The Family Firm A Synthesis, Stylized Facts, and Future Research Directions

Finance Working Paper N° 908/2023
April 2023

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ECGI Working Paper Series in Finance

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Keywords: family firm, heterogeneity, literature review, family values

JEL Classifications: D10; L20; M14

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1. Introduction

Despite being less visible than large listed companies, family firms constitute the largest portion of all businesses in the global economy and are responsible for more than 70% of worldwide GDP (De Massis et al., 2018a). As a result of their prominent economic relevance, family firms have increasingly attracted scholarly attention in the entrepreneurship, finance, management, and strategy literatures (Rovelli et al., 2021). Our understanding of pertinent topics related to family firms such as family ownership and governance (e.g., see Miller & Le Breton-Miller, 2006; Villalonga & Amit, 2006), family firm characteristics (e.g., see Anderson & Reeb, 2003b; Gómez-Mejía et al., 2007; Miller et al., 2007), organizational strategy (e.g., see Fernández & Nieto, 2005; Miller et al., 2010; Zahra, 2005), business and family values (e.g., see Berrone et al., 2010; Chrisman et al., 2012; Chua et al., 1999), and succession (e.g., see Bennedsen et al., 2007; Chua et al., 2003) has enhanced significantly. While family firms have been shown to differ substantially from non-family firms based on their behavior, management, and performance (e.g., Gudmundson et al., 1999; Maury, 2006; Stewart & Hitt, 2012), empirical work increasingly remarks the unambiguous heterogeneity *among* family firms as well.

This article provides a comprehensive literature review of the heterogeneous characteristics of family firms based on over 400 recent[1] and relevant academic articles. We organize the review of the literature around five main topics: business and family values, succession, family firm strategies, family ownership and governance, and financial policies. Whenever possible, we also consider how various

[1] About 50% of the reviewed articles were published during the last decade, between 2013 and 2022, while a further 32% were published between 2003 and 2012.

dimensions of family firm heterogeneity are correlated with each other.[2] We supplement our literature review with the analysis of a detailed survey of more than 900 Dutch family firms. This empirical analysis serves to illustrate that family firms indeed exhibit substantial heterogeneity along the five main topics we consider in the review. In addition, the empirical analysis also highlights that different dimensions of heterogeneity are often strongly correlated. Most studies consider family firm heterogeneity in isolation. Our analysis demonstrates that there are important interactions between, for instance, family values and more traditional factors that constitute family firms. We, therefore, emphasize that accounting for intercorrelations between the sources of family firm heterogeneity ought to be considered in empirical research. Given that various dimensions describing family firms cluster and hence identify specific types of family firms and that family firms do not all follow the same time trajectory, formulating a 'unique theory' that applies to any family firm is particularly challenging (Daspit et al, 2021). Jaskiewicz and Dyer (2017) argue that the reason for the status quo is theories failing to include family firm heterogeneity. Furthermore, the main topics of the family firm literature have different underlying theories which may not be compatible with specific types of family firms: e.g. socioeconomic wealth theory and social responsibility theory (business and family values), behavioral theories and evolutionary economics (succession), growth theory and prospect theory (family firm strategies), agency theory, property rights theory (family ownership and governance), and financial policies. Finally, we also discuss potential future research directions within the five main topics we study.

Overall, our study advances our understanding of family firms by taking stock of extant work and by highlighting important research gaps. Our work also has important practical implications. Because of the heterogeneous nature of family firms, overly broad regulatory actions might not produce their intended effect. Policymakers might therefore take an interest in our work as it allows them to accommodate specific regulations to the intended subset of family firms. Our findings will also interest family entrepreneurs and investors in family firms by providing a general theoretical and practical overview of how family firms differ from each other, and under which circumstances specific actions, organizational strategies, and corporate behavior might have heterogeneous effects.

2. Overview of the literature

In what follows, we present an elaborate overview of the nascent and influential literature on family firms. Particular attention is given to studies that have discussed or examined specific aspects of

[2] Previous reviews on family firm heterogeneity have particularly focused on governance (Daspit et al., 2018; Nordqvist et al., 2014) or firm values (García-Álvarez & López-Sintas, 2001; Rau et al., 2019). Daspit et al. (2021) present a broader review of the literature and, as such, have paved the way for a holistic but deeper and more focused review that acknowledges intercorrelations of sources of heterogeneity.

heterogeneity among family firms, and those that have considered combinations of sources of family firm heterogeneity.

2.1 Business and family values

2.1.1 Business values

i. Business ethics and corporate social responsibility practices

Academics and practitioners often praise family firms for their strong anchoring in and stewardship towards the local community (Miller et al., 2008; Niehm et al., 2008), long-term and proactive engagement with stakeholders (Cennamo et al., 2012), inclusive and equitable culture among co-workers (Block, 2010), and their organizational agenda which accommodates noneconomic goals and strategies (Feliu & Botero, 2016). These positive attributes are oftentimes driven by the family's desire to uphold and enforce a strong reputation and organizational identity (Dyer Jr & Whetten, 2006) and have led to the belief that family firms are more ethical and socially responsible than their nonfamily counterparts (Bingham et al., 2011). An ethical focus is also economically important for family firms as it mediates the relationship between family involvement and financial performance (O'Boyle Jr et al., 2010). However, it is only more recently that scholars have begun to empirically assess whether family firms are more or less ethical than their nonfamily peers (Mariani et al., 2021; Vazquez, 2018). In general, most studies find that they are (Van Gils et al., 2014). For instance, compared to nonfamily firms, family firms' core values, cultural, and ethical climates are perceived as more personal, employee-friendly, mentoring-oriented, integer, and honest (Blodgett et al., 2011; Duh et al., 2010). Family firms also score high on dimensions of empathy, warmth, and zeal (Payne et al., 2011). Importantly, Campopiano and De Massis (2015) show that the socially responsive image associated with family firms is not driven by misinformation or inferior reporting on corporate social responsibility (CSR). In fact, although they are less compliant with formal CSR standards, family firms consistently report on a greater variety of CSR-related topics to inform their external stakeholders.

However, some studies have argued that family firms can also behave less socially responsible or ethically compared to nonfamily firms. For instance, organizational culture and stakeholder relationships might be distorted as a result of nepotism or structural bias in favor of family members (Dyer Jr & Whetten, 2006), or as a result of the family's self-interest prioritization (Cruz et al., 2014; Morck & Yeung, 2004). Also, when shareholder and societal interests diverge, family firms tend to scale down on environmental investments in favor of their shareholders (Abeysekera & Fernando, 2020). Chinese family firms furthermore camouflage their corporate environmental misconduct by charitably contributing to philanthropy (Du, 2015).

Despite the clear fragmentation and overall empirical inconclusiveness, not many papers on business values study the moderating role of family firm heterogeneity.[3] This is surprising as, for instance, family values, parenting, and educational experiences can play influential roles in the importance that family managers appropriate to social responsibility (Le Breton-Miller & Miller, 2016). Socially responsible behavior furthermore requires decisiveness and strong commitments from management and governance bodies. Indeed, family ownership positively influences the effectiveness of CSR actions (Marques et al., 2014). Nevertheless, family firms might be structurally different in their commitment to social responsibility and, relatedly, in their ambition to preserve or build a strong family reputation. Private firms, or those that do not carry the family name, might be less incentivized to behave socially desirable (Le Breton-Miller & Miller, 2016). Family firms with a dispersed ownership structure (Le Breton-Miller & Miller, 2016) or those at a later-generational stage (Fehre & Weber, 2019) might also lack the strong commitments and long-term orientation required to engage in socially responsible actions. Other governance factors, including director independence (Cuadrado-Ballesteros et al., 2015) or general executive characteristics (Le Breton-Miller & Miller, 2016) have also received some attention. Importantly, environmental factors could also explain differences in family firms' CSR behavior. A country's regulatory framework, for instance, can alleviate institutional boundaries for family firms to behave selfishly as better-developed legal systems protect stakeholder rights and demotivate socially irresponsible behavior (Dyer Jr & Whetten, 2006). On the other hand, however, family firms have also been found to exhibit stronger commitment to CSR during severe environmental conditions because they choose to avoid any negative stakeholder perceptions that might endanger their survival (García-Sánchez et al., 2021).

ii. Board gender diversity

The gender diversity of the board of directors is a relatively recent research topic that has nonetheless received interdisciplinary attention from finance, management, and strategy scholars (Rao & Tilt, 2016). In general, scholars typically study the relationship between gender diversity of the board and firm-level outcomes such as firm value (e.g., Carter et al., 2003), financial performance (e.g., Carter et al., 2010; Erhardt et al., 2003; Rose, 2007), or CSR (Peake et al., 2017). Common arguments to expect a positive association between gender diversity and firm outcomes are mostly based on increased creativity, innovation, and a more diverse set of ideas and visions. However, other scholars point out that negative or no effects might also be expected because of exclusion or conflict in the board (Carter et al., 2010), or because of illegitimacy and weak power roles associated with female board members (Cruz et al., 2019).

[3] Some papers also consider heterogeneity in measures of CSR (Block & Wagner, 2014). For instance, as family businesses are particularly motivated to uphold their family reputation and tradition, they predominantly focus on external stakeholders and significantly less on internal stakeholders in their CSR actions (Cruz et al., 2014).

More recently, family firm scholars have also introduced gender diversity in their research on corporate governance in family firms. Family ownership could indeed moderate the relationship between board gender diversity and commonly studied firm-level outcomes because of the unique character of the family firms and the legitimizing role of board members' family membership. More specifically, as women on boards are still relatively uncommon, they might lack the required legitimacy and capacity to make a profound and consistent influence on corporate strategy (Cruz et al., 2019; Terjesen & Sealy, 2016). Indeed, exploiting status heterogeneity between female directors shows that women who are nonfamily outsiders (i.e., nonfamily board members who do not work for the firm) or family insiders (i.e., family board members who also work for the firm) positively affect corporate social performance, whereas family outsiders and nonfamily insiders do not (Cruz et al., 2019). Other studies have differentiated family and nonfamily firms and also find an overall greater association between board gender diversity and corporate environmental performance in family firms (Cordeiro et al., 2020). There is, however, reason to believe that the institutional context in which boards perform might strengthen or weaken the associative roles of legitimacy and perceived capacity. More specifically, while a positive relationship between board gender diversity and corporate social performance is found for U.S. family firms (Cordeiro et al., 2020; Cruz et al., 2019), no effect is observed for Italian family firms (Veltri et al., 2021).

Two caveats for this type of research need to be highlighted. First, there may be a serious endogeneity problem in terms of possible reverse causality (or induced by an omitted variable bias) in the relation between the presence of women in the management or on the board, and the outcome variables. If the outcome variable is collected from a survey, correcting for endogeneity is hardly possible and if panel data are available for all key variables finding the right instrumental variables or shocks to implement difference-in-difference regressions is notoriously challenging. Second, the fact that there is a higher percentage of female directors at the executive level or on the boards of family firms may not necessarily reflect a higher sensitivity towards gender equality but merely the fact that family firms hire family members such that the presence of more female family members willing and able to work for or monitor the family firm leads to a higher gender ratio. Consequently, results on the impact of gender on firm outcomes ought to be approached with some caution.

iii. Entrepreneurial orientation

Prior literature generally agrees that family firms are primarily devoted to maximizing and preserving their socioemotional wealth (Gomez-Mejia et al., 2011a; Gómez-Mejía et al., 2007). However, as family firms are the predominant corporate form in any economy (Rovelli et al., 2021) even in the U.S. and U.K. where most firms are still private (despite active stock exchanges with many publicly listed firms), researchers have suggested that particular scholarly attention should be devoted to wealth creation (as opposed to wealth preservation) in family firms, using innovation, growth, and entrepreneurship (e.g., see Lumpkin et al., 2011). A burgeoning literature has answered this call by examining the entrepreneurial orientation in family firms to understand how particular characteristics of and dynamics within family firms impact the antecedents of entrepreneurial activities (Hernández-Linares & López-Fernández, 2018; Minola et al., 2021). Theoretically, entrepreneurial orientation includes dimensions of risk-taking, proactiveness, innovativeness, autonomy, and competitive aggressiveness (Lumpkin & Dess, 1996; Miller, 1983) and has empirically been shown to spur organizational performance (Rauch et al., 2009; Schepers et al., 2014). However, the literature remains inconclusive (and not endogeneity-proof) regarding entrepreneurial orientation in family firms (Hernández-Linares & López-Fernández, 2018; Le Breton-Miller et al., 2015), because some family firm characteristics (such as stewardship and community-embeddedness) are believed to stimulate entrepreneurship, whereas others (such as risk aversion and wealth preservation) would hinder it (Short et al., 2009).

In line with arguments of risk aversion and wealth preservation, most papers document that family firms are generally less entrepreneurially oriented than nonfamily firms (De Massis et al., 2021; Garcés-Galdeano et al., 2016; Hernández-Linares & López-Fernández, 2018; Short et al., 2009), although some do find positive associations (Pittino et al., 2018). However, it is only more recently that scholars began to consider family firm heterogeneity. For instance, moderate levels, but not low or high levels, of family presence on the board (Bauweraerts & Colot, 2017) or management (Sciascia et al., 2013) have been shown to positively influence entrepreneurial orientation. Family firms with lone founder-owners or founder-CEOs are more entrepreneurial (Block, 2012; Miller & Le Breton–Miller, 2011). Nonfamily managers and investors in family firms positively influence entrepreneurial orientation, but only from the third generation onwards (Cruz & Nordqvist, 2012). Family and organizational cultures also matter as the willingness to change, technological opportunity recognition, and a stimulating corporate culture foster family firm entrepreneurship (Hall et al., 2001; Kellermanns & Eddleston, 2006).

2.1.2 Family values

i. Family values and beliefs

Family firms' structural distinctiveness from nonfamily firms and drivers thereof have been predominantly studied from an organizational point of view. That is, scholars have consistently pointed to differences based on, among others, organizational strategy (Habbershon et al., 2003), strategic motivations (such as socioemotional wealth preservation; Gomez-Mejia et al., 2011a), human, financial, and social capital endowments (Arregle et al., 2007; Calabrò et al., 2019; Le Breton–Miller & Miller, 2015), risk-taking (Zahra, 2005), and innovation propensity (Chrisman & Patel, 2012). Consequently, firm-level outcomes such as growth, profitability, innovation, and organizational longevity have also been shown to differentiate family from nonfamily firms (Anderson & Reeb, 2003b; Brigham et al., 2014; Miller et al., 2007; Wagner et al., 2015). However, the driving force behind a family firm is the members of the family that ultimately manage the business and influence the decision-making and organizational strategy. That is why family firm research has progressively turned to the family to explain *how* family influence sets apart family firms (Dyer Jr, 2003; Fletcher et al., 2012). Indeed, operational definitions based on family firm components such as ownership and management have been found to only weakly predict family intentions and might hence not completely capture family firms' distinctiveness (Chua et al., 1999). Understanding family values and beliefs and how they contribute to organizational culture, corporate strategy and behavior, and outcomes thereof are hence of pertinent importance to advance the family firm literature. Values commonly associated with the owning family include hard work (García-Álvarez & López-Sintas, 2001), identification (with family values) (Miller & Le Breton-Miller, 2006; Vallejo, 2008), trust (Lude & Prügl, 2018), altruism (Corbetta & Salvato, 2004; Dyer Jr, 2003; Miller & Le Breton-Miller, 2006), stability and tradition (Erdogan et al., 2020), long-term orientation (García-Álvarez & López-Sintas, 2001; Tàpies & Moya, 2012), caution (Gómez-Mejía et al., 2007), and protecting (of the family reputation and image; Deephouse & Jaskiewicz, 2013; Gomez-Mejia et al., 2011a). Interestingly, family values are not completely static or time-invariant but might change as a result of continued interactions with the business environment (Naldi et al., 2013), religion (Pieper et al., 2020), or family leaders' dynamic selection and amalgamation of specific family identities (Dieleman & Koning, 2020).

The overall majority of research on family values has not empirically analyzed their effect on corporate decision-making or firm-level outcomes but rather describes or qualitatively analyses the prevalence and importance of different values as driving forces behind corporate behavior (Koiranen, 2002; Marques et al., 2014). This literature has contributed significantly to our current knowledge of family firm heterogeneity by providing relevant typologies and taxonomies based on family values. In doing so, it has reached beyond the oftentimes restrictive construct of family involvement, to show *how* the family character of a business influences corporate decision-making and organizational behavior.

ii. Family goals

Different than family values, family goals encompass the specific objectives and motivations that family members have and envisage when operating as a business entity (Basco, 2017). Moreover, many families consider their family firm as a means to support and enlarge their family's financial and non-financial endowments, including their financial wealth, reputation, image, network, and longevity (Gómez-Mejía et al., 2007). Therefore, many scholars have argued that the multiplicity of goals and the attention to nonfinancial goals uniquely define family firms (Gómez-Mejía et al., 2007; Kotlar & De Massis, 2013; Zellweger et al., 2013), and significantly influence their strategic decision-making and corporate behavior (Kotlar et al., 2018; Mazzelli et al., 2018). Indeed, a well-researched goal of families is the preservation of nonfinancial wealth, most often referred to as socioemotional wealth (Berrone et al., 2012; Gomez-Mejia et al., 2011a). However, it is only more recently that family firm scholars have begun to explore other family goals in their research as well (Williams et al., 2018). In their review of the related literature, Vazquez and Rocha (2018) uncover seven dichotomous pairs that family firm scholars have used to classify the goals of family firms and to describe the heterogeneity among them. These include pecuniary versus non-pecuniary, economic versus noneconomic, family-centered versus business-centered, financial versus nonfinancial, wealth creation versus value generation, family support-oriented versus economically-oriented, and intrinsic/internal versus extrinsic/external (Basco, 2017; Vazquez & Rocha, 2018). Importantly, the integration and juxtaposition of various family goals have also been studied (Vazquez & Rocha, 2018; Zellweger & Nason, 2008). For instance, a large body of work considers how family firms trade off economic and noneconomic goals (e.g., Leitterstorf & Rau, 2014; Sciascia & Mazzola, 2008; Westhead & Howorth, 2006). Other studies have looked at specific antecedents of family goals (and how they interact with business goals) and found that only under sufficient founder influence (Jaskiewicz & Luchak, 2013), family involvement and commitment (Chrisman et al., 2012; Molly et al., 2019), family history (Zellweger et al., 2013), and succession intention (Gagné et al., 2021; Umans et al., 2020) family goals have the opportunity to materialize.

Family goals and the variation thereof between family firms have often been studied to explain wider and more general sources of family firm heterogeneity. Not all families share or attribute equal importance to the same goals, and, given the multiplicity and diverse nature of family goals, not all families integrate their goals in the same way (Kotlar & De Massis, 2013). Additionally, research has also uncovered how family firm heterogeneity influences specific outcomes of family goals (Williams et al., 2018). For instance, founder centrality (Kelly et al., 2000) and the proportion of family members in the management team (Chrisman et al., 2013) have been shown to facilitate goal pursuit and achievement. Similarly, information asymmetries (Eddleston et al., 2013) and asymmetric altruism between family members (Chua et al., 2009) can reduce succession effectiveness by complicating and obfuscating the family's intentions (Williams et al., 2018).

iii. Socioemotional wealth in family firms

Similar to agency theory, socioemotional wealth theory has been one of the most frequently applied theoretical lenses in family firm research (Berrone et al., 2012; Swab et al., 2020).[4] This has led to an impressive and ever-accumulating body of empirical, theoretical, and conceptual work. This is not surprising given the importance that family firms attribute to socioemotional wealth (Gómez-Mejía et al., 2007; Leitterstorf & Rau, 2014). For instance, socioemotional wealth preservation and enhancement have been shown to drive corporate risk-taking (Gómez-Mejía et al., 2007), acquisitions (Gomez-Mejia

[4] In short, socioemotional wealth theory argues that family businesses decision-making is motivated not only by financial goals, but also and to a large extent by the commitment of families to nonfinancial goals such as a good family reputation in the local community, family control, and business longevity (Berrone et al., 2012; Gomez-Mejia et al., 2011a). Socioemotional wealth preservation therefore uniquely defines family businesses and is often referred to, to explain differences between family and nonfamily businesses (Berrone et al., 2012).

et al., 2018), proactive stakeholder engagement (Cennamo et al., 2012; García-Sánchez et al., 2021), environmental performance (Berrone et al., 2010), and corporate social responsibility (García-Sánchez et al., 2021). In their review article, Gomez-Mejia et al. (2011b) further discuss how socioemotional wealth preservation has been used by family firm scholars as a reference point to explain how family and nonfamily firms differ based on management practices, firm strategies, corporate governance, stakeholder relations, and business venturing. Others have shown how the duration of family control and succession intentions significantly enhance socioemotional wealth (Zellweger et al., 2012a). Recent research also points to the frequent trade-off family firms face between preserving their socioemotional wealth and pursuing anticipated financial wealth, for instance when engaging in mergers and acquisitions (Gomez-Mejia et al., 2018), or when investing in R&D (Gomez–Mejia et al., 2014).

Importantly, some authors have considered how family firm heterogeneity influences the impact of socioemotional wealth preservation on organizational and financial outcomes. Baixauli-Soler et al. (2021), for instance, show how female CEOs and the early generations of a family strengthen the negative effect of socioemotional wealth preservation on debt financing. Whether organizational strategies aimed at preserving socioemotional wealth are conducive or detrimental for family-controlled businesses further depends on their business context. Socioemotional wealth preservation, for instance, helps within industrial clusters but is considered a liability on public equity markets (Naldi et al., 2013).

iv. Disclosure

There is considerable theoretical ambiguity on whether or not family firms voluntarily disclose information more rapidly and extensively compared to nonfamily firms. One of the main reasons to believe they would is because family owners want to reduce information asymmetries between them and minority and/or other nonfamily shareholders. Obviously, this argument can only be made for (the small percentage of) listed family firms for which increased monitoring and information disclosure can limit agency costs associated with the separation of ownership and control (Villalonga & Amit, 2006). This would then be particularly important when the dominant shareholder is a family with strong idiosyncratic and nonfinancial motivations (Chrisman et al., 2004; Chua et al., 2009). On the other hand, family owners in listed firms would want to limit voluntary disclosure of information because they already have access to all relevant information through their management or board positions in the company and hence have less demand for costly public disclose (Chen et al., 2008). Unsurprisingly, the empirical evidence is undetermined. Some papers find that (listed) family firms generally disclose less information in their annual reports (Vural, 2018) and in particular less about their corporate governance practices (Ali et al., 2007), and provide fewer earnings forecasts and conference calls (Chen et al., 2008). Others have shown a negative association between family ownership concentration and the likelihood of voluntary disclosure of supervisory board compensation (Engel et al., 2019) or between family board representation and the likelihood of voluntary disclosure (Ho & Wong, 2001). More recently, Nekhili et al. (2017) found that family firms report less informatively on their CSR compared to nonfamily firms, but uncovered a positive relationship between Tobin's Q and CSR disclosure for family firms and a negative relationship for nonfamily firms. This indeed suggests that the motivation to voluntarily disclose information is fundamentally different between family and nonfamily firms.[5]

2.1.3 Firm name and reputation

More than nonfamily firm owners, family owners are particularly attentive to the reputation and image of their firm.[6] This should not surprise as most of the family wealth is tied up in the business and family and business goals oftentimes almost indistinctively intertwine, increasing the identification with the business. In many cases, the family firm even carries the family name, which further incentivizes reputation building and increases the risk of reputational loss (Deephouse & Jaskiewicz, 2013). Lastly, a favorable reputation might even be a socioemotional wealth goal pursued by family entrepreneurs (Zellweger et al., 2013).

A strong reputation is particularly important as a strategic resource because it facilitates organizational resource attraction (Shane & Cable, 2002; Vanacker & Forbes, 2016), leads to consumer loyalty (Schellong et al., 2019; Stanley & McDowell, 2014), helps to attract prospective employees (Collins & Han, 2004), and is generally associated with higher firm performance (Chaudhary et al., 2021; Martínez et al., 2019). More specifically, in building a strong reputation by actively communicating family ownership, family firms can differentiate themselves from nonfamily firms and could therefore obtain a unique source of competitive advantage (Rindova et al., 2005). Consumers, for instance, commonly associate family ownership with integrity (Blodgett et al., 2011; Schellong et al., 2019), authenticity (Kovács et al., 2014; Lude & Prügl, 2018), responsibility (Astrachan & Botero, 2018), trustworthiness (Lude & Prügl, 2018), relational qualities (Binz et al., 2013), and even love during the production process (Rauschendorfer et al., 2021). However, while the signaling effect of family ownership should lead to higher sales and performance, it is unclear whether family firms outperform their nonfamily peers (Hansen & Block, 2020; O'Boyle Jr et al., 2012; Wagner et al., 2015). This follows from the substantial heterogeneity in family firms' propensity to emphasize their family firm status and hence their willingness to exploit potential reputational gains (Beck et al., 2020). More specifically, family firms' pride, social ties with the local community, and long-term orientation are positively related to the degree to which a firm portrays itself as a family firm (Zellweger et al., 2012b). Also, family firms generally exhibit lower IPO underpricing than nonfamily firms (Chandler et al.,

[5] In contrast, some older studies found that family firms report better quality earnings (Ali et al., 2007), do so more extensively (Wan-Hussin, 2009), and are more likely to provide earnings warnings (Ali et al., 2007; Chen et al., 2008). Recently, Engel et al. (2019) found that disclosure likelihood is positively impacted if the CEO is a family member.

[6] Note that reputation and image are two different constructs. The former represents the opinions and views of various company stakeholders on the organization, whereas image represents how the organization itself wants its stakeholders to think about the organization (Brown et al., 2006).

2019; González et al., 2019; Yang et al., 2020). Interestingly, Sageder et al. (2018) uncover generational heterogeneity and show that family firms led by later generations focus on the reputation of the firm, whereas founders predominantly commit to growing the business. Some family firms deliberately choose not to actively disclose their family status. This could be, for instance, because consumers perceive family firms as more expensive (Orth & Green, 2009), and as a result of family firms' risk aversion, as less innovative (Nieto et al., 2015).

2.2 Succession

2.2.1 Motivations and planning of intrafamily succession

One of the most defining and contentious processes in family firms, and key to their longevity and focus on socioemotional wealth preservation is the calculated succession planning of the family firm (De Massis et al., 2014). Yet, while family owners are particularly concerned with keeping the ownership and management of the business in the family, some situations complicate succession planning or even necessitate nonfamily succession. The very low success rate of transgenerational succession, for instance, imperils socioemotional wealth preservation, and as such might galvanize families to sell their family firms (Gagné et al., 2021). Given the relevance of the topic, a large and longstanding literature has developed to better understand succession in family firms (Le Breton–Miller et al., 2004). In determining what drives intrafamily succession and success thereof, scholars have explored the qualities of the successor(s), the family context, and incumbents' characteristics (Le Breton–Miller et al., 2004). Nevertheless, definition and theoretical construct disagreement on what family succession specifically entails – is it the transfer of ownership, that of management, or both – has impeded the cultivation of an unambiguous literature stream.

In general, first-generation family firms are less occupied with succession planning (Sonfield & Lussier, 2004). The choice between a family and nonfamily successor is oftentimes based on the family firm-specific experiential knowledge of the successor and the transaction atmosphere (Royer et al., 2008), and is a highly emotional, long-term, dynamic, and iterative process for the family (Brun de Pontet et al., 2007; Le Breton–Miller et al., 2004; Umans et al., 2020). Furthermore, if a family candidate is not available, a quasi-member, such as a long-term employee, is chosen (Royer et al., 2008). Consistently, scholars have also identified factors that obstruct intrafamily succession. For instance, in their review of the related literature, De Massis et al. (2008) uncover three main obstructive situations: all potential family successors decline, the dominant coalition rejects all interested family successors, and the dominant coalition decides against intrafamily succession altogether. These situations are driven by process (e.g., unclear role definition between incumbents and successors), individual (e.g., successor ability), relation (e.g., family conflict), context (e.g., business performance), and financial (e.g., insufficient resources to pay the succession related taxes) factors (De Massis et al., 2008). Importantly, research has also called for the inclusion of and distinguishing between sufficient and necessary conditions related to intrafamily succession (De Massis et al., 2014). More specifically, intrafamily succession will only succeed if the family is willing *and* able to hand over control, but empirical and theoretical studies often omit one of these sufficiency conditions (De Massis et al., 2014). Perceptive and psychological drivers have also received scholarly attention. Successors in Canadian family firms, for instance, are more motivated to take over the business when they are more confident and receive sufficient support from incumbents (Gagné et al., 2021). Interestingly, gender also plays a role. Affective commitment (i.e., the identification with the family firm), for instance, plays a greater role for sons than daughters as a mediator between family firm exposure and successor's intentions (Gimenez-Jimenez et al., 2021), and sons are generally the forerunners to take over the business (Tatoglu et al., 2008).

Further interesting and well-researched aspects of succession are the outcome, the ease of the process, and drivers thereof. For instance, the ownership transitions firms proceed significantly smoother within founding familys (Scholes et al., 2007), and when the successor is formally educated (Porfírio et al., 2020). Also, unsurprisingly, the need for and organizational dependence on nonfamily managers determine their importance in succession planning (Chua et al., 2003). Successor competence and intergenerational mutuality are positively associated with succession success (Brun de Pontet et al., 2007). Irrespective of the process and outcome of an intrafamily transition, the incumbent family members generally hold on to a significant control stake (Brun de Pontet et al., 2007), which might be because most successors lack external experience (Tatoglu et al., 2008). It is furthermore relevant to look at how succession decisions impact post-succession firm outcomes. While transgenerational ownership has been associated with the pursuit of novel business opportunities (Nordqvist et al., 2013) and innovative strategies (Carney et al., 2019b), a failed transition can also leave the family firm in a vulnerable position. Moreover, Bennedsen et al. (2007) and Cucculelli and Micucci (2008) even uncover a negative causal relationship between family CEO succession and firm performance, particularly in large firms and in competitive industries that are fast-growing and have a highly skilled labor force. Additionally, the family firm's generational stage at the time of the succession also influences post-succession firm outcomes. Molly et al. (2010), for instance, find that first to second generation successions negatively influence the company's leverage and growth, whereas ownership transitions between other generations positively influence leverage but not growth. Institutional heterogeneity could also influence the motivation, planning, and execution of transgenerational succession. For instance, performance deters after an intrafamily transition in Danish family firms (Bennedsen et al., 2007), but is not impacted in Belgian family firms (Molly et al., 2010). Other evidence also shows international differences in the motivations of women to take over the family firm (Porfírio et al., 2020).

2.2.2 Family firms and private equity

Private equity (PE) investors are financial intermediaries who acquire companies, make operational, strategic, and financial adjustments, and typically exit after 4 to 5 years (Kaplan & Stromberg, 2009; Nary & Kaul, 2021). The PE investment model is associated with substantial equity stakes, active involvement, board seats, and significantly higher leverage to lower agency costs and prevent managerial perquisites (Kaplan & Stromberg, 2009; Renneboog & Vansteenkiste, 2017). Family firms that are particularly concerned with longevity, transgenerational control, and continued ownership over their family firm (Tàpies & Moya, 2012; Zellweger et al., 2012a) are therefore generally reluctant to attract external funding from PE investors (Schickinger et al., 2018). Recent evidence, however, suggests that family firms are increasingly opening up their capital to outside investors (Neckebrouck et al., 2021). Moreover, family firms that fail to find suitable succession candidates (Granata & Gazzola, 2010; Wennberg et al., 2011) or that require financial capital or professionalization to ensure their growth and survival (Howorth et al., 2016) are progressively considering PE investments. Furthermore, the proliferation of new equity sources such as family offices and high net-worth individuals, whose investment goals and motivations are better aligned with the familial identity of family owners, has significantly minimized the hurdle for families to partner with external investors (Neckebrouck et al., 2017; Rottke & Thiele, 2018). Lastly, PE investors also increasingly invest through minority stakes, which allows family owners to keep control over their businesses (Tappeiner et al., 2012).

Research on PE investments in family firms has predominantly taken a family firm perspective. Specifically, some studies focus on why, how, and under which circumstances family owners decide to partner with external investors – i.e., the antecedents of external ownership transfers, while other studies consider the outcomes of PE investments in family firms and how that differs from transgenerational ownership transitions (Schickinger et al., 2018).[7] Literature on the antecedents finds that PE investors are generally the last resort for family owners (Tappeiner et al., 2012) as most family firms that attract PE funding are often financially troubled but are still growing before the investment (Croce & Martí, 2016). Family firms also scrupulously analyze the nonfinancial benefits and potential repercussions of a PE investment (Achleitner et al., 2008; Neckebrouck et al., 2017). Yet, not all family firms are alike, as, for instance, a strong identification with the family firm reduces family owners' willingness to partner with external investors (Neckebrouck et al., 2017). Moreover, family attitudes towards external equity and conducive family goals strongly influence the financial decision-making in family firms (Achleitner et al., 2010; Koropp et al., 2014). Interestingly, corporate governance also matters, as the influence of external managers and the presence of an advisory board significantly drives financing decisions in German family firms (Achleitner et al., 2010). Literature on the outcomes of PE investments in family firms documents a positive PE effect on performance, but a negative one on

[7] Other studies take a PE perspective and study whether and why PE investors consider the family character of a target company in their selection models (e.g., Dawson, 2011; Dawson & Barrédy, 2018).

survival, relative to transgenerational ownership transfers (Croce & Martí, 2016; Wennberg et al., 2011). Interestingly, PE seems to augment productivity growth, but only in founder-controlled family firms (Croce & Martí, 2016).

2.3 Family firm strategies

2.3.1 Strategies for growth

i. Internationalization

Internationalization is an important, yet perilous endeavor for businesses, and in particular for family firms that attach a greater value to organizational stability and preservation of socioemotional wealth (Gomez-Mejia et al., 2011a; Gómez-Mejía et al., 2007). Extant research generally puts forward two opposing arguments to explain whether family firms opt for more or less internationalization (Arregle et al., 2017). Most frequently applied, family firms are expected to shun international activities because of their aversion to risk and uncertainty (Bianco et al., 2013; Claver et al., 2008), reluctance to attract external financial and human capital (Hennart et al., 2017), fear of losing control (Gallo & Sveen, 1991), and more generally, their fixation on preserving socioemotional wealth (Gomez-Mejia et al., 2011b).[8] Others, however, have presented strong arguments to believe that family firms would embrace internationalization strategies. More specifically, family firms' long-term orientation (Lumpkin et al., 2010), enhanced stewardship (Alayo et al., 2022), lower agency costs (Carney et al., 2015b), and superior social capital (Kidwell et al., 2020) are often cited to expect a higher internationalization propensity and success (De Massis et al., 2018a). Specifically, these characteristics alleviate barriers for family firms to engage in risky internationalization strategies. In all, it should not surprise that research on the topic has produced divergent findings, and that, on average, family firms have not been decisively shown to engage more (nor less) in international activities compared to nonfamily firms (Arregle et al., 2017).

An important consideration in the debate on the differences in internationalization between family and nonfamily firms is not only to look at *if* family firms internationalize more or less, but also to look at *how* family firms internationalize. Family firm research has indeed increasingly devoted attention to the organizational behavior of internationalizing businesses (De Massis et al., 2018a). Sestu and Majocchi (2018), for instance, show interesting differences based on the choice of entry mode and find that joint ventures are most likely if both the investing and local firm are family-owned and that wholly-owned subsidiaries are most likely if only the investing firm is family-owned. Lin (2012) furthermore

[8] For instance, family owners have been shown to appropriate firm resources for the benefit of the family (Chrisman et al., 2012) and are therefore more likely to forego internationalization activities. They also have a higher tendency to retain a strong embeddedness in the local community (Bird & Wennberg, 2014) and to uphold favorable ties with stakeholders (García-Sánchez et al., 2020).

shows a positive relationship between the size of the family ownership stake and the speed, scope, and rhythm of internationalization.

Importantly, while the literature on family firm internationalization is a relatively new research stream (Casprini et al., 2020), significant attention has already been paid to family firms heterogeneity to explain empirical inconsistencies in the literature (De Massis et al., 2018a; Debellis et al., 2021; Pukall & Calabro, 2014). First, scholars have studied ownership heterogeneity and found a positive relationship between family ownership and internationalization (Zahra, 2003), although others find stronger international growth with higher levels of external ownership (Kraus et al., 2016). However, more granular findings point towards an inverted U-shaped relationship, with low internationalization at low and high levels of family ownership (Arregle et al., 2012; Mitter et al., 2014; Sciascia et al., 2013). Second, family involvement and management in the firm also constitute an important source of heterogeneity and have implications for family firm internationalization. The overall majority of these studies find a negative relationship between family involvement and internationalization (e.g., Arregle et al., 2017; Cerrato & Piva, 2012; Fernández & Nieto, 2005; Majocchi & Strange, 2012), although some find a positive relation (Zahra, 2003). Interestingly, various scholars have furthermore warned that family involvement as a source of heterogeneity should not be considered in isolation. For instance, building on the connection between family ownership and involvement, D'Angelo et al. (2016) show that particularly the combination of external managers and external capital in family firms significantly increases their propensity to expand internationally. Others jointly consider family involvement and organizational strategy and find that regional strategies benefit from family managers whereas global strategies are more successful when implemented by nonfamily managers (Banalieva & Eddleston, 2011). Not only family management, but also family involvement in the board of directors shapes internationalization activities. Majocchi and Strange (2012), for instance, uncover a positive association between the proportion of external board members and international diversification in Italian family firms. Third, the institutional context in which organizations operate shapes their general beliefs, strategic decision-making, corporate behavior, and as a result, the outcomes of their organizational strategies (Aguilera & Jackson, 2003; North, 1990). This makes the institutional environment of family firms particularly interesting and relevant when studying their international activities (Casillas & Moreno-Menéndez, 2017; Marano et al., 2016). Although this strand of the literature is still in its infancy, Arregle et al. (2017) already show that strong minority shareholder protection laws and mistrust in members of other countries negatively affect the relationship between family influence and internationalization. Fourth, while family firms generally are considered to be long-term orientated, substantial heterogeneity can still be found in their long-term orientation (Pukall & Calabrò, 2013). The presence of second or later generations, for instance, is positively related to both the export propensity and intensity (Fernández & Nieto, 2005). Lastly, some authors have found explanations for the general lack of differences between family and nonfamily internationalization in self-selection mechanisms.

Cerrato and Piva (2012), for instance, find an overall negative association between family involvement and export propensity but find no differences in the degree nor the geographical scope of internationalization between family and nonfamily firms once the export decision has been made. This implies that family firms self-select into more locally-oriented business plans. Indeed, Hennart et al. (2017) find that the difference in international sales between family and nonfamily firms is significantly reduced if family firms adopt a global niche business model.

ii. Restructuring and acquisition behavior

Business environments are persistently evolving, which makes them inherently threatening to the continuation and maturation of any organization. Indeed, organizational inertia is a key catalysator of business failures (Gilbert, 2005). Nevertheless, changing business environments also present important opportunities such as the integration of complementary resources through acquisitions or synergies through alliances, which may result in competitive advantages and lead to superior long-term firm performance (Harrison et al., 2001). When managed effectively, business restructurings (including acquisitions, divestitures, and strategic alliances) therefore allow organizations to capture and leverage the benefits of valuable opportunities while also protecting them from environmental threats (Harrison et al., 2001). While relevant to all organization types, family firms might be structurally different in their approach towards business restructurings as they generally pursue a delicate balance between socioemotional wealth preservation, risk retention, and organizational stability on the one hand and firm growth and transgenerational continuity on the other hand (Gomez-Mejia et al., 2018).

The quite young, but rapidly accumulating body of research on family firm restructuring shows that family firms are indeed generally reluctant towards acquisitions and divestitures (Caprio et al., 2011; Chirico et al., 2020; Dehlen et al., 2014; Feldman et al., 2019; Gomez-Mejia et al., 2018; Shim & Okamuro, 2011), but most particularly if this endangers family control and succession (Chirico et al., 2020; Klasa, 2007), or involves unrelated acquisitions or divestitures (Chung & Luo, 2008; Gomez-Mejia et al., 2018; Hussinger & Issah, 2019). If family firms pursue acquisitions, they prefer to pay in cash to avoid dilution of their controlling equity stake (Haider et al., 2021; Teti et al., 2022). Although some family firms prefer to quit operations rather than sell their business (Akhter et al., 2016), there are strong motivations to sell, for instance when there are no suitable succession candidates (Hirigoyen & Basly, 2018). Family owners indeed remain strongly connected to their firm and when selling their business even accept lower valuations to remain active in the firm (Mickelson & Worley, 2003). Studies on post-restructuring outcomes unfortunately provide very inconsistent views. Some studies find that family firms outperform nonfamily firms following mergers (Adhikari & Sutton, 2016) and acquisitions (Bouzgarrou & Navatte, 2013; Craninckx & Huyghebaert, 2015; Feito-Ruiz & Menéndez-Requejo, 2010), whereas others find the opposite for acquisitions (Bauguess & Stegemoller, 2008; Gonenc et al., 2013; Shim & Okamuro, 2011), or find no significant differences (Leepsa & Mishra, 2013).

Business restructurings are intrinsically complex and unpredictable. Moreover, subtle differences in why, how, when, and which organizations restructure, might be key in explaining their restructuring behavior and outcomes. While business restructuring is indeed completely different between family and nonfamily firms, family firms also differ substantially from each other based on their motivations, organizational structures, resources, and capabilities (Chua et al., 2012; Jaskiewicz & Dyer, 2017). It is therefore imperative to consider family firm heterogeneity when studying restructuring activities in family firms, as the amalgamation of various family firm types generally leads to inconclusive or insignificant results. As in other literature streams, ownership and control heterogeneity have received considerable attention. More specifically, research has found that divestitures are significantly less likely in family firms with a family majority on the board of directors (Praet, 2013; Requejo et al., 2018) or with a family CEO (Kim et al., 2019). Studies on the relatedness of family firm acquisitions are less consistent. Some studies show that unrelated acquisitions are more likely in founder-controlled firms than in family-owned firms (Defrancq et al., 2016), whereas others show a positive association between unrelated acquisitions and the proportion of family ownership (Miller et al., 2010). Other studies find that the family's influence in the management team leads to less unrelated acquisitions (Schierstedt et al., 2020). Relatedly, Bettinazzi et al. (2020) show that family firms are generally more inclined to acquire other family firms with similar dominant ownership structures. Not only the proportion but also the source of external capital shapes restructuring behavior, as, for instance, French family firms are found to restructure more often under high Anglo-Saxon institutional ownership (Kavadis & Castañer, 2015). Another important source of family firm heterogeneity is the regulatory context in which family firms operate. Stronger shareholder protection laws, for instance, lower the perceived risk of socioemotional wealth losses and therefore facilitate acquisitive behavior in family firms (Requejo et al., 2018). Lastly, some studies focus on other sources of family firm heterogeneity and find that poor performance (Kavadis & Castañer, 2015) and divestment experience (Peruffo et al., 2018) trigger restructurings, while firm age decreases the probability of a sale to nonfamily buyers (Dehlen et al., 2014).

2.3.2 Firm growth

As a result of inconclusive research findings in the existing literature (Cirillo et al., 2020), the relationship between family influence and firm growth remains ambiguous and theoretically underexplored (Yu et al., 2012). In general, most papers find that family firms grow slower than their nonfamily peers because they are more reluctant to attract external growth finance (Tappeiner et al., 2012), and even deliberately eschew growth to preserve their socioemotional wealth (Hamelin, 2013). However, some studies also show find that family firms grow faster (e.g., Lee, 2006; Miroshnychenko et al., 2021). Importantly, Chen et al. (2014) and Bjuggren et al. (2013) find that family firms mainly grow in terms of employment, but not sales, and primarily achieve long-term growth, and argue that this might explain inconsistencies in earlier work.

Furthermore, not all family firms grow equally fast. In particular, a strong driver of growth in family firms is the harmonization of family and business goals (Cirillo et al., 2020). Family firms in which the balance between both is suboptimal, for instance as a result of conflict between family members or because family goals have overshadowed business goals, grow significantly less than family firms with better-aligned goals (Cirillo et al., 2020). This is corroborated by Molly et al. (2012) who find that next-generation family firms grow slower because of a predominant focus on preserving family wealth, as opposed to investing in growth-enhancing projects. The institutional environment of the family firm also matters: democratic freedom, the rule of law, government effectiveness, and political stability positively moderate the effect of family influence on firm growth (Miroshnychenko et al., 2021).

2.3.3 Strategies for innovation

Similar to growth strategies such as internationalization and business restructurings, innovation is generally considered to involve high risk and might therefore be shunned by conservative family firms that rather preserve their financial and nonfinancial wealth (Block, 2012; Brinkerink & Bammens, 2018; Chrisman & Patel, 2012). As innovative projects often demand a high level of specific knowledge and financial resources, family firms might also decide to forego investments in innovation to keep control over their firm (Li & Daspit, 2016). However, passing up on risky – but potentially rewarding – innovation activities might endanger intergenerational survival and long-term corporate stability, as innovation is a strong predictor of organizational growth and survival (García-Manjón & Romero-Merino, 2012). Indeed, long-term-oriented family firms, or those in which multiple generations are active, have been shown to embrace innovation (Bughin & Colot, 2010). Also, some family firms specifically build on their internal and historical knowledge to achieve superior innovation rates (De Massis et al., 2016). In general, family firms are considered to be more able, but less willing to engage in innovation (Chrisman et al., 2015). This apparent tension and the dissonance between conducive and hindering family firm characteristics to innovation likelihood, intensity, and output has led to inconsistent and contradictory findings (Calabrò et al., 2018; Rondi et al., 2019).

The majority of empirical studies shows that family firms generally have lower innovation intensity (Muñoz-Bullón & Sanchez-Bueno, 2011; Sciascia et al., 2015) and smaller investments in R&D (Block, 2012; Brinkerink & Bammens, 2018; Chen & Hsu, 2009; Chrisman & Patel, 2012; Gomez–Mejia et al., 2014; Liu et al., 2017) compared to nonfamily firms. They also face higher financial constraints for the financing of their innovation activities (Schäfer et al., 2017), are more reluctant to acquire external innovation (Kotlar et al., 2013; Nieto et al., 2015), and generally exert fewer innovation efforts (Nieto et al., 2015). This results in inferior innovation output as measured by patent citations (Block et al., 2013) and the number of patents (Decker & Günther, 2017). However, some studies argue that family firms' organizational culture and long-term orientation foster innovation (Zahra et al., 2004), and show that family firms are more innovative (Hsu & Chang, 2011; Naldi et al., 2007), particularly under social conformity pressure (Mazzelli et al., 2018), or when they sustain an entrepreneurial culture (Leal-

Rodríguez et al., 2017). Lastly, some studies document no significant relationship between family ownership and innovation intensity (e.g., Matzler et al., 2015).

Scholarly research on innovation in family firms furthermore paid substantial attention to family firm heterogeneity and uncovered important characteristics that foster or hinder innovation in family firms. Building on agency theory, the degree of family ownership has been shown to negatively influence family firms' innovation (Chen & Hsu, 2009; Decker & Günther, 2017; Munari et al., 2010). Although the separation of CEO and chairperson positions and the presence of external board members mitigate these negative effects (Chen & Hsu, 2009). Longer CEO tenure (Lopez-Fernandez et al., 2016), family involvement in the management and governance bodies (Matzler et al., 2015), family members' emotional attachment to the firm (Filser et al., 2018), intrafamily succession (Filser et al., 2018), and the management influence of the founding family (Laforet, 2013) are also found to positively influence innovation in family firms. Firm age and stage (the generation in control) also matter as young (Craig & Moores, 2006) or founder-owned family firms (Beck et al., 2011; Decker & Günther, 2017) have significantly higher innovation rates. Unsurprisingly, CEO risk-taking propensity positively influences innovation, but interestingly, this relationship is weaker for higher levels of ownership by family managers and stronger in earlier generational businesses (Kraiczy et al., 2015a). Family firms with a higher degree of family ownership also more easily leverage their social capital to generate innovation (Sanchez–Famoso et al., 2015). Importantly, Chrisman and Patel (2012) unveiled that family firms do indeed innovate less than nonfamily firms to preserve socioemotional wealth, but, when suffering from below-aspiration performance, innovate significantly more. They argue that below-aspiration performance aligns family with business goals and therefore weakens family managers' aversion to risky investments such as innovation projects (Chrisman & Patel, 2012).

An increasing amount of scholarly work on innovation in family firms seeks to understand how family influence shapes the effect of innovation on firm performance. While family firms might, on average, innovate less, a novel premise suggests that they might be more efficient at it (Bughin & Colot, 2010; Carney et al., 2019a; Tsao et al., 2015). Indeed, some papers show that the positive effect of R&D investments on performance is invigorated by family presence on the board of directors (Deng et al., 2013; Liang et al., 2013), generational ownership concentration (Kellermanns et al., 2012), and low or high family commitment to the firm (Hatak et al., 2016). Family managers also smoothen investments in R&D (Kotlar et al., 2014). About why family firms have higher innovation efficiencies compared to nonfamily firms, Tsao et al. (2015) show that CEO compensation in family firms is more sensitive to R&D investments, which leads to greater efficiency, firm value, and growth rates. Family firms are also more effective in capitalizing on external R&D than nonfamily firms (Aiello et al., 2021).

2.3.4 Risk-taking

Family firms have commonly been associated with lower risk-taking propensities as family owners typically have significant shares of their wealth tied up in the firm and profoundly care for the continuation and general longevity of their businesses (Hiebl, 2013). For instance, they may forgo innovative projects to stabilize company profits, which, however, might hurt performance and firm survival in the long run (Cefis & Marsili, 2012; Rosenbusch et al., 2011). Also, driven by a tendency for autonomy and control retention) over their ventures (e.g. the refusal to participate in a purchasing or selling cooperative which could reduce family firm independence), family owners often take on irrational and longer-term risks (Gómez-Mejía et al., 2007; Hiebl, 2013). This apparent inconsistency has led researchers to argue that family firms might in fact be "risk-loving and risk-averse at the same time" (Gómez-Mejía et al., 2007, p. 106).

Nonfamily CEOs have higher risk-taking propensities, particularly during their initial tenure years (Huybrechts et al., 2013), which positively influences new product portfolio innovativeness (Kraiczy et al., 2015b), and family firms' future performance expectations (Mahto & Khanin, 2015). Overall, it remains difficult to predict how family firms deal with risk (Gómez-Mejía et al., 2007; Memili et al., 2010). This had led researchers to explore how differences between family firms might impact organizational risk-taking. For family CEOs, longer tenures seem detrimental to entrepreneurial risk-taking (Zahra, 2005). Risk-taking is stimulated by a family's high expectations of the firm leader (Memili et al., 2010). Interestingly, family firms owned by families with a religious orientation are significantly more risk-averse than businesses founded by nonreligious entrepreneurs (Jiang et al., 2015).

2.3.5 Diversification

Diversification in family firms is a well-researched topic (Hafner, 2021). This should not surprise as most family firm owners have a considerable portion of their wealth tied up in their business and corporate diversification, such as product/industry or international diversification, could therefore allow family owners to lower their idiosyncratic risks (Shleifer & Vishny, 1986).[9] This is consistent with an agency view of the firm as family managers could studiously diversify operations for reasons of self-interest and hence do not act in the best interest of their (well-diversified) external shareholders. Consistent with stewardship theory, family managers could also diversify their operations in the best interest of their business, for instance, to achieve higher performance or to respond to business threats (Ducassy & Prevot, 2010). An opposing view to explain family firm diversification decisions builds on a socioemotional wealth perspective and posits that family managers would refrain from diversification to safeguard their accumulated socioemotional wealth. Moreover, the highly unpredictable

[9] Diversification could also lead to international expansion, but as this topic has been reviewed above, this section exclusively focuses on product diversification.

organizational outcomes of diversification strategies (Zahra, 2005), the substantial amounts of external financial and human capital required (Gomez-Mejia et al., 2010), and the potential reputational loss stemming from estrangement from the firm's core business (Brumana et al., 2017) may pose significant threats to families' socioemotional wealth endowments and therefore discourage corporate diversification (Hafner, 2021). The extant empirical literature does indeed reflect this diversity in underlying mechanisms but fails to provide a consistent narrative. More specifically, some studies show that family firms engage in more product diversification than nonfamily firms (Ducassy & Prevot, 2010; Hautz et al., 2013; Lien & Li, 2013; Tsai et al., 2009), whereas others find the opposite (Anderson & Reeb, 2003a; Gomez-Mejia et al., 2010; Hernández-Trasobares & Galve-Górriz, 2016; Muñoz-Bullon et al., 2018), or no effect (López-Cózar-Navarro et al., 2017). To reconcile these opposing views and contradictory findings, scholars have embraced various sources of family firm heterogeneity in their research. More specifically, the concentration of family ownership in the firm has been shown to positively impact the diversification likelihood (Hautz et al., 2013; Lien & Li, 2013; Miller et al., 2010; Schmid et al., 2015), although Ducassy and Prevot (2010) find no empirical evidence for this claim in French listed family firms. Interestingly, the number of family managers or their general involvement is associated with less product diversification in family firms (Chung, 2013; Muñoz-Bullon et al., 2018; Schmid et al., 2015). Diversification strategies are also clearly influenced by the governance mechanisms in U.S. family firms as affiliated directors (i.e., outside directors with a business link, such as a supplier, to the family firm) can lower the perceived risks associated with diversification through their superior expertise and industry knowledge and thereby increase product diversification (Jones et al., 2008). The presence of nonfamily large shareholders seems to discourage diversification in listed German firms (Schmid et al., 2015). First-generation family firms are furthermore found to diversify less than later-generation businesses, which indicates that risk-reducing and/or stewardship motives for diversification might only substantiate in later-generation businesses (Muñoz-Bullon et al., 2018). Furthermore, consistent with agency and stewardship perspectives, the likelihood of family firm diversification also increases with business risk or when performance levels fall below aspiration levels (Gomez-Mejia et al., 2010; Xu et al., 2020).

Mergers and acquisitions are often seen as a rapid and effective diversification strategy, particularly in family firms (Craninckx & Huyghebaert, 2015). Indeed, Defrancq et al. (2016) find a negative relationship between the family's ownership concentration and the industry-relatedness of an M&A target. Family acquirers are also more effective in creating value from unrelated deals compared to nonfamily firms (Defrancq et al., 2016; Muñoz-Bullón & Sánchez-Bueno, 2012). Interestingly, while family firm performance might benefit from product diversification, international seems to diversification harms performance (Stadler et al., 2018).

2.3.6 Performance

The performance (or outperformance) of family firms has captivated researchers over the last two decades, resulting in a respectable and broad literature stream. For instance, in their recent meta-analysis, Hansen and Block (2020) synthesize 1,095 empirical studies on family firm performance. Perhaps the most important reason for the magnitude of this literature stream is the overall inconclusiveness of studies, driven by the disparity in arguments on how family influence would impact firm performance. Commonly used arguments why family influence would hurt performance can be divided into two main categories, those based on the lack of knowledge and/or skills to effectively obtain superior firm performance and those based on agency costs, including arguments such as nepotism (Jaskiewicz et al., 2013; Jeong et al., 2022), parental altruism and biased hiring of family members (Eddleston & Kidwell, 2012; Lubatkin et al., 2005; Schulze et al., 2003b), appropriation of business resources (Bandiera et al., 2018; Schulze et al., 2001), and a disproportionate focus on noneconomic family goals (Chrisman et al., 2012; De Massis et al., 2018b; Randolph et al., 2019). There are, however, also strong arguments to suspect that family influence would enhance firm performance. Family managers and employees have been shown to act as stewards of their business (Davis et al., 2010; Davis et al., 1997; Medina-Craven et al., 2020) and thereby create a facilitating corporate culture of commitment to long-lasting continuity of the business, corporate stability and resilience, and value creation for all stakeholders (Madison et al., 2016). Family firms typically have a longer-term view than nonfamily firms which particularly facilitates long-term value creation and survival for the former (Brigham et al., 2014; Tàpies & Moya, 2012; Wilson et al., 2013). Lastly, integrating stewardship perspectives with family firms' longevity results in the buildup of social capital, which is often considered a strategic and valuable resource (Nahapiet & Ghoshal, 1998; Sanchez-Ruiz et al., 2019), and helps to smooth out industry shocks (Sraer & Thesmar, 2007).

Several studies have synthesized the large body of empirical work on family firm performance and they observe that all these studies present widely varying differences in both the direction and the magnitude of the effect. In general, family firms seem to outperform nonfamily firms, albeit very weakly (Hansen & Block, 2020; Lohwasser et al., 2022; Wagner et al., 2015), although O'Boyle Jr et al. (2012) find no significant impact of family influence on firm performance. Interestingly, the outperformance of family firms is particularly pronounced in large and listed family firms (Hansen & Block, 2020; Wagner et al., 2015). Review papers also find significant differences in family firm performance based on the institutional and cultural context of the firm. For instance, Hansen and Block (2020) find larger family firm outperformance in individualistic, masculine, long-term oriented, and performance-oriented cultures and in cultures with a lower degree of power distance. The legal environment also matters, as family firms particularly outperform in stable environments (Lohwasser et al., 2022).

As the literature on family firm performance matured, scholarly attention diverted from the overall relationship towards an understanding at a more granular level of how, why, and under which circumstances family influence might impact performance (Miller & Le Breton-Miller, 2006). Some scholars have therefore studied family firm heterogeneity and uncovered interesting differences between family firms. For instance, some scholars find an inverted U-shape relationship between family ownership and performance (Anderson & Reeb, 2003b; De Massis et al., 2015), while others only find an inverted U-shape relationship between family control (but not ownership) and performance (Sciascia & Mazzola, 2008). Furthermore, Sacristán-Navarro et al. (2011) show that once endogeneity issues are accounted for, family ownership does not seem to impact performance, but only family control matters. Other studies further disentangle family ownership and control and show that listed family firms in which the founding family is still active (Andres, 2008; Lee, 2006), those with lone founders (Miller et al., 2007), or with active family control (Maury, 2006; Sacristán-Navarro et al., 2011) particularly outperform (e.g. in terms of Tobin's Q or ROA). Ownership dispersion across family members and top management teams with an unbalanced family/nonfamily ratio hurt family firm performance (De Massis et al., 2015), whereas the involvement of the second generation enhances performance (Xu et al., 2015). Interestingly, hiring nonfamily members benefits below-average performing family firms that then subsequently generate higher performance, but not above-average performing businesses (Fang et al., 2021). Finally, building on stewardship theory, Eddleston and Kellermanns (2007) examine the destructive impact of family conflicts on firm performance and find that family firms that purposely minimize conflict and those with stronger control concentration achieve higher performance.

2.4 Family ownership and governance

2.4.1 Family ownership and control

Family firms are, by definition, characterized by the presence and dominant influence that members of a common family exert (Chua et al., 1999). In empirical research, family firms are typically identified based on the firm's degree of family ownership, control, and/or involvement. While family ownership, control, and involvement vary greatly among family firms (Shanker & Astrachan, 1996), general statistics on how family firms exactly differ with regard to these measures of family embeddedness are hard to find due to the ex-ante identification based on these metrics. There is, however, no commonly accepted method to identify or define family firms. Some studies, for instance, refer to family-owned businesses only if family members have a majority ownership stake (e.g., Wilson et al., 2013), while other studies only consider such businesses based on a smaller predefined percentage of family ownership (e.g., Anderson et al., 2003). Other studies do not impose/adopt ownership requirements but focus exclusively on control rights (e.g., Molly et al., 2019). Family control is then typically asserted via voting rights (Maury, 2006) or family presence (dominance) on the board of directors (Astrachan & Shanker, 2003).

Even when controlling for family firm identification, many studies are based on wide heterogeneity concerning family ownership and control. First, *who* owns or controls the businesses differs across family firms (Schulze et al., 2003a). Ultimate ownership and/or strategic control can lie solely with the founding family (e.g., Anderson et al., 2003) or can have been (partially) transferred to descendants or relatives in second or later generational family firms (Barontini & Bozzi, 2018; Diéguez-Soto et al., 2015). In the latter case, ownership can be apportioned between siblings but can be extended to more distant ties such as cousins or even adopted children (Astrachan et al., 2002). Second, family firms also differ with respect to the involvement of family members in the firm's daily management. Indeed, family involvement is used both to identify family firms (Chua et al., 1999) and to differentiate between firms with family CEOs and those without (e.g., Bandiera et al., 2018; Bennedsen et al., 2007). Further differentiation is based on how many members of the top management team or board of directors are relatives (Astrachan & Shanker, 2003), how many generations are active in the family firm (e.g., Kellermanns et al., 2012), and the extent and intensity of family involvement in different governance bodies (e.g., top management, board of directors, advisory boards, and/or family councils) (e.g., Daspit et al., 2018; De Massis et al., 2015; Zattoni et al., 2015).

2.4.2 Public ownership

Although the vast majority of family firms are private firms (Carney et al., 2015a), a significant number are listed on stock exchanges. For instance, Anderson and Reeb (2003b) show that in one-third of the S&P 500 firms families own a share stake of at least 5%, and Sraer and Thesmar (2007) even find that more than 60% of French listed firms are managed by a founding family (controlling at least 20% of the voting rights). While there might be important advantages for family owners to go public, the reasons to do so are not always well understood (Carbone et al., 2021). Typically, family owners opt to list (part of) their company on a stock exchange when they are short of personal funds to further invest in their firm (Poutziouris & Wang, 2004) and thus seek growth capital (Masulis et al., 2020; Poutziouris & Wang, 2004), when they cannot find adequate successors within the family (DeTienne & Chirico, 2013; Poutziouris & Wang, 2004), or when they consider an IPO the only option to preserve the firm and long-term socioemotional wealth (Leitterstorf & Rau, 2014). A drawback of going public is that it may significantly decrease control, power, and unrestrained management of the family owners (Boers et al., 2017; Cirillo et al., 2015; Fattoum-Guedri et al., 2018; Wasserman, 2017) and generally requires greater transparency (Boers et al., 2017). This may therefore explain why so many family firms choose to remain private.

2.4.3 Corporate Governance

Family firms have been shown to differ substantially from nonfamily ones in their governance structures (Daspit et al., 2018). Agency and socioemotional wealth perspectives have been applied most frequently to understand these differences. Agency theory suggests that as a result of concentrated ownership and a combination of ownership and management, the family firm ownership model alleviates value-destroying agency conflicts that may arise between owners (the principal) and managers (the agent) (Anderson & Reeb, 2004; Jensen & Meckling, 1976; Villalonga et al., 2015). As a result of their more efficient governance structure through, for instance, reduced monitoring costs, family firms should therefore outperform nonfamily ones (Anderson & Reeb, 2003b; Miller & Le Breton-Miller, 2006). However, family ownership could also harm effective governance as it can lead to principal-principal agency conflicts between the controlling family shareholders and minority shareholders (Young et al., 2008), or between majority and minority owners within the family. Moreover, family firms in which voting power between family and nonfamily block holders is comparatively balanced have been shown to achieve higher performance (Fattoum-Guedri et al., 2018). Nevertheless, contrary to nonfamily firms, family firms are also closely attentive to the pursuit and preservation of socioemotional wealth (i.e., family-oriented noneconomic welfare) (Gomez-Mejia et al., 2011a). To ensure that the interests of the family firm's current management are better aligned with those of the whole family, family firms may adopt governance mechanisms such as family councils.

Recently, researchers have pointed to heterogeneity across family firms based on their governance structures (e.g., Chrisman et al., 2018; Daspit et al., 2018; Madison et al., 2016). First, family firms vary in the composition of their board of directors. Family firm boards can consist entirely of family members or include a minority, or even a majority, of outside professionals. The presence of outside directors varies across generations: the first and third generations have more outside board members than the second generation (Bammens et al., 2008). Research has furthermore shown that family boards with outside members are associated with higher commitment to board tasks, are more cohesive, and are more effective which leads to better corporate performance (Bettinelli, 2011; Brenes et al., 2011), particularly when the firm is also led by the founder (García-Ramos & García-Olalla, 2011). Other categories of board and/or top management team heterogeneity have also received attention in the family firm literature, including gender diversity (Cruz et al., 2019; Veltri et al., 2021), generational diversity (Tsai et al., 2018), and heterogeneity based on board size (Rubino et al., 2017; Saidat et al., 2019) and CEO duality (Braun & Sharma, 2007).

Governance in family firms has important implications as it shapes the family's influence on key organizational decisions. For instance, firms in which the family dominates board decisions and which can hence more easily pursue family-centered goals are less leveraged (Molly et al., 2019) and less effective in turning corporate entrepreneurship into innovation (Arzubiaga et al., 2018). Also, having affiliated outside directors (i.e., outside directors with some ties to the family) reduces risk aversion and stimulates product diversification (Jones et al., 2008). Family representation on the board of directors furthermore increases CEO compensation in founder-controlled businesses but decreases CEO compensation when ownership is dominated by descendants (Barontini & Bozzi, 2018).

Not only the composition but also the configurations of governance mechanisms vary across family firms. Some set up specific governance devices in addition to the board of directors: supervisory or advisory boards (Strike, 2012) and family councils (Matias & Franco, 2020). Advisory boards typically have no voting power, but are formed to give dedicated advice to the top management team, and are in some family firms a substitute for a formal board of directors (Strike, 2012). Blumentritt (2006) reports that family firms with advisory boards are more likely to engage in strategic and succession planning.

2.4.4 Agency Conflicts

Almost 50 years ago, Jensen and Meckling (1976) argued that firms with dispersed ownership, such as publicly traded firms, suffer from agency conflicts of ownership as managers might be inclined to not act in the best interests of the owners and act opportunistically by underinvesting, shunning risk, and appropriating managerial perquisites. Family firms, through their concentrated ownership, should suffer less from agency costs as managerial ownership aligns managers' and shareholders' interests. More recent literature has made important advancements by uncovering contingencies that show how agency conflicts in families significantly differ across family firms (Carney et al., 2015a). For instance, while managerial ownership might reduce agency conflicts in family firms compared to nonfamily firms, agency costs might be exacerbated when family block holders' objectives diverge from those of minority nonfamily investors (Morck & Yeung, 2003). Specifically, altruism towards other family members, nepotism, free riding, and intergenerational conflicts can substantially aggravate agency costs and thereby hurt firm performance and valuation (Claessens et al., 2002; Schulze et al., 2003b). This even led scholars to conclude that private family firms do not minimize agency costs of ownership (Schulze et al., 2001). More recently, however, Fattoum-Guedri et al. (2018) pointed at the family firm heterogeneity in this respect and showed that particularly the asymmetric distribution of voting power between family and nonfamily shareholders undermines performance. This is because family owners do not always act opportunistically, but under certain circumstances act as stewards of their businesses and enhance value for all stakeholders (Le Breton-Miller et al., 2011). Furthermore, public family firms have different ownership structures and are ultimately differently governed than private family firms. While a dispersed ownership structure of listed family firms may aggravate agency conflicts, capital market oversight can alleviate agency conflicts between family block holders and minority shareholders (Carney et al., 2015a). More specifically, increased monitoring and active involvement of minority shareholders on the board mitigate the family's pursuit of noneconomic goals (Carney et al., 2015a; Chrisman et al., 2012), which might enhance organizational effectiveness and, as a consequence, firm performance.

2.4.5 Duration of family ownership

The majority of family firms are owned by the first generation, about a third eventually transfer ownership to the second generation, only 10%-15% make it to the third generation and only 3% survive thereafter (Molly et al., 2010; Ward, 2016). Given that family ownership is the most prevalent ownership form in every economy worldwide and that family firms are generally less likely to fail than nonfamily firms (Wilson et al., 2013), scholars have tried to explain why so few family firms survive past the third generation, whereas others relentlessly persist. Some studies look at internal explanations and find that concentrated ownership, long tenures, and enhanced business expertise allow for longer-term strategies and incentivize family firms to heavily invest in the future of their business (Le Breton–Miller & Miller, 2006). Some family firms also have more resilient boards which are more gender-diverse, older, and more experienced, and therefore alleviate bankruptcy risks (Wilson et al., 2013). Also, some family firms fail to leverage their social capital advantage, negatively influencing their longevity (Ciravegna et al., 2020). Others have focused on external factors and show that institutional environments such as facilitating inheritance laws lengthen family firms' longevity (Carney et al., 2014). Families more easily sell equity stakes of their firm after an IPO in a market-based economy (such as the UK) than in a block holder-based economy (such as the rest of continental Europe). Goergen and Renneboog (2007) show that families owning UK firms lose majority control after merely two years after the IPO, whereas this is only the case for German firms after 6 years. In addition, families in UK firms let their equity blocks dilute to much smaller share stakes than German families, who retain large (de facto even controlling) minority stakes. Family owners also frequently exit their business due to, for instance, a lacking next generation within the family to take over the family firm or the lack of interest by the next generation to do so.

2.5 Financial policies

2.5.1 Capital structure

The literature on capital structure decisions in family firms is well established and has documented large differences between family and nonfamily firms (Hansen & Block, 2021; Michiels & Molly, 2017). The overall inconsistency of this literature, however, impedes drawing unequivocal conclusions on commonly used capital structure measures such as leverage or the presence of external equity. On the one hand, family firms' higher risk aversion should lead to lower debt levels, and in particular lower long-term debt, as family owners typically refrain from committing to long-term repayment obligations. In contrast, factors such as high market growth rates, which minimize operational risk, could however make risk-averse family owners more eager to attract debt (Schulze et al., 2003a). Also, the desire to maintain control over the family firm implies a reluctance toward external equity and hence higher debt levels (Burgstaller & Wagner, 2015; González et al., 2013). Recently, scholars have argued that both views should be integrated as family owners typically make a purposeful trade-off between keeping control (i.e., attracting debt financing) and reducing risk (i.e., attracting external equity financing) (Burgstaller & Wagner, 2015; Michiels & Molly, 2017). Overall, by synthesizing findings from 613 studies on publicly listed firms, Hansen and Block (2021) uncover a small but negative effect of family status on leverage. Interestingly, however, institutional differences play an important role as country-level shareholder and creditor rights are found to be strong predictors of family firm leverage ratios (Hansen & Block, 2021).

Recent studies uncover further heterogeneity between family firms that lead to differences in their capital structures; e.g. family control and involvement have been shown to be important predictors. The presence of founder CEOs, for instance, is negatively related to leverage (Ampenberger et al., 2013; González et al., 2013), and consistently, family firms with nonfamily CEOs have higher leverage ratios (Amore et al., 2011). Family involvement on the board is positively related to leverage (Comino-Jurado et al., 2021; Romano et al., 2001), although some studies disclose negative associations (e.g., González et al., 2013). Some studies find positive relations between the generational stage of the family and leverage (Blanco-Mazagatos et al., 2007; González et al., 2013), whereas others find negative ones (Comino-Jurado et al., 2021; Molly et al., 2010; Molly et al., 2012), or no relation (Burgstaller & Wagner, 2015). Other sources of family firm heterogeneity that are positively related to leverage are firm age (González et al., 2013) and size (Romano et al., 2001). Koropp et al. (2013) furthermore show that managers' financial knowledge and positive experience with debt suppliers positively influence their financial attitude towards debt. Family ownership is also an important source of heterogeneity as ownership dispersion has a U-shaped effect on leverage (Bjuggren et al., 2012; Schulze et al., 2003a). Lastly, the institutional environment in which family firms operate also influences their leverage. For instance, high market growth rates (Schulze et al., 2003a) and strong creditor monitoring (Schmid, 2013) stimulate the adoption of leverage in family firms.

2.5.2 Dividend policy

It is not clear whether and how family firms differ from nonfamily firms in their dividend policy. Family firms could, for instance, pay fewer dividends as they might prefer to re-invest, rather than distribute company profits to achieve long-term survival and wealth preservation (Vandemaele & Vancauteren, 2015). However, family firms might also pay higher dividends to provide an income to family members (Isakov & Weisskopf, 2015), or to reduce agency costs between participating and non-participating family members or when other block holders are present (Pindado et al., 2012). In their recent review of the literature on dividend policy, Molly and Michiels (2021) find large discrepancies across studies. More specifically, they show that of the 47 studies included in their review, 24 document a negative relation between family influence and dividend payout propensity, payout ratio, or dividend yield; 18 studies report a positive relation association; and 6 studies find no relation at all. What matters in these studies is how family influence is measured. Family presence in the management team does not influence dividend policy (González et al., 2014) unless the CEO is a family member, which is then associated with lower dividend payouts (Vandemaele & Vancauteren, 2015). Overall, the remaining inconclusiveness suggests that a deeper analysis is warranted. For instance, scholars have pointed to the positive impact of the degree of professionalization (Michiels et al., 2017), the presence of large block holders (Pindado et al., 2012), and intra-family conflicts (Michiels et al., 2015) on dividend payout policies. Also, family firms controlled by the founder pay higher dividends (Isakov & Weisskopf, 2015), but interestingly, lone founder family firms pay fewer dividends (Deslandes et al., 2016).

2.5.3 Employment and wages

As a result of their superior stewardship and organizational stability, family firms are often praised for their positive and enduring impact on employment. Indeed, they have been shown to engage in fewer job cuts compared to nonfamily firms (Bassanini et al., 2013; Block, 2010; Cirillo et al., 2022; Lee, 2006), although this effect is mitigated in global and high export-intensive firms (Cirillo et al., 2022). Family firms furthermore provide a more supportive work environment and stimulate corporate entrepreneurship (Kellermanns & Eddleston, 2006). In contrast, family firms pay lower salaries (Bassanini et al., 2013; Neckebrouck et al., 2018; Sraer & Thesmar, 2007) and invest less in employee training (Neckebrouck et al., 2018). Family firms with distant kinship ties are also more likely to pay their nonfamily executives less (Yu et al., 2020). Other scholars have highlighted discrimination in hiring, remuneration, monitoring, and dismissals of nonfamily employees (relative to family employees), and often refer to this as 'bifurcation bias' (Verbeke & Kano, 2012). Moreover, HR practices are suggested to be particularly less fair (e.g., based on compensation, promotion, or performance appraisal) in firms with higher levels of family influence (Barnett & Kellermanns, 2006). Nevertheless, family firms can benefit from more equitable monitoring which positively moderates the relationship between HR professionalization and financial performance (Madison et al., 2018). Moreover, the asymmetric treatment of family and nonfamily employees nullifies the financial benefits of HR professionalization. Job satisfaction is impacted by different types of job benefits for family and nonfamily firms (Querbach et al., 2022); family-business embeddedness and work centrality enhance employee job satisfaction in family firms (Khanin et al., 2012). More recently, scholars have identified that HR practices, bifurcation, and remuneration in family firms depend on the location of the business as institutional factors such as labor market regulations and culture moderate this relationship (Block et al., 2019; Samara et al., 2021). Collectivistic cultures, for instance, generate desire and moral obligations to favor family members, which lead to more pronounced bifurcation biases.

3. Descriptive empirics on family firm heterogeneity

In what follows, we discuss how and to what extent family firm heterogeneity can be observed using descriptive empirics based on a survey of 909 Dutch family firms. We furthermore pay particular attention to combinations of sources of heterogeneity and show how future research could incorporate this new evidence to gain new insights.

3.1 The Dutch family firm landscape

The Dutch family firm landscape is a prototypical candidate to explore family firm heterogeneity in great depth. First, family firms are very prominent in the Netherlands. The Dutch Statistics Office (CBS) estimates that 59% of Dutch active and operating corporations are family firms and that non-financial family firms are responsible for well over a quarter of the total revenue and added value of all active and operating corporations (CBS, 2021).[10] We survey a representative number of family firms while still capturing a great amount of heterogeneity. Second, the family firm landscape in the Netherlands is considered to be representative of Western Europe. Although institutional differences exist across European countries based on the regulatory, normative, and cultural context, these differences are only subtle. Lastly, when considering the descriptive statistics of various (well-cited) papers focussing on European firms (e.g., see Bennedsen et al., 2007; Gómez-Mejía et al., 2007; Maury, 2006; Wagner et al., 2015), we are confident that this focus on Dutch family firms enables us to capture detailed family firm heterogeneity without compromising on external validity.

3.2 Data

The data used to provide empirical descriptive insights is based on our rich survey data which we supplement with extensive secondary accounting data and information on firm characteristics from Orbis. To collect detailed information on family characteristics, family involvement, organizational strategy, family and business values, and succession planning, we launched a large-scale survey. We followed Molly et al. (2012) for the identification of family firms and first extracted all private companies with more than 10 employees from Orbis. We excluded companies active in the financial, educational, and social sectors. Second, we investigated last name similarities between two or more directors or between a director and the company itself. Third, we additionally scraped companies' websites and analyzed whether they signaled any family character. This resulted in a sample of 15,832 family firms. We sent emails and letters to all CEOs, senior managers, and/or active family members we could identify and advertised the survey on Dutch family firm websites and social media platforms. After two rounds, 996 companies responded to our survey, resulting in a response rate of 6.3%.[11] By means of definition-based questions from the initial part of the survey, we were able to further exclude 87 companies that did not fulfill our family firm definition, resulting in a total sample of 909 family firms (all unlisted). More specifically, we adhere to the definition proposed by the European Commission (2009), which defines family firms are firms in which family members hold the majority of decision-making and control rights. Because all limited liability companies must report annual

[10] These numbers exclude sole proprietorships and holding companies and solely focus on active companies with more than one registered employee. Considering all Dutch corporations leads to 88% of all active corporations being owned by a family.
[11] Molly et al. (2012) received survey responses from 504 Belgian family businesses and therefore achieved a response rate of 20.16%. However, they draw a random sample of 2,500 firms out of the identified population of 8,146 firms. Considering this population, their response rate would be 6.20%.

account information in the Netherlands, we supplement our survey information with quantitative data on accounting metrics and general firm characteristics from Orbis.

3.3 Results

3.3.1 Stylized facts

Table 1 presents various descriptive insights from our sample of Dutch family firms. Results on firm characteristics in panel A show that the average family firm in the sample is an unlisted company created 53 years earlier with 59 employees, Euro 11 m in total assets and an average leverage ratio of 60%. [12]

Results in Panel B exhibit that families are closely involved in the management and governance of their firm. The average family firm is managed and owned by the second generation. Moreover, family ownership is highly skewed as in the vast majority of firms (90%) family ownership amounts to 100%, and, on average, the family owns 98% of shares. Nonfamily shareholders with equity stakes of more than 5% are the exception and are only present in 8% of family firms. The leadership of the family firm is typically reserved for family members as 93% of firms have a family CEO. While this CEO is often the founder (34% of firms) or a child of the founder (59%), only 7% of family firms has a female CEO. Interestingly, only half of family firm CEOs has a college degree. Family members are predominantly active in the upper management of the firm (84%), and to a lesser extent as employees (15%). In-laws are welcome in 75% of family firms. Overall, this indicates that families are highly entrenched in their family firms, both in terms of ownership and involvement, and that heterogeneity across family firms is more apparent in terms of family involvement than family ownership.

Panel C describes succession intentions in family firms. Unsurprisingly, and related to the strong family entrenchment, 72% of family owners intends to transfer the family firm to the next generation. Interestingly, however, the successor is obliged to have an internal career before taking over the family firm in 71% of firms, and in half of the family firms, the next generation is already active. This clearly signifies the strong commitment to longevity and transgenerational control in family firms.

Consistent with the inconclusiveness in the empirical literature on organizational strategy, risk-taking, and innovation, our survey results presented in panel D show significant heterogeneity between family firms based on these dimensions. For instance, only 47% of family firms has a specific growth target and one out of three focusses on international growth to achieve their targets. Still, the relatively large standard deviations highlight significant underlying variation between firms. 43% of family firms has a specific leverage target and only 35% of family firms indicate that they have a strategic plan. The literature on innovation and risk-taking in family firms indicates that family firms might eschew risk-

[12] Compared to Molly et al. (2012), our survey captured slightly older (53 years versus 45 years old in Molly et al., 2012) and larger (€11 million versus €4.4 million total assets in Molly et al., 2012) family firms. The leverage ratio is relatively similar (60% versus 65% in Molly et al., 2012).

taking and innovation to preserve their socioemotional wealth or, conversely, might specifically embrace it. Our survey results indicate that the median firm often introduces new products (i.e., 5 on a 7-point Likert scale), and has a medium risk appetite (4 on a 7-point Likert scale).

Finally, panel E presents family firms' relationships with several stakeholders. In 33% of family firms, family members receive priority for promotions. This may be indicative of bifurcation bias or unequal treatment of family and nonfamily employees. Still, family firms care for their local community as half of family firms donates to various charities. 47% of firms leverage their family nature for promotional gain. In all, these findings are consistent with the general notion that family firms exhibit stewardship and strong embeddedness in the local community but might also be less altruistic towards employees in their appointment policies.

[Table 1 about here]

3.3.2 Cross-correlations among the heterogeneous dimensions of family firms

The increasingly expanding family firm literature has paid particular attention to family firm heterogeneity and has identified various dimensions that moderate important relationships such as the influence of family ownership, control, or governance on organizational strategy, firm performance, growth, and innovation. Nevertheless, surprisingly little empirical work accounts for the intercorrelation between heterogeneity dimensions. This is an important omission, because not taking these correlations into account could potentially lead to ambiguous results on how family firm heterogeneity relates to firm outcomes, and as such, sustains theoretical limitations and empirical inconclusiveness. We, therefore, encourage family firm researchers to pay particular attention to possible intercorrelations between heterogeneity dimensions. Based on our survey data, we do indeed confirm that many dimensions are correlated. Table 2 presents regressions in which ten key firm characteristics from table 1 are regressed on the remaining nine characteristics, and control for the number of employees, the size of the firm, and 2-digit industry fixed effects. Columns 1 and 2 refer to family values, columns 3 and 4 to family succession, columns 5 and 6 to organizational strategies, columns 7 and 8 relate to measure (non)family ownership and control, and columns 9 and 10 to financial and nonfinancial policies.

Depending on how family values are measured, we observe high correlations between family values on the one hand and succession- and strategy-related measures on the other. A focus on international growth is furthermore more prevalent in first and second-generation family firms compared to higher-generation family firms. Unsurprisingly, column 4 indicates that succession intentions and the preferential treatment of family members are also highly correlated. Interestingly, however, family firms that give to charity are also more risk-taking, and first or second-generation firms focus most on international growth. Columns 5 and 6, therefore, indicate surprising and theoretically underexplored intercorrelations between succession-, strategy-, and family value-related characteristics of family firms. Our results also confirm the high correlation often found in prior studies between leverage and the presence of external shareholders.

We further illustrate the cross-correlation of family firms characteristics by means of a cluster analysis based on the family firm characteristics presented in Table 2. Encompassing socioemotional wealth (charitable donations), family orientation (includes family members as managers, intends to keep the firm in the family, includes external top managers and external ownership), corporate strategy (in terms of risk appetite, international orientation of the growth strategy, and capital structure), and age and experience (first or second generation relative to older family firms). The firms of cluster 1 are younger firms (first or second generation) that focus on international growth and (modestly) donate to charities. Cluster 2 consists of firms with high socioemotional values as they use family values to promote the firm and make large corporate charitable donations. These firms are also older firms (3th generation or older) that want to keep the firm in family hands. Firms from cluster 3 are also younger firms, they promote family members to executive and director positions, give less charities, and are more locally oriented (less international growth).

[Table 2 and Figure 1 about here]

4. Directions for future research

This review of the topical and recent literature on family firm heterogeneity showed that family firm scholars have progressively considered various sources of family firm heterogeneity in their research. This has significantly increased our understanding of how and under which circumstances family firms differ from nonfamily firms and how this affects firm-level determinants such as organizational strategy and behavior, as well as outcomes thereof such as performance, growth, and innovation. Notwithstanding the important advancements that these papers have made, our literature review identified various relevant avenues for future research that we believe can move the field forward. In what follows, we present these future research directions categorized based on the five dimensions of heterogeneity used in the literature review.

4.1 Business and family values

First, the debate on whether family firms are structurally more ethical or socially responsible than nonfamily firms is long from settled. Opposing arguments and theoretical frameworks have led to a fragmented body of literature. Furthermore, some authors have even suggested that positive and negative views can coincide, and that ownership, governance, and environmental-related moderators might explain the empirical inconsistencies in the extant literature. While important steps have already been made, meaningful progress can still be achieved to further our understanding of family firms' ethical behavior. For instance, in general, we do not know much about CSR of family firms. This might be because scholars have been limited by weak CSR and ESG indices for private firms. Fortunately, many data providers now gradually providing more comprehensive indices in this respect. A yet unanswered question is whether the ESG orientation correlates with the socioemotional wealth perspective of the family.

Second, the literature on board gender diversity in family firms is still in its infancy. While this leaves open a promising and sizable research agenda, researchers should be cautious to not fall for straightforward, reductive, or atheoretical research questions but to address relevant, interesting, and theory-driven questions that have the potential to significantly enhance our understanding of crucial aspects of board gender diversity in family firms. In that aspect, it would be particularly interesting to extend our knowledge on why, how, and when board gender diversity in family firms differs from that in nonfamily firms. Are family firms with a good gender balance really sensitive to gender inclusiveness or does the balance merely reflect that the available (competent) successors are female family members. Also, to what extent does the generational stage of the family firm play a role in the effectiveness of board diversity to influence corporate strategy? As family values arguably shape the organizational culture, and hence the institutional and legitimizing power to facilitate the influence of female board members on corporate strategy, future research might also take an interest in studying how and which family values moderate the effect of board diversity. Furthermore, while non-financial firm outcomes such as corporate social performance have received some scholarly attention, other non-financial outcomes such as employee productivity and socioemotional wealth expansion, and financial outcomes such as firm performance, firm value, or financial profitability are yet to receive sufficient attention from family firm scholars.

Third, extant qualitative research on family values has paved the way for quantitative research to empirically test its theories and propositions. For instance, we do not completely know to what extent families differ in terms of values and beliefs. Marques et al. (2014), as a notable exception, shows that values of identification and commitment are more pronounced in family firms with a higher involvement, but much more work is needed to fully capture family firm heterogeneity based on such values, norms, and beliefs. Also, is there heterogeneity in how families consolidate (or juxtapose) family and business values? If so, are there important contingencies to this relationship? This is important to know as many families might struggle to balance both (Leitterstorf & Rau, 2014; Sciascia & Mazzola, 2008), but the distinction between potentially facilitating or restrictive situations and environments is not yet well understood. In general, our current understanding of how family values influence corporate decision-making would benefit greatly from large-scale multi-country quantitative research. Tàpies and Moya (2012), for instance, rely on cross-country data to exploit differences in values shared by a society. Other studies could investigate how the fit between family and national values, or between the regulatory, cultural, and family contexts affect organizational decision-making and performance. Also, to what extent do values change over time or across generations, or in other words are do the subsequent generation inherit the values of the founder generation, and how does this influence corporate decision-making? Are certain family values conducive to specific firm-level outcomes? For instance, does creativity, flexibility, and/or commitment facilitate innovation?

Fourth, to push the literature on family goals and their organizational implications forward, Vazquez and Rocha (2018) and Williams et al. (2018) have proposed fruitful research agendas. We would like to add that family firm research can benefit from a more detailed analysis of institutional factors as sources of heterogeneity. This is important as institutional differences, including customer preferences, culture and social norms and beliefs, can shape organizational and socioemotional motivations (Aguilera & Jackson, 2003; Hofstede et al., 2005; North, 1990), and could hence explain variation in family firms' goals and consequences thereof.

Fifth, there is reason to believe that the link between family firm heterogeneity and socioemotional wealth can still be further explored. Indeed, Gomez-Mejia et al. (2011a) (Gómez-Mejía & Herrero, 2022) have uncovered the moderating role of firm stage, firm size, firm hazard, and presence of nonfamily shareholders in the relationship between socioemotional wealth and managerial decision-making in family firms, but other relevant and pressing avenues remain underexplored. For instance, do socioemotional wealth preservation and the trade-off between socioemotional wealth and financial goals differ based on (i) the generation and composition of the family team in charge, (ii) organizational strategy – for instance, does growth, internationalization, and/or innovation strategy impact the commitment to and effectuation of socioemotional wealth, and (iii) the institutional environment? These research questions are interesting to study but conceal quite some methodological difficulties as socioemotional wealth is notoriously hard to capture directly. Furthermore, is it not yet entirely clear whether all family firms strive for socioemotional wealth preservation and enhancement and do so to a similar extent and under similar conditions. Also, could this change over time? Could certain drastic events such as a transfer of ownership to the next generation, intrafamily conflict, or the death of a close family member change the commitment to socioemotional wealth preservation? To further push the field forward, socioemotional wealth needs to be better captured, particularly in quantitative research. Indeed, many authors have relied on secondary proxies (including the proportion of family ownership or the presence of a family CEO), but these hardly capture the entire spectrum of socioemotional wealth. An interesting, but challenging, avenue for future research is to rely on large-scale survey data to directly question family managers' socioemotional motivations and supplement this information with rich secondary data.

Sixth, there are various ways in which future work on disclosure in family firms can further contribute. For instance, it would be interesting to study the combined impact of the generational stage of family firms and the concentration of ownership on the voluntary disclosure of information. Moreover, as founders have shorter track records, they might particularly benefit from disseminating information, unless their ownership structure is well concentrated. Future generation family firms in which the founder is still active and who had a good reputation might not need to provide extensive and costly public information. Also, it might be worthwhile studying how regulatory differences influence the demand for information from minority shareholders. For instance, in countries with high rules of law, minority investors are generally better protected and might require less information than minority investors in less regulated judicial systems.

4.2 Succession

Clearly, we need more empirical evidence on institutional heterogeneity and how it affects the planning and execution of transgenerational succession. Well-developed regulatory environments, for instance, could alleviate uncertainties common to ownership transactions, but have received limited scholarly attention. Additionally, it is not sufficiently clear whether, and if so, why and when family owners transfer ownership of the family firm to one or multiple family successors. As this decision arguably influences post-succession outcomes such as organizational strategy and firm performance, it would be interesting to shed more light on this. Also, as the literature on the partnerships between family firms and PE investors is relatively new, substantial research is still needed to better understand these complex interactions. For instance, it would be interesting to further examine new sources of private capital such as family offices, high net worth individuals, evergreen PE funds and their relationship with family owners. Lastly, while crowdfunding's dispersed ownership structure might appeal to family firms, the literature on crowdfunding by family firms is still in its infancy.

4.3 Family firm strategies

First, family firm internationalization has been well-studied over the past decade and has benefitted greatly from scholars' early attention to family firm heterogeneity. Many recent studies have therefore been able to explain inconsistencies and insignificant findings in earlier work. Notwithstanding, many open questions still remain. While family ownership and involvement, and to a lesser extent governance, long-term orientation, and institutional heterogeneity have received empirical attention, considering other sources of family firm heterogeneity still has the potential to make significant contributions to our current knowledge of internationalization of family firms. Not only considering the heterogeneous nature of family firms will further our understanding of how family firms operate, but arguably, also considering *combinations* of sources of heterogeneity reveals a promising way forward. Combining family ownership and control (D'Angelo et al., 2016), and combining family involvement and organizational strategy (Banalieva & Eddleston, 2011) have already yielded interesting findings, but numerous combinations remain unexplored. For instance, in line with our survey results, intercorrelations with family values also show promising research paths.

However, an important – yet oftentimes overlooked – facet in the family firm literature is the internationalization *process* of family firms. This reaches beyond the dyadic comparison of family and nonfamily firms' internationalization intentions and successes but analyzes the differences in antecedents, decision-making processes, context, motivations, and outcome dimensions of the international activities between family and nonfamily firms, or between (heterogeneous) family firms. Relevant research questions include *how* family firms internationalize (e.g., choice of entry mode, choice of the foreign market, duration of the internationalization process, etc.) *when* they do so (e.g., based on firm age or firm stage, generation in control, management composition, state of the industry, etc.), *why* they do so (e.g., for diversification purposes, to achieve superior growth, to build an international reputation, etc.), or how family and nonfamily firms differ based on these characteristics. It is furthermore imperative to consider synergic combinations of sources of heterogeneity. For instance, Family firms may differ based on their motivation to internationalize, which can nevertheless be instigated by the family's ownership and/or management influence, or lack thereof.

Second, the literature on restructurings and acquisitions in family firms shows promising future research avenues. For instance, scholars might build on institutional research to understand under which conditions family firms show greater tendency to restructure or acquire other firms, and under which conditions they are more successful. Furthermore, there is a paucity of research regarding the effect of family firm heterogeneity on the outcomes of restructurings. This might be important as family firms have been shown to differ substantially based on various drivers of restructuring propensity and strategy and might therefore exhibit heterogeneity in performance. Lastly, we know relatively little on how family firms manage the trade-off between, on the one hand socioemotional wealth preservation, control, or risk-aversion and the need for continued growth to ensure firm survival on the other hand.

Third, given the relative novelty of the literature on growth in family firms, various important research questions remain unanswered. More specifically, while the literatures on internationalization, corporate diversification, and mergers and acquisitions (M&A) in family firms are comparatively well developed, a closer integration with the growth literature has the potential to yield interesting new insights. For instance, it would be relevant to know *how* family firms grow by trading the off the various types of growth strategies and to what extent and under which circumstances growth strategies are heterogeneous between family firms. Potentially interesting themes to explore are domestic versus international growth, short-term versus gradual long-term growth, focused or diversified growth, sales versus employee growth, organic growth versus growth based on M&A, or internally versus externally funded growth. Also, combining other sources of heterogeneity with growth in family firms might turn out to be a fruitful endeavor. For instance, does it matter who and which generation is in charge for specific sources of growth to develop?

Fourth, the literature on innovation in family firms is a relatively novel literature stream, but significant progress in the past decade has substantially furthered our understanding of family firms' innovative behavior and outcomes thereof. In their recent literature review, Calabrò et al. (2019) present an excellent and promising future research agenda in which they rightfully encourage scholars to consider both family firm and innovation heterogeneity. Additional ways forward could furthermore include integrative and meta-analytical reviews of the family firm innovation literature, in accordance with meta-analyses on performance (O'Boyle Jr et al., 2012), internationalization (Arregle et al., 2017), and organizational strategy (van Essen et al., 2015).

Fifth, family firm diversification, including its underlying motivations, consequences, and the impact of family firm heterogeneity on this relationship has incited a rich theoretical and empirical debate. While the extant literature provides important discussions and analyses which further our understanding of the diversification phenomenon, it also opens interesting avenues for further research. First, we are only beginning to understand how family firm heterogeneity influences diversification decisions. It is striking that studies using data from different regions find opposing results. This might indicate that institutional heterogeneity, such as the regulatory framework and national culture could partially explain empirical inconsistencies. It is also imperative to consider combinations of family firm heterogeneity as, for instance, the proportion of family ownership positively moderates diversification likelihood in US firms (Miller et al., 2010), but does not do so in French firms (Ducassy & Prevot, 2010). Second, not many papers study the outcomes of diversification strategies and even less focus on how heterogeneous family firms vary with regard to their diversification success. Heterogeneity based on the motivations to engage in diversification, commitment to the family firm, risk-taking propensities, entrepreneurial orientation, and family firm longevity might, for instance, all drive diversification outcomes. Third, while internationalization, M&A, and product diversification strategies show considerable similarities, it is insufficiently clear how family firms choose between these options. For instance, are there important firm-level, family-level, or institutional antecedents that might explain why family firms choose one strategy over the other? Is there an optimal strategy given the circumstances?

4.4 Family ownership and governance

Given the evident segmentation between private and public businesses, the public status of family firms is considered an important source of family firm heterogeneity (Carbone et al., 2021). While the consequences of an IPO, including post-IPO performance, investments, or governance, are in general better understood (Carbone et al., 2021), we still have a very limited understanding of which types of family firms eventually go public, how family firms differ based on their motivations to go public, and how this ultimately influences post-IPO outcomes. Much more research is needed that addresses these topics. Furthermore, not much is known about advisory boards and their composition, specific role, and functioning within the family firm. Family councils primarily support succession planning and guard over the continuity of the business by giving a voice to all family members. Again, little is known about their role and their interaction with other governance bodies such as the top management team, board of directors, and/or advisory boards.

4.5 Financial policies

First, heterogeneity between family firms has been the focus of an increasing number of studies on leverage. These studies therefore substantially add to our understanding of capital structure decisions in family firms, but unfortunately, the divergent results of these papers still impede a conclusive picture. A potential interesting avenue to explore might therefore be to combine meaningful sources of heterogeneity to clarify or overcome certain inconsistencies. For instance, institutional differences might explain why some papers find positive associations between the generational stage and leverage in family firms, whereas others show negative relations or find none(Hansen & Block, 2021).

Second, future research could expand our knowledge on dividends in family firms and empirically assess the role of ownership dispersion more generally. For instance, do family firms with concentrated ownership and strong management involvement pay lower dividends to retain and recycle profits? What is the link between nonfinancial goals and dividend payouts? Arguably, families that value the preservation and expansion of their socioemotional wealth, might deliberately choose not to pay dividends to build a capital buffer that allows financial autonomy and minimizes the need for external investors.

5. Conclusion

We have reviewed the recent and topical research on family firms in the finance, entrepreneurship, management, and strategy literatures and thereby paid particular attention to family firm heterogeneity. In doing so, we have presented a comprehensive and detailed account of recent advancements in the field based on five main topics: business and family values, succession, family firm strategies, family ownership and governance, and financial policies. In general, we observe that family firm scholars have rightfully devoted great attention to family firm heterogeneity in their research. Still, some dimensions of family firm heterogeneity such as those related to family ownership, control, and governance have received ample scholarly attention, whereas others such as those related to family- and business values or organizational strategy remain remarkably underexplored.

We furthermore presented stylized facts based on detailed survey data on more than 900 Dutch family firms. Consistent with the increasing focus on family firm heterogeneity, we find that family firms are indeed largely heterogeneous. Importantly, however, our results indicate that family firms are the least heterogeneous based on family ownership and control, which is surprising because particularly these heterogeneity dimensions have received ample empirical attention. Future research might therefore benefit substantially by focusing on more pronounced but underexplored heterogeneity dimensions such as those related to family- and business values or organizational strategy. Next, we explore intercorrelations between key heterogeneity dimensions. We find strong correlations and therefore urge family firm scholars to not consider heterogeneity dimensions in isolation, but rather account for relevant intercorrelations. Our analyses further uncovered interesting and underexplored correlations. For instance, we show that family firms that give to charity are also more risk-taking, and that first or second-generation firms focus more on international growth. These relations have not yet received ample attention, which expands future research avenues.

Lastly, based on the five topics from our literature review we presented an elaborate research agenda that we hope will benefit family firm scholars and will push the field further. While each topic delineated specific research agendas, two general trends recurred. First, in line with our main premise, we urge scholars to account for correlations between heterogeneity dimensions. While some studies have started to study second-order heterogeneity or specifically control for other family firm heterogeneity characteristics, the majority of studies does not account for intercorrelations. Second, we call for more institutional research in family firms. Recent meta-analyses (e.g., Hansen & Block, 2020) uncovered significant moderating effects of country-level formal and informal institutions. This warrants further and deeper empirical scrutiny. More specifically, many heterogeneity dimensions such as succession intentions, organizational strategy, and family and business values might have heterogeneous influences based on the institutional context in which family firms operate.

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7. Tables

Table 1: Characteristics of the family firms in our sample

Notes: *The table present the main characteristics of the 909 sample firms. Some characteristics have missing values for some firms. Source: own data.*

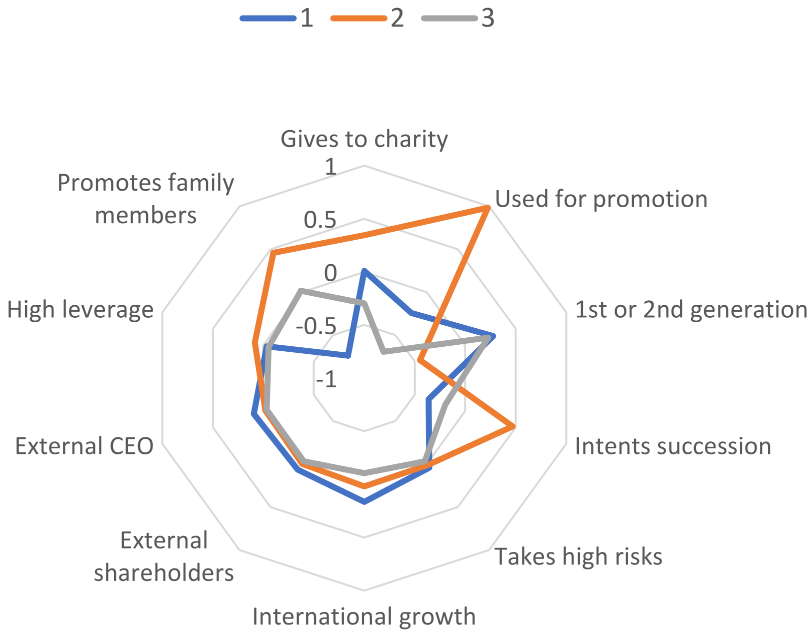
	N	Mean	s.d.	p10	p50	p90
Panel A: Firm characteristics						
Company age (years)	905	52.73	35.01	18.00	43.00	99.00
Number of employees	898	58.76	215.26	11.00	21.00	95.00
Total Assets (EURm)	901	10.93	25.83	0.77	4.37	21.71
Total Liabilities to Total Assets	885	0.60	0.39	0.23	0.57	0.96
Panel B: Family involvement						
Generation of current management	839	2.31	1.11	1.00	2.00	4.00
Number of family shareholders	827	2.24	2.55	1.00	2.00	4.00
Shares of company shares owned by the family	738	0.98	0.08	0.98	1.00	1.00
Any external shareholder	743	0.08	0.27	0.00	0.00	0.00
Family member CEO	774	0.93	0.26	1.00	1.00	1.00
Female CEO	774	0.07	0.25	0.00	0.00	0.00
College-educated CEO	774	0.49	0.50	0.00	0.00	1.00
Share of family members in total employees	802	0.15	0.22	0.02	0.11	0.27
Share of family members in all directors	759	0.84	0.26	0.40	1.00	1.00
In-laws welcome in the family business	812	0.75	0.44	0.00	1.00	1.00
Panel C: Succession						
Intend to transfer the business to the next generation	793	0.72	0.45	0.00	1.00	1.00
Successor is obliged to have an internal career	606	0.71	0.46	0.00	1.00	1.00
Next generation already working within the company	690	0.50	0.50	0.00	1.00	1.00
Panel D: Strategic planning						
Has a growth target	738	0.47	0.50	0.00	0.00	1.00
Focuses on international growth	738	0.33	0.47	0.00	0.00	1.00
Has a leverage target	738	0.43	0.50	0.00	0.00	1.00
Has a strategic plan	701	0.35	0.48	0.00	0.00	1.00
Introduction of new products: rarely (1) to very often (7)	730	4.56	1.68	2.00	5.00	7.00
Firm’s risk preference: low-risk projects (1) to very risky projects (7)	730	4.00	1.35	2.00	4.00	6.00
Panel E: Stakeholders						
Family members have preference for promotions	812	0.33	0.47	0.00	0.00	1.00
Firm is regular supporter of charities	724	0.50	0.50	0.00	1.00	1.00
Being a family business is used for promotion	721	0.47	0.50	0.00	0.00	1.00

Table 2: Relations among family firm characteristics

Notes: *The table presents regression models that regress binary firm characteristics on 9 other characteristics (presented in Table 1). 'Used for promotion' refers to using the family firm nature for promotional purposes (e.g., recruitment). 'Family succession' stands for 'Intend to transfer the business to the next generation'. 'Takes high risks' is 'Firm's risk preference: low-risk projects (1) to very risky projects (7)' transformed to a binary variable, with values above 4 coded as 1. 'International growth' is 'Focuses on international growth'. 'High leverage' denotes an above median total liabilities to total assets ratio. 'Promotes family members' signifies 'Family members have preference for promotions'. 'Gives to charity' corresponds to 'Firm is a regular supporter of charities'. All regressions control for the (log) number of employees, firm size (log of total assets) and include 2-digit industry (SIC) fixed effects. T-statistics are in parentheses,* * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. *Source: own data, own calculations.*

	(1) Gives to charity	(2) Used for promotion	(3) 1^{st} or 2^{nd} generation	(4) Family succession	(5) Takes high risks	(6) International growth	(7) External shareholders	(8) External CEO	(9) High leverage	(10) Promotes family members
Gives to charity		0.085**	0.010	0.021	0.083**	-0.002	-0.036*	-0.006	0.052	-0.032
		(2.21)	(0.26)	(0.60)	(2.18)	(-0.05)	(-1.71)	(-0.29)	(1.27)	(-0.83)
Used for promotion	0.095**		-0.173***	0.148***	-0.014	0.021	0.001	-0.020	0.030	0.044
	(2.21)		(-4.23)	(4.00)	(-0.34)	(0.56)	(0.07)	(-1.00)	(0.71)	(1.08)
1^{st} or 2^{nd} generation	0.011	-0.173***		-0.104***	0.065	0.091**	0.020	0.023	0.001	-0.068*
	(0.26)	(-4.19)		(-2.92)	(1.60)	(2.47)	(0.92)	(1.08)	(0.02)	(-1.68)
Intents succession	0.028	0.177***	-0.125***		-0.006	0.054	-0.041	-0.021	0.090*	0.139***
	(0.60)	(3.98)	(-2.92)		(-0.13)	(1.43)	(-1.49)	(-0.81)	(1.94)	(3.37)
Takes high risks	0.093**	-0.014	0.065	-0.005		0.148***	-0.043*	0.007	0.027	0.060
	(2.19)	(-0.34)	(1.60)	(-0.13)		(3.92)	(-1.84)	(0.31)	(0.62)	(1.47)
International growth	-0.003	0.026	0.114**	0.057	0.184***		0.038	0.034	0.006	0.002
	(-0.05)	(0.56)	(2.46)	(1.43)	(3.97)		(1.43)	(1.28)	(0.12)	(0.05)
External shareholders	-0.124*	0.005	0.060	-0.104	-0.131*	0.094		0.091*	0.219***	-0.007
	(-1.74)	(0.07)	(0.93)	(-1.52)	(-1.90)	(1.45)		(1.69)	(3.12)	(-0.10)
External CEO	-0.022	-0.066	0.075	-0.059	0.024	0.091	0.097*		-0.034	-0.039
	(-0.29)	(-1.01)	(1.08)	(-0.82)	(0.31)	(1.29)	(1.69)		(-0.42)	(-0.56)
High leverage	0.052	0.027	0.001	0.067*	0.024	0.004	0.063***	-0.009		-0.074*
	(1.27)	(0.71)	(0.02)	(1.95)	(0.62)	(0.12)	(2.86)	(-0.42)		(-1.90)
Promotes family members	-0.036	0.045	-0.069*	0.117***	0.061	0.002	-0.002	-0.012	-0.084*	
	(-0.83)	(1.08)	(-1.67)	(3.34)	(1.47)	(0.05)	(-0.10)	(-0.55)	(-1.90)	
Constant	-0.128	0.317	0.883***	0.140	-0.312	-1.036***	0.100	-0.198	1.161***	-0.091
	(-0.44)	(1.42)	(3.65)	(0.70)	(-1.10)	(-3.79)	(0.68)	(-1.35)	(3.27)	(-0.31)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	683	683	683	683	683	683	683	683	683	683

Figure 1: Family firm clusters



Notes: *This cluster analysis is based on ten family firm characteristics encompassing family values and socioemotional wealth (charitable donations, the use of the family values to promote the firm), family succession (first or second generation, the intension to have family members succeed the leadership), organizational strategies (international expansion, corporate risk taking), (non)family ownership and control (external shareholders and external top management), and financial and nonfinancial policies (financial leverage and internal succession).*

ONLINE APPENDIX

Online Appendix A: Selection step plan

1.1. Potential target companies

1.1.1. Filters Orbis

- Dutch companies
- All Active or unknown situation companies
- >10 employees
- BV and NV
- No financial, educational, social or public administration sector companies
- 56.245 companies left

1.1.2. Refine to correct Holding

- Download Global Ultimate Owner (GUO) of company list --> to gain highest level in hierarchy
- Drop duplicates in GUO's
- If GUO is missing, the company is assumed to be the GUO
- If GUO is "Stichting Administratiekantoor", then check if consists of more than 1 subsidiary in 1st level:
    - If 1 subsidiary → take this subsidiary as holding
    - If 2 or more subsidiaries → take "Stichting Administratiekantoor" as holding

1.1.3. Refine Holding / Top company

- Filter for Pension funds (insurance companies) and state/government companies
- Filter for mutual and pension funds/nominees/trusts/trustees
    - Drop GUO if the name contains: "fund/pensioen/pension/trust/participatie/participaties" (e.g. Nordian Fund I Cooperatief U.A.)
- Keep only Dutch holdings / top company (DUO) --> because of cultural differences (except Curacao(=CW))
- If GUO is family or individual ("WW* / WWP") --> no financials and no direct subsidiary information
    - Download DUO of family/individual companies
    - Look to parent company (ISH) of GUO
        - ➔ If ISH = the family/individual --> take the DUO as holding
        - ➔ If ISH is foreign company --> drop (but except if CW)

    - If ISH country = CW → check manually what the correct top company is (4 companies)
    - Extra: later added back one mutual and pension funds/nominees/trusts/trustees company (see above)

        ➔ If ISH country = n.a. → use DUO as top company

- If GUO is foundation (e.g. stichting administratiekantoor / StAK) --> No financial information available
    - Download level 1 subsidiary of GUO (except if =>1 subsidiary in 1ste level)
    - Delete Dutch stichting (BvD ID: NL)- foreign company structures (BvD ID: BE/LULB) -> see exemptions above
- Add all the top companies together
- 36.740 companies left (Doc: Dutch Holding List - Websites and Financial Information)
    - List of Dutch holdings with a subsidiary company of at least 10 employees (i.e. cancels out some holdings with more than 10> consolidated

Online Appendix B: Identification methods family businesses

1.2. Additional data to identify family businesses

1.2.1. Holding & subsidiary website (Web crawling)

Purpose: Identify family businesses by searching for specific search terms on company website

1.2.1.1 Orbis export list

- Input:
    - All holdings found in step 1.1.3
    - All subsidiaries found in step 1.2.2
- Output:
    - Company name
    - BvD ID number
    - Website address

1.2.1.2 Web Crawling method

- The methodology used for web crawling can be found at section 2.2

1.2.2. Holding plus management & subsidiaries (Name listing)

Purpose: Identify family firms by comparing board members names with company name and compare board members names with each other per company

- Input: All holdings found in step 1.1.3
- Output:
    - Company name
    - BvD ID number
    - DMC Full Name (current members)
    - DMC First Name
    - DMC Middle Name
    - DMC Last name
    - DMC Individual or company
    - DMC Corresponding BvDID (when applicable)
    - DMC Date of Birth
    - Subsidiary level
    - Subsidiary name
    - Subsidiary BvD ID number

1.2.3. Subsidiary plus management (Name listing)

Purpose: Identify family firms by comparing board members names with company name and compare board members names with each other per company.

- Input: All subsidiaries from the holdings found in step 1.2.2
- Output:
  - Company name
  - BvD ID number
  - DMC Full Name (current members)
  - DMC First Name
  - DMC Middle Name
  - DMC Last name
  - DMC Individual or company
  - DMC Corresponding BvD ID (when applicable)
  - DMC Date of Birth

1.2.4. Companies that are a DMC in a holding or subsidiary

In this step, all the companies are listed that are a director/manager in a holding or subsidiary. The reason to get this dataset is because sometimes 3 brothers of a family have their own holding that is a director of a firm. Without this step, we only have 3 companies as a director. By extracting the directors/management of the 'company directors' in this dataset, we can compare individuals of a holding or subsidiary instead of companies.

Purpose: Identify family firms by comparing board members names with company name and compare board members names with each other per company

- Input: All DMC's that are identified as 'company' from dataset 1.2.2 & 1.2.3
- Output:
  - Company name
  - BvD ID number
  - DMC First Name
  - DMC Middle Name
  - DMC Last name
  - DMC Individual or company
  - DMC Corresponding BvD ID (when applicable)

- DMC Date of Birth

2.1. Name Matching

We used in total 7 name matching methods:

1. Holding: Last name of members of board of directors - holding company name
   - Whether the last name of one of the holding directors corresponds to the holding company name (highest matching score of director of holding).
2. Holding: Last names of members of board of directors (within board)
   - The number of same last names in the board of directors of the holding company.
3. Subsidiary: Last name of members of board of directors - subsidiary company name
   - Whether the last name of one of the subsidiary directors corresponds to the subsidiary company name (highest matching score of a subsidiary is added to the holding).
4. Subsidiary: Last names of members of board of directors (within board)
   - The highest number of same last names in the board of directors of a subsidiary company is added to the holding.
5. Cross: Last name of members of board of directors holding - subsidiary company name
   - Whether the last name of one of the holding directors corresponds to one of the subsidiary company names and report the maximum score in case of multiple subsidiary matches.
6. Cross: Last name of members of board of directors' subsidiary - holding company name
   - Whether the last name of one of the subsidiary directors corresponds to the holding company name and report the maximum score in case of multiple subsidiary directors matches.
7. Cross: Last names of members of board of directors (across boards)
   - The total number of same names in the holding and subsidiary's board of directors combined.

Procedure

The name matching is performed via a pattern matching technique: Fuzzy Wuzzy. This is a pattern matching algorithm that makes use of the Levenshtein Distance[13]. The distance is a score between 0-100 (i.e. score of 100 is a full name match). We consider a name match when the distance score is 80 or higher. To match the subsidiaries with the holdings we have used the Global Ultimate Owner/ GUO BvDIDNumbers, since we than know that the holding has a majority ownership. Otherwise 2 holdings can be identified as family firm in case the subsidiary is identified as family firm and 2 holdings have a share of the subsidiary.

[13] The Levenshtein Distance is defined to be the smallest number of edit operations (insertions, deletions and substitutions) required to change one string into another (Christen, 2006)

Then we preformed the name matching procedure with Python programs. The steps that are taken are:

1. Loading all holdings and their subsidiaries separately with the following variables:
   - Company name,
   - BvDIDNumber,
   - DMC (director) Full name,
   - DMC Middle name,
   - DMC Last name,
   - DMC Individual or Company,
   - DMC Corresponding BvDID (when applicable),
   - DMC Date of birth,

   Only for holdings:
   - Subsidiary - Level,
   - Subsidiary - Name,
   - Subsidiary - BvDIDNumber

   Unique holdings: 36.740
   Number of directors that are a company: 26.962
   Number of directors that are an individual: 180.598

   Unique subsidiaries: 134.341
   Number of directors that are a company: 95.817
   Number of directors that are an individual: 361.080

2. Loading DMC companies - Because some directors are a company and these company names need to be replaced by the directors that are in the board of this DMC company. An additional dataset is download with the DMC information of these companies to replace the director information in the holding and subsidiary files. If the DMC in this file is a company, then the board member is dropped. The following variables are downloaded:
   - Company name,
   - BvDIDNumber,
   - DMC (board) Full name,
   - DMC Middle name,
   - DMC Last name,
   - DMC Individual or Company,
   - DMC Corresponding BvDID (when applicable),

   Unique DMC companies: 53.114

Number of directors that are a company: 28.633

Number of directors that are an individual: 99.849

3. Loading GUO (General Ultimate Owner) list for holdings and subsidiaries. The reason to use the GUO to match the holdings and subsidiaries is to drop the subsidiaries that the holding has a minority ownership of. Furthermore, not to identify a holding as family business if the subsidiary is a family business and the holding has minority ownership. The variables that are downloaded are:
   - Company name
   - BvDIDNumber
   - GUO BvDIDNumber
   - GUO Company name

4. Merge the DMC company data with the holding and subsidiary data in case of a director that is a company.

   Unique holdings: 36.740

   Unique subsidiaries: 134.022 → Less then above because duplicate Company name & BvDIDNumber are dropped now.

5. Find the GUO for each holding and subsidiary

   Number of holdings with GUO BvDIDNumber: 27.441 → Not all holdings do have subsidiaries

   Number of subsidiaries with GUO BvDIDNumber: 111.495

6. Find matches
   a. Subsidiaries
      i. Subsidiary company vs. Subsidiary individuals (SC_SI)
         1. Fuzzy match (between 366.764 pairs)
      ii. Director count (distinctive)
      iii. Number of directors with same name per subsidiary (26.629 subsidiaries)
   b. Holdings
      i. Holding company vs. subsidiary individuals (HC_SI)
         1. Fuzzy match (between 111.088 pairs)
      ii. Holding individuals vs. subsidiary companies (HI_SC)
         1. Fuzzy match (between 952.098 pairs)
      iii. Holding company vs. holding individuals (HC_HI)
         1. Fuzzy match (between 67.791 pairs)
      iv. Holding individuals vs. subsidiary individuals (HI_SI)

1. Match based on:
    a. GUO - BvDIDNumber
    b. GUO - Name
    c. DMC Last name
    d. DMC Date of birth
2. Number of possible director pairs in total: 5.424.104

v. Number of directors with same name per holding (35.149 holdings)

7. Match all data with corresponding holding. For all values found per subsidiary the maximum score is used per holding. In case of missing subsidiary for the holding, the value 'PWC_Unknown' is placed.

8. Export a CSV file with all holdings and their corresponding value per variable.

Results

Below the amount of observations that have a value per variable:

- Number of holdings:	36.740
- Number of holdings with fuzzyMatch_HI_SC:	25.762
- Number of holdings with SameName_HOLD:	35.149
- Number of holdings with fuzzyMatch_HC_HI	35.149
- Number of holdings with #Managers_SUB:	26.629
- Number of holdings with fuzzyMatch_SC_SI:	24.907
- Number of holdings with SameName_SUB:	24.907
- Number of holdings with fuzzyMatch_HC_SI:	24.907
- Number of holdings with HI_SI:	24.210

2.2. Web Crawling

We used in total 2 name matching methods

1. Holding: web crawl (Holding_Webcrawl)
- Whether the website of the holding contains one of the following words: "familiebedrijf", "family business"
2. Subsidiary: web crawl (Sub_Webcrawl)
- Whether the website of the subsidiary contains one of the following words: "familiebedrijf", "family business"

2.2.1 Procedure

- Collect website data for the 36.740 holding companies and 132.972 subsidiary companies from Orbis. Website data is available for 51% of the holding companies and 56% of the subsidiary companies.
- In the database with all URLs keep only unique URLs to avoid web crawling of one website multiple times.
- Perform web crawling in the Microsoft Azure cloud network: assign a “worker” to search the URLs in the network via the Bing search engine, this is built in by Microsoft. The worker clicks on every webpage linked to the URL and looks whether “familiebedrijf” or “family business” can be found on the webpage. When a match is made the worker reports the corresponding URL and a snippet of the text of the webpage.
- When the worker has found 20 sub-URL hits on one main URL it stops screening the main URL to avoid long processing times and web crawling (overload) failures.
- Total companies with websites 93.583 (Holdings: 18.733, Subsidiaries: 74.850).
- Removed duplicate websites: in total 52.665 unique websites (one particular URL can link to different companies).
- 54.210 web pages (one URL may have many web pages) contain the words ‘familiebedrijf’/’family business’, this means that 10.229 websites (i.e. URLs) have at least one web page with the search terms.
- To increase the predictability of the web crawl measure to identify family firms we apply several filters to filter out non-family companies having a website contain the search terms. We have applied several URL-filters. That is, we dropped the observation if one of the following words can be found in the URL:
    - ‘Blog’, ‘nieuws’, ‘news’, & ‘actueel’: these words often refer to news pages mentioning to other (family) companies. When the URL contains “over-ons” we do not drop the observation, since the web page is than often written by the family business itself.
    - ‘Vacature’: many employment websites show job openings of family businesses and also mention this on their website. However, many family company websites only mention the family aspect of the business in the job section of their website. Therefore, we made sure to only remove vacature-URLs when the rest of the URL does not contain “werken-bij”, “werkenbij”,”werken_bij”. These words are often used by family firms themselves.

- In the end, 9.164 unique firm websites (both Holding and Subsidiaries) are left. In total 4.874 holding companies have either a holding website or subsidiary website containing the search terms. This is just a small amount of the total holding list and we suggest that this method can be improved in future research.

2.3. Family Business Lists

- Within PwC several lists exist with names of family businesses (±500). As there is a very high chance that these companies will fulfil the European Commission criteria to be a family business, we use them as dependent variable (Y=1) to build the predictive model. We use this model to identify family business that we would like to send a survey.
- The predictive model can only be built if the database also contains firms with a high likelihood to be a non-family business (Y=0). Therefore, we collected information from various sources (e.g. Elsevier, LexisNexis) to create a list with non-family businesses. Elsevier has a list of largest Dutch firms where they indicate if a firm is a family business or not.

2.4. Final Family Business Identification (Predictive model)

With the information collected in step 2.1 and 2.2 the predictive models of step 2.3 are made. The predictive models are made with help of the firms of which we know that it is a family business or not. While creating the models we used several variables that we collected in different groups, since there is a large correlation between them (which was expected). Because of the highly correlated variables we created 1 model with a relatively high R^2 and without conflicting correlated variables.

We also did a variance inflation factor (VIF) test on a linear regression of our variables as an indicator for multicollinearity. In the linear model with all the variables included the VIF value was still below 5, which is recommended by Rogerson (2001)[14]. Therefore, we used all the identification variables in our main model. Next to the main model we made 7 models to identify family firms, since we have missing value for some variables because of different company structures of the holdings.

For the different models, we did an analyse what the best value was for a Y-hat to predict if the firm is as family business. At the end, we used the following variables for our predictive models:

<u>Model used for holdings with information for all variables:</u>
Model 1 (#22.768): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match sq_n_samename_sub HI_SC_match HC_SI_match SC_SI_match tot_webcrawl
Minimal Y-hat prediction value: E-mail = 0.6 and Letter = 0.75

<u>Model used for holdings with all information except website information:</u>
Model 2 (#1.439): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match sq_n_samename_sub HI_SC_match HC_SI_match SC_SI_match sqrt_n_samename_hold_sub
Minimal Y-hat prediction value: E-mail = 0.6 and Letter = 0.8

[14] Rogerson, P. A. (2001). Statistical methods for geography. London: Sage.

Model used for holdings with all information except subsidiary information:

Model 3 (#8.839): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match tot_webcrawl

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.75

Model used for holdings without subsidiary and website information:

Model 4 (#2.103): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.65

Model used for holdings without holding board information (hiding family ownership and wealth):

Model 5 (#639): probit FF_Casper_daniel n_samename_sub SC_SI_match HC_SI_match tot_webcrawl

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.65

Model used for holdings without holding board and website information (hiding family ownership and wealth):

Model 6 (#61): probit FF_Casper_daniel n_samename_sub SC_SI_match HC_SI_match tot_webcrawl

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.65

Model used for holdings with only web crawling information:

Model 7 (#891): tot_webcrawl

Used if variable = 1 (Yes)

Variables used in models:

FF_Casper_daniel:	Family businesses identified by previous work PwC and Casper de Nooijer
sq_n_samename_hold:	Squared number of same last names for holdings
HC_HI_match:	Highest fuzzy match score of holding company name and holding individual
sq_n_samename_sub:	Squared number of same last names for subsidiaries
HI_SC_match:	Highest fuzzy match score of holding individual and subsidiary company name
HC_SI_match:	Highest fuzzy match score of subsidiary individual and holding company name
SC_SI_match:	Highest fuzzy match score of subsidiary individual and subsidiary company name
tot_webcrawl:	Dummy variable that is 1 if holding or subsidiary company website contains family firm values

Appendix C: Financial Consolidation

3.1 Input files

Two different company files are used as input for the financials data:

- Holding List
  - ➜ Holdings (Company name, BvD ID number)
  - ➜ Subsidiaries (Company name, BvD ID number)
  - ➜ Consolidation code
- Subsidiary List
  - ➜ Financial variables
  - ➜ Consolidation code

3.2 Output files (Orbis)

Downloaded variables per company file:

- BvD ID number
- Number of Employees group information (last value)
- Number Companies in corporate group
- Consolidation Code
- Listed / Delisted / Unlisted
- Number of patents
- Number of Employees per year (2009-2015)
- Total Assets per year (2009-2015) EUR
  - Current Assets (2009-2015) EUR
  - Tangible fixed assets (2009-2015) EUR
  - Cash & Cash equivalent (2009-2015) EUR
- Shareholders’ Funds (2009-2015) EUR
- Total Debt: Current + non-current liabilities (2009-2015) EUR
- Non-current Liabilities (2009-2015) EUR
  - Long term debt (2009-2015) EUR
  - Other non-current liabilities (The one without capitals in name ORBIS)
- Current Liabilities (2009-2015) EUR
- Total Sales: Sales (2009-2015) EUR
- Cost of goods sold (2009-2015) EUR

- ○ Other operating expenses (2009-2015) EUR
- ○ P/L for period [Net Income] (2009-2015) EUR

Variables with a different holding and download format

- ○ Date of incorporation
- ○ US SIC core code (3 digits)
- ○ US SIC primary code (option: first line only)

3.3 Procedure consolidate the data (output files Orbis)

We distinguish several types consolidation types of holdings:

1. C1: Companies with consolidated accounts only (2.242 holdings)
2. C2/U2: Companies with both types of accounts (5.904 holdings)
3. U1: Companies with unconsolidated accounts only (25.956 holdings)
4. NRF/LF/NRLF/NF: companies with no (recent)/limited financial information (5.346 holdings)

1. *C1 companies*

   Do not require any special attention as these firms do report consolidated accounts across the years.

   → To control for variation caused by the self-made consolidation method in the next consolidation type of companies we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, and the consolidation was performed by the researchers. For *C1 companies* the consolidation account was available for all observations, so takes value 0.

2. *C2/U2 Companies*

   Do require attention as these firms have reported consolidated accounts in some particular years. However, the consolidated accounts are not available for all reporting years. The following procedure is followed to consolidate all fiscal years:

   - ○ Search and download strategy:
     - → Load Holding BvDIDNumbers in Orbis (36.740 holdings)
     - → Type of accounts: C2/U2 (Companies with both types of accounts) (5.904 holdings)
     - → Searches settings file 1 (Holdings financials - consolidated) with settings: *a preferred account* and then on *consolidated accounts*
     - → Searches settings file 2 (Holdings financials - unconsolidated) with settings: *a preferred account* and then on *unconsolidated accounts*
     - → Import the majority owned subsidiaries in Orbis (25.703 subsidiaries)

- → Search settings file 3 (Subsidiary financials - unconsolidated) with settings: *a preferred account* and then on *unconsolidated accounts* (due to download limitations on Orbis downloaded 3 separate files)
  - ■ 545 holdings, no subsidiary
  - ■ 219 holdings dropped because one of the subsidiaries has cons. code C1.
    - ● In case of match survey respondents with these data, we have to manually check the right numbers.
  - ■ 2 holdings dropped, because the subsidiary is the holding itself

- ○ Consolidation procedure:
  - → Summed all unconsolidated subsidiary information per holding (21.500 subsidiaries, 5.138 holdings)
  - → Merge unconsolidated holding information, self-consolidated subsidiary information and consolidated holding information and transpose and order data to panel data set
  - → Determine the right consolidation method:
    - ■ For patents: the sum of unconsolidated holding information and self-consolidated subsidiary information
    - ■ For Employees: the consolidated holding information or if missing the unconsolidated holding information + self-consolidated subsidiary information. If the consolidated holding employee amount is lower than 10 we also take the unconsolidated holding information + self-consolidated subsidiary information
    - ■ For the financial variables two type of consolidated accounts are available:
      - ● With elimination entries (=>2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing, then we calculated the mean elimination entry over the number of years consolidated holding information was available and subtracted this mean from the self-consolidated financials (unconsolidated holding information + consolidated subsidiary information).
      - ● Without elimination entries (<2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing we take into account the self-consolidated financials

(unconsolidated holding information + consolidated subsidiary information).

→ To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, so we had to do the consolidation ourselves.

→ 5.138 holdings consolidated

- Monitoring and improving the consolidation method:
  - → The holding is sometimes a subsidiary of the holding itself. To avoid double counting we drop the subsidiary observation (91 Subsidiaries)
  - → Double counting of financials; it appears that in the holdings the financials are already partly consolidated. To avoid this problem, we used an elimination entry estimation procedure.

3. *U1 Companies*

Do require attention as these firms have reported no consolidated accounts in all years. The following procedure is followed to consolidate all fiscal years:

- Search and download strategy:
  - → Load Holding BvD ID Numbers in Orbis (36.740 holdings)
  - → Type of accounts: U1 (Companies with unconsolidated accounts only) (25.957 holdings)
  - → Searches settings file 1 (Holdings Financials): the most recent accounts available (due to download limitations on Orbis downloaded as 3 separate files)
  - → Import the majority owned subsidiaries in Orbis (45.300 subsidiaries)
  - → Searches settings file 2 (Subsidiary Financials): the most recent accounts available (due to download limitations on Orbis downloaded as 5 separate files)
    - 8.411 holdings, no subsidiary
    - 158 holdings dropped because one of the subsidiaries has cons. code C1.
    - 4 holdings dropped, because the subsidiary is the holding itself
- Consolidation procedure:
  - → Summed all unconsolidated subsidiary information per holding (41.456 subsidiaries, 17.384 holdings)
  - → Merge unconsolidated holding information with self-consolidated subsidiary information and transpose and order data to panel data set
  - → Summed all self-consolidated subsidiary information to the unconsolidated holding information.

    - → 601 holdings (3.982 subsidiaries) have subsidiaries with C2/U2 code (companies with consolidated and unconsolidated accounts. This is an issue, since some yearly accounts could be/are consolidated while others are not consolidated. This would result in double-counting if we are consolidating manually ourselves. Solve this by running the procedure again for these companies.
    - → Searches settings file 3 (Subsidiary Financials) with settings: *a preferred account* and then on u*nconsolidated accounts*

- ○ Consolidation procedure:
    - → Summed all unconsolidated subsidiary information per holding (3.982 subsidiaries, 601 holdings)
    - → Merge the self-consolidation data of holdings with C2/U2 subsidiaries with the main file
    - → We checked whether the new consolidated information is better than the initial consolidation value. In many cases (2.678 accounting years) the initial value corresponds to the new consolidation value. However, in some cases the values largely deviate (new value <20% of initial) from each other (621 accounting years). We take certain consolidation values in the following cases:
        - ○ The number of employees of "*the most recent account available (step 3)*" consolidation is more than or equal to 5 times the number of employees of "*the preferred account and then unconsolidated accounts (step 7)*" consolidation -> take the number of employees of "*the most recent account available (step 3)*" consolidation value
        - ○ The number of employees of "*the most recent account available (step 3)*" consolidation is less than 5 times the number of employees of "*the preferred account and then unconsolidated accounts (step 7)*" consolidation
-> take the the number of employees of "*the preferred account and then unconsolidated accounts (step 7)*" consolidation value
        - ○ To maintain consistency within the dataset we adjust the other financial variables in accordance with the employee adjustment procedure.
    - → To control for variation caused by the self-consolidation method in the next consolidation type of companies we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, so we had to do the consolidation ourselves. For *U1 companies* the consolidation account was not available for all observations, so the dummy variable always takes value 1.

- → To control for variation caused by the elimination entries we added a dummy variable which takes the value 1 if the employee ratio (see elimination entries adjustment) is below 0.2.
- → Most problems seem to be solved with this solution, however it is still required to manually check the financial variables in the final dataset.

4. *<u>NRF/LF/NRLF/NF Companies</u>*

Do require attention as these firms have not reported consolidated or unconsolidated accounts or have reported limited financial information for all the years. The following procedure is followed to consolidate all fiscal years:

- ○ Search and download strategy:
  - → Load Holding BvD ID Numbers in Orbis (36.740 holdings)
  - → Type of accounts: NRF/LF/NRLF/NF (Companies with unconsolidated accounts only) (5.346 holdings - with 22.520 subsidiary companies)
  - → Searches settings file 1 (Holdings financials - consolidated): *a preferred account* and then on *consolidated accounts*
  - → Searches settings file 2 (Holdings financials - unconsolidated): *a preferred account* and then on *unconsolidated accounts*
  - → Searches settings file 3 (Subsidiary Financials) with settings: *a preferred account* and then on u*nconsolidated accounts* (due to download limitations on Orbis downloaded 3 separate files)
    - ■ 1.298 holdings, no subsidiary
    - ■ 10 subsidiaries do not belong to the holding anymore
    - ■ 258 holdings dropped because one of the subsidiaries has cons. code C1.
    - ■ 2 holdings & 49 subsidiaries dropped, because the subsidiary is the holding itself

- ○ Consolidation procedure:
  - → Summed all unconsolidated subsidiary information per holding (16.475 subsidiaries, 3.788 holdings)
  - → Merge unconsolidated holding information, self-consolidated subsidiary information and consolidated holding information and transpose and order data to panel data set
  - → Determine the right consolidation method:
    - ■ For patents: the sum of unconsolidated holding information and self-consolidated subsidiary information

        - For Employees: the consolidated holding information or if missing the unconsolidated holding information + self-consolidated subsidiary information. If the consolidated holding employee amount is lower than 10 we also take the unconsolidated holding information + self-consolidated subsidiary information
        - For the financial variables two type of consolidated accounts are available:
            - With elimination entries (=>2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing, then we calculated the mean elimination entry over the number of years consolidated holding information was available and subtracted this mean from the self-consolidated financials (unconsolidated holding information + consolidated subsidiary information).
            - Without elimination entries (<2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing we take into account the self-consolidated financials (unconsolidated holding information + consolidated subsidiary information).

    → To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, so we had to do the consolidation ourselves.

5. *Wrap - up: Finalized companies vs. non-finalized companies*

    - Finalized companies (Total = 28.551 holdings):
        → C1 companies: 2.242 holdings
        → C2/U2 companies: 5.138 holdings
        → U1 companies: 17.383 holdings
        → NRF companies: 3.788 holdings

    - Non-finalized companies (Total = 10.897 holdings):
        → C1 companies: no holdings
        → C2/U2 companies: 764 holdings
            - 545 holdings no subsidiary
                - Take either the consolidated or the unconsolidated financial value

        - To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year.
    - 219 holding one of the subsidiaries has cons. code C1.
- → U1 companies: 8573 holdings
    - 8.411 holdings no subsidiary
        - Take the unconsolidated financial value
        - To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year (i.e. all cases)
    - 154 holdings one of the subsidiaries has cons. code C1.
- → NRF companies: 1558 holdings
    - 1.298 holdings, no subsidiary
        - Take the unconsolidated financial value
        - To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year (i.e. all cases)
    - 258 holdings dropped because one of the subsidiaries has cons. code C1.

- Final dataset (Total = 36.498)
    - → C1 companies: 15,694 lines 2.242 holdings
    - → C2/U2 companies: 35,966 lines 5.138 holdings
    - → U1 companies: 121.688 lines 17.384 holdings
    - → NRF companies: 1.480 holdings unique
        - 182 lines not matched: 26 holdings
        - 26.334 lines matched: 3.762 holdings
            - Double counts C1: 133 lines, 19 holdings
            - Double counts C2: 15.393 lines, 2.199 holdings
            - Double counts U1: 448 lines, 64 holdings
    - → Non-finalized companies - no subsidiary: 71.778 lines 10.254 holdings

- Consolidation Assumptions:
    1. Differences in financials due to partial consolidation, Orbis database reliability
    2. 100% consolidation of majority owned subsidiaries

3. “Vastgoed beheer” not taken into account. Mostly the real estate is placed in a company that is part of the holding. However, sometimes it is spited from the holding and then the assets are not taken into account.

6. For efficiency purposes we determined the age, diversification and industry of the corporate group in a different file.
   - Search and download strategy:
     - → Load Holding BvD ID Numbers in Orbis (36.740 holdings)
     - → Load Subsidiary BvD ID Numbers in Orbis (109.425 Subsidiaries)
     - → Download the following variables:
       - Date of incorporation
       - US SIC Core code (3-digit)
       - US SIC primary code (option: first line only)
       - Total Assets EUR Last avail.
     - → Subsidiaries: Transformed the data to determine the incorporation year, main industry and diversification levels.
       - Corporate incorporation year: The oldest incorporation year of the subsidiary companies per corporate group. This measure is used to determine the company age.
       - Main industry per corporate group: SIC code related to the industry in which the company has devoted the highest amount of total assets.
       - Diversification 1: The number of different primary SIC codes per holding
       - Diversification 2: A dummy variable which takes the value 1 if the number of different primary SIC codes per holding is larger than 2, and 0 otherwise.
       - Diversification 3: Weighted average diversification measure (Montgomery, 1982)[15]
     - → Holding: Merge Subsidiary file into Holding file.
       - Checked whether subsidiary incorporation year is the earliest incorporation year of the corporate group.
       - Main industry

[15] Montgomery, C. A., (1992). The Measurement of Firm Diversification: Some New Empirical Evidence. *Academy of Management Journal.* June 1, 1982 vol. 25 no. 2 299-307

- If SIC code is 6712/6719 we do not take the amount of assets into account. SIC 6000-6999 is a financial firm.
- To define the corporate group main industry code, we compare the amount of assets of the holding industry and the main subsidiary industry. The industry with the highest amount of assets is taken as the corporate group main industry code.

Appendix D: Survey set-up

Appendix B: Selection step plan

1.1. Potential target companies

1.1.1. Filters Orbis

- Dutch companies
- All Active or unknown situation companies
- >10 employees
- BV and NV
- No financial, educational, social or public administration sector companies
- 56.245 companies left

7.1.1

1.1.2. Refine to correct Holding

- Download Global Ultimate Owner (GUO) of company list --> to gain highest level in hierarchy
- Drop duplicates in GUO's
- If GUO is missing, the company is assumed to be the GUO
- If GUO is "Stichting Administratiekantoor", then check if consists of more than 1 subsidiary in 1st level:
  - o If 1 subsidiary → take this subsidiary as holding
  - o If 2 or more subsidiaries → take "Stichting Administratiekantoor" as holding

1.1.3. Refine Holding / Top company

- Filter for Pension funds (insurance companies) and state/government companies
- Filter for mutual and pension funds/nominees/trusts/trustees
  - o Drop GUO if the name contains: "fund/pensioen/pension/trust/participatie/participaties" (e.g. Nordian Fund I Cooperatief U.A.)
- Keep only Dutch holdings / top company (DUO) --> because of cultural differences (except Curacao(=CW))
- If GUO is family or individual ("WW* / WWP") --> no financials and no direct subsidiary information
  - o Download DUO of family/individual companies
  - o Look to parent company (ISH) of GUO
    - ➔ If ISH = the family/individual --> take the DUO as holding

        - ➔ If ISH is foreign company --> drop (but except if CW)
            - o If ISH country = CW → check manually what the correct top company is (4 companies)
    - o Extra: later added back one mutual and pension funds/nominees/trusts/trustees company (see above)
        - ➔ If ISH country = n.a. → use DUO as top company
- If GUO is foundation (e.g. stichting administratiekantoor / StAK) --> No financial information available
    - o Download level 1 subsidiary of GUO (except if =>1 subsidiary in 1ste level)
    - o Delete Dutch stichting (BvD ID: NL)- foreign company structures (BvD ID: BE/LULB) -> see exemptions above
- Add all the top companies together
- 36.740 companies left (Doc: Dutch Holding List - Websites and Financial Information)
    - o List of Dutch holdings with a subsidiary company of at least 10 employees (i.e. cancels out some holdings with more than 10> consolidated

Appendix C: Identification methods family businesses

1.2. Additional data to identify family businesses

1.2.1. Holding & subsidiary website (Web crawling)

Purpose: Identify family businesses by searching for specific search terms on company website

1.2.1.1 Orbis export list

- Input:
    - All holdings found in step 1.1.3
    - All subsidiaries found in step 1.2.2
- Output:
    - Company name
    - BvD ID number
    - Website address

1.2.1.2 Web Crawling method

- The methodology used for web crawling can be found at section 2.2

1.2.2. Holding plus management & subsidiaries (Name listing)

Purpose: Identify family firms by comparing board members names with company name and compare board members names with each other per company

- Input: All holdings found in step 1.1.3
- Output:
    - Company name
    - BvD ID number
    - DMC Full Name (current members)
    - DMC First Name
    - DMC Middle Name
    - DMC Last name
    - DMC Individual or company
    - DMC Corresponding BvDID (when applicable)
    - DMC Date of Birth
    - Subsidiary level
    - Subsidiary name

- Subsidiary BvD ID number

1.2.3. Subsidiary plus management (Name listing)

Purpose: Identify family firms by comparing board members names with company name and compare board members names with each other per company.

- Input: All subsidiaries from the holdings found in step 1.2.2
- Output:
  - Company name
  - BvD ID number
  - DMC Full Name (current members)
  - DMC First Name
  - DMC Middle Name
  - DMC Last name
  - DMC Individual or company
  - DMC Corresponding BvD ID (when applicable)
  - DMC Date of Birth

1.2.4. Companies that are a DMC in a holding or subsidiary

In this step, all the companies are listed that are a director/manager in a holding or subsidiary. The reason to get this dataset is because sometimes 3 brothers of a family have their own holding that is a director of a firm. Without this step, we only have 3 companies as a director. By extracting the directors/management of the 'company directors' in this dataset, we can compare individuals of a holding or subsidiary instead of companies.

Purpose: Identify family firms by comparing board members names with company name and compare board members names with each other per company

- Input: All DMC's that are identified as 'company' from dataset 1.2.2 & 1.2.3
- Output:
  - Company name
  - BvD ID number
  - DMC First Name
  - DMC Middle Name
  - DMC Last name
  - DMC Individual or company

- o DMC Corresponding BvD ID (when applicable)
- o DMC Date of Birth

2.1. Name Matching

We used in total 7 name matching methods:

8. Holding: Last name of members of board of directors - holding company name
   - Whether the last name of one of the holding directors corresponds to the holding company name (highest matching score of director of holding).
9. Holding: Last names of members of board of directors (within board)
   - The number of same last names in the board of directors of the holding company.
10. Subsidiary: Last name of members of board of directors - subsidiary company name
    - Whether the last name of one of the subsidiary directors corresponds to the subsidiary company name (highest matching score of a subsidiary is added to the holding).
11. Subsidiary: Last names of members of board of directors (within board)
    - The highest number of same last names in the board of directors of a subsidiary company is added to the holding.
12. Cross: Last name of members of board of directors holding - subsidiary company name
    - Whether the last name of one of the holding directors corresponds to one of the subsidiary company names and report the maximum score in case of multiple subsidiary matches.
13. Cross: Last name of members of board of directors' subsidiary - holding company name
    - Whether the last name of one of the subsidiary directors corresponds to the holding company name and report the maximum score in case of multiple subsidiary directors matches.
14. Cross: Last names of members of board of directors (across boards)
    - The total number of same names in the holding and subsidiary's board of directors combined.

Procedure

The name matching is performed via a pattern matching technique: Fuzzy Wuzzy. This is a pattern matching algorithm that makes use of the Levenshtein Distance[16]. The distance is a score between 0-100 (i.e. score of 100 is a full name match). We consider a name match when the distance score is 80 or higher. To match the subsidiaries with the holdings we have used the Global Ultimate Owner/ GUO BvDIDNumbers, since we than know that the holding has a majority ownership. Otherwise 2 holdings can be identified as family firm in case the subsidiary is identified as family firm and 2 holdings have a share of the subsidiary.

[16] The Levenshtein Distance is defined to be the smallest number of edit operations (insertions, deletions and substitutions) required to change one string into another (Christen, 2006)

Then we preformed the name matching procedure with Python programs. The steps that are taken are:

2. Loading all holdings and their subsidiaries separately with the following variables:
    - Company name,
    - BvDIDNumber,
    - DMC (director) Full name,
    - DMC Middle name,
    - DMC Last name,
    - DMC Individual or Company,
    - DMC Corresponding BvDID (when applicable),
    - DMC Date of birth,

   Only for holdings:
    - Subsidiary - Level,
    - Subsidiary - Name,
    - Subsidiary - BvDIDNumber

   Unique holdings: 36.740
   Number of directors that are a company: 26.962
   Number of directors that are an individual: 180.598

   Unique subsidiaries: 134.341
   Number of directors that are a company: 95.817
   Number of directors that are an individual: 361.080

3. Loading DMC companies - Because some directors are a company and these company names need to be replaced by the directors that are in the board of this DMC company. An additional dataset is download with the DMC information of these companies to replace the director information in the holding and subsidiary files. If the DMC in this file is a company, then the board member is dropped. The following variables are downloaded:
    - Company name,
    - BvDIDNumber,
    - DMC (board) Full name,
    - DMC Middle name,
    - DMC Last name,
    - DMC Individual or Company,
    - DMC Corresponding BvDID (when applicable),

Unique DMC companies: 53.114

Number of directors that are a company: 28.633

Number of directors that are an individual: 99.849

6. Loading GUO (General Ultimate Owner) list for holdings and subsidiaries. The reason to use the GUO to match the holdings and subsidiaries is to drop the subsidiaries that the holding has a minority ownership of. Furthermore, not to identify a holding as family business if the subsidiary is a family business and the holding has minority ownership. The variables that are downloaded are:
    - Company name
    - BvDIDNumber
    - GUO BvDIDNumber
    - GUO Company name

7. Merge the DMC company data with the holding and subsidiary data in case of a director that is a company.

    Unique holdings: 36.740

    Unique subsidiaries: 134.022 → Less then above because duplicate Company name & BvDIDNumber are dropped now.

8. Find the GUO for each holding and subsidiary

    Number of holdings with GUO BvDIDNumber: 27.441 → Not all holdings do have subsidiaries

    Number of subsidiaries with GUO BvDIDNumber: 111.495

9. Find matches
    a. Subsidiaries
        i. Subsidiary company vs. Subsidiary individuals (SC_SI)
            1. Fuzzy match (between 366.764 pairs)
        ii. Director count (distinctive)
        iii. Number of directors with same name per subsidiary (26.629 subsidiaries)
    b. Holdings
        i. Holding company vs. subsidiary individuals (HC_SI)
            1. Fuzzy match (between 111.088 pairs)
        ii. Holding individuals vs. subsidiary companies (HI_SC)
            1. Fuzzy match (between 952.098 pairs)
        iii. Holding company vs. holding individuals (HC_HI)

1. Fuzzy match (between 67.791 pairs)

iv. Holding individuals vs. subsidiary individuals (HI_SI)

1. Match based on:
    a. GUO - BvDIDNumber
    b. GUO - Name
    c. DMC Last name
    d. DMC Date of birth
2. Number of possible director pairs in total: 5.424.104

v. Number of directors with same name per holding (35.149 holdings)

10. Match all data with corresponding holding. For all values found per subsidiary the maximum score is used per holding. In case of missing subsidiary for the holding, the value 'PWC_Unknown' is placed.

11. Export a CSV file with all holdings and their corresponding value per variable.

Results

Below the amount of observations that have a value per variable:

- Number of holdings: 36.740
- Number of holdings with fuzzyMatch_HI_SC: 25.762
- Number of holdings with SameName_HOLD: 35.149
- Number of holdings with fuzzyMatch_HC_HI 35.149
- Number of holdings with #Managers_SUB: 26.629
- Number of holdings with fuzzyMatch_SC_SI: 24.907
- Number of holdings with SameName_SUB: 24.907
- Number of holdings with fuzzyMatch_HC_SI: 24.907
- Number of holdings with HI_SI: 24.210

2.2. Web Crawling

We used in total 2 name matching methods

3. Holding: web crawl (Holding_Webcrawl)

- Whether the website of the holding contains one of the following words: "familiebedrijf", "family business"

4. Subsidiary: web crawl (Sub_Webcrawl)

- Whether the website of the subsidiary contains one of the following words: “familiebedrijf”, “family business”

2.2.1 Procedure

- Collect website data for the 36.740 holding companies and 132.972 subsidiary companies from Orbis. Website data is available for 51% of the holding companies and 56% of the subsidiary companies.
- In the database with all URLs keep only unique URLs to avoid web crawling of one website multiple times.
- Perform web crawling in the Microsoft Azure cloud network: assign a “worker” to search the URLs in the network via the Bing search engine, this is built in by Microsoft. The worker clicks on every webpage linked to the URL and looks whether “familiebedrijf” or “family business” can be found on the webpage. When a match is made the worker reports the corresponding URL and a snippet of the text of the webpage.
- When the worker has found 20 sub-URL hits on one main URL it stops screening the main URL to avoid long processing times and web crawling (overload) failures.
- Total companies with websites 93.583 (Holdings: 18.733, Subsidiaries: 74.850).
- Removed duplicate websites: in total 52.665 unique websites (one particular URL can link to different companies).
- 54.210 web pages (one URL may have many web pages) contain the words ‘familiebedrijf’/’family business’, this means that 10.229 websites (i.e. URLs) have at least one web page with the search terms.
- To increase the predictability of the web crawl measure to identify family firms we apply several filters to filter out non-family companies having a website contain the search terms. We have applied several URL-filters. That is, we dropped the observation if one of the following words can be found in the URL:
    - ‘Blog’, ‘nieuws’, ‘news’, & ‘actueel’: these words often refer to news pages mentioning to other (family) companies. When the URL contains “over-ons” we do not drop the observation, since the web page is than often written by the family business itself.
    - ‘Vacature’: many employment websites show job openings of family businesses and also mention this on their website. However, many family company websites only mention the family aspect of the business in the job section of their website. Therefore, we made sure to only remove vacature-URLs when the rest of the URL does not contain “werken-bij”, “werkenbij”,”werken_bij”. These words are often used by family firms themselves.

- In the end, 9.164 unique firm websites (both Holding and Subsidiaries) are left. In total 4.874 holding companies have either a holding website or subsidiary website containing the search terms. This is just a small amount of the total holding list and we suggest that this method can be improved in future research.

2.3. Family Business Lists

- Within PwC several lists exist with names of family businesses (±500). As there is a very high chance that these companies will fulfil the European Commission criteria to be a family business, we use them as dependent variable (Y=1) to build the predictive model. We use this model to identify family business that we would like to send a survey.
- The predictive model can only be built if the database also contains firms with a high likelihood to be a non-family business (Y=0). Therefore, we collected information from various sources (e.g. Elsevier, LexisNexis) to create a list with non-family businesses. Elsevier has a list of largest Dutch firms where they indicate if a firm is a family business or not.

2.4. Final Family Business Identification (Predictive model)

With the information collected in step 2.1 and 2.2 the predictive models of step 2.3 are made. The predictive models are made with help of the firms of which we know that it is a family business or not. While creating the models we used several variables that we collected in different groups, since there is a large correlation between them (which was expected). Because of the highly correlated variables we created 1 model with a relatively high R^2 and without conflicting correlated variables.

We also did a variance inflation factor (VIF) test on a linear regression of our variables as an indicator for multicollinearity. In the linear model with all the variables included the VIF value was still below 5, which is recommended by Rogerson (2001)[17]. Therefore, we used all the identification variables in our main model. Next to the main model we made 7 models to identify family firms, since we have missing value for some variables because of different company structures of the holdings.

For the different models, we did an analyse what the best value was for a Y-hat to predict if the firm is as family business. At the end, we used the following variables for our predictive models:

Model used for holdings with information for all variables:

Model 1 (#22.768): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match sq_n_samename_sub HI_SC_match HC_SI_match SC_SI_match tot_webcrawl

Minimal Y-hat prediction value: E-mail = 0.6 and Letter = 0.75

[17] Rogerson, P. A. (2001). Statistical methods for geography. London: Sage.

Model used for holdings with all information except website information:

Model 2 (#1.439): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match sq_n_samename_sub HI_SC_match HC_SI_match SC_SI_match sqrt_n_samename_hold_sub

Minimal Y-hat prediction value: E-mail = 0.6 and Letter = 0.8

Model used for holdings with all information except subsidiary information:

Model 3 (#8.839): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match tot_webcrawl

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.75

Model used for holdings without subsidiary and website information:

Model 4 (#2.103): probit FF_Casper_daniel sq_n_samename_hold HC_HI_match

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.65

Model used for holdings without holding board information (hiding family ownership and wealth):

Model 5 (#639): probit FF_Casper_daniel n_samename_sub SC_SI_match HC_SI_match tot_webcrawl

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.65

Model used for holdings without holding board and website information (hiding family ownership and wealth):

Model 6 (#61): probit FF_Casper_daniel n_samename_sub SC_SI_match HC_SI_match tot_webcrawl

Minimal Y-hat prediction value: E-mail = 0.65 and Letter = 0.65

Model used for holdings with only web crawling information:

Model 7 (#891): tot_webcrawl

Used if variable = 1 (Yes)

Variables used in models:

FF_Casper_daniel: Family businesses identified by previous work PwC and Casper de Nooijer

sq_n_samename_hold: Squared number of same last names for holdings

HC_HI_match: Highest fuzzy match score of holding company name and holding individual

sq_n_samename_sub: Squared number of same last names for subsidiaries

HI_SC_match: Highest fuzzy match score of holding individual and subsidiary company name

HC_SI_match: Highest fuzzy match score of subsidiary individual and holding company name

SC_SI_match:	Highest fuzzy match score of subsidiary individual and subsidiary company name
tot_webcrawl:	Dummy variable that is 1 if holding or subsidiary company website contains family firm values

Appendix D: Financial Consolidation

3.1 Input files

Two different company files are used as input for the financials data:

- Holding List
  - ➜ Holdings (Company name, BvD ID number)
  - ➜ Subsidiaries (Company name, BvD ID number)
  - ➜ Consolidation code
- Subsidiary List
  - ➜ Financial variables
  - ➜ Consolidation code

3.2 Output files (Orbis)

Downloaded variables per company file:

- BvD ID number
- Number of Employees group information (last value)
- Number Companies in corporate group
- Consolidation Code
- Listed / Delisted / Unlisted
- Number of patents
- Number of Employees per year (2009-2015)
- Total Assets per year (2009-2015) EUR
  - Current Assets (2009-2015) EUR
  - Tangible fixed assets (2009-2015) EUR
  - Cash & Cash equivalent (2009-2015) EUR
- Shareholders' Funds (2009-2015) EUR
- Total Debt: Current + non-current liabilities (2009-2015) EUR

- Non-current Liabilities (2009-2015) EUR
    - Long term debt (2009-2015) EUR
    - Other non-current liabilities (The one without capitals in name ORBIS)
- Current Liabilities (2009-2015) EUR
- Total Sales: Sales (2009-2015) EUR
- Cost of goods sold (2009-2015) EUR
- Other operating expenses (2009-2015) EUR
- P/L for period [Net Income] (2009-2015) EUR

Variables with a different holding and download format

- Date of incorporation
- US SIC core code (3 digits)
- US SIC primary code (option: first line only)

3.3 Procedure consolidate the data (output files Orbis)

We distinguish several types consolidation types of holdings:

5. C1: Companies with consolidated accounts only (2.242 holdings)
6. C2/U2: Companies with both types of accounts (5.904 holdings)
7. U1: Companies with unconsolidated accounts only (25.956 holdings)
8. NRF/LF/NRLF/NF: companies with no (recent)/limited financial information (5.346 holdings)

7. *C1 companies*

Do not require any special attention as these firms do report consolidated accounts across the years.

→ To control for variation caused by the self-made consolidation method in the next consolidation type of companies we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, and the consolidation was performed by the researchers. For *C1 companies* the consolidation account was available for all observations, so takes value 0.

8. *C2/U2 Companies*

Do require attention as these firms have reported consolidated accounts in some particular years. However, the consolidated accounts are not available for all reporting years. The following procedure is followed to consolidate all fiscal years:

- Search and download strategy:

    → Load Holding BvDIDNumbers in Orbis (36.740 holdings)

- → Type of accounts: C2/U2 (Companies with both types of accounts) (5.904 holdings)
- → Searches settings file 1 (Holdings financials - consolidated) with settings: *a preferred account* and then on *consolidated accounts*
- → Searches settings file 2 (Holdings financials - unconsolidated) with settings: *a preferred account* and then on *unconsolidated accounts*
- → Import the majority owned subsidiaries in Orbis (25.703 subsidiaries)
- → Search settings file 3 (Subsidiary financials - unconsolidated) with settings: *a preferred account* and then on *unconsolidated accounts* (due to download limitations on Orbis downloaded 3 separate files)
    - ■ 545 holdings, no subsidiary
    - ■ 219 holdings dropped because one of the subsidiaries has cons. code C1.
        - ● In case of match survey respondents with these data, we have to manually check the right numbers.
    - ■ 2 holdings dropped, because the subsidiary is the holding itself

- ○ Consolidation procedure:
    - → Summed all unconsolidated subsidiary information per holding (21.500 subsidiaries, 5.138 holdings)
    - → Merge unconsolidated holding information, self-consolidated subsidiary information and consolidated holding information and transpose and order data to panel data set
    - → Determine the right consolidation method:
        - ■ For patents: the sum of unconsolidated holding information and self-consolidated subsidiary information
        - ■ For Employees: the consolidated holding information or if missing the unconsolidated holding information + self-consolidated subsidiary information. If the consolidated holding employee amount is lower than 10 we also take the unconsolidated holding information + self-consolidated subsidiary information
        - ■ For the financial variables two type of consolidated accounts are available:
            - ● With elimination entries (=>2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing, then we calculated the mean elimination entry over the number of years consolidated holding information was available and

subtracted this mean from the self-consolidated financials (unconsolidated holding information + consolidated subsidiary information).

- Without elimination entries (<2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing we take into account the self-consolidated financials (unconsolidated holding information + consolidated subsidiary information).

→ To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, so we had to do the consolidation ourselves.

→ 5.138 holdings consolidated

- Monitoring and improving the consolidation method:

→ The holding is sometimes a subsidiary of the holding itself. To avoid double counting we drop the subsidiary observation (91 Subsidiaries)

→ Double counting of financials; it appears that in the holdings the financials are already partly consolidated. To avoid this problem, we used an elimination entry estimation procedure.

9. *U1 Companies*

Do require attention as these firms have reported no consolidated accounts in all years. The following procedure is followed to consolidate all fiscal years:

- Search and download strategy:

→ Load Holding BvD ID Numbers in Orbis (36.740 holdings)

→ Type of accounts: U1 (Companies with unconsolidated accounts only) (25.957 holdings)

→ Searches settings file 1 (Holdings Financials): the most recent accounts available (due to download limitations on Orbis downloaded as 3 separate files)

→ Import the majority owned subsidiaries in Orbis (45.300 subsidiaries)

→ Searches settings file 2 (Subsidiary Financials): the most recent accounts available (due to download limitations on Orbis downloaded as 5 separate files)

- ■ 8.411 holdings, no subsidiary
- ■ 158 holdings dropped because one of the subsidiaries has cons. code C1.
- ■ 4 holdings dropped, because the subsidiary is the holding itself

- Consolidation procedure:
  - → Summed all unconsolidated subsidiary information per holding (41.456 subsidiaries, 17.384 holdings)
  - → Merge unconsolidated holding information with self-consolidated subsidiary information and transpose and order data to panel data set
  - → Summed all self-consolidated subsidiary information to the unconsolidated holding information.
  - → 601 holdings (3.982 subsidiaries) have subsidiaries with C2/U2 code (companies with consolidated and unconsolidated accounts. This is an issue, since some yearly accounts could be/are consolidated while others are not consolidated. This would result in double-counting if we are consolidating manually ourselves. Solve this by running the procedure again for these companies.
  - → Searches settings file 3 (Subsidiary Financials) with settings: *a preferred account* and then on u*nconsolidated accounts*

  - Consolidation procedure:
  - → Summed all unconsolidated subsidiary information per holding (3.982 subsidiaries, 601 holdings)
  - → Merge the self-consolidation data of holdings with C2/U2 subsidiaries with the main file
  - → We checked whether the new consolidated information is better than the initial consolidation value. In many cases (2.678 accounting years) the initial value corresponds to the new consolidation value. However, in some cases the values largely deviate (new value <20% of initial) from each other (621 accounting years). We take certain consolidation values in the following cases:
    - The number of employees of "*the most recent account available (step 3)*" consolidation is more than or equal to 5 times the number of employees of "*the preferred account and then unconsolidated accounts (step 7)*" consolidation -> take the number of employees of "*the most recent account available (step 3)*" consolidation value
    - The number of employees of "*the most recent account available (step 3)*" consolidation is less than 5 times the number of employees of "*the preferred account and then unconsolidated accounts (step 7)*" consolidation
      -> take the the number of employees of "*the preferred account and then unconsolidated accounts (step 7)*" consolidation value

  - To maintain consistency within the dataset we adjust the other financial variables in accordance with the employee adjustment procedure.

→ To control for variation caused by the self-consolidation method in the next consolidation type of companies we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, so we had to do the consolidation ourselves. For *U1 companies* the consolidation account was not available for all observations, so the dummy variable always takes value 1.

→ To control for variation caused by the elimination entries we added a dummy variable which takes the value 1 if the employee ratio (see elimination entries adjustment) is below 0.2.

→ Most problems seem to be solved with this solution, however it is still required to manually check the financial variables in the final dataset.

10. <u>NRF/LF/NRLF/NF Companies</u>

Do require attention as these firms have not reported consolidated or unconsolidated accounts or have reported limited financial information for all the years. The following procedure is followed to consolidate all fiscal years:

- Search and download strategy:

→ Load Holding BvD ID Numbers in Orbis (36.740 holdings)

→ Type of accounts: NRF/LF/NRLF/NF (Companies with unconsolidated accounts only) (5.346 holdings - with 22.520 subsidiary companies)

→ Searches settings file 1 (Holdings financials - consolidated): *a preferred account* and then on *consolidated accounts*

→ Searches settings file 2 (Holdings financials - unconsolidated): *a preferred account* and then on *unconsolidated accounts*

→ Searches settings file 3 (Subsidiary Financials) with settings: *a preferred account* and then on u*nconsolidated accounts* (due to download limitations on Orbis downloaded 3 separate files)

  - 1.298 holdings, no subsidiary
  - 10 subsidiaries do not belong to the holding anymore
  - 258 holdings dropped because one of the subsidiaries has cons. code C1.
  - 2 holdings & 49 subsidiaries dropped, because the subsidiary is the holding itself

- Consolidation procedure:

→ Summed all unconsolidated subsidiary information per holding (16.475 subsidiaries, 3.788 holdings)

→ Merge unconsolidated holding information, self-consolidated subsidiary information and consolidated holding information and transpose and order data to panel data set

→ Determine the right consolidation method:

  - For patents: the sum of unconsolidated holding information and self-consolidated subsidiary information
  - For Employees: the consolidated holding information or if missing the unconsolidated holding information + self-consolidated subsidiary information. If the consolidated holding employee amount is lower than 10 we also take the unconsolidated holding information + self-consolidated subsidiary information
  - For the financial variables two type of consolidated accounts are available:
    - With elimination entries (=>2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing, then we calculated the mean elimination entry over the number of years consolidated holding information was available and subtracted this mean from the self-consolidated financials (unconsolidated holding information + consolidated subsidiary information).
    - Without elimination entries (<2 years consolidated information from holding): The consolidated account taken into account is equal to the given holding consolidated account or if the holding consolidated account is missing we take into account the self-consolidated financials (unconsolidated holding information + consolidated subsidiary information).

→ To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year, so we had to do the consolidation ourselves.

11. *Wrap - up: Finalized companies vs. non-finalized companies*

- Finalized companies (Total = 28.551 holdings):

→ C1 companies: 2.242 holdings

→ C2/U2 companies: 5.138 holdings
→ U1 companies: 17.383 holdings
→ NRF companies: 3.788 holdings

- Non-finalized companies (Total = 10.897 holdings):

→ C1 companies: no holdings
→ C2/U2 companies: 764 holdings
  - 545 holdings no subsidiary
    - Take either the consolidated or the unconsolidated financial value
    - To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year.
  - 219 holding one of the subsidiaries has cons. code C1.

→ U1 companies: 8573 holdings
  - 8.411 holdings no subsidiary
    - Take the unconsolidated financial value
    - To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year (i.e. all cases)
  - 154 holdings one of the subsidiaries has cons. code C1.

→ NRF companies: 1558 holdings
  - 1.298 holdings, no subsidiary
    - Take the unconsolidated financial value
    - To control for variation caused by the consolidation method we added a dummy variable which takes the value 1 if the consolidated account was not available for that particular year (i.e. all cases)
  - 258 holdings dropped because one of the subsidiaries has cons. code C1.

- Final dataset (Total = 36.498)

→ C1 companies: 15,694 lines 2.242 holdings
→ C2/U2 companies: 35,966 lines 5.138 holdings
→ U1 companies: 121.688 lines 17.384 holdings
→ NRF companies: 1.480 holdings unique
  - 182 lines not matched: 26 holdings

- 26.334 lines matched: 3.762 holdings
  - Double counts C1: 133 lines, 19 holdings
  - Double counts C2: 15.393 lines, 2.199 holdings
  - Double counts U1: 448 lines, 64 holdings

→ Non-finalized companies - no subsidiary: 71.778 lines 10.254 holdings

- Consolidation Assumptions:
  4. Differences in financials due to partial consolidation, Orbis database reliability
  5. 100% consolidation of majority owned subsidiaries
  6. “Vastgoed beheer” not taken into account. Mostly the real estate is placed in a company that is part of the holding. However, sometimes it is spited from the holding and then the assets are not taken into account.

12. For efficiency purposes we determined the age, diversification and industry of the corporate group in a different file.
    - Search and download strategy:

      → Load Holding BvD ID Numbers in Orbis (36.740 holdings)

      → Load Subsidiary BvD ID Numbers in Orbis (109.425 Subsidiaries)

      → Download the following variables:
      - Date of incorporation
      - US SIC Core code (3-digit)
      - US SIC primary code (option: first line only)
      - Total Assets EUR Last avail.

      → Subsidiaries: Transformed the data to determine the incorporation year, main industry and diversification levels.
      - Corporate incorporation year: The oldest incorporation year of the subsidiary companies per corporate group. This measure is used to determine the company age.
      - Main industry per corporate group: SIC code related to the industry in which the company has devoted the highest amount of total assets.
      - Diversification 1: The number of different primary SIC codes per holding
      - Diversification 2: A dummy variable which takes the value 1 if the number of different primary SIC codes per holding is larger than 2, and 0 otherwise.

- Diversification 3: Weighted average diversification measure (Montgomery, 1982)[18]

→ Holding: Merge Subsidiary file into Holding file.

- Checked whether subsidiary incorporation year is the earliest incorporation year of the corporate group.
- Main industry
    - If SIC code is 6712/6719 we do not take the amount of assets into account. SIC 6000-6999 is a financial firm.
    - To define the corporate group main industry code, we compare the amount of assets of the holding industry and the main subsidiary industry. The industry with the highest amount of assets is taken as the corporate group main industry code.

[18] Montgomery, C. A., (1992). The Measurement of Firm Diversification: Some New Empirical Evidence. *Academy of Management Journal.* June 1, 1982 vol. 25 no. 2 299-307

Appendix D: Survey set-up

Strategy

Method: Cross-Sectional Survey, collection of data at a single point in time from a sample drawn from a specified population.

Sampling:

- Proposed strategy: target all family companies within the dataset.
- Survey respondent:
    - CEO: Believed to be one of the most informed person within the company, but difficult to directly target.
    - Other employees: mostly family members and senior management.

Proposed strategy: All the questions are suited to be filled in by family members or senior management. This way, we think the response rate will be higher than when we solely focus on CEOs.

- Targeting strategy:
    - Letter: send a letter to the holding address (in many cases this will be the home address of the family owners) with the request to fill in the survey online. As we often know the manager name, we could address the letter to a specific person (t.a.v. CEO/de heer/mevrouw) and the response rate is believed to be higher than in other methods.
        - Link to Tilburg University website (create weblog with main results with the goal that companies are willing to fill in survey, because they get something in return)

    - General e-mail addresses (info@ addresses): Send to known e-mail addresses an email with request to fill-in the survey. This is a cheap, easy and very scalable method.
        1. After online check recognised that most companies use an info@website.nl address. Thus, we could try to send the email to this address of each of the companies.
        2. Is it possible to use Tilburg University logo in mail to create trust and therefore the response rate.
        3. Unique log-in / identification code to be able to match survey data to current database
        4. Reminder emails
        5. T.a.v. mail -> less effective than in ‘closed’ letter

  - FBNed/other websites (Tilburg University, LinkedIn, Facebook): Create posts on websites and social media with request to fill in survey. This is also a very easy, cheap and scalable method.
    1. It needs to be clear who the audience group is in the online post.
    2. In the survey that is automatically send, you can make an identifier to link the answers to the dataset. The answer from online replies do not have this identifier.

Proposed strategy: We would like to target respondents via a mailing and a letter, since we belief that this will be the most efficient method. It would be interesting to link the survey to a Tilburg University website to increase the response rate and awareness of the existence of the institution. One major problem, as we would like to target a large group of family companies, is linking the survey results directly to our database. We hope to solve this by generating a unique code linked to each questionnaire and company.

- Questionnaire design: Online questionnaire, which can be directly linked to the main database with company information (e.g. financial and management).
- Question type: Both open and closed-ended questions (see also research set-up document)
- Question order/survey length, will be determined after the pretesting period.
  - Possibly rotate answers in closed-ended questions for response order effects
  - Start with simple questions, then more difficult and grouped per topic.
  - Change question order if possible
  - Asking to believes from the past is often incorrect, because people think they have always believed what they believe now

- Pretesting method - face-to-face survey
  - Who? -> Pesonal network . In total we target to try out the survey at 15-25 companies to make sure the questions are formulated clearly and the length is right.
  - Data → Take the data that we have to some face-to-face companies to check if the data derived from the Orbis database is right. For example: are the people from the board similar and is the number of employees correct.
- Survey period: 5-6 weeks and send reminder after 2 weeks.
  - Self-administered surveys take a quiet long collection period.

We would like to target all the identified family firms in the database (52%[19] of 36.470 = 19.000 FFs) via a combined email and a letter mailing. As we belief that the response rate is relatively low for these methods (i.e. between 5-20%), we are going to identify several methods to increase the response rate. Next to this, we would like to leverage several family business networks, to increase the awareness and the willingness to participate in the survey.

Time-line

14 September: Send-out survey
14 September: Publish posts on Twitter/LinkedIn/ (Facebook?)
14 September: Publish article PwC / TiU
18 September: Publish article FBNed
21 September: Publish article Fambizz
29 October: Close survey

Channels[20] (prior launch)

Total family population = 19.000 (52%)
Prediction accuracy = 93% -> 17.670 FFs

- Email Mailing
  Exp. target rate= Appr. 65% of the dataset-> exp. respondents = 1.150/575 (Rr=10%/5%)
  - Apr. 11 % of the email addresses could be derived from Orbis.
    - 1.000/36.000 holdings =3%)
    - 20.000/134.000 subsidiaries (complete list of subsidiaries) = 3.000/36.000 holdings (=8%)
  - Apr. 60% of the email addresses could be derived by transforming the website-addresses → As done in name matching sample
  - Identification: send unique respondent URL for Qualtrics (survey 1)

- Letter
  Expected target rate = Apr. 90% -> exp. respondents = 3.180/1.590 (Rr = 20%/10%)

[19] Vanaf empl> 10 https://www.cbs.nl/-/.../16/2017ep23%20familiebedrijven%20in%20nederland.pdf

[20] Calculations are based on assumptions

    - It is required for companies to fill in the company address for the registration at the chamber of commerce, so we have many postal addresses to send the letter to.
    - Identification: send unique log-in code for Qualtrics (survey 1)

- Social Networks
  Expected target rate = Apr. 10% -> exp. Respondents = 1.400/1.200 (Rr = 80%/70%)
    - Leverage the networks, FBNed, LinkedIn and Tilburg University
    - Identification: provide link to general survey and ask several identification questions in Qualtrics (survey 2)
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    - NAEVO (news and knowledge platform for entrepreneurship) wrote an article about the research: http://naevo.nl/nieuw-onderzoek-naar-prestaties-familiebedrijven/
    - Rendement.nl wrote an article about the research: https://www.rendement.nl/nieuws/id20176-familiebedrijven-kunnen-deelnemen-aan-onderzoek.html

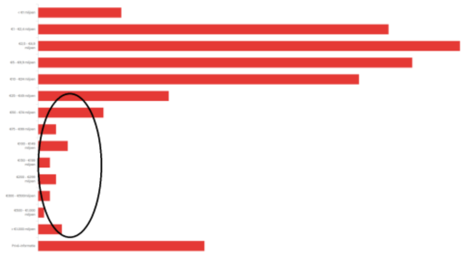
Methods to increase response rate (prior launch)

- Tilburg University - Tilburg Institute for Family Business
    - We belief that we could leverage the name of the university to increase the response rate.
    - Link survey to website of institute - make a subpage on the TiFB page at ww.tiu.nl → https://www.tilburguniversity.edu/research/institutes-and-research-groups/tifb/
    - Use name and colours of Tilburg University

- Newspapers & Other media channels -> FamBizz & FBNed
- Family Business Environment
    - Many family businesses believe that being a family business brings many advantages and family firms are vital for the economy, especially after the financial crisis.
    - -> Higher willingness to participate in events/surveys who support and acknowledge the importance of family businesses.
    - -> Family business cases (e.g. *alles is familie* television programme) show the similarities between family businesses and reveal factors which are very recognizable (e.g. grandfather still working in company) -> many family business owners like this programme
    - -> Conclusion: create a “family business environment” around the survey.

Channels to increase response rate (Communication 2.0 - After launch)

- Reminder E-mail



- How to reach large companies, sales >75 million?
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- How to reach other medium to large companies?
  - Gelders familiebedrijven gilde
  - Brabants familiebedrijven genootschap
  - KvK
- Twitter:

#TilburgUniversity doet uniek onderzoek naar #familiebedrijven. #Familiebedrijf: deel uw ervaring via http://bit.ly/TiFBonderzoek

  - @VNONCW (21K)
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  - @succesopvolging
  - @FBNed (515)
  - @fambizznl (959)
  - @mkbnl (45K)
  - @OP_Nederland (90K)
  - @Dormaar (0.7K) - redacteur Rtl Z (familiebedrijven artikel)
  - @BV_Rendement (0.9K) - published article about research

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  - CEO: Believed to be one of the most informed person within the company, but difficult to directly target.
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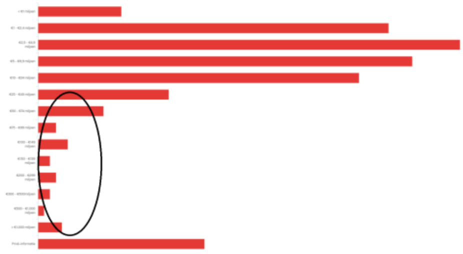

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  - @mkbnl (45K)
  - @OP_Nederland (90K)
  - @Dormaar (0.7K) - redacteur Rtl Z (familiebedrijven artikel)
  - @BV_Rendement (0.9K) - published article about research

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The European Corporate Governance Institute has been established to improve *corporate governance through fostering independent scientific research and related activities.*

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