the sample were family businesses, but the degree of the family involvement varied.

We also recorded the *year (s)* when the data were collected for each study. This allowed us to examine if effect of family involvement on firm performance has been changing over time. Furthermore, we also recorded the *sample size* in each study not only to weigh the results by the sample size as it is common in meta-analyses but also to test if the studies with larger sample sizes reported different effects from those with smaller sample sizes. While this would be purely a statistical artifact, if systemic differences were confirmed, it could help us reconcile inconsistencies in the findings of different studies.

The *definition of family business* also varies among studies. To systematically differentiate between family and non-family firms and among family businesses themselves, we account for

components and essence factors, which explain family firms' uniqueness to a large extent, as well as for operational criteria, suited to empirically measure family business characteristics, in the study design. Thus, family businesses definitions might drive not only the research design but also the relationship between family involvement and firm performance.

Furthermore, we examine the *theoretical backgrounds* on which the reviewed articles are based to identify potential influences which might be traced back to theoretical assumptions in the studies' frameworks.

3.4 Measure commensurability

A common challenge in meta-analyses is that the summarized studies rarely utilize identical research design and methodology. Minor differences, such as the difference between ROA and OROA, are not likely to lead to a substantial alteration of a construct. If the meta-analytic study is concerned with correlations, as it is the case in the present study, the scale has no or negligible effects on the correlation coefficient. If needed, the variables can be rescaled. However, if the studies are substantively different, aggregation becomes questionable (Sharpe, 1997). In some cases, the decision as to what category a particular variable of a study falls into our categorization was not clear-cut. In those cases, we used other information provided in each manuscript and our own judgment to code variables.

Please note that the key piece of information recorded for each study was the correlation between family involvement and firm performance. A few publications provided no correlation coefficients and instead described the degree of association by using a different type of effect size, such as *d*-score, *F*-score or *t*-score. In those cases, the statistics were converted to the correlation coefficients by using standard conversion formulas (Cooper and Hedges, 1994; Hunter and Schmidt, 2004).

Finally, the sample size and reliabilities of the instruments were recorded. For studies that used objective measures, such as company profitability or market share, we assumed that data were nearly perfectly reliable. Recognizing, however, that even such precise records cannot be perfectly reliable, we used a coefficient of 0.95 for the data reliability. This approach allowed us to be more conservative and probably more precise in estimating the effect sizes in the population, as it is unlikely that any of the measures were perfectly reliable. Following procedures described by Hunter and Schmidt (2004), sample size and reliability statistics enabled us to provide meta-analytic indices that represent estimated population averages that were derived by aggregating individual correlation coefficients with corrections for measurement unreliability and weightings by the sample size (i.e. rho).

Generally, any association measure can be converted to any other association measure to achieve consistency across the effect sizes included in a meta-analysis. However, there are notable restrictions. First, when the only type of results that are reported in the paper are those from a regression analysis, it is impossible to parcel out the relationship between the dependent variable and one particular independent variable from a longer list of independent variables. The regression beta coefficients are effectively partial correlations, and the binary correlation cannot be reconstructed from a regression result table.

Likewise, some types of *t*-test results cannot be converted to a correlation coefficient. That is, while *t*-test statistics can normally be converted to any other association coefficient including correlations, *t*-statistics obtained based on a two-sample mean comparison cannot be meaningfully converted to correlation coefficients if both target variables are continuous. That is, if the subjects in two samples differ along a dichotomous characteristic (e.g. family versus non-family firms) and the *t*-score was provided for another characteristic that presumably differentiates the samples (e.g. market share below and above a certain cut-off point), then the *t*-score could be converted to a correlation coefficient representing the degree of association between the two target variables. However, if both variables are continuous (e.g. number of family members on the board of directors and market share), in some cases, such conversions are impossible.

Furthermore, some studies in our sample that were based on sample mean comparisons (e.g. using *t*-test) simply reported the sample means and a note that the sample mean differences were statistically significant at, for example, $p < 0.05$ level. A conversion of the *t*-score to *r*-statistics requires that either the exact *t*-values or *p*-values are provided. In such cases, obtaining the exact correlation estimate of the relationship between family involvement and firm performance is impossible. All we can learn from these studies is the direction of the relationship and whether the relationship is statistically significant (for details, see Cooper and Hedges, 1994; Hunter and Schmidt, 2004).

Nevertheless, results of these studies provide valuable information for a secondary verification of results. We included results reported in studies of this type in this meta-analysis by using a vote count approach, successfully applied in other meta-analytic studies (Bushman, 1994; Taras et al., 2010). Specifically, results of these studies were classified into one of the following three categories:

1. showed a significant positive relationship;
2. showed a significant negative relationship; and
3. showed no significant relationship.

4. Results

4.1 Sample

Our literature search identified a total of 47 journal articles that contained empirical evidence on the relationship between family involvement and firm performance in publicly traded family firms. Of those, 33 studies contained data that could be expressed as a quantitative index of association (i.e. correlation), while 14 studies could only be used in the vote count analysis.

More important in a meta-analysis is the number of samples for which the data are available and the number of data points available for analysis. Some publications reported results from multiple studies, some relied on multiple samples. Finally, most studies looked at the phenomenon from different perspectives and often tested the association between family involvement and firm performance by using varying degrees of family involvement in

corporations and firm performance indicators. As a result, most publications provided more than one analyzable data point. In total, 248 data points were available for the present meta-analysis, of which 212 were correlation-like data points, i.e. correlations or other association statistics convertible to correlation-equivalent, and 38 vote count data points.

One of the common mistakes in meta-analysis is double counting of studies. This happens when multiple correlations are reported for the same sample (e.g. the input or outcome construct was measured using multiple indicators). It is very important not to count those as independent points. Accordingly, every time when multiple indicators derived based on the same sample were available, we took an average of those and used it as a single data point to avoid double counting.

The total number of firms comprising the samples was 125,751, of which 100,223 were the firms in the quantitative part of the database, i.e. those that yielded correlation-like coefficients, and 25,528 in the vote count part. At least a few of the studies used overlapping samples (e.g. Fortune 500 firms). While the studies were conducted at different times and some of the firms on the list dropped out and new firms were added to the list between the studies, it is likely that there still was some overlap and data on some of the firms were used in multiple studies. Unfortunately, there was no way to parcel those out. Therefore, we had to assume that those were different samples and treated them as independent samples.

4.2 Effects of family involvement on firm performance in publicly traded firms

The main purpose of this meta-analysis was to examine the relationship between the extent of family involvement and firm performance in publicly traded firms (Table I). We first analyzed the data from the entire meta-analytic database and calculated the overall effect size (Table II). The overall effect size representing the relationship between family involvement and firm performance is 0.06 ($p < 0.05$). It is and also remains statistically significant across a wide range of contexts. However, despite being statistically significant and robust, the effect is relatively weak.

4.3 Moderator analysis

We further tested if the hypothesized relationship between family involvement and firm performance is influenced by the context (i.e. institutional environment and firm size), methodological moderators (operationalization of firm performance and family involvement, research design, such as differences between family versus non-family firms and heterogeneity among family firms, time period and sample size) and conceptual moderators (definition of family firms and theoretical background).

The findings revealed that, indeed, there are a number of factors that moderate the relationship between family involvement and firm performance or can explain the inconsistencies in earlier findings. First, we explored if the results could vary across the different *operationalization of firm performance*. The effects range from a sparse 0.02 for operation performance to a more substantive 0.09 for ROA. It appears that involvement of the founding family members in business does have a weak but statistically significant and meaningful effect on firm's ROA ($\rho = 0.09$, $p < 0.05$) and a somewhat weaker but still statistically significant effect on firm's stock

performance ($\rho = 0.05, p < 0.05$) and performance expressed as Tobin's Q ($\rho = 0.05, p < 0.05$). As noted, however, the effect is zero with respect to firms' operating performance.

Next, we explored if there are systemic differences in the results depending on the researcher's choice of the *family involvement type*. Indeed, it appears that the more proximal is the family involvement in management and/or board, the stronger is the effect. Specifically, the relationship was found to be strongest when family involvement is studied in the presence of the founding family members on the firm's top management team and/or the board of directors ($\rho = 0.08, p < 0.05$).

Further, we proceeded with the test of the moderating effects of the *context and methodological characteristics*. The data allowed us to explore how the relationship between family involvement and firm performance varied across different *institutional contexts*, i.e. regions. As we expected, the effect was found to be the strongest in Asia ($\rho = 0.12, p < 0.05$), where family ties and informal dealings play an important role in business. In contrast, it was found to be the weakest in North America and Europe, which are characterized by a highly institutionalized and litigious environment ($\rho = 0.05, p < 0.05$).

The effect also tends to diminish as the *firm size* increases. Family involvement was found to matter most in the small firms ($\rho = 0.12, p < 0.05$) and least in large firms ($\rho = 0.05, p < 0.05$).

Next, it appears that the *definition of family firms* provided in the studies moderate the reported results on the relationship between family involvement and firm performance. Studies that rely on components and essence approach tended to report the strongest effect ($\rho = 0.10, p < 0.05$), while studies that provided no explicit definition or had an empirical focus tended to report the weakest effect ($\rho = 0.05, p < 0.05$).

Likewise, the *choice of theory* was found to have a moderating effect on the findings. Namely, studies that relied on *organizational theory* tended to report much stronger effects ($\rho = 0.10, p < 0.05$) than studies that relied on *agency theory* or multiple theories ($\rho = 0.05, p < 0.05$). The weakest result was reported by the studies that use other theories ($\rho = 0.03, p < 0.05$).

On the other hand, the choice of the *study design* was not found to have an effect on the findings. The results were approximately the same regardless of whether the study was based on the comparison of the family firms versus non-family firms or the heterogeneity by the degree of family involvement was investigated ($\rho = 0.07$ and 0.05 , respectively, $p < 0.05$).

Intriguingly, *time period investigated* was found to have as strong moderating effect on the results. Overall, the sample size weighted correlation between the year of the study and the reported effect of family involvement on firm performance was a rather high ($r = -0.30 [p < 0.05]$). That is, the reported effect was found to diminish over time. To better understand the tendency, we conducted a comparative analysis of the meta-analytic estimates for the three different decades for which data were available. The effect size diminished from 0.14 in the 1980s to 0.06 in the 1990s and 0.05 in the 2000s.

Finally, we tested the moderating effect of the *sample size*. The correlation coefficient tends to be strongly influenced by the sample size. This is why statistical significance must be taken into account when interpreting a correlation coefficient. Small samples can produce large correlation coefficients, which may, however, be statistically insignificant. The opposite is true for large samples, which tend to produce smaller but statistically significant coefficients. This is certainly the case in our meta-analytic database. The correlations between sample size and the reported effect size is $r = -0.10$ ($p < 0.05$). In terms of different sample sizes, studies that used samples of 500 or fewer firms reported, on average, effects of $\rho = 0.14$ ($p < 0.05$), which further diminished to $\rho = 0.06$ and 0.05 for samples of 500-1,000 firms and over 1,000 firms, respectively.

4.4 Vote count

The results of the vote count analyses were generally consistent with the traditional meta-analytic tests. In line with the overall effect of family involvement on firm performance obtained by the meta-analytic integration, the vote count generally showed that somewhat, more studies report a statistically significant effect than studies that report a statistically negative effect. This was especially true for the categories where the meta-analytic effect was strongest. For example, when firm performance is operationalized in terms ROA, the meta-analytic effect size is the largest ($\rho = 0.09$, $p < 0.05$). Lending further support to this finding, six additional studies reported a statistically positive relationship, while only three studies reported a statistically negative effect. However, the opposite was true for some other categories. For example, the meta-analytic results suggest that when founding family member involvement in everyday management and board of directors, the effect of family involvement is the strongest, compared to when it is exercised in another form. Only three vote count studies confirmed this finding, while five reported a statistically significant result.

The more important conclusion here is that while overall family involvement in publicly traded firms may have a positive effect on firm performance, it is not very strong. Under some circumstances, the effect may even be negative. All in all, family involvement in publicly traded family firms certainly does not explain much variation in firm performance, although it plays some role.

In conclusion of this section, we should note, however, that the Q statistics was rather high and statistically significant for most of the reported meta-analytic effects, as well as the credibility intervals almost always included zero. This means that the reported effects are not uniform across all populations, and more moderators may be present. Unfortunately, our data did not allow for a more fine-grained moderator analysis. It appears it would be a promising future research venue.

4.5 Robustness checks

First, although the effect of family involvement on firm performance is rather weak, i.e. typically in the neighborhood of $\rho = 0.05-0.08$, it is statistically significant, irrespective of the sample, environment or study characteristics.

Second, the reported effects do not vary much across studies. Figure 1 illustrates the distribution of the reported effects. While we found a few studies that reported correlations that could be characterized as moderately strong, 90 per cent of the studies reported correlations in the range from -0.05 to 0.30 and over 70 per cent of the reported effects fell within the 0.05-0.20 range. That is, spare a few outliers, virtually all studies on the topic found that family involvement has a positive but weak effect on family performance.

Third, the fail-safe N was rather high for most of the meta-analytic effects, typically being close to k (number of studies used in the analysis). That is, even if we missed some studies, it would generally take as many zero-effect studies as we already found to negate the reported positive effect of family involvement. Thus, in case of having missed some studies, it is a small likelihood that all the studies we missed found a zero effect of family involvement on firm performance. Therefore, the effect may be weak, but there is strong evidence that it is persistent and greater than zero.

5. Discussion

Family involvement in corporations around the world is prevalent. However, we still do not know enough about the organizational outcomes of such involvement. To have a better understanding of the corporate governance dynamics in publicly traded family firms, we conducted a meta-analysis of published studies specifically examining the link between family involvement and firm performance.

Our findings contribute to the literature in several ways. First, we show that the effects of family involvement on firm performance are positive but weak among publicly traded firms. Family involvement is certainly no panacea, and it explains only a small portion of variation in firm performance. However, although the effect is weak, it is consistent and persistently positive. This finding is statistically significant in almost all contexts, and the findings are highly consistent across studies involving samples from around the world.

Second, our findings help us to better understand the variant results of studies investigating the link between family involvement and firm performance with a focus on publicly traded firms. Indeed, the meta-analysis allowed us to test contingencies, such as the nature of the studies and environmental characteristics, which seem to play an important role. Both types of contingencies were found to have a moderating effect on the relationship between family involvement and firm performance in publicly traded firms. More specifically, we found that operationalization of firm performance, type of family involvement, institutional context by region, firm size, definition of family firm, theoretical background, research design in terms of comparison between family and non-family firms and heterogeneity among family firms, time periods studied and sample size were contingencies that influence the link between family involvement and firm performance.

Third, our findings shed light on why the results varied remarkably across different studies. Evidently, context, methodological factors and conceptual factors tend to affect the results of the studies. Therefore, scholars and practitioners may need to act carefully while interpreting

findings and reaching conclusions by considering the moderators investigated in this meta-analysis and other possible contingencies beyond the scope of our study that may exist.

6.Limitations and future research directions

Like any meta-analysis, our study is not without limitations. Most of the limitations were pre-determined by the limitations of the studies in our meta-analytic sample. For example, we could only meta-analyze the studies that are available in the public domain. Thus, the file-drawer bias could be a threat to validity of our findings. That is, it has been suggested that studies that find no effect or have other undesirable characteristics may be less likely to be published (and stay in the file drawer). If this is the case, our sample may be systemically biased against the no-effect studies, which could affect our findings.

It must be noted that some of our estimates were based on a relatively small sample of studies. This is especially true of our moderator analysis where some of the estimates were calculated based on only few data points. Clearly, reliability of these findings is suspected, and thus, the findings should be interpreted with caution.

At the same time, these limitations provide directions for future research. The main goal of a meta-analysis is not only to provide a synthesis of earlier research but also to detect limitations of earlier studies. Our meta-analytic review shows that, indeed, a number of promising areas have been under-researched. For example, only few studies on the relationship between family involvement and firm performance were conducted outside the USA, and this is where family involvement appears to matter most. Hence, studies involving samples around the world and cross-country studies will increase the generalizability of findings.

Furthermore, the greatest promise was detected in the most under-researched areas. For example, we could find only three studies that focused on the effects of family involvement on firm performance in relatively smaller publicly traded firms, one studying small firms and two studying medium-sized publicly traded firms. Incidentally, this is where we detected the largest effect size. Because of low reliability of this finding and the small sample size, the reported effect may be far from the actual effect size. However, the current evidence suggests that this under-researched area is a promising venue for future research.

In addition, among the articles we have examined, the theoretical focus has been mostly on *agency theory*. However, although we had only one study drawing upon organizational theory, we observed the strongest effect size here. More research on the link between family involvement and firm performance through this theoretical lens may further enrich and advance theory of the family firm.

Perhaps most importantly, definition of family business is fundamental as it constitutes the foundation for theory and research design. Consistent with this, studies using the definition of family firms based on components and essence approaches tend to exhibit the strongest effect size while investigating the link between family involvement and firm performance, whereas studies lacking of a definition of family business appear to be the ones with lowest effect size and non-significant results. Therefore, we recommend future studies to start with a definition of

family firms based on components and essence approaches to set the stage for theoretical and methodological advancement efforts in the field.

7. Public policy implications

Enhancement of economic growth through maximizing shareholder wealth and providing employment in corporations are among the top priorities of many governments around the globe. The findings of the present study have important implications for public policy development. The macroeconomic policies geared toward regulating and supporting corporate enterprises for financial success within legal and ethical boundaries appear to be based on the assumption that firms of comparable size are homogeneous. Consequently, public policy programs usually categorize firms according to size (i.e. number of employees and sales turnover) and/or industry. Indeed, existing programs, rules and regulations place publicly traded family and non-family firms together into a “corporate sector”. This study suggests that publicly traded family firms are distinct from non-family firms in economically significant ways, owing to the controlling families’ influence on the firms even with relatively small percentage of involvement in corporate governance through ownership, management and board membership.

Our meta-analytic evidence on the impact of the family involvement on firm performance is a step forward by alerting policy-makers of the need for public policy to take into account the unique characteristics of this prevalent form of business enterprise. For example, publicly traded family firms pursue a variety of economic and family-centered non-economic goals that sometimes conflict with minority shareholders’ expectations (Anderson and Reeb, 2003a, 2003b, 2003c, 2004; Gómez-Mejía et al., 2001; Morck and Yeung, 2003). The better these goals are understood and articulated, the better policy-makers will be able to provide programs and regulations to limit the negative influence of families and enhance the positive impact for corporate family enterprise growth and success. If the policy-makers fail to recognize the importance of publicly traded family firms and their idiosyncrasies, not only the corporate units themselves but also the broader economies and societies could be adversely affected owing to their large scale and scope, which can be even at a global extent.

8. Conclusion

In our paper, family involvement in publicly traded family firms is reviewed by using meta-analytical techniques. We identified several factors which significantly drive the differences in results of previous research on the relationship between family involvement and firm performance. Thus, not only the operationalization of firm performance and the type of family involvement but also various moderator variables influence the relationship. Although the overall size effect is relatively weak, it is significant and increases when methodological and conceptual moderators are integrated in the meta-analytical framework. Through our study, we identified differences in the results of previous studies and potential explanations for its antecedents. By considering several influence factors, we seek to summarize past research, reconcile mixed findings and identify under-researched areas to get closer to a comprehensive understanding of the relationship between family involvement and firm performance in publicly traded firms. Thus, our findings can help not only future researchers to further develop family business theory

in various ways but also family business members, investors and consultants to better understand the role of family involvement in corporations.

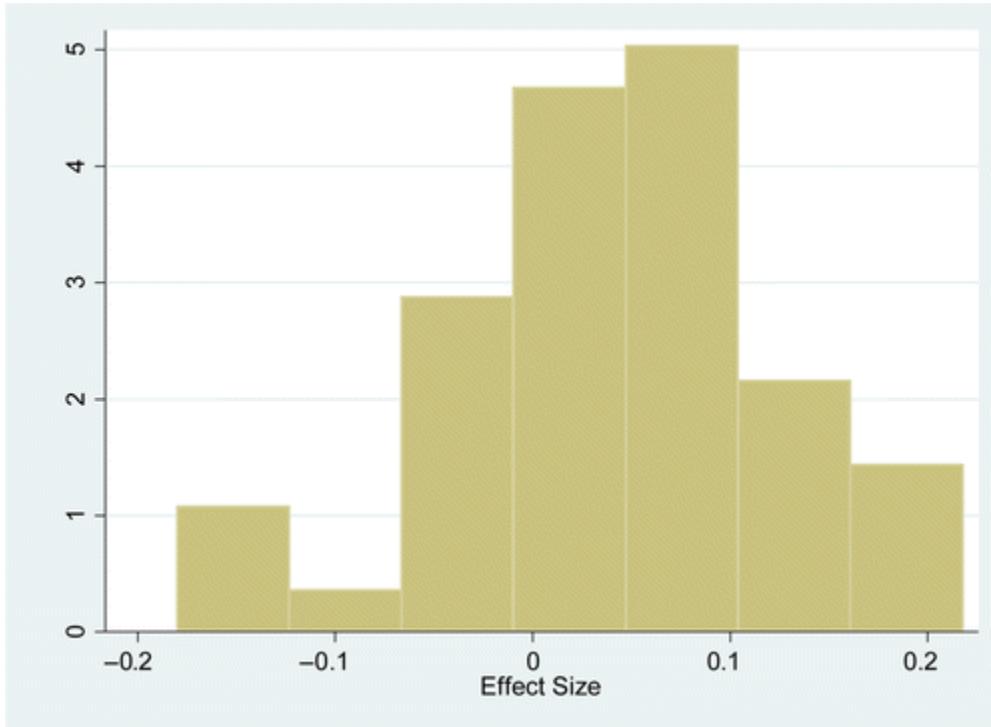


Figure 1. Robustness check: effect size distribution

Table I. Definitions of predictor and outcome variables

Variables	Definition
<i>Predictor variables</i>	
Family ownership	A continuous variable including the following categories: a) ownership of the largest shareholder in family firm; b) the percentage of equity owned by family members and its square term; c) ratio of the number of shares of all classes held by the family to total shares outstanding
Family involvement in management and/or board	Either a dummy or continuous variable. A dummy variable indicates whether the family has a member working as either management such as CEO or director; a continuous variable represents the total number of family members in the TMT and/or board of directors as well as its square term
Family firm dummy	A dummy variable which indicates whether the firm is defined as family firm
Family generational impact	Either a dummy or continuous variable. A dummy variable indicates whether the family has the founder or first-generation member working as either management such as CEO or director and thus controls the firm; a continuous variable represents the total block ownership by founder (or descendants) and families and closely affiliated individuals

Governance mechanism	A dummy variable or a continuous variable which includes various measures related to corporate governance mechanisms such as board independence, board ownership and institutional ownership
Other predictors	Other measures not included in the first four categories
<i>Outcome variables</i>	
Market valuation	Includes measures of firm market value such as Tobin's Q, EPS, P/E ratio and market/book ratio
Accounting performance	Includes measures of accounting performance such as ROA, ROE and OROA
Operational performance	Represents measures of firm operational performance such as sales growth, income growth, R&D/sales and capex/sales
Other outcome	Other measures not included in the first three categories

Table II. The direct relationship between family involvement and firm performance

Performance measures and moderators	N	k	ES _{uc}	ES _c	SD _{ES}	CI _I	CI _u	CrI _I	CrI _u	Q	N _{Fs}	k	N	+	N _S	-
Overall	100,2 23	3 3	0.05 *	0.06 *	0.0 4	0.04	0.07	-0. 03	0.1 4	160 *	25	1 4	25,5 28	7	1	6
<i>By performance scale</i>																
Accounting performance	16,15 4	2 8	0.06 *	0.07 *	0.0 7	0.05	0.09	-0. 05	0.1 9	75*	18					
Firm market valuation	16,40 7	2 7	0.04 *	0.05 *	0.1 0	0.01	0.09	-0. 13	0.2 2	134 *	20	2	849			2
Operational performance	8,060	1 2	-0.0 7*	-0.0 8*	0.1 0	-0. 14	-0. 02	-0. 27	0.1 2	79*	16					
Other	3409	4	0.05 *	0.06 *	0.0 4	0.03	0.09	0.06	0.0 6	3	3	1	300			1
<i>By type of family involvement</i>																
Family firm identity	9,169	1 5	0.07 *	0.08 *	0.1 1	0.02	0.14	-0. 13	0.2 9	99*	9	5	7,92 1	4		1
Family generational impact	3,637	4	0.06 *	0.07 *	0.0 5	0.02	0.12	0.00	0.1 3	7	3	3	6,15 4	1		2
Involvement in management and board	13,93 4	2 0	0.07 *	0.08 *	0.1 3	0.02	0.14	-0. 16	0.3 3	207 *	13	8	14,5 78	3		5

1980s	438	2	0.13 *	0.14 *	0.1 3	0.01	0.25	-0. 10	0.1 4	8*	1	1	236			1
1990s	84,81 0	1 9	0.05 *	0.06 *	0.0 4	0.03	0.06	0.01	0.1 1	18*	10	7	12,4 59	3		4
2000s	14,71 2	1 1	0.04 *	0.05 *	0.0 3	0.03	0.07	0.02	0.0 8	13*	9	5	8,46 8	2		3
<i>Sample size</i>																
Sample size-effect size correlation	100,2 23	3 3	-0.1 0*													
Less than 500	4,252	1 4	0.13 *	0.14 *	0.1 2	0.08	0.20	-0. 06	0.3 4	53*	5					
500-1,000	5,777	8	0.05 *	0.06 *	0.0 5	0.02	0.09	0.00	0.1 1	11	6					
More than 1,000	90,19 4	1 0	0.04 *	0.05 *	0.0 3	0.03	0.07	-0. 01	0.1 0	66*	8					

Note:

* $p < 0.05$

Notes

- 1. According to Morck and Steier 2005), a pyramid is a structure prevalent around the world except in the US and U.K. in which a shareholder, usually a family, controls a single company and this company then holds control blocks in other companies and each of these companies holds control blocks in even more companies, which is rare in the US.
- 2. Regardless of the actual variable labels, our operationalization of the predictor variables is explained in Table 1, which also includes definitions of the outcome variables.

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