The Relative Performance of Family Firms
Depending on the Type of Financial Market

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Abstract

The purpose of this multi-level meta-analytic study is to examine the impact of the financial environment on general performance differences between family firms and non-family firms. The considerable cross-country variability of meta-analyses focusing on this relationship suggests noticeable differences between firm- and country-based characteristics. We trace this variance to differences in the respective development of the financial markets and banking systems. We show that family firms outperform non-family firms in market-based economies. We further show that family firms report worse performance measures in well-developed financial markets. If, however, strong investor protection buttresses these already well-developed financial markets, family firms also outperform non-family firms. Our study has implications for banks, family firm owners, investors, and policy-makers.

JEL-Codes: D25, G15, G32, O16

Die relative Performance von Familienunternehmen in Abhängigkeit von der Art des Finanzmarktes

Zusammenfassung

Ziel dieser mehrstufigen meta-analytischen Studie ist es, die Auswirkungen des finanziellen Umfelds auf allgemeine Performance-Unterschiede zwischen Familienunternehmen und Nicht-Familienunternehmen zu untersuchen. Die große Variabilität der bisherigen Meta-Analysen, die sich auf diese Beziehung konzentrieren, deutet auf deutliche Unterschiede zwischen firmen- und länderbezogenen Merkmalen hin. Diese Abweichung ist auf Unterschiede in den Bankensystemen und die jeweilige Entwicklung der Finanzmärkte zurückzuführen. Es zeigt sich, dass Familienunternehmen in marktorientierten Wirtschaftssystemen besser abschneiden als Nicht-Familienunternehmen. Weiterhin ergibt sich, dass Familienunternehmen schlechtere Performance-Kennzahlen in gut entwickelten Finanzmärkten verzeichnen. Wenn jedoch ein starker Anlegerschutz diese bereits gut entwickelten Finanzmärkte stärkt, schneiden Familienunternehmen unter diesen Umständen auch besser ab als Nicht-Familienunternehmen. Diese Studie hat Implikationen für Banken, Eigentümer von Familienunternehmen, Investoren und politische Entscheidungsträger.

Im Internet unter:

http://www.wiwi.uni-muenster.de/io/forschen/downloads/DP-IO_08_2019

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1. Introduction

Historically, firms were mostly owned and managed by their founders and the founder's descendants. These firms developed over time and, as a result, their management became more complex, and the demand for new capital to grow further rose. Increased access to capital markets further enabled firms to finance their growth ambitions (Chittenden, Hutchinson, & Hall, 1996). As a result, this development led to a separation of ownership and control in most large businesses (Berle & Means, 1932; Burnham, 1941). In the past decades, research on family firms has gained increasing attention from various scholars as they bear certain characteristics which make them the most common form of enterprise in the world (La Porta, Lopez-De-Silanes, & Shleifer, 1999). However, they are usually perceived as conservative, loss-averse, and reluctant to change (Nieto, Santamaria, & Fernandez, 2015). Thus, although much attention has been devoted to this special form of firm governance, little consensus exists, and literature has exposed many gaps. These gaps certainly still exist in the impact on family firms' restrictions to access capital markets as a way to finance their growth ambitions (Chittenden et al., 1996).

Family firms tend to focus more on sustainable long-term growth and resilience than in short-term thinking in terms of profit (Kachaner, Stalk, & Bloch, 2012). Anderson, Mansi, and Reeb (2003) argue that families see their firm as an essential asset which they desire to pass on to their descendants. Hence, the preservation of a family's financial and socioemotional wealth can be seen as a major objective of family firms (Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007; Gómez-Mejía, Makri, & Kintana, 2010; González, Guzmán, Pombo, & Trujillo, 2013). As many family firms desire to maintain the control within the family, they often finance their operations and growth ambitions by retaining and reinvesting their profits inside the firm (Romano, Tanewski, & Smyrnios, 2001; Ward, 1987), before financing their growth with external debt or even the issue of equity (Grassby, 2000; Sirmon & Hitt, 2003).[1]

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[1] The reluctance to leverage the family firm's capital with external debt, or even the issue of equity, before internal funds have run out, is highly consistent with predictions from the financial pecking order theory (Donaldson, 1961; Myers, 1984; Myers & Majluf, 1984).

Nevertheless, this desire to keep control over the firm within the family leads to a limitation of resources available to invest in growth and innovation. Under those circumstances, development only through the retention of profits often complicates growth and leads to stagnation through the embracement of conservative strategies (Miller, Le Breton-Miller, & Scholnick, 2008; Schulze, Lubatkin, & Dino, 2002). Consequently, entrepreneurs and family business owners face various trade-offs regarding their growth ambitions: First, they might be willing to continue financing their operations and growth by retention of profits, which means that they maintain full control over their firm and do not have to follow any disclosure obligations. On the downside, this behavior might jeopardize firm survival, and consequently, the family's financial and socioemotional wealth. Second, debt funding (e.g. through bank finance) provides high incentives for family firms to maintain their ownership stake and use debt to finance growth ambitions. Third, equity funding provides access to large amounts of capital to grow without the risk of excessive indebtedness. On the negative side, issuing public shares leads to a dilution of family ownership and, accordingly, to a loss of control (Chemmanur & Fulghieri, 2014; Wu, Steven, & Wu, 2016).

To find an answer to the research question of how different financial environments affect the relationship between family firms and performance when comparing them to non-family firms, we apply meta-analytic regression techniques, based on 1,052,104 observations from 265 effect sizes in 25 countries. Our findings validate the base assumption of prior meta-analytic reviews that family firms, on average, outperform non-family firms over time (e.g. Carney, van Essen, Gedajlovic, & Heugens, 2015; Lohwasser & Hoch, 2019; van Essen, Carney, Gedajlovic, & Heugens, 2015; Wagner, Block, Miller, Schwens, & Xi, 2015).

Whereas most meta-analyses were not able to find any moderating effects on country levels, Lohwasser and Hoch (2019) find that institutions providing stability are crucial for family firms. Our paper extends the view that family firm performance is moderated by the effectiveness of country-specific institutions and focusses on characteristics concerning the financial markets and their impact on the focal relationship. We illustrate that family firms in market-based economies, on average, report better performance than non-family firms. Contrary, family firms perform worse in bank-based economies and well-developed financial markets. Yet, if these well-developed financial markets are, additionally, buttressed by strongly developed investor protection, we find a reverse effect.

Our study contributes to the family firm literature in at least three ways. First, we find that a country's financial system has a significant impact on the financial performance of family

firms when comparing them to non-family firms. We find that family firms outperform non-family firms in market-based environments, as issuing of shares forces them to establish adequate governance systems. Second, we show that family firms outperform in less-developed financial markets as they are able to finance their growth ambitions by themselves and do not engage in low-value projects. Third, we show that family firms in better developed financial markets outperform non-family firms if additional strong investor protection rules expropriate their ability to exploit advantages from their controlling ownership.

The remainder of this paper is structured as follows. Section 2 gives an overview of the literature and our hypotheses. Section 3 provides a description of our data and methodology. Results are presented in Section 4, followed by their discussion in Section 5. We conclude in Section 6.

2. Theory and Hypotheses

Subsection 2.1. reviews arguments about why the focal relationship is moderated by the type of a country's financial system. Subsection 2.2. hypothesizes why non-family firms outperform in better developed financial market systems before Subsection 2.3. takes an in-depth look into this moderating variable and explains why family firms outperform in well-developed financial markets with strong investor protection.

2.1. Debt versus Issuance of Shares

In a bank-based environment, control considerations of the family might come to a different conclusion as in economies that are market-based (Ampenberger, Schmid, Achleitner, & Kaserer, 2013; Schmid, 2013). As research on this topic is rare and suggests conflicting outcomes, we develop two opposing hypotheses:

When firms desire to grow more than the retention of their profit allows, they might approach banks to access bank credits, as capital markets and initial public offerings (IPOs) are often not an option for family firms. The role of bank debt is further considered as an opportunity to leverage their capital structure (Johnson, 1998; Leland, 1994).[2] While this behavior is generally avoided in market-based economies, it plays an important role in the bank-based model (Charkham, 1994).

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[2] However, Ampenberger et al. (2013) find that family firms in the bank-based economy in Germany have lower leverage ratios.

In the latter, banks provide financial services to industrial customers and, in return, receive privileged insights into the firms' operations. Through this, banks and firm owners often internalize their relationship, which facilitates the further access to the bank's capital, information, and other services (Thomsen & Pedersen, 2000). This holds especially true from the family's ability to engage in social relations with stakeholders: Family firms use their reputation to manage external relationships with stakeholders more efficiently (Sirmon & Hitt, 2003; Steier, 2001). Relationship banking refers to the provision of financial services by a financial intermediary that obtains customer-specific information to evaluate the investment's profitability through multiple and repeating interactions with the same customer, such as a family member (Ampenberger et al., 2013; Anderson & Reeb, 2003; Boot, 2000).

Hence, we expect the importance of relationship banking to play an even larger role in bank-based financial systems:

Hypothesis 1a: In bank-based economies, the relationship between family firms and superior performance is stronger than in market-based economies.

An opposing view, however, is that family firms in market-based economies would have to choose an initial public offering (IPO) as a way to strengthen their capital endowment. As a result, they need to establish proper management policies and install a board of directors, which should act in the interest of all shareholders. This leads to a professionalization of the firm that reduces nepotism and family-benefitting behavior, which is usually associated with diminishing shareholder value (Stewart & Hitt, 2012). Consequently, this market-based environment might decrease delicate issues arising from altruism and unique kinds of agency problems family firms are associated with (Schulze et al., 2002; Schulze, Lubatkin, & Dino, 2003). Moreover, and in comparison to non-family firms, family members evaluate business operations by their long-term strategic value, rather than by short-term returns as it is quite common in market-based economies (Wong, Chang, & Chen, 2010).

In sum, a market-based economy might reduce family firm related inefficiencies, and due to the stronger competition for funding, the focal relationship might be stronger in market-based economies:

Hypothesis 1b: In market-based economies, the relationship between family firms and superior performance is stronger than in bank-based economies.

2.2. Financial Market Development

The main task of a financial system is to select investment opportunities, mobilize resources for them, and monitor the performance of those (Demirgüç-Kunt & Maksimovic, 2002). Even though a family's long-term orientation towards the firm suggests that they provide more patient capital than external shareholders, it can still be argued that this amount of capital is restricted due to the family's desire to remain independent from external shareholders since they can be expected to be reluctant to dilute their ownership stake (Blanco-Mazagatos, De Quevedo-Puente, & Castrillo, 2007; Romano et al., 2001). As mentioned before, family firms tend to finance their operations by the retention of their own profits before they make use of outside capital. As a result, family firms tend to focus on strategic core activities and seek advantage in their niche (Stenholm, Pukkinen, & Heinonen, 2016; Stewart & Hitt, 2012) instead of raising capital for growth by diluting their ownership (Habbershon & Williams, 1999; Sirmon & Hitt, 2003).

Financial market development describes the degree of efficient allocation of resources in a country. It can be assumed that the family firm to non-family firm performance is affected in two ways:

First, if the financial sector allocates financial resources inefficiently, the profitability of funded firms decreases as money is invested inefficiently in projects with low value. Hence, the performance of the funded (non-family) firms is lower. Under these circumstances, family firms do not have reason to finance growth and can maintain their financing patterns. By reinvesting profits and remaining independent from the (underdeveloped) financial market, they can optimize their routines and increase their efficiency (Levinthal & March, 1993).

Second, in environments with highly developed financial markets, capital is allocated more efficiently, and firms can involve in opportunity-seeking activities (Hitt, Ireland, Camp, & Sexton, 2001). Under these circumstances, capital is allocated to firms engaging in explorative and entrepreneurial activities with high value. While non-family firms with widely dispersed ownership would pursue these opportunity-seeking activities, nepotism and conflicts in family-controlled firms may result in homogenous decisions regarding radical innovations (Webb, Ketchen, & Ireland, 2010). Hence, family firms with their traditionally more conservative risk patterns and smaller niches benefit less from this market situation (Chrisman & Patel, 2012; Miller et al., 2008).

Therefore, we expect the development of the financial market to moderate the focal relationship negatively:

Hypothesis 2: *Financial market development negatively influences the profitability of family firms.*

2.3. Institutional Investor Protection

Family shareholders might aim to hold a significant fraction of shares in order to control and steer the firm with regard to their own goals and protect themselves from the expropriation of other shareholders. In fact, even in large listed family firms with outside-managers, these might be dependent on the family's judgment, as family shareholders often represent a considerable share of the firm's equity (Anderson, Duru, & Reeb, 2012). Since, in these cases, ownership and control in a corporation are separated, agency costs arise due to the conflicting interests and asymmetric information between the firm's managers and owners (Eisenhardt, 1989; Jensen & Meckling, 1976; Ross, 1973) but also between different groups of shareholders, in particular controlling and minority shareholders (La Porta et al., 1999). The same conflicts exist between family and outside shareholders.

If the family members, however, are not only minority owners but, for instance, also actively participate in the management of the firm, they can pursue non-financial goals, which, on the one hand, maximize their own utility but, on the other hand, harm firm performance (Gómez-Mejía et al., 2007; Villalonga & Amit, 2006; Zellweger & Astrachan, 2008). Similarly, publicly listed family firms, where one family holds the majority of shares, can shape decision making towards less risky and more defensive and exploitative opportunities with lower potential outcomes in order to preserve the family's socioemotional and financial wealth (Webb et al., 2010). Hence, these firms suffer more from agency conflicts between family members and outside shareholders but perhaps also from conflicts within the family.

Strong institutional protection of investors constrains inappropriate exploitation of small shareholders by dominant owners and powerful managers (North, 1990; Scott, 1995; Stulz, 1988). This way, strong investor protection improves the position of minority shareholders, as it reduces the superiority of controlling family owners (La Porta et al., 1999). Therefore, controlling family owners are obliged to reduce their pursuit of non-financial goals and other performance-harming behavior.

As they, however, remain providers of socioemotional capital and patient equity (Sirmon & Hitt, 2003), we expect investor protection rules in the presence of well-developed financial markets to reduce performance-harming behavior of family ownership while highlighting advantages associated therewith:

Hypothesis 3: *The effectiveness of well-developed financial markets in terms of establishing a stronger relationship between family firms and performance will increase in the presence of investor protection laws and vice versa.*

3. Methods

Subsection 3.1. explains the data collection, the sample and inclusion criteria of the meta-analysis. Subsections 3.2. and 3.3. present the calculation of the effect sizes and the multilevel regression procedure, respectively.

3.1. Sample and Inclusion Criteria

We have conducted a comprehensive literature search seeking to gather a broad set of studies testing the relationship between family firms and performance when comparing them to non-family firms. This search comprised two steps: First, we looked up the references of previous review articles (Basco, 2013; Stewart & Hitt, 2012) and meta-analyses (Carney et al., 2015; O'Boyle, Pollack, & Rutherford, 2012; Wagner et al., 2015) and established a basis for not omitting a study that had already been considered in earlier work. As a second step, we searched in electronic databases such as ABI/Inform, EconLit, Google Scholar, and SSRN with a comprehensive keyword search[3]. This way, we were able to identify further and more recent studies. If any effect size information was missing, we contacted researchers and asked further clarification or information.

After reading all articles, we developed a coding protocol (Lipsey & Wilson, 2001) and a set of inclusion criteria to maintain comparability in this meta-analysis. First, we only included empirical primary studies using a dummy variable to distinguish between family firms and non-family firms. Studies providing continuous measures of family control were excluded from our study if they do not compare the difference between family firms and non-family

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[3] We used a variety of keywords for the terms family firms (such as "family firms", "family businesses", "family CEO", "family owned", etc.) and performance (such as "performance", "return on assets", "ROA", "return on equity", "ROE", "Tobin", "market-to-book", etc.).

firms. Second, we require the authors of the respective studies to explain clearly how they define a family firm. Third, as this meta-analysis evaluates differences in performance-outcomes, we only considered studies reporting accounting measures, such as return on assets (ROA), or return on equity (ROE), or market measures, such as Tobin's q[4] or market-to-book value of assets. Fourth, we only included empirical studies on private or public firms, as studies suggest crucial differences when comparing mixed types of ownership (Burgstahler, Hail, & Leuz, 2006; Casillas & Moreno, 2010; Kowalewski, Talavera, & Stetsyuk, 2010; Villalonga & Amit, 2006; Zhou, 2012). As the last criterion to ensure comparability and validity, we have ensured that studies were published in either an academic journal or as a working paper in English language and after the year 2000.

To avoid systematic bias, we removed all articles that seem to use identical data sets by using Wood's (2007) heuristic to detect duplications. In cases where we detected duplicates, we selected one of the articles randomly and coded its effect sizes. This way, we gathered a final sample of 76 primary studies (73 journal articles, 3 working papers), with relevant estimates between 1955 and 2012. If a primary study provided more than one firm-year estimate, we followed Bijmolt and Pieters (2001) and included all relevant variables assessed in this study. In total, we coded a final sample of 265 effect sizes for 25 countries[5]. We completed our search for studies in December 2018.

3.2. Calculation of the Effect Size

To provide the mean effect size, we performed the Hedges and Olkin-type meta-analysis (HOMA; Hedges & Olkin, 1985), where we used the correlation r as an effect size measure. The correlation r is an easily interpretable, scale-free measure of linear association. If studies did not provide correlation units, we used formulas provided by Lipsey and Wilson (2001) and Borenstein et al. (2009) to convert the measures provided to the standardized mean difference d and then to a correlation r. We then transformed the correlation r to the Fisher's z scale, as this stabilizes the variance and corrects for skewness in the effect size distribution (Fisher, 1921). As the last step, we converted the calculated summary effect size z and its confidence intervals back to correlation measures. We used the inverse variance weight w to

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[4] Tobin's q expresses the book value of liabilities and the market value of common equity, divided by the book value of assets.

[5] Australia, Bangladesh, Belgium, Canada, Chile, China, Colombia, Finland, France, Germany, India, Indonesia, Italy, Japan, Malaysia, Mexico, Norway, Pakistan, Poland, Portugal, Spain, Switzerland, Taiwan, Turkey, and the USA.

measure precision across the varying sample size (Hedges & Olkin, 1985). Our HOMA uses random-effects models (Geyskens, Krishnan, Steenkamp, & Cunha, 2009).

3.3. Multilevel Regression Procedure

Including a large number of multinational studies requires to assess whether primary study results are consistent within and between studies (Hox, 2010; Raudenbush & Bryk, 2002). As we expect variation at lower levels in the dependent variable, we also include information from higher levels and perform a hierarchical linear modeling meta-analysis (HiLMMA) and follow the methodological approach of van Essen, Heugens, Otten, and van Oosterhout (2012). This way, we can address the variances stemming from sampling error at the individual effect estimates-level and from systematic inconsistencies in the distribution of the effect size. For computation, we use the restricted maximum likelihood (REML), as it produces less downward bias and removes fixed effects from the model (Hox, 2010). We followed the instructions of Assink and Wibbelink (2016) and performed two separate one-sided log-likelihood ratio tests, which compare a model without within-study variance with our multilevel model. Our sampling variance (Cheung, 2014) suggests that more than 20% of the total variance is ascribed to country-level variance.

We included several control variables for the study-level[6] and the variation between different countries[7]. To address our research question, we model institutional country characteristics, which represent each respective financial environment as country-level predictors. Definitions of all variables and their sources are provided in Table 1.

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[6] At study level, we included predominantly measurement and methodological artifacts, such as whether a study measures family involvement in the management or not, the type of performance measure, whether the sample consists of privately held or public firms, whether the study is an article in a refereed academic journal or a working paper, and the length and median of the considered period in the study.

[7] At country-level, we controlled for possible effects stemming from general advancement of institutions by including the World Governance Indicators (WGI) and the percentage share of domestic credit provided by the financial sector to the gross domestic product of a country.

Variable Name	Definition
Performance Definitions	
Accounting Measures	Performance indicator: Financial performance, based on accounting measures of firm profits, such as Return on Assets or Return on Equity. Source: Primary study.
Market Measures	Performance indicator: Financial performance, based on market measures of firm profits, such as Tobin's Q or Market-to-Book-Ratio. Source: Primary study.
Accounting Measure (d)	Binary variable equal to 1 if the primary study uses Accounting Measures to measure financial performance and not Market Measures. Source: Primary study.
Sample and Methodology	
Family Management	Involvement indicator: Ownership and top-management-involvement of family members to be classified as family firm. Source: Primary study.
Mixed Management	Involvement indicator: Blockholder ownership or ownership and board-involvement requirements to be classified as family firm. Source: Primary study.
Management Position (dummy)	Binary variable equal to 1 if the respective study uses a definition of family firm, which requires family members to be a part of the top-management-team. If the study considers a family firm to simply be owned by a family not necessarily involved in the firm's day-to-day management operations, the binary variable is coded 0. Source: Primary study.
Private	Investigated firms are privately held. Source: Primary study.
Listed	Investigated firms are publicly listed. Source: Primary study.
Private Firm (dummy)	Binary variable equal to 1 if the firm is privately held and not publicly listed. Source: Primary study.
Journal Article (dummy)	Binary variable equal to 1 if the primary study is an academic journal article. Working papers are coded 0. Source: Primary study.
Length Sample Window	Number of years considered in primary study. Source: Primary study.
Median Year Sample Window	Median year of considered period of the study. Source: Primary study.
Banking Environment Characteristics	
Bank-based	Financial system indicator: Financing patterns of an economy are bank-based and debt-driven. Source: Demirguc-Kunt & Levine (1999).
Market-based	Financial system indicator: Financing patterns of an economy are market-based and IPO-driven. Source: Demirguc-Kunt & Levine (1999).
Bank-based (dummy)	Binary variable equal to 1 if the sample is located in a country with bank-based economy. Source: Demirguc-Kunt & Levine (1999).
Local Equity Market Financing (rank)	Indicator of difficulty for companies to raise money by issuing shares on the stock market. Categories: 1 = extremely difficult; 7 = extremely easy. Source: World Bank.
Financial Market Development (rank)	Efficiency indicator of resource allocation by a nation's population. Represents sophistication of financial markets to make capital available for private-sector investments. Important factors are, among others, trustworthiness, transparency, and regulation. Categories: 1 = extremely inefficient; 7 = extremely efficient. Source: World Bank.
Governance Variables	
Investor Protection	Indicator of disclosure of transactions, extent of director liability, and shareholders' ability to sue directors and officers for misconduct. Categories: 0 = low protection; 10 = high protection. Source: World Bank.
World Governance Indicators	Institution advancement indicator reporting the six dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. Source World Bank.

Table 1: Variables in the Regression Models

4. Results

Subsection 4.1. presents the HOMA results, Subsection 4.2. the HiLMMA results and Subsection 4.3. tests of robustness and a possible publication bias.

4.1. HOMA Results

Table 2 presents the results of the r-based HOMA results for the focal relationship. In line with our prior meta-analyses (Lohwasser & Hoch, 2019), our findings support the conclusion that overall family firms outperform non-family firms (ES=0.03, p<0.01). The findings are based on k = 265 effects and include 1,052,104 firm-observations. The considerably large Q-statistic ($Q=7,146$) implies that there likely exist moderators that explain the large variability in effect sizes.

	k	N	ES		s.e.	Q-test		I^2
Overall Relation	265	1,052,104	0.03	***	0.01	5,821	***	97.04
Management								
Family Management	80	147,585	0.02		0.02	2,021	***	97.99
Mixed Management	185	904,519	0.04	***	0.01	3,779	***	95.79
Performance Measure								
Accounting Measures	219	788,999	0.02	**	0.01	1,965	***	95.85
Market Measures	103	263,105	0.04	***	0.01	4,604	***	97.98
Listed on Stock Market								
Private	34	502,275	-0.04		0.03	655	***	97.64
Listed	231	549,829	0.04	***	0.01	5,076	***	96.56
Financial System								
Bank-based	69	135,813	0.01		0.01	590	***	92.99
Market-based	157	849,989	0.03	***	0.01	4,605	***	97.98

Note: k=number of effect sizes; I=total sample size; ES=effect size (variance weighted), significance is based on z-test; $s.e.$=standard error of ES; z=CI=Confidence interval; Q-test=test for heterogeneity; I^2: Ratio of the study variance due to heterogeneity.
Significance levels: *=10%, **=5%, ***=1%.

Table 2: HOMA results

In order to validate our sample, we moderated for different measures of family firms and performance as suggested in recent meta-analyses (e.g. Carney et al., 2015; O'Boyle et al., 2012; Wagner et al., 2015). The findings reveal that family firms with family members as part of the top management team do not statistically significantly outperform non-family firms (ES=0.02, n.s.), whereas other types of family governance (ES=0.04, p<0.01) show a positive relationship between family firms and firm performance.

The further inspection of performance measures is only partly capable to explain the heterogeneity detected, as neither accounting measures (ES=0.02, p<0.05) nor the market measures (ES=0.04, p<0.01) profoundly moderate the focal relationship.

However, distinguishing the overall effect between different types of firm performance, we find a significant difference according to whether the firm was publicly listed or privately held. While the association with performance in samples of public firms is positive and significant (ES=0.04, p<0.01), the association with performance in samples of private firms is negative but insignificant (ES=-0.04, n.s.).

Using country-specific determinants, we moderated for the effect of a country's financial system. We find a significant positive impact on the family involvement-performance relationship in countries with market-based economies (ES=0.03, p<0.01). The effect in countries with bank-based economies is positive but insignificant (ES=0.01, n.s.). Hence, we find support for our Hypothesis 1b.

4.2. HiLLMA Results

Table 3 provides the effect size based HiLMMA results. The very negative Akaike information criterions (AIC) indicate that the data fits well (Baguley, 2012). The intraclass correlation coefficient (ICC) of all models, measured by a random-effects ANOVA analysis, reveals a considerable amount of variability within countries. However, variability between countries should still be considered. Expected multicollinearity in our models is of minor concern in all models proposed, as the variance inflation factors of all variables in models without interaction term lie below the conservative threshold of 5 (cf. Allison, 1999; O'Brien, 2007).

Model 1 only contains level 1 predictors. Model 2 contains level 1 predictors as well as the direct effects of all level 2 predictors, except *Investor Protection*. Our findings provide further support for Hypothesis 1b: *Bank-based* financial systems negatively moderate the focal relationship (β=-0.05; p<0.1), implying that family firms outperform non-family firms in countries where family firms have to compete in market-based financial systems.

Model 2 further provides evidence for Hypothesis 2: The better developed the financial market, the worse is the focal relationship (β=-0.06; p<0.05). The findings regarding Hypotheses 1 and 2 are consistent throughout all models. Even in Model 3, with all control variables, the effect sizes for *Bank-based* and *Financial Market Development* remain statistically significant.

	Model 1	Model 2		Model 3		Model 4	
Intercept	2.616	8.624	**	6.730		6.879	
	(3.168)	(3.709)		(5.242)		(5.063)	
Level 1 Predictors							
Management Position (d)	-0.005	-0.005		-0.004		-0.003	
	(0.018)	(0.019)		(0.019)		(0.019)	
Accounting Measure (d)	-0.015	-0.009		-0.009		-0.007	
	(0.016)	(0.018)		(0.018)		(0.018)	
Private Firm (d)	-0.032	0.012		0.003		0.014	
	(0.033)	(0.032)		(0.035)		(0.034)	
Journal Article (d)	-0.008	-0.008		-0.007		-0.008	
	(0.028)	(0.029)		(0.030)		(0.030)	
Length Sample Window	0.002	0.003		0.002		0.003	
	(0.002)	(0.002)		(0.003)		(0.003)	
Median Year Sample Window	-0.001	-0.004	**	-0.003		-0.003	
	(0.002)	(0.002)		(0.003)		(0.003)	
Level 2 Predictors							
Bank-based (d)		-0.052	*	-0.058	*	-0.054	*
		(0.029)		(0.032)		(0.030)	
Domestic Credit		0.000		0.000		0.000	
		(0.000)		(0.000)		(0.000)	
Financial Market Development		-0.062	**	-0.053	*	-0.172	**
		(0.025)		(0.027)		(0.074)	
World Governance Indicators		0.057	***	0.056	**	0.059	***
		(0.017)		(0.018)		(0.017)	
Investor Protection				-0.001		-0.011	*
				(0.001)		(0.006)	
Investor Protection x Financial Market Development						0.002	*
						(0.001)	
Level 1 Observations	265	225		223		223	
Level 2 Observations	35	27		27		27	
AIC	-321.46	-251.05		-243.44		-241.76	
ICC	0.17	0.00		0.02		0.00	
R^2	0.03	0.10		0.08		0.10	

Note: Numbers in parentheses are standard errors. Dependent variable is the focal relationship: Family firm performance vs. non-family performance.
Significance levels: *=10%, **=5%,
***=1%.

Table 3: HiLMMA Results

In Model 4, the results support Hypothesis 3. The product term of *Investor Protection* and *Financial Market Development* is small but positive and significant ($p<0.1$). This finding implies that well developed financial market systems encourage family firm performance more efficiently when the investor protection laws are more developed, and vice versa. Interestingly, the significant direct effect of the *Financial Market Development* suggests a more negative effect on the focal relationship (β=-0.17; $p<0.05$) when a country's *Investor Protection* equals the grand mean. The significant direct effect of the *Investor Protection* classification implies that rules, safeguarding rights of (minority) shareholders, have a statistically significant negative direct effect on the focal relationship (β=-0.01; $p<0.10$) when the other value equals the grad mean in a given context. The statistically significantly negative direct effects of the vari-

ables in the interaction term suggest that *Investor Protection* as well as *Financial Market Development* still have an effect when each other's scores equal the grand mean.

The control variables suggest that the percentage share of *Domestic Credit* provided by the financial sector to the gross domestic product of a country does not have any influence on the focal relationship. Notably, the *WGI* has a noticeable and statistically significantly positive influence on the focal relationship, suggesting that family firms perform better in countries with more advanced institutions.

4.3. Robustness and Publication Bias

To test the robustness of our findings, we computed simple meta-analytic regression analysis (MARA; Lipsey & Wilson, 2001). Apart from higher levels of significance, our MARA-results confirm our main findings.

To test further robustness, we excluded individual countries with extreme values in terms of *Investor Protection* and *Financial Market Development*. First, we ran all regressions without the country with the lowest values (China for *Financial Market Development* and Switzerland for *Investor Protection*) and the highest values (Australia for *Financial Market Development* and Malaysia for *Investor Protection*). Then we carried out all regressions without the respective countries at both extremes. The findings in these six scenarios remain constant for our main explanatory variables and the interaction term. We further conducted all analyses without the USA, as the large number of studies conducted on US-family firms represent 47% of our sample. Interestingly, the statistical significance of most findings reduces although the direction and strength of the effects remain almost constant.[8] This robustness check suggests that the results are partly driven by the large number of US-studies conducted in family firm research and calls for the promotion of further research in non-US countries.

To investigate a possible publication bias in our meta-analysis, we applied three techniques: First, we evaluated publication bias using the trim and fill method for our main dataset (Borenstein et al., 2009; Viechtbauer, 2010). The computation reports no publication bias, as zero studies are missing on the right side. Second, we analyzed the funnel plots of all HiLLMA-models included in this study. None of the funnel plots suggested that our paper suffers from publication bias, as a large number of studies was plotted symmetrically near the

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[8] The results of our robustness tests are available upon request.

average effect size. As funnel plots with large sample sizes can be hard to interpret, we further calculated Egger's test (Egger, Smith, Schneider, & Minder, 1997) for all MARA-models[9]. As these tests are not significant, all applied tests do not suggest any evidence of publication bias. Hence, our sample allows a representative analysis of the research question.

5. Discussion

This meta-analysis makes a valuable contribution towards research on the relation between family firms and performance as well as the influence of the type of financial market system and its development. This study aims to provide evidence to the question of which financial environments drive the success of the most common form of enterprise in the world.

Unlike prior meta-analyses (e.g. Carney et al., 2015; Lohwasser & Hoch, 2019; O'Boyle et al., 2012; Wagner et al., 2015), this study does not only focus on performance measures, definition differences, stability, and country classification by applying Hofstede's framework (Hofstede, 2001) but also provides interesting insights by taking the financial environment into account. Hence, this study does not only confirm recent findings but also supplements the understanding of the institutional sources of the family firms' competitive advantage.

The overall finding shows a low statistically significantly positive association between family involvement with superior business performance, which comes from their emotional and physical investment of patient capital and their advocacy to the firm.

While current literature does not provide a clear direction of the influence of the financial bank systems, our meta-analysis suggests that a market-based economy strengthens the focal relationship. This suggests that relationship banking and its associated advantages are not as present as suggested in the literature. In contrast, the benefits of professionalizing family governance through an IPO seem to strongly influence the association of family firms with superior performance compared to non-family firms.

We further show that family firms outperform non-family firms in countries with less developed financial markets. While non-family firms, under these circumstances, also engage in low-value projects, family firms are reluctant to waste their limited resources and prefer sticking to smaller projects with higher rewards. This suggests that the traditional financing patterns of family firms are more valuable in this environment, as optimizing their routines and

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[9] The R-package "metaphor" cannot compute Egger's test with multilevel-models.

increasing their efficiency is a crucial prerequisite for the resilience of family welfare. What comes as an advantage in poorly developed financial markets, becomes a huge handicap in well-developed financial markets: homogenous decisions, resulting from nepotism and conflicts regarding explorative and risky investments slow down growth and profitability in family firms compared to widely dispersed, opportunity-seeking non-family firms.

However, when strongly developed investor protection institutions buttress the well-developed financial market, family firms report better performance results. Markets that foster outside shareholders to deputize for own interests constrain inappropriate nepotism or pursuit of socioemotional goals of dominant family owners. This additional monitoring of smaller shareholders that supplements the already engaged monitoring of family owners, also forces family firms to make use of the available capital and also pursue more explorative activities. Their long-term strategic focus and patient capital further distinguish them from non-family firms, which makes their strategic decision making less erratic in periods with worse economic growth.

Our results offer valuable insights into the mechanisms connected to family governance and hold implications for banks, family firm owners, investors, and policy-makers: First, banks and other lenders should judge their risk profile in negotiations with family firm owners, as family firm owners are considered to be loss-averse (Chrisman & Patel, 2012; Gómez-Mejía et al., 2007). Second, family firm owners in bank-based economies should reconsider their financial and non-financial goals. If they are considering an IPO at any point in the future, they should reduce their pursuit of non-pecuniary goals in order to achieve higher stock market valuation. If they, however, plan to extend their socioemotional wealth and non-pecuniary goals, it might be better to remain independent from financial markets. Third, investors should consider their investment decisions based on our findings: When investing in less financially developed countries, they should preferably invest in family firms, as our findings show that they, on average, outperform non-family firms, as they focus on resilience rather than growth. In countries with better developed financial systems, investors should make use of their shareholder rights and suppress all forms of nepotistic or family-benefitting behavior. Forth, policy-makers should investigate the dominance of family businesses on their country's economic welfare. If they promote a more efficient allocation of capital, they should also ensure higher investor protection to reduce the expropriation of outside shareholder rights by discouraging inappropriate behavior by major family owners.

6. Conclusion and Recommendations

This study bridges the gap between literature on family firms and strategic entrepreneurship by demonstrating the influence of a firm's financial environment on the relationship between family involvement and firm performance. By taking a large number of studies into account, we confirm that family firms are positively associated with superior firm performance. Our findings further emphasize the important dependence between a firm's governance and its financial market environment: We show that a country's financial arrangement significantly influences the focal relationship: While family firms in bank-based financial systems show worse (or at least similar) performance, market-based financial systems seem to reduce shareholder value-harming behavior. In addition, our findings highlight that family firms outperform non-family firms in economies with weakly developed financial systems. More specifically, we suggest that financing restrictions stemming from the desire to maintain ownership concentration diminish explorative entrepreneurial activities and, instead, foster exploitative entrepreneurial activities. In the case of well-developed economies, however, family firms catch up again or even slightly outperform non-family firms if there are strong investor protection rules. Hence, depending on the ability of outside shareholders to reduce performance-harming behavior of family owners, family firms or non-family firms are the most superior type of governance in a certain jurisdiction.

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