



**TECHNISCHE UNIVERSITÄT MÜNCHEN**

TUM School of Management

**Essays on Succession, Advisory, and Performance of Family Businesses**

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Vollständiger Abdruck der von der TUM School of Management der Technischen Universität München zur Erlangung eines Doktors der Wirtschafts- und Sozialwissenschaften (Dr. rer. pol.) genehmigten Dissertation.

Vorsitz: Prof. Dr. Reiner Braun

Prüfende der Dissertation: 1. Prof. Dr. Alwine Mohnen

2. Prof. Dr. Melanie Richards

Die Dissertation wurde am 18.12.2023 bei der Technischen Universität München eingereicht und durch die TUM School of Management am 15.07.2024 angenommen.



## **Abstract**

Motivated by the importance of a succession event to a family business's orientation, behavior, and survival, this doctoral thesis investigates some important inputs and outputs of intergenerational succession processes. By analyzing the advisory of the succession process from the family as well as the advisor side, this doctoral thesis sheds light on one of the most influential yet understudied inputs of family business succession processes. Furthermore, the impact of family ownership and management on firms' default likelihood is investigated to discern between all possible outcomes of succession processes. This doctoral thesis comprises of three essays:

The first essay explores the family side of family business succession advisory. Using a case study approach based on interviews with fifteen incumbents and successors from differently sized family firms, the most influential advisors to the individual succession processes are identified. The results highlight generational differences in the choice of advisor as well as personal and company level drivers for advisor choice.

The second essay investigates the advisor side of family business advisory. Following a case study approach based on interviews with twenty advisors the roles and tasks of advisors in family firm succession processes are analyzed. The findings illustrate that not only the advisory of the family business succession process differs significantly from non-succession advisory of family and non-family firms, but also that tasks and roles of advisors vary between ownership and management succession.

The third study concerns the impact of company ownership and management regimes on firm performance. To achieve this, this study investigates the default likelihood of over 400 German listed companies under various ownership and management regimes. Using two different

measurements for default likelihood, it is shown that there are significant differences in the default likelihood of companies depending on their ownership and management structures.

The results of the three essays individually and collectively contribute to the academic discourse. While the first two essays add to the understanding of the intricacies of family business succession advisory, the third essay adds to the literature of ownership and management impact to family firm mortality and survival. Furthermore, the findings of all three studies have practical implications for the management of family businesses.

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## List of abbreviations

cf.	Confer
DLI	Default likelihood indicator
e.g.	Exempli gratia; for example
et al.	Et alii; and others
FB	Family business
FBL	Family business light
FIBER	Family control, Identification with business, Binding social ties, Emotional attachment to firm, Renewal of family ties
F-PEC	Family - Power, Experience, and Control
M&A	Mergers and acquisitions
NFB	Non-family business
RBV	Resource-based view
SEW	Socio-emotional-wealth
VIF	Variance inflation factor

# **1 Introduction**

## **1.1 The importance of family businesses**

Due to their contribution to global welfare, family businesses (FB) are among the most influential types of organizations. They are the predominant organizational structure around the globe (Claessens et al., 2002; Faccio & Lang, 2002), significantly contribute to the global GDP (La Porta et al., 1999), and employ a large part of the work force (Gottschalk et al., 2014; Gottschalk et al., 2019). FB can range in size from small- and medium-sized enterprises to large multi-national corporations and their relative importance to these groups varies by company size (Gottschalk et al., 2014; Gottschalk et al., 2019). Even some of the most prominent companies in the world can be classified as FB (Claessens et al., 2002).

However, the research on FB and the related sub-fields is still relatively young and varies by degree of maturity (cf. Ampenberger et al., 2013, among others). The present doctoral thesis is therefore dedicated to expanding extant research on one of the most contentious topics of an FB's lifecycle: Succession. This doctoral thesis consists of three essays on various aspects of this topic focused on some inputs and an output of FB succession. The following parts of this thesis hence provide an overview over extant literature as well as a description of the motivation for the respective essays. The first essay will then provide insights into the incumbents' and successors' decisions on who to involve as the most influential advisors to their succession processes. The second essay is concerned with the advisor side of succession as it investigates the uniqueness of FB succession advisory, the tasks and behavior of formal advisors during succession events. While the first two essays are focused around an important input of the succession process, the last essay is dedicated to finding the optimal outputs of the management and ownership succession processes by illustrating the impact of family ownership and management on the default likelihood of the firm.

## **1.2 Theoretical background**

### **1.2.1 Definition of family businesses**

Extant literature uses an array of definitions for what makes a company a family business (Allouche et al., 2008). Oftentimes this lack of a unified definition (Chrisman, Chua & Sharma, 2005) of FB is stated to be a problem to literature, as it limits comparability and generalizability of results (Westhead & Cowling, 1998). While the definitions for family businesses differ, they all include dimensions to define or measure family control and influence on the business. However, there is a certain level of disagreement between the definitions with regards to the question of which family needs to be involved in the business: Some definitions require the immediate family of the founder to be involved in the business (cf. Anderson et al., 2003; Anderson & Reeb, 2003a, 2003b; Villalonga & Amit, 2006; Sraer & Thesmar, 2007; Andres, 2008; Anderson et al., 2010; Ampenberger et al., 2013, among others). Other definitions are not as rigorous in requiring such close family ties, for example Chua et al. (1999, p. 25) state that a FB is “a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families”. This broader requirement is mirrored by official definitions of FB by institutions like the European Commission (2009, p. 9) which explicitly include the people who have acquired a FB from a founding family, as well as their heirs: “A firm, of any size, is a family business, if: (1) The majority of decision-making rights is in the possession of the natural person(s) who established the firm, or in the possession of the natural person(s) who has/have acquired the share capital of the firm, or in the possession of their spouses, parents, child or children’s direct heirs. (2) The majority of decision-making rights are indirect or direct. (3) At least one representative of the family or kin is formally involved in the governance of the firm. (4) Listed companies meet the definition of family enterprise if the person who established or

acquired the firm (share capital) or their families or descendants possess 25 per cent of the decision-making rights mandated by their share capital.”

As indicated in the European Commission’s (2009) definition, the next question, when defining a business as a FB, is the question of the degree of ownership the respective family holds in the FB. While some only look for a family to directly or indirectly hold as little as five per cent in a company to qualify as a FB (Abinzano et al., 2020), others require at least 25 per cent to be held by the respective family (e.g. Ampenberger et al., 2013). The commonly used requirement of a minimum 25 per cent share in the company is often quoted to be the most sensible as this is the minimum shareholder hurdle to be able to realize minority interests in a company under many governance regimes.

Besides ownership in a business, family involvement in management is often the third measure for family influence on the business (Villalonga & Amit, 2006). Whether in the form of absolute (e.g. European Commission, 2009, among others) or relative (e.g. Klein, 2010, among others) numbers of family members involved in the FB’s management or advisory boards, this dimension often is used as a further measure of distinguishing FB versus non-family businesses (NFB).

At this point it is important to acknowledge that the definitions for what makes a business a FB vary greatly: While many researchers rely on a mix of the above-mentioned criteria, as they are observable from outside a company, other definitions use less obvious indicators of what makes a business a FB. Some authors go as far as arguing that a family’s intent to transfer the business to the next generation is one of the key-factors within the definition of what makes a business a FB (c.f. Birley, 1986; Ward, 1987; Ward, 1988b; Barach & Ganitsky, 1995; Heck & Trent, 1999). As these less visible concepts like familiness and socio-emotional wealth used by those



researchers as a basis for their characterization of FB will be explained in detail in the following sections, they will not be mentioned here.

Understanding the uniqueness of the nature of FB as well as the problems inherent in certain definitions of FB, the present doctoral thesis explicitly drives to use a less restrictive definition of FB and follows the European Commission's definition. This definition is used not only because it is quite exhaustive, but also for practical reasons as the data needed for this classification can either be found freely online or can easily be asked for during an interview in case a company is not obligated to publish certain data points. There hence is no need for further interviews to find out whether a certain business follows certain tacit rules, values, or behavior patterns. Essays 1 and 2 closely follow this definition of FB, while Essay 3 uses a commonly used, yet more restrictive definition of FB. This definition asks for members of the founding family to own at least 25% of the company and to be part of the management board. This definition is used to guarantee comparability of results across other studies focused on the financial performance of firm types. To close the gap between this used definition and the European Commission's definition, a new group of companies is classified in the results. This group of companies does not fully fulfill all of the three criteria of the given FB definition and can hence be (1) owned and managed by a family other than the founding family, (2) not owned by the founding family to the full 25%, or (3) not managed by a member of the respective family.

### **1.2.2 Resource-based view and performance differences**

Given the definitions of FB, literature has identified a multitude of differences in performance between FB and NFB. For such comparisons the resource-based view (RBV) (Grant, 1991; Amit & Schoemaker, 1993; Habbershon & Williams, 1999) of a company is used, "because family firms have been described as unusually complex, dynamic, and rich in intangible

resources, the resource-based view provides researchers in the field of family businesses with an appropriate method for analyzing them” (Cabrera-Suárez et al., 2001, p. 38). The RBV turns to a firm’s internal resources and capabilities as sources for strategic advantages. While it is unclear, whether the RBV theory originated from the 1938 book by Barnard (Conner, 1991), or the writings of Selznick (1957), Penrose (1959), Pfeffer and Salancik (1978), Rumelt (1983), or Wernerfelt (1984) (Habbershon & Williams, 1999), it is suitable to be used to structure reviews of performance across various dimensions. Following Amit and Schoemaker (1993, p. 35), a firm’s resources may be defined as stocks of factors that are owned or controlled by said firm. Using the company’s assets, these resources can then be transformed into final products and services. The following paragraphs will examine some of the differences with regards to the resources identified in Amit and Schoemaker (1993, p.35), namely the knowhow that can be traded (e.g. patents), financial or physical assets, and human capital.

Literature indicates that FB perform differently to NFB with regards to the knowhow dimension of the RBV. Since, literature argues about the use of patents, like Amit and Schoemaker (1993) suggest, as sole indicators for a company’s innovation output (cf. Taylor et al., 1973; Tandon, 1982; Mansfield, 1986; Levin et al., 1987; Friedman et al., 1991; Scotchmer, 1991; Harabi, 1995; Cohen et al., 2000; Arundel, 2001; Hall & Ziedonis, 2001; Criscuolo et al., 2015, among others), the present comparison of FB to NFB is widened to include alternate measures for innovativeness, like research and development expenditures or expenditure to patent conversion: In theory the independence of FB should allow them to invest as little or as much into research and development as they want (Carney, 2005). However, literature indicates that FB typically invest less into research and development than their NFB counterparts (Duran et al., 2016; De Massis et al., 2018). Yet, despite having invested less, FB typically produce a higher share of patents, new products, or part of sales based on innovation than NFB (Matzler et al., 2015; Duran et al., 2016; Kammerlander & Prügl, 2016). There hence is a clear disparity

between NFB and FB with regards to this first dimension of the RBV as innovative process input and output differ between these types of organizations.

Good human resource management is associated with higher financial performance (Koch & McGrath, 1996). Given the differences between FB and NFB, as discussed in the previous chapter, it is unsurprising that there also are differences between the two with regards to their human capital performance. FB are found to offer higher job and wage security than other organization forms (Ellul et al., 2018). This result holds true even in times of economic distress and crises, as exhibited during the recent financial crisis beginning of the millennium (Amato et al., 2021). In general FB seem to be adverse to drastic downsizing measures, which oftentimes is associated with the families' identification with the firm and its employees (Bassanini et al., 2013). This identification is also evident in studies indicating that employees in FB are treated much like relatives of the family (Karra et al., 2006; Tabor et al., 2018). While NFB do not offer the same amount of care and familiarity for their employees, they do generally pay higher wages (Ellul et al., 2018). Furthermore, literature finds that FB prefer informal human resource management systems to formal ones (Hoon et al., 2019). This effect, however, seems to decrease with increased FB size (Kok et al., 2006).

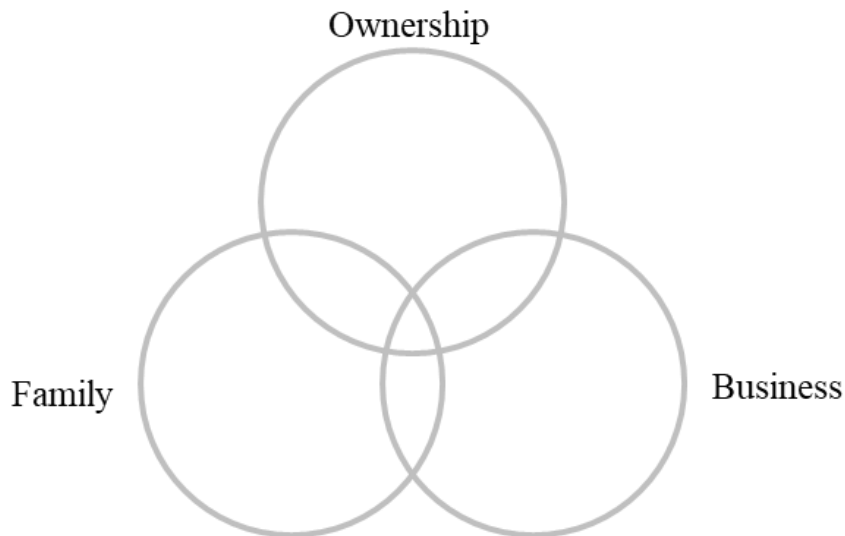
Financial and physical assets of FB and NFB are reviewed by extant literature quite extensively and while there seem to be differences between FB and NFB, it remains unclear whether FB or NFB perform better across this dimension. Generally, the level of control, as a function of the shareholdings of individual investors, seems to influence the level of difference in the return on assets (Allouche et al., 2008). This also holds true for FB, as the degree of family influence is shown to have impact on the return on assets (Achleitner et al., 2019; Abinzano et al., 2020). However, the results differ across regions, as the positive association of FB with higher return on assets is confirmed for Germany (Andres, 2008; Achleitner et al., 2019) and other parts of Western Europe (Barontini & Caprio, 2006; Sraer & Thesmar, 2007), while studies from the

United States indicate either no association (Villalonga & Amit, 2006), or even a negative association (Anderson & Reeb, 2003a). The discussion of these varying results with regards to financial performance will be continued in greater detail in Essay 3.

### **1.2.3 What makes family businesses special and how to measure it?**

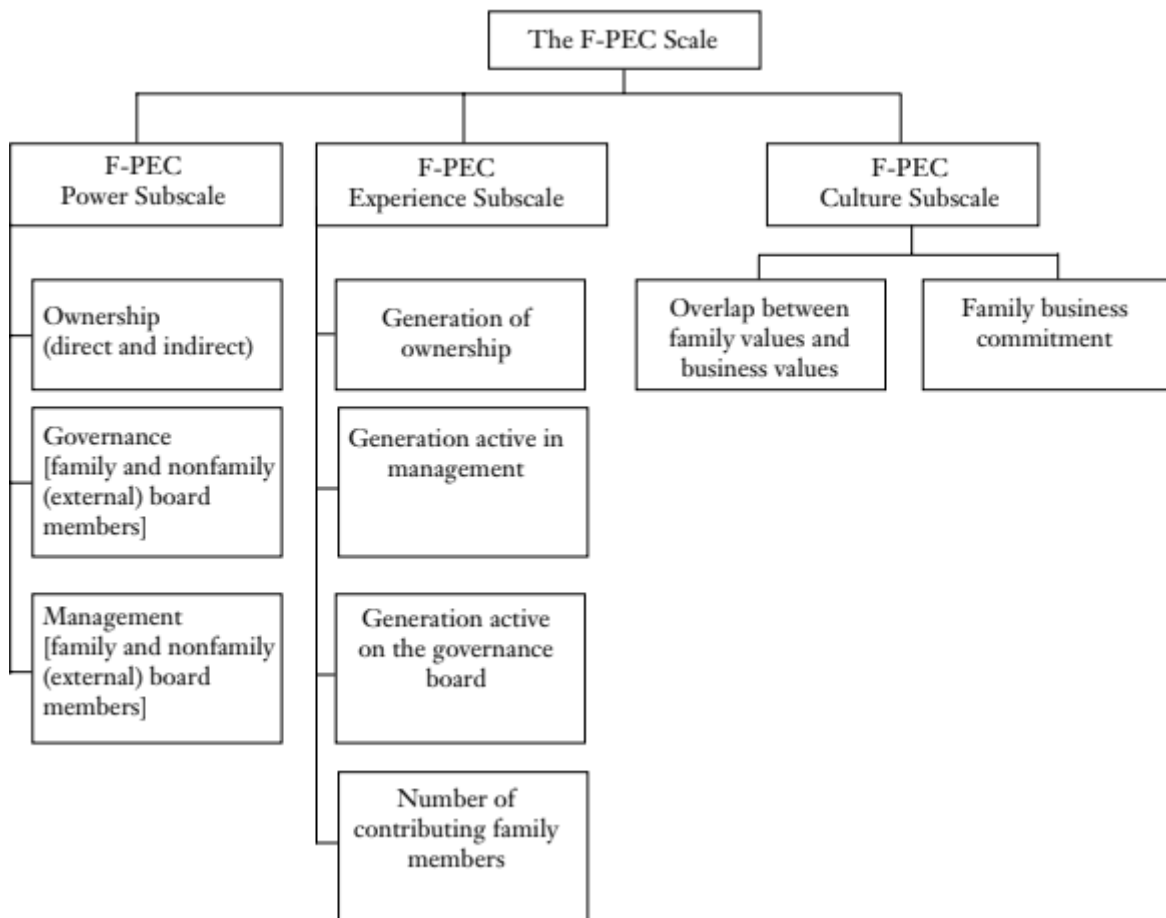
After distinguishing what literature identifies as FB, as well as the apparent performance differences between FB and NFB, it is essential to discuss the reasons for why these differences between FB and other organizations may exist. One of the main differences between FB and other forms of organizations is the existence and influence of the owner family on the business and the interrelation of the family system and the business system (Lansberg, 1983; Aronoff, 2004). The individual characteristics of this relationship not only differentiate FB from NFB, but also one FB from another. This interrelation between the family and business dimensions is commonly illustrated using the three-circle model by Tagiuri and Davis (1992) and Gersick et al. (1997). The model, as displayed in Figure 1, consists of three overlapping circles representing the family, ownership, and business dimensions. From this overlap between the each of the three dimensions the potential roles of the family members involved in the FB, depending on the dimension or dimensions they represent, can be deduced.

**Figure 1: Three-circle model**



Source: Based on Tagiuri and Davis (1992, p. 49)

Evidently extant literature has tried explaining the differences of FB and NFB as well as the heterogeneity of FB, based on the distinct individuality of the interrelation of family and business, for decades. Furthermore, research has focused on the effects of family and the pursuit of non-financial goals (cf. Tagiuri & Davis, 1992; Kets de Vries, 1993; Lee & Rogoff, 1996; Tagiuri & Davis, 1996, among others), which may often be foreign to other forms of organizations. To evaluate this in greater detail, Astrachan et al. (2002) introduced the so-called F-PEC scale to measure the degree of family influence on the FB. Figure 2 illustrates this scale, which can be used to determine the differences between individual FB based on their scores in the power, experience, and culture subscales:

**Figure 2: The F-PEC Scale**

Source: Astrachan et al. (2002, p.52)

In the power subscale, the extent of ownership, governance, and management involvement are scored. Scoring in this subscale is largely based on the percentage of family members on all boards, as well as percentage of board members appointed by the family on management and governance boards. The experience subscale is scored based on the generation of ownership, the generation of family active in management and governance, and on the number of contributing family members. The reasons behind the scoring is the argument based on the increase in experience after each successful intra-family succession event (Astrachan et al., 2002). Furthermore, the experience subscale scores the degree to which family and business values overlap as well as the family's commitment towards the business.

After the introduction of the F-PEC scale, further research was done on behavioral differences between organizations and their implications (Wiseman & Gomez-Mejia, 1998), which led to the introduction of the socio-emotional wealth (SEW) theory (Gómez-Mejía et al., 2007). In literature SEW is commonly used to compare FB to one another as well as to NFB across a host of dimensions and hence is often seen as a root cause reason for differences in decision making (Gómez-Mejía et al., 2007; Berrone et al., 2012). Comparisons using SEW as a line of reasoning can be done using the so-called FIBER scale (Berrone et al., 2012), which uses measures similar to those used in the F-PEC scale. The FIBER scale also measures the family influence and control, identification of family with the business, emotional attachment to the firm, as well as the renewal of family bonds through succession. The only measure not directly reminiscent of the F-PEC scale is the dimension concerned with the binding social ties of FB with stakeholders like employees, customers, or suppliers (Berrone et al., 2012).

Another concept concerned with the impact of the family on the business is the concept of familiness, which is based on the RBV. In the context of the FB Habbershon and Williams (1999) argue that familiness describes the set of resources and capabilities unique to FB, which is a result of the interrelation of family and business. This interaction between family and business can lead to either competitive advantages or disadvantages (Chrisman, Chua & Steier, 2005). Sirmon & Hitt (2003) identify five distinct resources to be part of familiness: human capital, social capital, patient capital, survivability capital, as well as governance structure and costs. Human capital is seen to have potentially positive and negative impact on the business, as nepotism may hinder professionalization, while firm specific tacit knowledge, extraordinary commitment (Horton, 1986; Donnelley, 1988), as well as warm and intimate relationships (Horton, 1986) may have a positive impact. Social capital describes the relationship between individuals or firms (Burt, 1997), and hence is involved in interfirm learning and knowledge transfer, but also supplier or customer relations (Nahapiet & Ghoshal, 1998). Patient capital is

defined as capital that is invested in a company without the threat of liquidation while survivability capital represents the financial resources the family is willing to commit through various vehicles into ensuring the FB's survival (Horton, 1986; Donnelley, 1988; Dreux IV, 1990). The final dimension of governance structure and costs, dissects the agency cost imposed by non-financial, or not financially rational decisions made by the family (Sirmon & Hitt, 2003).

In conclusion, the main difference between FB and other forms of organizations can be seen in the unique interrelation of family, ownership, and business. As each family and each business is different, the impact of family on business and vice versa is distinct to each FB. Literature still relies on the presented ways of measuring family influence, not only to better understand the individual constructs, but also to explain differences between organizational structures and their performance. The understanding of the concepts presented in this section is important to all of the three essays of this doctoral thesis.

### **1.2.4 Family business succession**

One of the major challenges and pivotal stages in a FB's lifecycle is the intergenerational succession. It is a time full of personal agendas (Sharma et al., 2001), emotions (cf. De Massis et al., 2008; Zellweger & Astrachan, 2008; Filser et al., 2013; Gilding et al., 2015, among others), behavior patterns (García-Álvarez et al., 2002; Sharma et al., 2003), communication issues, as well as other hurdles that have to be overcome. The problems associated with intergenerational succession become even more evident when one considers the survival rates of FB following intergenerational succession events: Approximately only 30 per cent of family businesses survive the transition from founder to second generation, and only about 10-15 per cent are passed down to the third generation (Beckhard & Dyer Jr, 1983b, 1983a; Ward, 1987).



It is therefore unsurprising that one focus of extant FB research is on this contentious topic (De Massis et al., 2008; Nordqvist & Melin, 2010).

Succession can generally be divided into three distinct steps: The succession of the managerial control, the succession of the ownership stake, as well as the transfer of the tax component (Wiatt et al., 2022). However, since ownership and tax succession are very closely related, as the ownership transfer causes the transfer of the tax component (Churchill & Hatten, 1987), it can be argued that succession of management and the succession of ownership are the two major steps of a succession process. The most important component of ownership succession is the transition of the ownership stake from one generation to another (Handler, 1990; Wasserman, 2003; Nordqvist et al., 2013). Yet, this aspect of FB succession is still understudied (Sund et al., 2015) in extant FB related literature. This lack of scientific attention may be caused by a lack of differentiation between management and ownership succession (Nordqvist et al., 2013), as they oftentimes occur simultaneously (Block et al., 2011; Wiatt et al., 2022). Another possible cause of this lack of attention is simple disregard for the topic (Sund et al., 2015). It was shown that the transfer of ownership may not only have an impact on the incumbents' finances but also on their emotional state (Filser et al., 2013). The high emotional value of owning a firm (Zellweger & Astrachan, 2008) may lead to some owners having problems with letting go and hence delaying the transfer of ownership (De Massis et al., 2008; Gilding et al., 2015). During a succession process, ownership can be transitioned either within a family or towards a new owner outside of the founding family (Bennedsen et al., 2007; Wennberg et al., 2011; Nordqvist et al., 2013). The same holds true for the transfer of managerial control, as it may be transferred to a member of the family, or to an external person.

This transfer of managerial control can be structured into a set of different steps. There are several approaches to structuring the succession process (e.g. Le Breton–Miller et al., 2004; Michel & Kammerlander, 2015, among others) which describe the management succession

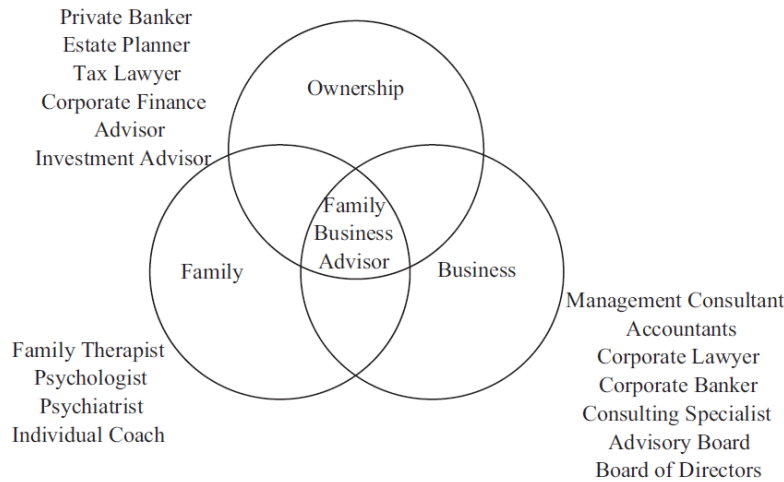
process in varying degrees of granularity. Following Michel and Kammerlander (2015), the management succession can be divided into four stages: a trigger stage, a preparation stage, a selection stage, as well as a training stage. During the trigger stage the general willingness of the incumbent to hand over the business eventually (Chua et al., 1999) is transformed into an actual consideration of letting go triggered by an internal or external impulse (Gersick et al., 1999; Murray, 2003). After this impulse triggered the beginning of the consideration of handing over the business, a preparation phase is kicked off. During this preparation phase the questions of “how should the business operate in the future” has to be answered before a concrete plan including milestones for the organization of the succession process can be devised (Le Breton–Miller et al., 2004; Michel & Kammerlander, 2015). Upon finalization of the process design, the search for the successor begins and is culminated in the selection phase, where the most suitable successor is identified (Gersick et al., 1999). Some of the most crucial characteristics are their academic qualification (Brockhaus, 2004) as well as their relevant specialized knowledge (Royer et al., 2008). During this stage, three major kinds of not mutually exclusive exchanges can take place (Daspit et al., 2016): An exchange between the incumbent and the family successor (Chrisman et al., 1998; Gallo, 1998; Corbetta & Montemerlo, 1999), an exchange within the family (Davis & Harveston, 1998; Bennedsen et al., 2007; Chung & Luo, 2013), or an exchange between incumbent and an external successor (Chua et al., 2003; Dawson, 2011; Yoo et al., 2014). These exchanges are essential for the successful management succession, as they foster mutual understanding of firm identity and needs (Sharma et al., 1997). After the designated successor is offered a job and ideally accepts the offer, the training of the successor begins, so they are eventually able to take over the business (Michel & Kammerlander, 2015). Just like ownership succession, management succession has certain areas leading to problems. Incumbents’ emotions may stand in the way of a smooth transition, as they are faced with their own mortality (Kets de Vries, 1993), which together with the high

degree of identification with the business (Le Breton–Miller & Miller, 2013) may lead to a lack of willingness to let go of the business (Sharma et al., 2001). The successors on the other hand need to exhibit a high level of commitment to take over the company for the succession to go well for the business (cf. Sharma et al., 2003; Le Breton–Miller et al., 2004; Cabrera-Suarez, 2005; Venter et al., 2005; De Massis et al., 2008; Parker, 2016; Richards et al., 2019, among others) and for the incumbent-successor relationship (Lee et al., 2019).

Considering the number of hurdles that have to be overcome in order for a company to be successfully transferred from one generation to the next, it is unsurprising that FB succession is said to be one of the most pivotal challenges to FB. On the one hand, the high mortality rate, as previously described, of FB around the succession event underscores the importance of the succession event to FB survival. On the other hand, the family resources available to and within the FB is impacted by the succession event (Astrachan et al., 2002).

### **1.2.5 Advisory of family businesses and family business succession**

FB decision makers do not make decisions on their own in isolation, but rather are known to seek out advice from a variety of sources (Strike, 2012; Reay et al., 2013; Strike, 2013; Strike et al., 2018). Like with NFB, the sources of advice for FB decision makers can be located within or outside of the company and can even match the resources used in NFB. However, due to the nature of FB, advisors to FB operate within a difficult set of circumstances. Figure 3 illustrates an adaption of the three-circle model including some of the different formal advisors to the unique and overlapping dimensions of family, ownership, and business.

**Figure 3: Formal advisors to FB**

Source: Strike (2012)

Since FB are characterized by a unique mix of family, ownership, and business interests and values, as discussed in section 1.2.3, advisory of FB decision makers may hence not be as straight forward as in e.g., publicly owned companies. However, this is still a rather new strain of research in the FB literature (Strike, 2012), which just recently has picked up in intensity (Strike et al., 2018). Due to the fact that there are only a limited number of studies, this section is dedicated to displaying what has already been found in literature and to establish a proper understanding of the gaps in FB advisory research. Therefore, this section first illustrates the kinds of advisors commonly used by FB decision makers, then goes into advisor characteristics and behavior patterns.

There are two main approaches to classifying advisors to FB. The first approach is based on the relationship between advisor and client, where advisors are classed into formal, informal, or board advisors (e.g. Strike, 2012). The second approach describes the characteristics of the advisors and classes them as expertise-, trust-, or group-based advisors (Strike et al., 2018). Following the relationship-based approach of classifying advisors, the first group to investigate is the group of formal advisors. Formal advisors can be grouped into either content or process

experts (Kaye & Hamilton, 2004) and are typically temporarily employed (Hilburt-Davis & Senturia, 1995) for a certain skill or task. Content experts are mostly concerned with specific technical topics such as tax advice and can, in Strike's (2012) adaptation of the three circle model by Tagiuri and Davis (1996), work with the family, the business, or both. Their work can be described as being of transactional nature (Grubman & Jaffe, 2010). Process consultants on the other hand work at the intersection of family, business, and ownership (Hilburt-Davis & Dyer, 2003) where they provide transitional services over longer periods of time or even generations (Grubman & Jaffe, 2010). Informal advisors are called upon not because of their specific expertise, but rather because of the trusting relationship between advisors and advisee (Strike, 2013). Informal advisors therefore are not hired and do not receive a salary for their advice. Following Strike (2012), informal advisors can be spouses (Gillis-Donovan & Moynihan-Bradt, 1990) and other relatives or friends (Yan & Sorenson, 2006), trust catalysts (LaChapelle & Barnes, 1998), mentors (Boyd et al., 1999), or even other family firms (Lester & Cannella Jr, 2006). Board advisors, or more specifically family firm boards, can also be valuable sources of advice (Alderfer, 1988; Ward, 1988a; Corbetta & Salvato, 2004; Strike, 2012), as oftentimes their most important function is advice giving (Ward & Handy, 1988; Mustakallio et al., 2002). They typically give advice related to strategy and planning, but are also employed in family conflicts related to the FB or even succession related issues (Heidrick, 1988; Schipani & Siedel, 1988; Poza et al., 1998). Their impartiality on these issues may potentially make them exceptionally suitable for such advisory (Lester & Cannella Jr, 2006). In the characteristics-based approach of classifying FB advisors, the first cluster of advisors are the expertise-based advisors. Much like formal advisors, they can be business experts (cf. Alderson, 2009; Strike, 2012; Naldi et al., 2015; Reddrop & Mapunda, 2015 among others). According to Strike et al. (2018) therapists (Distelberg & Castanos, 2012; Castaños et al., 2013), or mentors (Distelberg & Schwarz, 2015; Samei & Feyzbakhsh, 2015) may also be counted as

expertise-based advisors. On the other hand, trust-based advisors may be so-called trusted or even the most-trusted-advisors (cf. Strike, 2013; Strike & Rerup, 2016), chief financial officers (Gurd & Thomas, 2012), or trustees (Scholes & Wilson, 2014). The group-based cluster of advisors may consist of boards, like family firm boards, or advising teams and ecosystems (Strike et al., 2018). Given these characterizations, it becomes evident that decision maker level advisory of FB will not only be limited to the business dimension, but also incorporate aspects and influences by the other two dimensions of the three-circles model. While advisory to FB not concerning the top decision maker level, especially for companies with many levels of hierarchy, may not differ much between FB and NFB, top-level advisory on pivotal questions clearly differs between FB and NFB.

Strike (2012) finds that advisors should be trustworthy (LaChapelle & Barnes, 1998; Kaye & Hamilton, 2004), honest, integrous (Mathile, 1988; LaChapelle & Barnes, 1998), loyal, and humble (Dennis, 1993). They should also exhibit a certain level of common sense and commitment to the case (Nash, 1988), as well as courage to address uncomfortable topics and patience with the advisee (Eddy, 1996). Furthermore, advisors need self-awareness to understand and manage their own anxieties, beliefs, and limitations, and to understand more about their positive or negative impact on the FB and to be able to learn from their experiences (Brown, 1998). Strike (2013) summarizes that there are two major areas give an advisor's advice weight. On the one hand is the background in FB, either by family-ties or by work experience, while on the other hand there is the breadth and depth of their competencies (Strike, 2013). An advisor's competencies can be described as a mix of expertise, technical skills, and interpersonal abilities (Strike, 2013). While expertise may be learned in fields like tax, management consulting, or behavioral science (Hilburt-Davis & Dyer, 2003), a truly formidable advisor needs to have an understanding broader than just their specialty area (Lane, 1989) as well as good interpersonal skills involving the characteristics discussed above (cf.

Alderfer, 1988; Budge & Janoff, 1991; Dennis, 1993, among others). In essence, FB advisors should possess and utilize a set of characteristics and capabilities, which any advice seeker would likely look for in an advisor, as values like integrity, honesty, humility, and good interpersonal skills should ideally apply to every good advice giver to companies and individuals. Besides the weight added to advice provided by an advisor's experience with FB, literature fails to illustrate the clear demarcation between FB and NFB advisor qualities.

Given these characteristics and capabilities, literature suggests that certain behaviors of the FB advisor will be a predictor of good advice: First, advisors need to be wary of the project scale exceeding their expertise to areas where they may not be proficient in (Upton et al., 1993). Combining advisors into cross-functional teams may hence be advantageous for the work on interdisciplinary topics (Swartz, 1989; Upton et al., 1993; Thomas, 2002). During their advice giving, advisors should behave in a way, which benefits the advisee (Simmel, 1950; Obstfeld, 2005; Bertschi-Michel et al., 2020) as opposed to benefitting themselves (Simmel, 1950; Obstfeld, 2005). In succession situations advisors should be focused on transferring opportunity instead of entrapment (Kaye, 1998). In conclusion, an advisor should only advise within their limits of expertise and should not increase agency costs by working towards their own instead of their clients' value maximization. While it is known that advisors play an important role in FB succession advisory, we do not know much about their exact role, what they do, why they are chosen, and how they operate. Furthermore, we do not know how FB succession advisory varies from regular FB advisory.

### **1.3 Structure of the dissertation, motivation, and main findings**

FB are some of the most influential forms of organizations for the global economy (cf. La Porta et al., 1999; Gottschalk et al., 2014, among others). As succession is one of the most pivotal challenges in a lifecycle of FB, this dissertation shall be centered around this event. However,

to contribute value to the scientific discourse, niches in extant literature had to be identified. While the process itself, the emotions involved, as well as potential levers for success have already been researched at length, the involvement of advisors in the succession process is still understudied, even though the importance of advisors during the succession process becomes evident when talking to practitioners. Therefore, the goal of the first two essays of this dissertation is the identification of the impact, tasks, and roles of advisors as an input factor into the FB succession process:

The first essay examines the family side of advisor involvement in the succession process. The goal of this study is the investigation of the questions of which advisor plays the most influential role in FB succession to incumbent and successor, why these stakeholders choose their advisors, and whether family and firm characteristics play a role in the advisor choice. Therefore, this study exhibits that there are differences in the preference for the most influential advisor to the succession process between the incumbent and the successor generation. Furthermore, the impact of personal and family characteristics of incumbents and successors on the choice of the most influential advisor is tested. Finally, the impact of company level characteristics on the choice of the most influential advisor to the succession process is explored to determine whether the assumed professionalization of the succession process through increased company age or size has an impact on the choice of the most influential advisor to the succession process. To achieve this, essay 1 follows an inductive case study approach based on interviews with incumbents and successors of German FB. The use of a case study approach based on interviews is sensible in this setting as it allows to generate deep insights into complex social interactions and behavior (Yin, 1989). The interviews were led with 15 successors and incumbents from different companies and followed a specifically crafted interview guide with open-ended questions. The incumbents and successors were identified using freely available online resources to meet the European Commission's definition of FB. The cases were then



approached via an initial, and in case of a non-response, a follow-up email to schedule the interview. The interviews were conducted using common video conferencing services in the interviewers' and interviewees' native language. The interviews were recorded and transcribed. Following the example of Gioia et al. (2013), the data was coded in two stages with consideration of extant research in between the stages. The resulting code was then analyzed following a mixed methods approach to check for differences in the choice of most influential advisor and the underlying reasoning for the choice between generations. The findings are clustered into company and personal or family reasons. Literature would suggest that increased company size or successfully completed succession processes are an indicator for the professionalization of the succession process (cf. Astrachan et al., 2002). However, the findings of this study indicate that these factors have no impact on the choice of most influential advisor. The literature-based intuition is hence not corroborated by the data of essay 1. The personal level reasons for choice can be categorized into several dimensions of trust: trust in others, namely trust in their behavior and trust in their expertise, and trust in self. Trust in the advisors' behavior refers to the trust in the most influential advisor's confidentiality, impartiality, knowledge of the limits of their expertise, and overall *tertius iungens* behavior (cf. Simmel, 1950; Obstfeld, 2005; Bertschi-Michel et al., 2020). For a large part of the cases this dimension was the most impactful metric in the choice of their most influential advisors. The choice based on trust in behavior did not specifically favor a certain kind of advisor for any generation. Trust in expertise on the other hand refers to the incumbent's or successor's trust in the advisor's expertise with regards to succession related technical or processual intricacies. Unsurprisingly four total cases nominated their formal advisors as most influential advisor due to their trust in their respective capabilities, while only one case did so for their informal or family firm board respectively. This for the most part confirms the literature-based intuition that expertise is the main driver for the nomination of formal advisors. Finally, trust in self refers to one's trust that

oneself can handle any succession related situation the best. This large degree of trust in oneself comes with a large degree of self-esteem and in the cases of this study a dominant personality. The findings indicate that for a certain set of incumbents their trust in self led them to not include formal or any advisors into the respective succession processes. Family level conflict is not found to have impact on the choice of most influential advisor. By exploring the company, personal, and family level drivers for each generation's choice of most influential advisor to the succession process, this essay adds to the current understanding of the advisory of the succession process.

The second essay explores the experiences and roles of formal advisors during the FB succession process. This study has three major goals: The investigation of if and how the FB succession process advisory differs from non-succession advisory of FB and NFB. The second goal is the investigation of tasks of formal advisors during management and ownership succession. Third, the roles that formal advisors can take on during the succession process are explored. To achieve this a case study approach based on 20 formal advisors is used. The use of an exploratory case study approach is ideal in this setting due to its unique capability of generating deep insights into complex social processes (Eisenhardt & Graebner, 2007; Reay, 2014), such as the FB succession process (cf. Morris et al., 1996; Brockhaus, 2004; Cisneros & Deschamps, 2015, among others). The case study is based on semi structured interviews with 20 formal advisors. The cases were strategically selected (Patton & Appelbaum, 2003) to represent all groups of advisors who could potentially be involved in an FB's management or ownership succession process. To minimize external variation by regional and cultural disparities (cf. Corbetta & Salvato, 2004; Gaines et al., 2006), cases were selected in a Western European country focusing on the advisory of clients within this country. Cases were selected as relatively senior individuals, with regards to their career progression, within their distinct companies to ensure comparability of cases and a holistic understanding of the projects they

have been involved in. An initial set of advisors was identified using internet resources, such as search directories or professional social media networks. Following case selection then followed the snowball sampling method, during which interviewees are asked to provide contact details for other advisors fitting the selection criteria (Biernacki & Waldorf, 1981). All cases were approached via e-mail to schedule the interviews. Interviews followed a specifically crafted interview guide with open ended questions and were conducted in the interviewers' and interviewees' native language on a commonly used online conferencing tool. The interviews were recorded and transcribed. The data was then coded in a two-stage coding process, with consideration of prior research in between stages. The results indicate that there is a significant difference between the advisory of the FB succession process and the regular advisory of FB and NFB. This difference largely stems from the heightened degree of emotionality (cf. section 1.2.4 of this doctoral dissertation), which not only resulted in a variation of stakeholders involved in the advisory process but also in conflict between various FB related stakeholders. Furthermore, the results indicate that formal advisors often take on a workload larger than the project scope when advising FB succession processes. Typically, advisor tasks differ during ownership and management succession: While ownership succession advisory is very technical in nature, management succession advisory may be technical in parts but also involves much more emotionally loaded and driven disciplines. Hence, the kinds of advisors differ accordingly between the succession stages. Finally, the behavior of advisors can be categorized into two groups, which, leaning on the medical metaphor introduced by Grubman and Jaffe (2010), can be called general practitioners and specialists. General practitioners have holistic oversight over parts or the entire succession process and work on certain parts, within the limits of their expertise. Other parts are delegated towards specialists in their network, so that the general practitioners then act as the center of a star shaped network of specialists. Specialists are employed to work on very specific tasks within the FB succession process. This essay hence

contributes to the understanding of the involvement of formal advisors in the FB succession process.

Shifting from a major input to a major output of the succession process, the goal of the third essay of this dissertation is the discovery of the impact of management and ownership on default risk of a company. First, the impact of family ownership on default likelihood is explored. Second, the impact of family versus non-family management of FB on default likelihood is investigated. Analyzing different development stages of listed FB, founder-led or successor-led, leads to a comprehensive understanding of what kind of impact the choice of successor has on the default risk of a company. Thereby, this essay provides insights into the main output of management succession as well as the default risk associated with the choice of successor. This essay hence not only provides empirical evidence for the preferential choice of successor but may also be seen as a source of guidance for incumbents and advisors in a management or ownership succession situation. To achieve these contributions, a sample of more than 400 stock market listed companies from Germany is analyzed for their default likelihood between the years 2007 and 2021. The companies are categorized into FB and NFB using a narrow definition, which is commonly used in financial market related studies. To bridge the definitory gap between this definition of FB and the European Commission's definition, used in this doctoral thesis, a novel category of firms is introduced. The categorization of companies is based on publicly available data and is reviewed for each year of the investigation. The analysis of firm default likelihood is done using the Merton adaption of the Black and Scholes option pricing model. The use of this adaption of the Nobel-prize winning Black and Scholes model allows for the analysis of default risk of a given company (cf. Vassalou & Xing, 2004). This method has vast practical application, as it, in the form of the closely related KMV model, is the basis for Moody's rating system. Hence, the results for the Merton model's default risk may be seen as a base variable directly or indirectly influencing performance indicators commonly

used in extant literature. The Merton model is based on daily market values and hence is an indicator of current and future performance. To check the reliability of the results generated, another variable of high practical importance is introduced: Altman's Z-score. The Z-score measure is based on book values and hence not only provides less measurements per annum, due to the maximum of four annual financial publications by German companies, but also is inherently backward looking. The results of both analyses are then plugged into a multivariate analysis using the same control variables used in other highly published studies using the Merton model for default prognoses. The empirical findings indicate a mitigating effect of family ownership on company default likelihood. This result hence underlines and adds to results of extant literature indicating a positive influence of family ownership on financial performance (cf. Barontini & Caprio, 2006; Sraer & Thesmar, 2007; Andres, 2008; Achleitner et al., 2019; Eugster & Isakov, 2019; Abinzano et al., 2020, among others). Furthermore, the findings indicate a positive impact of family block shareholders on firm's default risk, thereby underlining the necessity for the differentiation of the new firm category from NFB and the underlying move towards the European Commission's definition of FB. The question of whether family external or family internal managers enhance a FB's chances of survival is settled in favor of the strand of literature stressing the professionalization of management by the introduction of external managers. FB under the rule of family external managers are found to have lower risk of default than FB managed by family successors or by the firm founders.

Together the first two essays add a unique, novel, and holistic impression of advisors in succession processes. By covering the incumbent and successor as well as the advisor sides the roles and tasks of advisors as well as the drivers for advisor choice are explored comprehensively. By exhibiting the differences to non-succession FB advisory, the necessity for research on succession advisory as well as its impact are illustrated. It is shown that the heightened degree of emotionality is a root cause for the differences between the highly

personal succession and regular FB advisory. Not only do the stakeholders of the advisory process potentially differ, but also the degree of conflict between stakeholders is much higher than in regular advisory. The emotional investment of the stakeholders in this process, found in essay 2, may also be a reason for the impact of trust, in others and oneself, as a main driver for the choice of most influential advisor, illustrated in essay 1. It is shown that these characteristics far outweigh the impact of company and family level characteristics on advisor choice. Hence, it is unsurprising trust is also a pivotal factor in an advisor's designation as a general practitioner, as indicated in essay 2. Due to the nature of the general practitioner role, it is likely that there is an overlap between general practitioners and the most influential advisors in succession advisory. Essay 2 shows that the value of not only expertise within the field of advisory, but also soft-skills, character traits, *tertius iungens* behavior, as well as a well-established professional network are of paramount importance for advisors to succeed. However, these key success factors are also key decision factors for incumbents and successors in their decision of who to trust during the succession process, as indicated in essay 1. By clearly highlighting the relationships, drivers, key success factors, roles, and tasks these two essays not only explore a gap in the novel field of succession advisory related literature but may also be seen as a guide and roadmap to succession advisor involvement in succession processes for advisors and incumbents as well as successors. Essay 3 adds another dimension to this succession roadmap, as it provides insights into the impactful question of which management and ownership structures are beneficial to firm survival. As management and ownership succession are processes during which either a management responsibility or ownership stake is transferred, the question of the ideal future setup of a firm naturally arises during succession planning. By illustrating the mitigating effect of family ownership on default likelihood, essay 3 provides valuable insights for a singular dimensions of ownership succession planning. Furthermore, it is shown, that FB with family external managers have lower likelihood of

default. By corroborating findings indicating the professionalization of management through external managers, essay 3 also adds insights about a singular dimension of management succession planning. Hence, the three essays individually and together contribute to the understanding of the FB succession process of researchers and practitioners alike.

Table 1 illustrates the titles, research questions, methodologies, and datasets of the three essays of this dissertation.

**Table 1: Overview over essays of dissertation**

	<b>Essay 1</b>	<b>Essay 2</b>	<b>Essay 3</b>
<b>Title</b>	Most influential advisors to family business succession	Characteristics, tasks, and behavior patterns of formal advisors in family business succession	The influence of family ownership and management on default likelihood – An empirical study on German listed companies
<b>Research questions</b>	<ol style="list-style-type: none"> <li>(1) Which kinds of advisors are selected to be the most influential advisors in FB succession?</li> <li>(2) Are there differences in most influential advisor choice between generations?</li> <li>(3) Why are they chosen to be the most influential advisors by stakeholders?</li> </ol>	<ol style="list-style-type: none"> <li>(1) Is there a difference between FB succession and regular FB or NFB advisory?</li> <li>(2) Which tasks do formal advisors typically work on during FB succession events?</li> <li>(3) Which roles do they play during FB succession advisory?</li> </ol>	<ol style="list-style-type: none"> <li>(1) Which impact does family ownership have on default likelihood?</li> <li>(2) What is the impact of family management on FB default likelihood?</li> </ol>
<b>Methodology</b>	Case study	Case study	Multivariate analysis
<b>Data</b>	<ul style="list-style-type: none"> <li>- Semi-structured interviews with successors and incumbents from German FB that recently went through a succession event</li> <li>- Information was coded in multi-stage coding process</li> <li>- Mixed methods data analysis</li> </ul>	<ul style="list-style-type: none"> <li>- Semi-structured interviews with formal advisors specializing in various fields located in Germany</li> <li>- Information was coded in multi-stage coding process</li> <li>- Mixed methods data analysis</li> </ul>	<ul style="list-style-type: none"> <li>- Financial data for more than 400 German CDAX listed companies between 2007 and 2021</li> <li>- Default likelihood is calculated using the Merton adaption of the Black and Scholes model as well as Altman's Z-score</li> </ul>



## **2 Essay 1: Most influential advisors to family business succession**

### **Abstract**

Succession is one of the most studied subjects of family business literature. However, the research on the advisory of family firm succession stakeholders is limited. Based on fifteen case studies of successors and incumbents of differently sized family firms, this exploratory study explores the most influential advisors to the succession process. Generational differences in the choice of most influential advisors are illustrated alongside personal, family, and company level drivers impacting the choice by the incumbent and successor generations.

Keywords: Family business, succession, advisory

First author: Julius-Johannes Niemandt

## 2.1 Introduction

The succession from one generation to the next is one of the most pivotal challenges in the lifecycle of a family business's ("FB") lifecycle (Beckhard & Dyer Jr, 1983b, 1983a; Ward, 1987). The stakeholders' emotions (cf. De Massis et al., 2008; Zellweger & Astrachan, 2008; Filser et al., 2013; Gilding et al., 2015), personal agendas (Sharma et al., 2001), and behavior patterns (García-Álvarez et al., 2002; Sharma et al., 2003) among other influences cause a rather difficult environment to operate in. Therefore, proper planning as well as open communication are some of the most important activities related to successful FB successions. To be able to master the challenges at hand, incumbents and successors alike are known to hire advisors to assist them with the process. While we know who may be advisors to FB and how to classify them (Strike, 2012), how they are supposed to act in advisory situations (Simmel, 1950; Kaye & Hamilton, 2004; Obstfeld, 2005; Bertschi-Michel et al., 2020), and which character traits they should ideally possess (Mathile, 1988; Kaye & Hamilton, 2004; Strike, 2012), we know little about which advisor plays the most important role in FB succession to which stakeholder, why the stakeholders choose these advisors, and whether family and firm characteristics play a role in the advisor choice. To fill this perceived gap in extant literature the present study uses an inductive case study approach to uncover which advisors are selected by the incumbent and successor to be the most influential advisors during the succession process and for which reason. Furthermore, personal and external factors are determined to understand whether and how they might have an impact. This study hence contributes to literature in three main ways: First, it is shown that there are differences in the preference for the most influential advisor to the succession process between the incumbent and the successor generation. Second, the impact of personal characteristics of incumbents and successors on the choice of the most influential advisor is tested. By differentiating between trust in behavior, trust in expertise, and trust in self, the importance of trust on the most influential advisor choice is exhibited. Finally, the

impact of company level characteristics on the choice of the most influential advisor to the succession process is tested, to determine whether the assumed professionalization of the succession process through increased company age (cf. Astrachan et al., 2002) or size has an impact on the choice of the most influential advisor to the succession process.

## **2.2 Theoretical background**

The intergenerational succession is one of the most pivotal stages in the lifecycle of a FB. Approximately only 30 per cent of family businesses survive the transition from founder to second generation, and only about 10-15 per cent are passed down to the third generation (Beckhard & Dyer Jr, 1983b, 1983a; Ward, 1987). Therefore, it is not surprising that one focus of extant research is on this contentious topic (De Massis et al., 2008; Nordqvist & Melin, 2010) as it is a complex process affected by a multitude of various factors (Nordqvist et al., 2013). Many have proposed a division of the succession process into distinct stages. Following Michel and Kammerlander (2015) for example, the process can be broken down into four stages: a trigger stage, a preparation stage, a selection stage, as well as a training stage. During the trigger stage the general willingness of the incumbent to hand over the business eventually (Chua et al., 1999) is transformed into an actual consideration of letting go triggered by an internal or external impulse (Gersick et al., 1999; Murray, 2003). After this impulse triggered the beginning of the consideration of handing over the business, a preparation phase is kicked off. During this preparation phase the questions of “how should the business operate in the future” has to be answered before a concrete plan including milestones for the organization of the succession process can be devised (Le Breton–Miller et al., 2004; Michel & Kammerlander, 2015). With the finalization of the process design, the search for the successor begins and is culminated in the selection phase, where the suitable successor is identified, offered the job, and, ideally, accepts the offer. Following the selection the training of the successor begins, so that they are eventually able to take over the business (Michel & Kammerlander, 2015). It is

obvious that this demanding succession process leaves ample opportunity and need for outside advisory (cf. Michel & Kammerlander, 2015). Therefore, it is unsurprising, that both, the incumbent as well as the successor, seek advice from many. These advice givers are some of who Strike (2012) classifies as either formal advisors, informal advisors, or family firm boards. Formal advisors are typically hired only temporarily (Hilburt-Davis & Senturia, 1995) for a certain project or task, since they can be either content experts or process consultants (Kaye & Hamilton, 2004). Content experts are mostly concerned with specific, often technical, topics such as legal or tax issues and thus their work is often of transactional nature (Grubman & Jaffe, 2010). Process consultants on the other hand work at the intersection of family, business, and ownership (Hilburt-Davis & Dyer, 2003) where they provide transitional services over longer periods of time or even generations (Grubman & Jaffe, 2010). Informal advisors on the other hand are not hired, but rather sought out due to their trusting relationship with the advice seeker (Strike, 2013) and can be either within or outside the family or FB. Following Strike (2012), they can for example be spouses (Gillis-Donovan & Moynihan-Bradt, 1990) and other relatives or friends (Yan & Sorenson, 2006), trust catalysts (LaChapelle & Barnes, 1998), mentors (Boyd et al., 1999), or even other family firms (Lester & Cannella Jr, 2006). Family firm boards, where existent, are suggested to be valuable sources of advice (Alderfer, 1988; Ward, 1988a; Corbetta & Salvato, 2004; Strike, 2012). In fact, studies by Ward and Handy (1988) and Mustakallio et al. (2002) illustrate that giving advice is one of the most important functions of family firm boards for a majority of the FB within their respective samples. The advice given by family firm boards may range from strategy and planning to family conflicts and even succession related issues (Heidrick, 1988; Schipani & Siedel, 1988; Poza et al., 1998) and may be well grounded due to the diverse expertise present in the board (Strike, 2012). Their impartiality may furthermore make the members of family firm boards a good advisor for family conflicts (Lester & Cannella Jr, 2006).

## **2.3 Methodology**

### **Case study approach**

The present study aims to explore the following understudied but closely related questions: Which kinds of advisors are selected to be the most influential advisors in FB succession? Are there differences in most influential advisor choice between generations? Why are they chosen to be the most influential advisors by stakeholders? This exploratory study follows an inductive multi-case study approach (Eisenhardt, 1989; Yin, 1989) as this is uniquely qualified (Eisenhardt, 1989) to generate deep insights into this complex social process (Eisenhardt & Graebner, 2007; Reay, 2014). Since FB succession is widely recognized as a complex social topic (cf. Morris et al., 1996; Brockhaus, 2004; Cisneros & Deschamps, 2015, among others), and due to the nature of the research question as well as the lack of literature on this topic, the use of a case study approach is warranted for the exploratory study at hand. Case studies are a widely used tool in FB succession research (cf. Ibrahim et al., 2001; Cadieux et al., 2002; Mickelson & Worley, 2003; Cadieux, 2007; Mazzola et al., 2008; Cisneros & Deschamps, 2015, among others), because this approach enables researchers to compile in-depth data from a host of sources from which explanations for the phenomena at hand can be derived (Eisenhardt, 1989).

### **Case selection and interviews**

Since case selection should follow a strategic selection process relevant to the research topic at hand (Patton & Appelbaum, 2003), case selection for the present study followed two main criteria in the initial identification stage: First, to be able to uncover common patterns in the data, companies that can be characterized as FB using the European Commission's FB definition and that have gone through at least one succession process were sought out as potential cases. Second, to minimize external variation the potential cases were selected in one

of the major Western European countries to minimize issues arising from regional and cultural disparities (cf. Corbetta & Salvato, 2004; Gaines et al., 2006). The cases were identified using freely available online resources such as specific search directories by various entities, like trade associations, as well as searches on professional social media networks.

After identifying fitting FB as potential cases, the incumbents and successors were approached with a request for an interview via e-mail. Since, succession is a very private topic, only very few potential cases reacted to the initial request. In case of a non-respond, the potential cases were then approached via a follow-up e-mail or phone call. Using this process, an initial set of potential cases were identified. In a second sorting stage, the cases were then selected to be successors or incumbents of FB of the largest possible variety of industries, company ages and succession related experience levels, as well as company sizes. Table 1 exhibits an overview over the resulting case selection:

**Table 2: Case overview Essay 1**

This table indicates major features of the cases selected for the present study. Features displayed in this table include firm alias, firm size measured by a range of revenue in millions of Euros, generation the company is managed by now after the succession event, type of advisor designated to be the most influential advisor, succession outcome.

<b>Alias</b>	<b>Revenues [EUR Millions]</b>	<b>Generation</b>	<b>Advisor</b>	<b>Successor</b>
Alpha	50-100	2	Formal	FB & family internal
Beta	>250	5	Family firm board	FB & family internal
Gamma	>250	4	Formal	FB internal
Delta	100-250	2	Formal	FB & family internal
Epsilon	50-100	4	Family firm board	FB & family internal
Zeta	100-250	2	Informal	FB & family internal
Eta	10-50	4	None	FB & family internal
Theta	1-10	2	Informal	FB & family internal
Iota	10-50	7	Informal	FB & family internal
Kappa	1-10	2	Informal	FB & family internal
Lambda	1-10	3	Formal	FB & family internal
My	10-50	2	Formal	Sale
Xi	1-10	3	Formal	FB & family internal
Omicron	1-10	2	Formal	FB & family internal
Pi	50-100	3	Formal	FB & family internal

After the completion of the case selection process, interview dates were agreed upon with the individual cases. The interviews followed a specifically crafted semi-structured interview guide consisting of open-ended questions. The interview guide was specifically devised to allow for a wide variety of analyses: Data covered in the interview guide ranges from company specific information, the choice of advisors used during the succession event, the distinction of the most

influential advisor, their tasks and reasons for choosing them, to the experience with their advisors, an ex post analysis of the succession process and advisor involvement, as well as questions on related and unrelated family conflicts and their impact on the succession event and advisor choice. The interview guide was devised in a multi-stage process, based on literature and challenged by multiple members of the TUM School of Management in different settings. The interviews were led by specially trained graduate students of a leading European business school. All interviews were conducted beginning of 2022 in the interviewee's and interviewer's native language through a commonly used video conferencing tool.

### **Data coding**

The interviews were, with the consent of the interviewee, recorded and transcribed. Following the transcription of the interviews a first order coding (Gioia et al., 2013) was applied. This first level of coding was closely related to the interview questions. After the first level coding was applied, extant literature was examined to verify the direction of research. This analysis showed that little research was done on how exactly advisors were involved by the succession stakeholders for which reasons. After this consideration of prior research and the verification of research direction (Strauss & Corbin, 1998), a second level of coding was added to filter and cluster the first order codes into dimensions covering the identified areas of interest: (1) Which kinds of advisors are selected to be the most influential advisors in FB succession? (2) Are there differences in most influential advisor choice between generations? (3) Why are they chosen to be the most influential advisors by stakeholders? Since succession process typically include a multitude of advisors, technical and otherwise, and since there may not be much variance between the tasks and the choice due to the nature of the prerequisites of a succession process, this study focuses on the most influential advisor, who played not any but a key role in the succession process.



### **Analysis of findings**

The analysis of results follows the pattern of an initial single case and cross case evaluation following the beforementioned direction of study. The single case evaluation is used to identify the company level characteristics and results and then leads to the cross-case evaluation of results in the identified dimensions of analysis. This “linear-analytic structure” (Yin 2013, p. 188) follows a mixed methods approach of qualitative and quantitative data analysis.

### **External validation of the study**

Before, during, and after the interview process the concept and preliminary findings of the present study were challenged in informal discussions with a wide variety of external experts, ranging from researchers, incumbents, successors, and parties currently involved in succession processes. There is no overlap between the interviewees and the informal experts used in the validation process. These discussions were meant as a means of external validation of the direction as well as the practical applicability of the findings.

## **2.4 Findings**

The following paragraphs of this study are structured according to the research questions under investigation: First, generational differences in the choice of the most influential advisor are evaluated. Second, the personal, family, and company level drivers for the choice of the most influential advisor are investigated.

### **Which kinds of advisors are chosen by which generation?**

#### **Formal advisors:**

Out of the nine incumbent cases, five stated to have used a formal advisor during their respective succession processes, out of which three cases identified their individual formal advisors as the most impactful advisors. The advisors triggered the individual succession

processes for all of these three cases. However, the succession had very different outcomes for the three companies: One company was sold and is now in liquidation. The succession in this case was triggered by a bank advisor, who was concerned about the combination of the company's performance and the incumbents' ages. Therefore, a formal advisor, who was introduced to the incumbents by the bank, consulted the company on the restructuring and sale of the company:

*"It is more like an exit deal. The business was practically emptied out. The real estate and the employees were taken out and gone to the new owners. The firm still exists. It now is in liquidation, and it will take some more time"* (Interviewee My, Incumbent)

The other two cases were advised by their accountant or lawyers throughout the entire succession process. Despite both incumbent families involving friends as informal advisors, their formal advisors not only advised on processual topics of succession, but also on family internal topics. The company using their accountant as their most influential advisor, found a FB and family internal successor, while the other case found a FB internal non-family successor.

*"An important role I would say was played by our tax advisor who is also our friend. [...] Yes, he advised our company for the entire time. We have worked with this accountant or tax advisor since 1981 and our sons are the same age and are friends too and this is how it all developed. And this obviously was ideal for us because he knew everything"* (Interviewee Alpha, Incumbent)

*"They have helped us with the entire process: the layout, the family constitution, that then also ended in a change in the ownership contract, that was in place for a longer time. They have accompanied us during this."* (Interviewee Gamma, Incumbent)

Out of the six successors interviewed during this study, all six stated to have used formal advisors along the way. However, just five of these identify a formal advisor as their most influential advisor. For four of the cases, the formal advisors employed acted as shared resources for the incumbent and the successor generation. In three of these cases the main advisors were accountants or lawyers which have been working with the firms over a longer period of time. Their tasks were mostly of processual and mediating nature:

*“So, it was processual, but it also was emotional. So, this mediating role, for example my sister was in the company, she now is out, but then we sometimes had crisis meetings, which then were mediated by this advisor and that was good. So, processual, mediation, and family advisory.” (Interviewee Delta, Incumbent)*

In the last shared resource case, a formal advisor from a trade association was identified and subsequently hired by the incumbents. Like the attorneys and accountants, this person provided mostly processual advice and pointers from which the family then started drafting out their own path to a successful succession.

The interviewee, who hired their own accountant, who they found to be an all-position player, did so mostly to get a secondary opinion to that provided by the long-term family and FB accountant. Their tasks included advice giving and oversight over the successor’s interests and needs:

*“It always were constructive, critical, open discussions, that were expedient. Of course, we also had some differences of opinion, where for example my own accountant, who represented me, said that I should watch out because it would not work like that. I do not remember the details, because it was a long time ago. But it was always collaborative, never against each other.” (Interviewee Omicron, Successor)*

The choice of formal advisors did not vary much between incumbents and successors: Most cases stated to have used technical advisors who also advised on various other aspects of the succession process. With regards to numbers within this case study, a relatively higher ratio of successors than incumbents deemed the formal advisor hired to consult during succession as the most influential advisor. However, a large percentage of said formal advisors to the successor generation were a shared resource between incumbent and successor. While formal advisors are hired for processual topics, many of the incumbents explicitly stated that these advisors were involved in family matters beyond the initial scope of their project. While this is not explicitly mentioned by the successor cases, the involvement of the formal advisors into private matters is especially likely in the cases where the formal advisors act as shared resources.

### **Informal advisors**

Out of the nine incumbents, six have used some source of informal advice during their respective succession processes. Half of them have identified their informal advisors as the most influential sources of information. These cases all employed formal advisors for technical support and advice but used fellow entrepreneurs or managers as sources of informal advice. The advice generated through these channels was far more influential to them, than any advice given by the formal advisors.

*“He actually just had a private conversation with me and my wife.” (Interviewee Theta, Incumbent)*

*“But I can tell you a secret, how one can realize a very, very good business succession: By talking to as many entrepreneurs, as you have or are planning to. It is a little bit problematic because entrepreneurs do not like talking about this. But there are some, who are pretty open.*

*[...] And those are the best advisors and they do not cost anything, and this is the best thing about this. But they mostly are really, really good advisors.” (Interviewee Iota, Incumbent)*

Of the six successor cases, half have stated to having used informal advisors during their respective succession processes. Yet, only one of them identifies their informal advisor as the most influential source of advice. The friend, who also is an attorney advising FB on succession processes, advised the successor on personal and technical matters until he advised the successor to hire an attorney.

Informal advice did not replace formal advice for any of the cases, as the advice given by the informal advisors focused on topics ranging from the overall succession strategy to family advice. While formal advisors, as mentioned before, are typically employed for their processual or content expertise, the informal advisors were chosen to be the most influential advisors because of the impact of the advice given on the less tangible and less technical personal matters of the succession by both generations.

### **Family firm board**

Three incumbents state that they have used their family firm boards as advice-giving resources out of which two have identified them as the most influential sources of advice. Both cases have kicked off the succession process due to the age and readiness to take over of the respective successor. Both companies also have set values and regulations in place, which require the family firm board, which consists of outside experts and family owners, to be involved in such decisions. Cases did not hire any outside advisors to work alongside the family firm board, since all competencies needed for a successful succession were represented in the respective boards. No successors have stated that family firm boards acted as their most influential source of advice.

*“But of course, the process had to be decided upon together with the owners. The owners are part of the corporation through the family firm board and the process was decided upon by the owner family. But pure advisors, like we hire for different topics, were not there. Also, no accountants, tax advisors, attorneys, none of them. I know this is unusual, but it was like that.”*  
(Interviewee Beta, Incumbent)

*“The family firm board is involved in everything, so always and also in the strategic positioning. And it also consists of a banker, an attorney, and an accountant. Therefore, we put a lot of focus on involving the family firm board into all topics and it also has a mediating function”* (Interviewee Epsilon, Incumbent)

### **No advisor:**

Out of all fifteen cases of incumbents and successors, only one incumbent case stated that he did not get any meaningful advice from any kind of advisor. The succession process was triggered by pressure from the next generation as the daughters coming back home after studying and gaining work experience outside of the FB. According to the incumbents there were no conflicts between the generations and hence there was no need to hire external help:

*“If we would have needed it, if we would have been under the impression that there are tensions or unclarities or something else, then we would have surely done it. But it was... That does not mean that everything always went smoothly, but those stories, that may go below the belt line, there we thought to ourselves, that will not happen. And this is why we have followed this way, and that is how we did it now.”* (Interviewee Eta, Incumbent)

## **Drivers for most influential advisor choice**

### **Company characteristics**

Literature suggests a professionalization of the succession process with increasing company age (cf. Astrachan et al., 2002, among others). Therefore, intuition would dictate a strong dominance of formal advisors as most influential advisors for older case companies, while younger companies with less succession experience would potentially stick to informal sources of advice. However, this intuition is not corroborated by the findings of the present study: The lack of difference in generational preference for formal advisors as most influential advisors holds true across companies of all ages. The choice of family firm boards as most influential advisors to the respective incumbents of two of the oldest case companies may stem from one of two effects: First, as the case companies stated, all necessary technical and family expertise is represented in the board (cf. Strike, 2012) and hence hiring formal or informal outside advisory is obsolete in these cases. On the other hand, it is evident that only the older case companies in the study have such boards in place. Hence the mere existence of such boards may be a function of company age and the lack of family firm board utilization of younger companies may well be explained by the lack of existence of such boards.

Similar to company age, company size can be seen as an indicator for succession process professionalization. Hence, an increase in the utilization of formal advisors as most influential advisors with increasing company size would be expected. However, the data from the present case study does not support this hypothesis. Case companies of all sizes deem their formal advisors as their most trusted advisors.

Therefore, it can be concluded that none of the tested company level characteristics can be used as a predictor for the choice of the kind most influential advisor for either incumbent or successor.

### **Personal and family characteristics**

Extant literature prescribes a distinction between process and content expertise based choice to formal advisors and a trust based choice to informal advisors (cf. Strike, 2013, among others). The results of the present study however do not fully corroborate these findings, as trust and belief are found to be the most influential drivers for advisor choice across generations and advisor categories. Here it is necessary to differentiate between two main categories of trust: Trust in others and trust in self.

For the present study, it is instrumental to divide trust in others into two distinct categories: Trust in behavior and trust in expertise. Trust in behavior, similar to what e.g. Strike (2013) calls trust, refers to the trust in the most influential advisor's confidentiality, impartiality, knowledge of the limits of their expertise, and overall *tertius iungens* behavior (cf. Simmel, 1950; Obstfeld, 2005; Bertschi-Michel et al., 2020).

*"I have known him for a for a very long time, there is trust, that is advising on a friendship basis. He always asked the right questions, he always stressed me with some questions, how that looks and yes. And then came the point in time where he also said "now you need your own attorney"."* (Interviewee Kappa, Successor)

For eight out of fifteen cases in this study the trust in the behavior of their most influential advisor was the major factor for them to deem them the most influential advisor to the succession process. Out of the four successor cases in these eight cases, three named a formal advisor as their most influential advisor, all of which were shared resources between generations, the fourth case had an informal most influential advisor. Similarly, out of the four incumbent cases claiming behavioral trust as their main motive for the most influential advisor choice, two named their respective informal advisors, one their family firm board, and the last their formal advisor. Hence, trust in behavior played an important role across advisor categories



when it comes to the most influential advisor to the succession process, especially for the successor generation.

Trust in expertise on the other hand refers to the incumbent's or successor's trust in the advisor's expertise with regards to succession related technical or processual intricacies. Unsurprisingly four total cases nominated their formal advisors as most influential advisor due to their trust in their respective capabilities, while only one case did so for their informal or family firm board respectively. This for the most part confirms the literature-based intuition that expertise is the main driver for the nomination of formal advisors.

Finally, the trust in self describes the trust that oneself can handle any succession related situation the best. This large degree of trust in oneself comes with a large degree of self-esteem and in the cases of this study a dominant personality. The impact of such dominant personalities on the choice of advisors is apparent in the current study's sample. Here dominant personalities are defined as clear hierarchical, patriarchal, or matriarchal thought structures indicated by the cases' answers to the open-ended questions asked during the interview process. The cases identified as having such dominant personalities referred to themselves as lone rangers, had a top-down communication style, and occasionally their answers to clarifying questions would seem combative compared to the other cases in similar situations. Four cases were identified as having such dominant personalities, all of whom are incumbent cases. Furthermore, these were the incumbent cases stating to have either no or only informal advisors during their respective succession processes. The one incumbent case with the largest degree of trust in themselves decided not to deem any advisor's input as impactful enough to deem them an influential advisor. While they did receive advice on technical legal or tax issues, they did not trust any advisor enough to engage them on the family related succession issues.

## **Conflict**

The final family metric under review for its impact on most influential advisor choice is conflict within the family. However, besides one successor case who contacted an informal advisor for help, the impact of conflicts is not as apparent in the other cases of the sample. None of the cases with formal advisors as most influential advisors stated that there was direct conflict between the incumbent and successor. However, three successor cases told stories about conflicts within the families, involving other family members who had hope or interest in taking over the FB or inheriting shares in the respective firms. Yet, there was little variation in the kind of formal advisor hired by these cases to those case, who did not see any conflict. Furthermore, the incumbent cases seeking advice from formal advisors did not see any conflicts during their succession processes.

## **2.5 Discussion**

The findings of the present study imply that there is no direct influence of company size or number of previous successful successions on the choice of advisors. This is rather surprising as both of these variables may be seen as potential indicators for process professionalization (cf. Astrachan et al., 2002, among others). While larger companies will likely employ larger firms to be advised by, which may or may not be an indicator for the advisors' caliber, the results do not support the intuitive notion that there is a clear preference of larger FB for formal advisors and of smaller FB of informal advisors during the succession process.

Furthermore, this study finds that the drivers for the choice of the most influential advisor to the succession process varies by generation. This finding is especially evident when looking at the results for formal advisors, which indicate that trust in the advisors' behavior plays a bigger role for successors than for incumbents. A reason for this development may be found in the high level of uncertainty which successors likely experience during the succession process.

Ideally the incumbent and the successor sides should act as equals during a succession process, however deficient communication (Lansberg, 1988; Michael-Tsabari & Weiss, 2015) as well as lack of exchanges between these two groups may foster uncertainty (Daspit et al., 2016). Furthermore, uncertainty on successor side may be enhanced by the real or perceived lack of high-level control or influence on the succession process itself. This may be especially true in cases, where no long-term planning or drafting of a family constitution has taken place. The results may indicate that this state of uncertainty causes the successors to seek out advice from advisors they trust, be it in the form of formal advisors shared with the incumbents, their own formal advisors, or informal advisors in the form of friends with a grasp of the relevant technical and intrafamily topics. Incumbents on the other hand exhibit a wider array of drivers in the choice of most influential advisors in the succession process and do not rely on their formal advisors as much as the successor generation. The findings also imply that for the cases sharing formal advisors between generations, the successors reported that large parts of the advisory were focused on intrafamily communication and mediation between parties. It may therefore be the case that the freshly hired or long-term formal advisor hired by the incumbent generation may truly be a catalyst of trust and collaboration between the generations (cf. Kaye & Hamilton, 2004).

There certainly is an overlap between the most influential advisor named in the present study and Strike's (2013) most trusted advisor in the context of a FB succession process: Both of these groups heavily rely on the trust of the relevant succession stakeholders to earn their respective designation. This trust may be based around either the behavior or the expertise of the respective advisor. Both groups are reported to exceed project scopes and to be trusted with valuable information. There however is a fine distinction between the two: The most trusted advisor is the person enjoying the highest degree of trust by their client however the most influential advisor is the advisor with the highest degree of influence on the succession process

and its outcome. The most influential advisor hence does not necessarily also have to be the advisor enjoying the highest degree of trust by their client and the most trusted advisor does not have to be the advisor with the biggest influence on the succession process. Whether or not one advisor earns both of these designations is individual and depends not only on trust but also impact.

The existence of high self-esteem and dominant personalities of entrepreneurs in FB is no secret. However, the high self-esteem interviewees' choice of advisors, as illustrated in the present study's findings, seems to gravitate towards informal or no advisors. While, due to the limited number of cases in the present study, this does not necessarily mean that these personalities do not work with formal advisors, it still indicates a strong trust into their own abilities. Whether the lack of formal advisors had an impact on the overall process layout and success, measurable in efficiency, the parties' satisfaction with the process and outcome, and the communication between the parties, among others, is to be determined. These proposed criteria are highly subjective, however existing literature and intuition would suggest different behavior and involvement of formal advisors to be beneficial. This type of behavior is potentially prone to produce a higher level or degree of conflict between incumbent and successor. While successors and incumbents in the present study do not work in the same companies, it is evident that more successors acknowledge the fact that there was some kind of conflict between family stakeholders involved directly or indirectly in the succession process. It is not impossible to design a succession process that minimizes the chance for conflict, like in the case of the large company using the firm's board as the advice giver for the family external, but FB internal management successor, however the difference between the successors' and incumbents' statements on this issue is surprising. There are several possible reasons for this phenomenon of differing statements regarding conflict during the succession process: On the one hand, there may a difference in perception of what a conflict is between

the generations involved. On the other hand, the notion that especially in Western Europe one does not talk about certain issues, either within or outside of the family, may be the cause for this phenomenon (Lansberg, 1988). Following this line of reasoning, the older generation would in this case be less willing to expose the “skeletons in their closets” to outsiders than the younger generation. Potentially the findings indicate that in cases of direct conflict between successor and incumbent, the successor would first turn to a person of trust, who potentially also have technical skills in the respective area. Possible reasons for this may be either a lack of confidence in their own abilities or judgment, which then leads to them first utilizing their network to get a second opinion. On the other hand, the hurdle, set by financial or emotional repercussions, for hiring a formal advisor may be anticipated to be seen as a further escalation of the conflict.

## **2.6 Limitations of study and future research**

This study’s design has two limitations that merit discussion. First, the choice of a case study approach limits the amount of cases studied. The advantage of the chosen methodology can be found in the uncovering and exploration of under-researched social phenomena surrounding the FB succession process. While a case study of fifteen total cases seems rather large, a generalization of the results would need to be supported by further quantitative studies. The second limitation is the focus on one Western European country. While this focus allows for the exclusion of regional disparities, it also does not provide a global view on why advisors are hired and what their tasks are in succession processes. Future research of quantitative and qualitative nature may hence be done around the most influential advisors to FB succession in other regions of the world, the phenomenon of shared advisors between generations and their impact on succession results and fostering collaboration and trust between generations, the lack of a most influential advisor on succession outcomes and conflict, or the reasons for successors’ preference for behavioral trust in the designation of their most influential advisors.

## **2.7 Conclusion**

This study fills a gap in extant literature by identifying reasons for which advisors are designated to be the most influential advisors to FB succession by either the incumbent or the successor. Furthermore, the reasons for choosing the advisors as well as their tasks are observed. The results indicate intergenerational differences in the reasons for choosing certain types of advisors. The reasoning for introducing formal advisors into the process are mostly related to expertise for the incumbent cases, while the successor cases mostly looked for someone they trust. There is no particular systematic preference of either generation for choosing a formal or informal advisor, this is decided on an individual level and dependent on the situation as well as the respective personality of the hiring stakeholder. No systematic influences were identified for company size or experience with succession situations.

### **3 Essay 2: Characteristics, tasks, and behavior of formal advisors in family business succession**

#### **Abstract**

Within the well-established family business succession research literature on the advisory of the succession process still is scarce. This study follows a case study approach based on interviews with twenty advisors to suggest the roles and tasks of advisors in family firm succession processes. The findings illustrate that the advisory of the family business succession process differs significantly from non-succession advisory of family and non-family firms. Within the succession process there are differences in the tasks of advisors between management and ownership succession stages. Furthermore, a new categorization of advisors is proposed to pinpoint their role in the succession process.

Keywords: Family business, advisory, succession

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### **3.1 Introduction**

An intergenerational succession process is one of the most pivotal challenges in the lifecycle of a family business's ("FB") lifecycle (Beckhard & Dyer Jr, 1983b, 1983a; Ward, 1987). It is loaded with emotions (cf. De Massis et al., 2008; Zellweger & Astrachan, 2008; Filser et al., 2013; Gilding et al., 2015), personal agendas (Sharma et al., 2001), and behavior patterns (García-Álvarez et al., 2002; Sharma et al., 2003), which is why the relevant stakeholders, the incumbent as well as the successor, almost always seek out a certain level of advice. This advice may be given by formal or informal advisors, or family firm boards (Strike, 2012). Advisors to FB succession situations need to transfer opportunity, not entrapment (Kaye, 1998). They should hence foster collaboration and look to create maximum benefit for their clients and not for themselves (cf. Simmel, 1950; Obstfeld, 2005; Bertschi-Michel et al., 2020). While we know, that ideally an advisor to FB should be honest (Mathile, 1988), trustworthy (Kaye & Hamilton, 2004), as well as courageous and patient (Strike, 2012) amongst other characteristics, we do not know about their exact tasks and roles or necessary qualities in FB succession situations. To fill this perceived gap in extant literature, an inductive case study approach based on 20 semi-structured interviews with formal FB advisors is used. The synthesis of the gathered data then provides insights into the various formal advisors' roles, tasks, behaviors, and experiences, and hence contributes to FB succession literature in three ways:

First, this study contributes to a more nuanced understanding of formal FB advisory by finding and illustrating the differences between FB succession advisory and regular FB advisory. The level of emotionality of the succession process increases the need for advisors to be even more thoughtful in their interactions with the family and the business, as verbal and sometimes even physical confrontations are an unfortunate reality of this process. This of course differentiates the FB succession advisory process from any other strategy consulting, coaching, or tax advisory project conducted by formal advisors inside FB or non-family businesses.



Furthermore, the internal project managers responsible for the collaboration with the advisors may differ between FB succession and other FB advisory processes. Therefore, a level of nuance is added to certain blanket statement assumptions about formal advisors to FB in extant literature.

The second contribution of this study is the clear definition of the tasks of advisors in management and ownership succession. Different groups of formal advisors are employed on various tasks throughout the entire succession process, depending on their technical or processual skillset. While technical advisors, such as lawyers and accountants, are employed mostly in ownership succession, management succession is characterized by a larger degree of processual advisory. The advisory of FB management succession hence needs to foster collaboration and communication between the stakeholders and sees a wide variety of kinds of advisors ranging from accountants and lawyers to specialized coaches offering their services for this topic.

Third, the roles of advisors within FB succession processes are identified. Employing the medical metaphor of general practitioners and specialists used by Grubman and Jaffe (2010), it is shown that depending on their capabilities, characteristics, professional network, as well as the relevant stakeholder's trust, advisors to FB succession processes can be grouped into either of these groups. While general practitioners take over large parts of the succession process advisory and act as a central point coordinating matters for their client, specialists are trusted with topics within their respective areas of expertise. Advisors possessing the network, capabilities and characteristics which enable them to act as general practitioners, must still be designated as such by the incumbent or successor, otherwise they will act as specialists. Trends within the present data set moreover suggest that there is an incentive for FB advisors to build their capabilities and network to be able to offer their services as general practitioners.

## **3.2 Theoretical background**

### **Succession**

The intergenerational succession is one of the most challenging stages in the lifecycle of a FB. It is estimated that more than 70 percent of family-owned businesses do not survive the transition from the founder to the second generation, while only 10-15 percent make it into the third generation (Beckhard & Dyer Jr, 1983b, 1983a; Ward, 1987). Therefore, it is unsurprising that ample research has been conducted on this pivotal topic (De Massis et al., 2008; Nordqvist & Melin, 2010) as it is a complex process affected by a multitude of various factors (Nordqvist et al., 2013).

Succession can be divided into three distinct steps: the transfer of managerial control and leadership, the transfer of ownership, and the transfer of the tax component (Wiatt et al., 2022). However, since it can be argued that the transfer of the ownership component causes the tax component (Churchill & Hatten, 1987), these two aspects will from now on be grouped under the term ownership succession in this study. Ownership transfer is an important step of FB succession, as without a transfer of the voting stock a generational transition of a FB is not complete (Handler, 1990; Wasserman, 2003; Nordqvist et al., 2013). Yet, this aspect of FB succession has been understudied (Sund et al., 2015): The transition of management and ownership may either occur simultaneously or at different times and rates (Wiatt et al., 2022). Literature suggests that the lack of attention regarding the transition of ownership may be a result of lacking differentiation between management and ownership succession (Nordqvist et al., 2013), maybe because they may occur at the same time (Block et al., 2011; Wiatt et al., 2022), or of disregard for the topic (Sund et al., 2015). During a succession process, ownership can be transitioned either within a family or towards a new owner outside of the founding family (Bennedsen et al., 2007; Wennberg et al., 2011; Nordqvist et al., 2013). It was shown that the

transfer of ownership may not only have an impact on the incumbents' finances but also on their emotional state (Filser et al., 2013). The high emotional value of owning a firm (Zellweger & Astrachan, 2008) may lead to some owners having problems with letting go and hence delaying the transfer of ownership (De Massis et al., 2008; Gilding et al., 2015).

Management succession on the other hand is studied quite extensively as it entails the transfer of management and leadership responsibilities to the next generation (Giarmarco, 2012). Management succession is not only one of the most contentious issues in a FB lifecycle (Bennedsen et al., 2007, p.648) but it is also shown to be a state of heightened emotionality on successor and incumbent side with varying levels of impact on succession success: For incumbents the degree of emotionality may be driven by their willingness to let go (Sharma et al., 2001), as well as by the thought of their own mortality (Kets de Vries, 1993), and in the sense of Le Breton–Miller and Miller (2013), by their degree of identification with the family business. Further topics driving potential for conflicts and emotionality of relevant stakeholders are mainly based on their relationships, personal agendas, and behavior patterns: For intra-family management succession, it is shown that the incumbent's behavior and the relationship between incumbent and successor have tremendous impact on the success of the succession event. If the incumbent exerts high levels of control, literature indicates that this may lead to frustration and a lack of ability to assume autonomy on the successor's side (García-Álvarez et al., 2002) while the opposite is true for cases where the incumbent makes way for the successor (Sharma et al., 2003). On the other hand, it is argued that the success of a succession event is also a function of the successor's competence and commitment to take over the company (cf. Sharma et al., 2003; Le Breton–Miller et al., 2004; Cabrera-Suarez, 2005; Venter et al., 2005; De Massis et al., 2008; Parker, 2016; Richards et al., 2019). The commitment, or willingness, of the successor is furthermore shown to be influenced by the relationship between incumbent and successor (Lee et al., 2019).

## **Advisors to FB**

Considering this large potential for conflicts as well as technical issues, of for example legal or tax nature, in this truly critical time for family and business, it is unsurprising that advisors are involved. Advisors to FB can come in various forms and literature classes them on either their relationship to the client or their characteristics. Following the characteristics based classification, FB advisors may also be classed as expertise based, trust based, and group based advisors (Strike et al., 2018). According to Strike et al.'s (2018) classification, expertise based advisors can be business experts (cf. Alderson, 2009; Strike, 2012; Naldi et al., 2015; Reddrop & Mapunda, 2015 among others), therapists (Distelberg & Castanos, 2012; Castaños et al., 2013), or mentors (Distelberg & Schwarz, 2015; Samei & Feyzbakhsh, 2015). The trust based advisors may on the other hand be a trusted or the most trusted advisor (cf. Strike, 2013; Strike & Rerup, 2016), a CFO (Gurd & Thomas, 2012), or trustees (Scholes & Wilson, 2014). The group based group of advisors may consist of boards or advising teams and ecosystems (Strike et al., 2018). Following the relationship based classification, FB advisors may be divided into three distinct categories: formal advisors, informal advisors, and family firm boards (Strike, 2012). While formal advisors are hired for a specific task or project, informal advisors like friends and family as well as family firm boards may get a salary but are not specifically hired and paid for their project involvement. As formal advisors are the research object of the present study, the following section will focus on them:

Formal advisors are typically employed for a certain skill or task as they can be classified as either content experts or process consultants (Kaye & Hamilton, 2004). Content experts are mostly concerned with specific topics such as legal or tax advice and can, in Strike's (2012) adaptation of the three circle model by Tagiuri and Davis (1996), work with the family, the business, or both. Their work is often of transactional nature (Grubman & Jaffe, 2010). Process consultants on the other hand work at the intersection of family, business, and ownership

(Hilburt-Davis & Dyer, 2003) where they provide transitional services over longer periods of time or even generations (Grubman & Jaffe, 2010). Formal advisors are typically hired only temporarily (Hilburt-Davis & Senturia, 1995) and need to be wary of the project scale exceeding their expertise to areas where they may not be proficient in (Upton et al., 1993). Therefore, extant literature suggests that bringing together teams from various backgrounds and areas of expertise in multidisciplinary teams (Upton et al., 1993) may help with understanding and addressing such interdisciplinary issues (Swartz, 1989) and may hence cater to the family's holistic and yet specific needs (Thomas, 2002).

Advisors should help transferring opportunity instead of entrapment in FB succession situations (Kaye, 1998) and should therefore consider all sides included. Therefore, advisors should foster collaboration and trust among all sides of the succession process. This behavior is referred to as *tertius iungens* behavior (Simmel, 1950; Obstfeld, 2005). Bertschi-Michel et al. (2020) show that a formal advisor's *tertius iungens* behavior can lead to higher satisfaction on the incumbent's and the successor's side. Advisors should ideally have a character of honesty and integrity (Mathile, 1988) and should be trustworthy (Kaye & Hamilton, 2004), loyal, humble, courageous, and patient (Strike, 2012). Their advice gains weight with the breadth and depth of their competency and their experience with family firms (Strike, 2013).

### **3.3 Methodology**

This study aims to explore the roles and tasks of formal advisors in FB succession processes. To shed light on this, the present exploratory study follows an inductive multi-case study approach (Eisenhardt, 1989; Yin, 1989), due to this approach's unique capability of generating deep insights into complex social processes (Eisenhardt & Graebner, 2007; Reay, 2014). Due to the lack of in depth literature on the topic and the complex nature of the FB succession process (cf. Morris et al., 1996; Brockhaus, 2004; Cisneros & Deschamps, 2015, among others),

the inductive case-study approach is suitable for the exploratory study at hand. This notion is further corroborated by the wide use of case studies in extant literature researching the FB succession process (cf. Ibrahim et al., 2001; Cadieux et al., 2002; Mickelson & Worley, 2003; Cadieux, 2007; Mazzola et al., 2008; Cisneros & Deschamps, 2015, among others).

### **Case selection and interview process**

The strategic selection of cases (Patton & Appelbaum, 2003) was done to find a sample of cases representing all commonly used groups of formal advisors involved in management and ownership succession processes. To minimize external variation by regional and cultural disparities (cf. Corbetta & Salvato, 2004; Gaines et al., 2006), cases were selected in a Western European country focusing on the advisory of clients within this country. Cases were selected as relatively senior individuals, with regards to their career progression, within their distinct companies to ensure comparability of cases and a holistic understanding of the projects they have been involved in. Initially some cases were identified using freely available online resources such as specific search directories by various entities, as well as searches on professional social media networks. Following cases were identified using the snowball sampling method as it is “particularly applicable when the focus of study is on a sensitive issue, possibly concerning a relatively private matter” (Biernacki & Waldorf, 1981, p.141). In this process interviewees are asked for the contact details of other advisors fitting the selection criteria so they can then be interviewed (Biernacki & Waldorf, 1981). Table 3 exhibits an overview over the final set of cases:

**Table 3: Case overview Essay 2**

This table illustrates the cases, their primary company description, their job description, FB succession focus topic, as well as intangible factors such as tenure and personal background in FB.

<b>Case</b>	<b>Company description</b>	<b>Job description</b>	<b>Succession focus topics</b>	<b>Tenure [years]*</b>	<b>FB background [Y/N]</b>
Alpha	Consultancy	Coach and consultant	Management	3	Y
Beta	Consultancy	Coach and consultant	Management	5	Y
Gamma	Professional Services	Attorney and tax advisor	Ownership and management	>30	N
Delta	Succession Advisory	Coach and consultant	Management	2	Y
Epsilon	Professional Services	Tax advisor	Ownership	>30	N
Zeta	Bank	M&A advisor	Ownership	10	N
Eta	Professional Services	Attorney and tax advisor	Ownership and management	15	N
Theta	Law Firm	Attorney and tax advisor	Ownership and management	15	N
Iota	Succession Advisor	Coach	Management	12	Y
Kappa	Professional Services	Attorney and tax advisor	Ownership and management	2	N
Lambda	Professional Services	Attorney and tax advisor	Ownership and management	2	N
My	Professional Services	Attorney	Ownership	22	N
Ny	Law Firm	Attorney and tax advisor	Ownership and management	25	N
Xi	Law Firm	Attorney	Ownership	14	N
Omicron	Professional Services	Attorney and tax advisor	Ownership	25	N
Pi	Consultancy	Consultant	Management	3	Y

**Table 3 continued**

<b>Case</b>	<b>Company description</b>	<b>Job description</b>	<b>Succession focus topics</b>	<b>Tenure [years]*</b>	<b>FB background [Y/N]</b>
Rho	Consultancy	Succession advisor	Management	14	N
Sigma	Consultancy	Consultant	Management	10	Y
Tau	Bank	M&A advisor	Ownership	27	N
Ypsilon	Succession Advisor	Coach	Management	12	Y

\* In current occupation – does not include prior working experience in FB

The potential interviewees were approached via an initial and, in case of a non-reply, a follow-up e-mail to schedule an interview. After a date was confirmed, the 20 interviews were conducted online via common video conferencing tools by a specifically trained graduate student from a leading European business school in the beginning of 2022. The interviewer was provided a specifically crafted semi-structured questionnaire consisting of open-ended questions to conduct the interview. All interviews were conducted in the interviewer's and interviewees' native language.

### **Data coding and analysis**

The use of the multi-case approach (Eisenhardt, 1989) allows for an in-depth within and cross case evaluation of relationships and patterns of management and ownership succession advisory. The use of interviews as the main source of information as the basis for the case study enables the analysis of complex social interactions and behavior (Yin, 1989). The interviews were recorded, transcribed, and then coded. During the coding process the data was coded in first and then second order codes (Gioia et al., 2013), with consideration of prior research in between the two coding stages (Strauss & Corbin, 1998). The goal of the first order of codes included a very wide variety of topics and notions, not all of which were specifically asked for



in the interview guide. The following analysis of extant literature showed that only little research had been done on the differences between the advice giving in management versus ownership succession. Furthermore, the analysis revealed a lack of understanding of the subtle differences between the consulting of FB outside versus within succession processes. Following the consideration of prior research and the verification of the direction of research (Strauss & Corbin, 1998) was followed by the introduction of three distinct dimensions for the second order codes: (1) Differences between regular FB advisory and succession advisory. (2) Advisors to management and ownership succession. (3) Roles of advisors: General practitioners and specialists. Following the introduction of these dimensions, the existing first order codes were clustered into the respective dimensions.

### **External validation of the study and its findings**

The concept and findings of the study were discussed with a wide variety of informal and formal advisors to family businesses of various sizes. During these sessions the advisors would be asked about their experiences with the topics at hand and their thoughts about the interview guide or the preliminary findings of the study. The purpose of these discussions was the external validation of the direction of the research to ensure the practical applicability and importance of the findings. Besides these discussions, there were multiple reviews with members of the TUM School of Management aimed at challenging the study, the interview guide, as well as the findings of the study.

## **3.4 Findings**

The iterative process from the initial data analysis, literature review, and constructing the final findings resulted in a clearer picture of the succession advisory process. Within this model the kind of succession, management or ownership, plays a central role. To ease the analysis of the findings, the following section of this essay is not structured in the case study typical “linear-

analytic structure” (Yin 2013, p. 188) of single and cross case analysis, but rather follows the example of the likes of Corbetta and Salvato (2004), who structure their results by the dimensions of their grounded theory building. Dimension 1 therefore exhibits the perceived differences between regular FB advisory and FB succession advisory. Following this the differences in kinds, tasks, and characteristics of advisors employed in management and ownership succession is exhibited in dimension 2. By taking on either a general practitioner or specialist role (dimension 3), the advisors play either a central or specific role in the FB succession advisory process. In this following section selective evidence for each of the dimensions is illustrated to exhibit the roles of advisors in succession advisory.

### **Dimension 1: Differences between regular FB advisory and succession advisory**

It is well established that advisory to FB is different to the advisory of NFB. However, also FB advisory can come in very different forms, ranging from strategy advisory to the advisory in succession situations. The findings indicate that there is a significant difference between regular FB advisory and succession advisory due to a variety of factors. First, there is the heightened state of emotionality of the process (cf. Kets de Vries, 1993; Sharma et al., 2001; Le Breton–Miller & Miller, 2013), that makes it different to regular FB advisory.

*“It was not uncommon that clients cried in conversations with me. I would say that this has seldomly or never happened in strategy consulting sessions. Also, objects have started flying in my office quite regularly when family members started getting angry with each other. And I also have had to stand between two big patriarchs and had to use my body as a physical barrier between the two. One must never forget what it is about. Those are not normal people that get into a fight in a parking lot, but we are often talking about millions in wealth that have grown over generations. It is about injuries, that sometimes have been inflicted during childhood. It is about jealousy, resentment, perception, love, attention, all the fundamental emotions that make*

*us human and move us. And yes, as much as we are able to control them, sometimes they do break through the surface and have to escape.” (Interviewee Pi)*

The heightened degree of emotionality is claimed to be a function of regular family dynamics and the associated emotions, agendas, and possibly traumas. The emotions may vary between the stakeholders, as it is well established that incumbents and successors may have very different agendas (García-Álvarez et al., 2002; Sharma et al., 2003).

Second, consultants to larger FB report that advising on succession topics typically also involves working alongside a different set of stakeholders. While the regular topics usually involve employees of the larger firms and have minimal family manager or family owner exposure, succession processes see a lot direct contact between family and advisors.

*“The daily doing, the discussion, is normally on a different level, I then have a lot of contact, not on the daily, not with the family owner, because he moved into the advisory or management board, and my daily contacts, in the company, are mostly with the head of taxes or someone alike. Therefore, of course there is a difference.” (Interviewee Kappa)*

In conclusion, the results indicate a need for the differentiation between succession related and non-succession related FB advisory, as both may differ with regards to the stakeholders and the stakeholders’ emotions involved. Furthermore, the findings support the literature-based notion that FB advisory differs from NFB advisory.

## **Dimension 2: Advisors to management and ownership succession**

This is consistent across the groups of advisors consulting on the ownership and management succession stages. Since ownership succession is concerned with the transfer of ownership stake in the firm (Wiatt et al., 2022), the tasks involved are quite technical and mostly concerned with tax, legal, and financial advisory. It is therefore unsurprising that advice given at this stage of the succession process is based around technical topics such as tax optimization, setup of legal

frameworks, sell-side advisory, and buy-side financing. Hence, the ownership transition is largely content driven (cf. Strike, 2012).

*“I can transfer shares, e.g. 99 per cent, I keep a mini-share, maybe connected to special voting rights, so that I always have the majority. That way I have transferred ownership, but not the control.” (Interviewee Theta)*

*“I am a M&A consultant, go there and then say: “Okay, are there any kids of family?” Sometimes they want to simply learn what the company is worth. Then: “Are there family entrepreneurs? No?” Okay then I begin with: “Is there anyone in the middle or top-level management, anyone, that might be interested in buying the company?” That just makes sense. There is someone, who is engaged, who wants it, and who is still young. That is one option. The second option selling to a competitor and the third is selling to private equity.” (Interviewee Zeta)*

Management succession on the other hand can be advised by a variety of advisors depending on the goal of the subject. While the transition of management still involves technical details such as the preparation of legal documents like employment contracts, most tasks of advisors are aimed at less tangible targets mostly concerning the individual agendas and feelings of the parties involved. Therefore, main tasks identified by the interviewees of the present study include the definition of a goal for the succession process, the mediation and moderation of the process, as well as coaching of the next generation. This part of succession advisory is, hence, process driven (cf. Kaye & Hamilton, 2004; Strike, 2012).

*“The internal succession, so the internal succession process from beginning to end, so the succession, the choice [of successor], management model, implementation and letting go of the succeeded generation and the drafting of a family constitution.” (Interviewee Iota)*

*“The incumbent comes to us with some kind of feeling of a disturbance and we then have to moderate the entire process, partly also inside the family. What does the older generation think? What does the younger generation think? One cannot imagine how many differences there are.”*

*(Interviewee Xi)*

Considering the heightened state of emotionality, it is unsurprising that most advisors state that the work they have to do during management and ownership succession not only differs from their regular FB advisory mandates, but also exceeds the originally agreed upon scope of their projects. Exception to this are some of the sample’s succession advisors and specialized advisors such as lawyers and tax advisors, who only advise on small portions of the process. While ownership and management succession can, for the most part, be differentiated by their need for either expert or process advisory, this claim by the majority of this study’s interviewees that they need to do more than their original project scope, suggests that most advisors need to be well versed with regards to technical and facilitative skills (cf. Grubman & Jaffe, 2010) during FB succession processes.

### **Dimension 3: Roles of advisors: General practitioners and specialists**

Leaning on the medical metaphor used by Grubman and Jaffe (2010), advisors in the succession process can be divided into general practitioners and specialists. Here general practitioners are individuals, who are called upon to assess and potentially solve a family’s or FB’s succession related holistic problems. If those problems lie within their specific set of skills, they can start solving the problem, otherwise they will connect the client to a specialist from their network or firm.

*“It is like at the general practitioner: the tax advisor often is the general practitioner, the family doctor. And when he realizes, there is a tumor in the head, he will not treat it himself. But the brain surgeon does not simply meet people on the streets or at the golf club: “You look like you*

*have a brain tumor". It does not work like that. But rather the specialist is called in to consult and then of course has direct contact with the patient." (Interviewee Theta)*

They try to and if they are allowed by the family will take a holistic approach to FB management or ownership succession topics and try managing large parts of either or even the entire process, depending on their specialization (cf. Table 1). General practitioners can be employed on the incumbent's as well as on the successor's side and hence there can be more than one general practitioner employed in one FB succession event. If they cannot solve a problem on their own, they will likely call on a specialist to help them on a specific problem. These problems can range from expert tax advice to headhunting or governance consulting. The general practitioners hence exhibit a high level of technical expertise, a facilitative nature, as well as a good professional network of specialists, that they can refer their clients to. Like Budge (2008) suggests for the ideal financial advisor, general practitioners in FB succession can also be described as a mix of priests, psychologists, and coaches. This study's findings indicate that general practitioners as advisors in FB succession can come from different sets of backgrounds and represent either deep processual knowledge, like a specialized succession advisor, or deep technical expertise, such as tax advisors or attorneys. Out of the ten advisors, who were clearly identified as being capable and willing to assume general practitioner roles based on their testimonies about their process involvement and networking behavior, four are focused on management succession, one is focused solely on ownership advisory, and the remaining five provide services in both, management and ownership succession.

The qualities associated with FB advisors, financial advisors, and medical professionals also largely fit the personal qualities the interviewees, identified as general practitioners, need in succession advisory: The interviewees state that authenticity, empathy (cf. Budge & Janoff, 1991), listening skills as well as sensitivity and trustworthiness (cf. Kaye & Hamilton, 2004) are some of the most important soft skills needed during FB succession advisory. Furthermore,

honesty, openness, strong communication, confidentiality, and courage are important for general practitioners. These qualities are quite consistent the characteristics of excellent healthcare professionals, suggested by Bendapudi et al. (2007), of confidence, empathy, humanity, personability, forthrightness, respectfulness, and thoroughness. General practitioners hence need a high degree of emotional intelligence alongside their expertise. However, they, by the definition provided, also need the professional network to be able to refer clients to specialists to cover the topics, in which they are not as well versed.

*“I have two, three contacts or a network to which I can put them in touch with. But I have to say, I know what I can do, and I know even better what I cannot do.” (Interviewee Rho)*

The advisory, capabilities, characteristics, and professional network are important to make an advisor a general practitioner – however, those are only the things that an advisor has in their direct control. The most important factor to make an advisor a general practitioner is the trust by the family side, since without this, the advisor would either not be hired at all, or be stuck in a specialist role. The overarching goal for advisors who have the ambition to become a general practitioner, should therefore be to gain the relevant stakeholder’s trust to become a *personne d’confiance* (cf. Hughes Jr, 2007) for succession related topics.

If an advisor with the ambition to become general practitioner lacks the necessary level of an incumbent’s trust, or if there already is a general practitioner in place without room for a second one, they might just have to focus their efforts at what they are specialized in. Similarly other advisors, who do not want to become general practitioners or lack the capabilities, would be called upon as specialists. In the present medical metaphor, the specialists hence do not take a holistic approach to the succession process, but rather offer expert advice on certain topics, such as tax, legal, or governance. Their job titles can vary from accountant to coach, and hence they can be focused on either the ownership or management succession related topics. In fact, of the

six firms in the current sample, that could clearly be identified as specialists, four are focused on ownership succession and two are focused on management succession. Like in the medical field, where a specialist can be approached either by the patient or by another physician, a specialist consultant can be approached by either members of the family or by another advisor. In the current sample, the specialists suggest that both can happen in practice, however the specialized tax and financial advisors, who were identified as specialists, state, that they would usually only be approached by either colleagues from their own or other organizations, who lack expertise in the respective topics. The soft skills needed by specialists do not vary much to the ones suggested by the general practitioners. The qualities mentioned by the advisors are good communication skills, empathy and sensitivity, trustworthiness, authenticity and openness, as well as good listening and communication skills.

Out of the remaining four advisors within the sample, three seem to currently develop the skills needed to become viable candidates as general practitioner. These three all claim to have large networks as well as capabilities in management and ownership succession. However, based on their testimonies they do not quite seem to have reached the status of being designated a general practitioner so far. The remaining interviewee has a high management position within their organization and has therefore stepped back from being involved in every operational consulting project. Therefore, they seem to have everything to become a general practitioner, however, based on their choices, do not act upon this potential.

### **3.5 Discussion**

This study's results indicate that there is a difference between regular FB advisory and the advisory of the FB succession process. The heightened degree of emotionality leads to a difference in the work that advisors do, how they have to conduct themselves, as well as, depending on the size of the client, the stakeholders they are communicating with. Furthermore,



there are differences between the advisors involved in management and ownership advisory:

The traditional advisors of FB, such as lawyers and accountants, most likely are involved with the technical aspects of ownership and management succession, while coaches and special succession advisors are involved in the less-technical aspects of management succession.

The findings furthermore indicate that there is a differentiation between advisors that goes beyond the scope of their FB succession projects: The degree to which they are used as a central advisor, as a general practitioner, who covers the succession process holistically and supports the incumbent by opening their network of specialists. The general practitioner can hence be seen as the center of the star shaped network. However, there are several dimensions which an advisor needs to fulfill in order to be able to become a general practitioner. Besides the professional technical and networking capabilities, there also needs to be a certain level of trust in the capabilities and judgment of the advisor extended by the relevant stakeholder. A general practitioner hence is a trusted advisor, who takes on the central advisory role, in the succession process. However, at this point it is important to recognize the difference between a trusted advisor, which a general practitioner would likely qualify as, and the most trusted advisor (Strike, 2013), since the “most trusted” is a designation, which can only be awarded by the relevant stakeholders. Specialists on the other hand are external advisors who still enjoy a certain level of trust by the incumbent or the successor, but who, instead of driving the entire process, focus on one specialized topic. Hence, general practitioners have a higher likelihood of being designated the most trusted advisor than specialists would.

The development of the specialists who seem to strive to become able to fill the general practitioner role, can be explained by multiple factors: First, it makes economic sense to provide more services since those will ultimately increase their sales for the succession project. Second, if they performed well, the probability of recurring large projects within the same FB increases.

Third, the likelihood of being referred from a satisfied FB client to another may also increase with the higher visibility general practitioner role, as FB are very well interconnected:

*“Family business owners are extremely well connected amongst each other. That is always fascinating to see and when somebody did a good job structuring his succession, then he talks to someone else and they say: “Man, whom did you do that with?”. Then he says: “I have done it with him.” And: “Were you satisfied, yes or no?”. And then one word leads to the next.”*

*(Interviewee Xi)*

The differentiation between a trusted advisor and a general practitioner is sensible in this context since the general practitioner takes on many of the tasks of a trusted advisor in the succession context and also acts as the center of the star shaped network of advisors involved.

### **3.6 Limitations and future studies**

There are two main limitations to this study’s results which merit discussion. First, the study focuses on formal advisors and hence only provides insights into this specific group of advisors. Second, the advisors for this study were explicitly selected from only one specific region in Europe to control for the significant implications of cultural variables on the succession process. Future studies of quantitative or qualitative nature may look into the differences and similarities of external succession advisory across different cultural backgrounds.

## **4 Essay 3: The influence of family ownership and management on default likelihood - An empirical study on German listed companies**

### **Abstract**

The differences between family firms and non-family firms as well as the impact of family management on firm performance have undergone careful research with controversial results. To settle the debate on whether family ownership and management are beneficial to firm performance, this study investigates the default likelihood of over 400 German listed companies under various ownership and management regimes. Using two different measurements for default likelihood, it is shown that family ownership decreases default likelihood while family management increases it. Furthermore, this study indicates that there is a need for the introduction of a new firm which addresses the traditional definitory grey area between family and non-family businesses.

Keywords: Family business, default risk, family ownership, board composition

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## 4.1 Introduction

The impact of family control and influence on firm performance has been a hot topic in extant literature for a while. Studies have found differences between family businesses (FB) and non-family businesses (NFB) across various performance dimensions and geographies: The return on assets (Barontini & Caprio, 2006; Villalonga & Amit, 2006; Sraer & Thesmar, 2007; Allouche et al., 2008; Andres, 2008; Achleitner et al., 2019), the return on equity (Sraer & Thesmar, 2007; Allouche et al., 2008; Achleitner et al., 2019), the financing structure (Mishra & McConaughy, 1999; Ampenberger et al., 2013; Achleitner et al., 2019), financial market performance (Panunzi et al., 2006; Achleitner et al., 2019; Eugster & Isakov, 2019) and the cost of debt (Anderson et al., 2003) differ between FB and NFB. Oftentimes, familiness (Chrisman, Chua & Steier, 2005; Zellweger et al., 2010) or socio-emotional wealth (Berrone et al., 2012) are credited for these differences between FB and NFB. However, there are some points of commonly uttered critique for these studies on the differences between FB and NFB: First, is the use of a host of different definitions of FB. This lack of a unified definition as well as the differences in definitory rigor limit the comparability and generalizability of the results of these studies. Second, the use key performance indicators which are not basic variables, but much rather functions of a multitude of a variety of influences and variables. This limits the extent to which the studies' results add value to the overall understanding of root cause mechanisms of the phenomena under review.

Therefore, this study sets out to combat these limitations of extant literature by investigating default likelihood, a basic variable which is at the core of a prominent rating system (cf. Sobehart & Stein, 2000; Vassalou & Xing, 2004; Abinzano et al., 2020). This variable has large direct influence on not only investor sentiment, but also on most of the abovementioned key performance indicators. Hence, the use of this measure eliminates a lot of noise and

shortcomings inherent in other commonly used measures and allows for the verification of extant results. Furthermore, using one of the most commonly used definitions of family businesses allows for maximum comparability and generalizability of results.

The present study thus adds to extant literature on various levels: First, the influence of family ownership on default likelihood is illustrated. By using a commonly used definition of FB as well as a novel company category addressing the definitory grey area between FB and NFB, the results are not only comparable to many in extant literature but can also be seen in the broader context of the European Commission's (2009) definition of FB. Hence, this study's findings regarding the impact of ownership on firm default likelihood adds different layers to the current understanding of the topic. Second, the impact of management on family firm default likelihood is investigated. Default likelihood of the family firms in the present sample is investigated for the impact of family internal, by the founder or a family successor, and family external management. Thereby, the results addresses the debate whether family members' access to certain resources (Patel & Cooper, 2014) outweighs the proposed professionalization of management introduced by the means of an external manager (cf. Levinson, 1971; Blumentritt et al., 2007, among others).

## **4.2 Literature**

Since the very start of the research on family firms, one of the overarching goals was the identification of differences between FB from NFB across various dimensions (Daily & Dollinger, 1992; Tagiuri & Davis, 1992). With regards to emotional dimensions different concepts, such as socio-emotional wealth theory (e.g. Berrone et al., 2012) or familiness (Chrisman, Chua & Steier, 2005; Zellweger et al., 2010), have been discussed by which family firms can be differentiated from NFB. These concepts have the founding family and its influence on the company, as well as the company's influence on the founding family, in

common. This exhibits one of the major differences between FB and NFB - the existence and continuing influence of a founding family. Following this line of reasoning, it is unsurprising that research has also found major differences between FB and NFB with regards to financial performance. It is shown that there are differences between FB and NFB in operative and capital market related performance dimensions. In the operative dimension, FB mostly, but not consistently, perform better than NFB. In studies of German listed companies, it is shown that FB generally have a higher return on assets than NFB (Andres, 2008; Achleitner et al., 2019). These results are confirmed by several western European studies, where similar mechanics are found with regards to return on assets (Barontini & Caprio, 2006; Sraer & Thesmar, 2007). When considering a global context, it is however unclear whether family ownership positively influences return on assets. Studies from the United States indicate either no difference (Villalonga & Amit, 2006), or with a different definition of return on assets, a weaker performance by FB when compared to NFB (Anderson & Reeb, 2003b). In a recent study on an American sample, it is found, that family ownership of higher than five percent is associated with a higher return on assets (Abinzano et al., 2020). Similar regional disparities in results can be found when looking at the return on equity, where again FB seem to outperform NFB (Achleitner et al., 2019) in a European context, while a study of Japanese companies found no clear effect of family ownership on this performance indicator (Allouche et al., 2008). The regional disparities in financial performance between FB and NFB continue in studies of the financial markets. While FB outperform NFB in the context of stock returns in Switzerland (Eugster & Isakov, 2019), these results do not necessarily hold for other countries, as the results for the United States and Germany for example are inconclusive (Corstjens et al., 2006; Achleitner et al., 2019). Since default likelihood is a major variable influencing almost all performance indicators studied in existing literature either directly or indirectly and because

existing literature exhibits controversial results across these performance indicators, the first hypothesis (H1) tests for the impact of family block shareholders on default likelihood. It states:

*H1: There is a difference between family businesses and non-family businesses with regards to default likelihood.*

Despite these findings, there has always been the problem of a missing clear definition of what constitutes a FB. Some concepts, like the beforementioned socio-emotional wealth theory (Berrone et al., 2012), familiness (Chrisman, Chua & Steier, 2005; Zellweger et al., 2010), or the Family Influence on Power, Experience, and Culture (F-PEC) scale (Astrachan et al., 2002), prescribe certain “soft” characteristics such as e.g. matching values of family and firm to FB. The problem with these concepts is that such internal data is hard to come by on the outside of a company without directly involving the companies in, in case of the F-PEC scale, a questionnaire-based study to find out about these softer characteristics. Since this may be unpractical for sets of historical data based on a large number of companies, other studies use an ownership- and management-based approach (cf. La Porta et al., 1999; Claessens et al., 2000; Faccio & Lang, 2002; Anderson et al., 2003; Villalonga & Amit, 2006; Sraer & Thesmar, 2007; Franks et al., 2009; among others). Unfortunately, studies using this approach sometimes differ with regards to the level of family ownership needed for the classification as a FB. Since these differences in definitions of family businesses impact comparability of results between studies (cf. Villalonga & Amit, 2006; Allouche et al., 2008), this study follows the popular yet relatively narrow definition of FB, requiring 25 percent ownership by the founding family as well as management involvement by the founding family. One drawback of this narrow definition is, that it may classify a FB as a NFB, by merely missing the 25 percent hurdle by less than one percent ownership stake. To combat this effect and to make the used definition reflect the family influence on a given business, a novel classification is introduced, which is called Family Business Light (FBL). FBL are defined as companies, which meet two out of the

three criteria set for FB. They therefore need to be either owned at the 25 percent level by the founding family at no management involvement, managed by the founding family, that holds less than 25 percent of shares, or be managed and owned to at least 25 percent for a minimum of 20 years by a family, that is not the founding family. Hence, FB and FBL have family block shareholders and hence a level of SEW and familiness interests in common. This is significant, since it has been shown, that block shareholders have significant impact on the behavior, default likelihood, and success of businesses (Bertrand & Mullainathan, 2003; Bennedsen et al., 2007; Abinzano et al., 2020). While SEW objectives may be limited by shareholder interests for listed FB and FBL Le Breton–Miller and Miller (2013), the introduction of this novel classification of companies addresses the lack of SEW in the current FB definition. Therefore, the combination of FB and FBL under the current definition move it closer to more inclusive definitions of FB, like the one introduced by the European Commission (2009, p. 9) which accounts for family firm buyers: “A firm, of any size, is a family business, if: (1) The majority of decision-making rights is in the possession of the natural person(s) who established the firm, or in the possession of the natural person(s) who has/have acquired the share capital of the firm, or in the possession of their spouses, parents, child or children’s direct heirs. (2) The majority of decision-making rights are indirect or direct. (3) At least one representative of the family or kin is formally involved in the governance of the firm. (4) Listed companies meet the definition of family enterprise if the person who established or acquired the firm (share capital) or their families or descendants possess 25 per cent of the decision-making rights mandated by their share capital.” Due to the nature of shareholders and the differing levels of stock holdings, the second and third hypotheses (H2 and H3) aim to shed light on potential implications of these differences by stating:

*H2: The category of family business light differs from family businesses with regards to its default likelihood.*



*H3: The category of family business light differs from non-family businesses with regards to its default likelihood.*

Besides the differences between FB and NFB, a lot of research has been done on management and control of FB and its influence on firm performance. There are three possibilities for how a FB can be managed: It can be managed by its founder, by a family member as a successor, or by an external manager who is not a member of the founding family. Financial literature for the most part suggests that FB with family members in operative management positions perform better than the ones with external managers. Studies have found a higher return on assets (Barontini & Caprio, 2006; Andres, 2008) and a higher return on equity (Sraer & Thesmar, 2007) for FB that are managed by family members. Nevertheless, not all studies agree as e.g. Anderson & Reeb (2003b) find that there is no statistically significant difference with regards to operative performance between family- and externally-managed FB. However, the notion that there is no difference between family and non-family managers seems counterintuitive, considering for example the negative implications of appointing a first born child as the head of a FB for performance across multiple management dimensions (Bloom et al., 2008). This is further underlined by Blumentritt et al. (2007), who propose that appointing an external manager would lead to a professionalization of management, since the family leaders have to delegate control over the company to a non-family manager. This is highlighted by Levinson (1971) and Davis and Stern (1988) who find that the removal of family is necessary for firm survival. On the other hand, external managers may lack certain sources of influence and may therefore lack the ability to devise initiatives to improve performance (Patel & Cooper, 2014). The appointment of external managers may also cause changes in goals and values as well as governance structures, all of which may go against family values (Patel & Cooper, 2014) and potentially cause conflict. Naldi et al. (2013) even go as far as suggesting that the appointment of an external manager may negatively impact socio-emotional wealth, as the CEO no longer

is a member of the founding family. This is underlined by Bertrand and Mullainathan (2003) who note that founder CEOs are important to corporate policies. Considering the implications of literature on this controversial topic, it seems necessary to test the impact of external and family management on default likelihood. Aligning with most of the financial literature on this topic, the following hypotheses are formed:

*H4: Family businesses with founders in management positions have a lower default likelihood than externally managed family businesses.*

*H5: Family businesses with family members as managers have a lower default likelihood than externally managed family businesses.*

*H6: Family businesses with founders in management positions have a lower default likelihood than those managed by family members.*

## **4.3 Methodology**

### **Firm classification and sample**

The companies represented in this study were listed in the German CDAX between beginning of 2007 and end of 2021. The German CDAX index comprises of all German values listed in the General Standard and the Prime Standard segments of the Frankfurt stock exchange. Since German companies are a focus of extant research and because the verification of previous results is one of the main goals of the present study, a focus was put on German data. Due to German reporting standards and the data needs of the financial models used, this study had to focus on listed companies. After the set of all listed companies during these years was downloaded from Bloomberg, the first step of sample selection involved eliminating banks as well as financial services, investment, and real estate firms. This was done due to the differences in financial reporting structures of firms within these industries, to those in other industries.

Thereafter, all previously defaulted firms as well as firms not listed with common stock were eliminated. These firms were then classified into FB, NFB, and FBL. For this classification, a frequently used definition of FB (cf. Section 2 of this study) is utilized to ensure comparability of results to other studies. FBL are explicitly included into the study under the beforementioned definition to ensure that all companies designated as FB under the European Commission's definition are explicitly excluded from the NFB category. The classification of firms into the firm categories followed a clear structure: First, for all years between 2007 and 2021 companies were evaluated for the existence and kind of block shareholders to determine NFB from possible FB and FBL. Freely available annual reports by the companies were used for this step of the analysis. Second, if companies had relevant block shareholders in their shareholder structure, these shareholders were evaluated for connections to the founding families as well as their duration of their shareholdings. Data from said financial publications was complemented by publications on the EQS Group's "DGAP" data base in this step. Finally, the structure of the boards was evaluated for (founding) family participation. Punctually family ties were verified through articles in renowned news outlets. Whenever, shareholdings, family ties or management structure were unclear for potential FB or FBL, these companies were excluded from the sample after a thorough due diligence using accessible channels. The final sample comprises of 403 companies across 15 years.

## **Data**

The data needed for the setup of the Merton model, namely the companies' values of equity and debt, as well as the risk-free rate were all retrieved from Bloomberg. The value of a company's equity is estimated by its daily market capitalization. Following the KMV model and multiple scientific publications (e.g. Vassalou and Xing 2004; Chiang et al. 2015; Abinzano et al. 2020), the market value of debt is approximated to be the sum of short-term and half of the long-term debt. Values needed for the following regression analyses, namely Altman's Z-

score, assets, and equity were also extracted from Bloomberg, while the companies' foundation years were taken from their websites or financial publications. The publication obligations of the individual companies depend on the standard they are listed in, therefore the Z-score, debt, equity, and asset values are based on either quarterly, semi-annual, or annual data. Data was controlled for outliers and checked against financial publications and stock market data. The underlying risk-free rate of the model is defined as the daily value of the Euribor.

### **Merton adaption of the Black & Scholes model**

The model used to evaluate the default likelihood of the companies in the sample is based on the adaptation by Merton (1974) of the Black and Scholes (1973) option pricing model. Following Vassalou and Xing (2004), the default likelihood indicator (DLI) represents the likelihood  $P$  for default to occur given by the following equation (1):

$$DLI \cong P_{default} = N\left(-\left(\ln(V_{A,t}/X_t) + (\mu - \sigma_{A,t}^2/2)T\right)/(\sigma_{A,t}\sqrt{T})\right) \quad (1)$$

Setting the maturity ( $T$ ) to 1 year, the default likelihood indicator (DLI) can be seen as a normally distributed function of the market values of a firm's assets ( $V_{A,t}$ ) and debt ( $X_t$ ), as well as of a drift parameter ( $\mu$ ) and the asset value volatility ( $\sigma_{A,t}$ ) (Vassalou and Xing, 2004). As illustrated in Vassalou and Xing (2004), the ratio of assets to debt has to be greater than 1 for default not to occur. This model finds great use in industry, for example in form of the closely related KMV model, which is used to determine default likelihood in Moody's ratings. One major difference between the present model and the KMV model is the data the models are based on. The KMV is based on decades of data from multiple countries and markets, while the data used in this study stems from a limited set of companies from within Germany. Therefore, as Vassalou and Xing (2004) recognize, the KMV model is inherently more accurate, which is why the DLI based on the data used in this study can only be seen as an approximation of the probability of default.

Accuracy of the current model for the analysis of default likelihood is determined using the accuracy ratio proposed by Sobehart and Stein (2000). This approach evaluates the ability of the model to accurately predict a firm's default over the next five years. Model accuracy is determined by the comparison of areas under an ideal, a naïve, and the actual cumulative accuracy profile curves. The accuracy of the current model for an out-of-sample, out-of-time dataset is 67.66%, which is in line with the findings of Sobehart and Stein (2000) and Vassalou and Xing (2004) of about 67 percent and about 59 percent model accuracy for their respective Merton model adaptations.

### **Altman Z-Score**

Another approach for the validation of the results of the Merton model used in this study is the introduction of the Altman Z-score (cf. Altman, 1968) as an alternative to the Merton model based DLI. The Z-score is a commonly used measure for a company's probability of defaulting in literature and industry. Its inherent clarity and comprehensibility gives it the upper hand over other possible measures like credit spreads or ratings. The latter indicators are highly reliant on various externalities and may hence only be seen as implications for a company's current economic situation. The Z-score, as discussed in Altman (1968), is based on the summation of several differently weighted factors as described in equation (2):

$$\begin{aligned} Z - Score_t = & 0.12(\textit{Working capital}_t/\textit{Total assets}_t) \\ & + 0.14(\textit{Retained earnings}_t/\textit{Total assets}_t) \\ & + 0.033(\textit{EBIT}_t/\textit{Total assets}_t) \\ & + 0.006(\textit{Market value of equity}_t/\textit{Book value of total debt}_t) \\ & + 0.999(\textit{Sales}_t/\textit{Total assets}_t) \quad (2) \end{aligned}$$

Companies with low Z-score values, positive and close to zero, are said to be close to default.

Unlike the Merton model the Z-score depends mostly on book values. This in turn means that

the dataset for each of the sampled companies only consists of a maximum of four annual observations, compared to the roughly 250 annual observations with the Merton model. The data derived from this evaluation of Z-scores is then evaluated using the regression analyses described in equations (3)-(5).

### **Regression model**

After the calculation of the DLI values for all companies, the results are scaled to be values between 0 and 100 (percent), so that the OLS regression analysis exhibits meaningful and easily comprehensible results. Similarly, the Z-scores are extrapolated to four values per year and inverted to increase ease of interpretation and comparability to DLI regression results. Step one of the regression analysis aims at detecting differences between the default likelihood of FB, FBL, and NFB. Secondly, the impact of certain firm characteristics on the default probability is determined. Due to the data at hand and to provide for comparability of results, the data is evaluated using an OLS regression model, as this is the predominant approach used in studies on related topics. All regression models were checked and corrected for heteroscedasticity using the Huber White Sandwich estimator for variance. The potential for endogeneity is addressed in two main ways: First, the set of variables and control variables used in this study resembles the ones used in leading studies in the default likelihood field to ensure consistency of findings across studies. Second, the Hausman test is used to test for endogeneity and data for the company fixed effects regression model is attached in the appendix. Checks for collinearity using variance inflation factors (Fox & Monette, 1992), results are reported in the appendix. The following models, described in equations (3)-(5), are used to evaluate hypotheses H1-H6. H1, H2, and H3 are analyzed using equation (3) and H4, H5, and H6 are evaluated by equation (4). Equation (5) is then used to analyze FBL and NFB for effects of the control variables.

$$\begin{aligned} Def - Prob_{i,t} = & \beta_0 + \beta_1(Family\ Business)_{i,t} + \beta_2(Company\ Age)_{i,t} \\ & + \beta_3(Book\ to\ Market)_{i,t} + \beta_4(Assets)_{i,t} + \beta_{5-12}(Industry)_i \\ & + \beta_{13-27}(Years)_t + \varepsilon \quad (3) \end{aligned}$$

where

*Def-Prob* = DLI in percent or inverted Z-score (depending on step of analysis);

*Family Business* = Classification for FB, NFB, and FBL;

*Company Age* = Natural log of company age in years;

*Book to market* = Natural log of the book to market ratio of equity at a given time;

*Assets* = Natural log of the asset values in millions of Euro at a given time;

*Industry* = Bloomberg industry classification of industry;

*Years* = Year dummies for the years 2007 to 2021;

Equation (3) is used to evaluate whether FB, FBL, and NFB differ with regards to their default likelihood. Furthermore, the impact of control variables on the overall sample is analyzed. The evaluation for FB, NFB, and FBL is done via the family business dummy variable. This family business classification may change from FB to either of the other two categories on an annual basis, depending on the developments within said company's management and ownership structure. There is no upward mobility from either the FBL or the NFB to the FB category. Furthermore, there are no cases of mobility from NFB to FBL in the period of time under review. The control variables used in this model are commonly used in literature. As size and book to market ratio are shown to have an effect on DLI (cf. Vassalou & Xing, 2004), these variables are included in the evaluation. The current study uses asset value as a size measure, as it is commonly used in literature. Further commonly used control variables include industry, age, and years. Numeric inputs were scaled to ease interpretation of results.

$$\begin{aligned}
 Def - Prob_{i,t} = & \beta_0 + \beta_1(Management)_{i,t} + \beta_2(Company\ Age)_{i,t} \\
 & + \beta_3(Book\ to\ Market)_{i,t} + \beta_4(Assets)_{i,t} + \beta_{5-12}(Industry)_i \\
 & + \beta_{13-27}(Years)_t + \varepsilon \quad (4)
 \end{aligned}$$

where

*Def-Prob* = DLI in percent or inverted Z-score (depending on step of analysis);

*Management* = Classification for founder manager, family manager, external manager

*Company Age* = Natural log of company age in years;

*Book to market* = Natural log of the book to market ratio of equity at a given time;

*Assets* = Natural log of the asset values in millions of Euro at a given time;

*Industry* = Bloomberg industry classification of industry;

*Years* = Year dummies for the years 2007 to 2021;

Equation (4) is used to evaluate the influence of management on the default probability of the subset of FB and to verify or falsify hypotheses H4, H5, and H6. This is done by measuring the influence of the management dummy variable, which can take on the values founder manager, family manager, and external manager. The values for management can change on an annual basis. There are no limitations as to how this variable may behave. Founders can be seen to return from advisory into active management roles, they can be replaced by family members or external managers. If a change in the management structure means, that the company would no longer fit the definition of a FB, this classification would be changed to NFB or FBL accordingly, pending the other defining factors. The other control variables included in equation (4) match the ones used in equation (3).

$$\begin{aligned}
 Def - Prob_{i,t} = & \beta_0 + \beta_1(Company\ Age)_{i,t} + \beta_2(Book\ to\ Market)_{i,t} + \beta_3(Assets)_{i,t} \\
 & + \beta_{4-11}(Industry)_i + \beta_{12-26}(Years)_t + \varepsilon \quad (5)
 \end{aligned}$$

where



*Def-Prob* = DLI in percent or inverted Z-score (depending on step of analysis);

*Company Age* = Natural log of company age in years;

*Book to market* = Natural log of the book to market ratio of equity at a given time;

*Assets* = Natural log of the asset values in millions of Euro at a given time;

*Industry* = Bloomberg industry classification of industry;

*Years* = Year dummies for the years 2007 to 2021;

The analysis of the results given by equation (5) reveals details about default probability influencing factors for the FBL and NFB subsets. The classification of FBL and NFB is reviewed on an annual basis. The control variables employed in this analysis match the ones used for the entire sample in equation (3) and for the FB subset in equation (4). Equation (3) aims at distinguishing the differences between FB, FBL, and NFB. Results of this regression can be found in Table 1. Equation (4) is used for the subset of FB and is used to find out about differences in management and how they may affect company default probability. Results of this analysis are illustrated in Table 3. Equation (5) is used for the subsets of NFB and FBL, results are indicated in Tables 3 and 4 respectively.

## 4.4 Results

Table 1 exhibits the results of the OLS regression analysis described in formula (3) for the entire sample. The center column indicates the results for the Merton model based DLI, the right column exhibits the OLS results for Altman's Z-Score. The first two rows indicate that there is a difference in default likelihood, regardless of the calculation method, between FB, FBL, and NFB, while the following rows indicate the impact of major control variables.

**Table 4: Full sample - Impact of variables on Merton DLI and Z-Score**

This table reports the regression results for company characteristics on Merton model DLI and Altman's Z-Score. Ownership is designated as a dummy variable. Family business is the default option in this analysis and hence not indicated in the table. Book-to-market ratio indicates the ratio of book value of equity to the market value of equity. Asset value indicates the book value of assets. Age refers to a firm's age at a given point of analysis. Furthermore, the dummies for industry and time are indicated, with the basic materials industry and the year 2007 as defaults. The difference in number of variables is based on data unavailability for the Altman Z-score.

Coefficient	Merton DLI		Altman Z-Score	
	Estimate (%)	(Std. error)	Estimate	(Std. error)
Family business light	0.684***	(0.041)	0.592***	(0.129)
Non-family business	2.171***	(0.030)	1.699***	(0.092)
Book-to-market ratio	3.355***	(0.036)	1.047***	(0.045)
Asset value	-1.224***	(0.019)	-0.326***	(0.048)
Age	-0.866***	(0.019)	0.099*	(0.044)
Industry: Communications	1.790***	(0.062)	0.141	(0.184)
Industry: Consumer, cyclical	2.022***	(0.050)	-1.032***	(0.162)
Industry: Consumer, non-cyclical	3.025***	(0.062)	0.302	(0.171)
Industry: Energy	1.959***	(0.105)	0.528*	(0.256)
Industry: Finance	-3.102***	(0.189)		
Industry: Industrial	0.968***	(0.046)	0.100	(0.158)
Industry: Technology	0.971***	(0.056)	-1.275***	(0.172)
Industry: Utilities	0.126	(0.087)	1.721***	(0.289)
Time 2008	3.265***	(0.083)	1.203***	(0.224)
Time 2009	5.041***	(0.084)	2.211***	(0.212)
Time 2010	5.088***	(0.086)	2.369***	(0.233)
Time 2011	6.665***	(0.095)	1.961***	(0.233)
Time 2012	6.128***	(0.093)	2.066***	(0.246)
Time 2013	6.524***	(0.097)	1.996***	(0.232)
Time 2014	7.095***	(0.101)	2.152***	(0.235)
Time 2015	7.263***	(0.101)	2.135***	(0.229)
Time 2016	5.522***	(0.091)	1.999***	(0.237)
Time 2017	4.695***	(0.095)	1.572***	(0.249)
Time 2018	5.474***	(0.095)	1.318***	(0.233)
Time 2019	5.716***	(0.093)	2.239***	(0.244)
Time 2020	7.666***	(0.096)	2.508***	(0.225)
Time 2021	5.912***	(0.104)	2.506***	(0.225)
Intercept	-3.666***	(0.084)	-6.318***	(0.232)
Adjusted R square	0.068		0.123	
F statistic	2732		61.99	
Variables	27		26	
Degrees of freedom	1,005,224		11,333	

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001

The results illustrated in Table 1 indicate that FB perform the best with regards to Merton model DLI. FBL and NFB perform 0.684 percent and 2.171 percent worse with regards to their DLI respectively. This indicates that FBL and NFB have a higher default likelihood than FB. These results hold for the DLI as well as the Z-score measure. A unit increase of the natural log of the book to market ratio increases the DLI by about 3.355 percent and the inverted Z-score by about 1.047. Therefore, the undervaluation of a company on the stock market negatively influences the default likelihood of said company. The asset value of a company is found to have a large impact on DLI and a smaller one on Altman's Z-score. This indicates that an increase in the natural log of asset value decreases default likelihood. Due to the results shown in Table 1, hypothesis H1 can be accepted, since there is a clear difference between FB and NFB with regards to their default likelihood. Furthermore, hypothesis H2 can be accepted because FBL exhibit different default likelihood than FB. H3 can also be accepted since FBL exhibit lower default likelihood and therefore outperform NFB across both methods of calculation.

Table 2 illustrates the results of the OLS regression analysis described in formula (3) for the FB sub-sample. The center column indicates the results for the Merton model based DLI, the right column exhibits the OLS results for Altman's Z-Score. The first two rows indicate that there is a difference in default likelihood, regardless of the calculation method, externally, family, and founder managed FB, while the following rows indicate the impact of major control variables.

**Table 5: FB sub-sample - Impact of variables on Merton DLI and Z-Score**

This table reports the regression results for company characteristics on Merton model DLI and Altman's Z-Score for the FB sub-sample. The management dummy variable indicates external, family, or founder management, with external management as the default. Book-to-market ratio indicates the ratio of book value of equity to the market value of equity. Asset value indicates the book value of assets. Age refers to a firm's age at a given point of analysis. Furthermore, the dummies for industry and time are indicated, with the basic materials industry and the year 2007 as defaults. The difference in number of variables is based on data unavailability for the Altman Z-score.

Coefficient	Merton DLI		Altman Z-Score	
	Estimate (%)	(Std. error)	Estimate	(Std. error)
Family manager	1.236***	(0.051)	0.713***	(0.195)
Founder manager	1.744***	(0.065)	0.870***	(0.215)
Book-to-market ratio	1.660***	(0.048)	2.257***	(0.092)
Asset value	-1.175***	(0.030)	-0.378***	(0.112)
Age	-0.538***	(0.030)	0.302***	(0.118)
Industry: Communications	1.004***	(0.083)	0.536***	(0.325)
Industry: Consumer, cyclical	0.586***	(0.072)	-2.520***	(0.304)
Industry: Consumer, non-cyclical	1.032***	(0.073)	0.416***	(0.295)
Industry: Energy	-1.118***	(0.142)	0.665***	(0.602)
Industry: Industrial	1.032***	(0.062)	1.590***	(0.296)
Industry: Technology	0.747***	(0.083)	0.290***	(0.318)
Industry: Utilities	-2.446***	(0.093)		
Time 2008	1.744***	(0.135)	1.681***	(0.422)
Time 2009	2.631***	(0.130)	3.330***	(0.395)
Time 2010	1.412***	(0.123)	3.554***	(0.437)
Time 2011	2.863***	(0.138)	3.140***	(0.434)
Time 2012	4.445***	(0.152)	3.433***	(0.458)
Time 2013	6.374***	(0.177)	3.498***	(0.434)
Time 2014	3.957***	(0.165)	3.424***	(0.443)
Time 2015	2.609***	(0.133)	3.215***	(0.435)
Time 2016	1.992***	(0.130)	3.025***	(0.447)
Time 2017	0.953***	(0.120)	2.653***	(0.475)
Time 2018	1.705***	(0.134)	2.827***	(0.445)
Time 2019	1.524***	(0.123)	3.544***	(0.462)
Time 2020	3.439***	(0.123)	3.587***	(0.423)
Time 2021	3.281***	(0.151)	3.258***	(0.471)
Intercept	-0.851***	(0.118)	-8.340***	(0.429)
Adjusted R square	0.056		0.3006	
F statistic	630.8		49.32	
Variables	26		25	
Degrees of freedom	275,555		2786	

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001

As illustrated in the results in Table 2, external managers outperform all family members, incl. founders, in top level management positions. The difference in DLI between external managers and family member managers is about 1.236 percent. This means that FB with family members in management positions are 1.236 percent more likely to default than externally managed ones. Similarly, founder CEOs are found to bring a 1.744 percent higher default likelihood to their FB. Similar results are exhibited for the inverted Z-score. For FB age plays a small role in explaining DLI, and an even smaller however opposite role in explaining Altman's Z-score. The book to market ratio of equity on the other hand plays an important role in explaining default likelihood for FB. An increase in the natural log of the book to market ratio of equity has a significant negative impact of about 1.660 percent on the DLI and 2.257 points for the inverted Z-score of a FB per unit of increase. The opposite can be said about the natural log of the asset value of FB. An increase in asset value decreases the DLI of a FB by more than 1.175 percent per unit increase. A smaller effect in the same direction is illustrated on the inverted Z-score. Appendix A.2 indicates that there is very little correlation between the independent and dependent variables. The control variables on FB DLI again are significant. Considering the results illustrated in Table 2, hypothesis H4, H5, and H6 can be rejected, since external managers outperform all family members in management positions. Successors and other family members however perform better than founders.

Table 3 illustrates the results of the OLS regression analysis for all control variables of the NFB sub-sample. The center column indicates the results for the Merton model based DLI, the right column exhibits the OLS results for Altman's Z-Score.

**Table 6: NFB sub-sample - Impact of variables on Merton DLI and Z-Score**

This table reports the regression results for company characteristics on Merton model DLI and Altman's Z-Score for the NFB sub-sample. Book-to-market ratio indicates the ratio of book value of equity to the market value of equity. Asset value indicates the book value of assets. Age refers to a firm's age at a given point of analysis. Furthermore, the dummies for industry and time are indicated, with the basic materials industry and the year 2007 as defaults. The difference in number of variables is based on data unavailability for the Altman Z-score.

Coefficient	Merton DLI		Altman Z-Score	
	Estimate (%)	(Std. error)	Estimate	(Std. error)
Book-to-market ratio	4.468***	(0.050)	0.498***	(0.055)
Asset value	-1.042***	(0.026)	-0.409***	(0.059)
Age	-0.762***	(0.025)	-0.037	(0.054)
Industry: Communications	2.793***	(0.086)	-0.217	(0.229)
Industry: Consumer, cyclical	2.788***	(0.069)	-0.436*	(0.199)
Industry: Consumer, non-cyclical	4.238***	(0.089)	0.966***	(0.216)
Industry: Energy	1.170***	(0.119)	0.428	(0.311)
Industry: Financial	-3.925***	(0.199)		
Industry: Industrial	1.579***	(0.067)	-0.120	(0.197)
Industry: Technology	1.827***	(0.082)	-1.888***	(0.221)
BICS Utilities	0.842***	(0.100)	1.911***	(0.301)
Time 2008	3.906***	(0.114)	1.021***	(0.279)
Time 2009	6.175***	(0.116)	1.651***	(0.264)
Time 2010	6.824***	(0.120)	1.877***	(0.291)
Time 2011	8.248***	(0.132)	1.432***	(0.292)
Time 2012	6.544***	(0.123)	1.586***	(0.308)
Time 2013	6.796***	(0.129)	1.514***	(0.292)
Time 2014	8.423***	(0.138)	1.514***	(0.294)
Time 2015	9.334***	(0.145)	1.779***	(0.287)
Time 2016	6.723***	(0.128)	1.582***	(0.296)
Time 2017	6.488***	(0.138)	0.999**	(0.311)
Time 2018	7.265***	(0.134)	0.531	(0.291)
Time 2019	7.122***	(0.130)	1.488***	(0.304)
Time 2020	9.452***	(0.137)	1.881***	(0.281)
Time 2021	7.320***	(0.148)	2.182***	(0.325)
Intercept	-3.380***	(0.113)	-4.127***	(0.280)
Adjusted R square	0.082		0.067	
F statistic	2200		22.07	
Variables	25		24	
Degrees of freedom	616.282		7036	

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001

The results demonstrate the impact of the major variables of interest on the performance of NFB with regards to default likelihood. Age impacts the DLI positively, as every year in age decreases the default likelihood of the NFB by about 0.768 percent DLI. The book to market ratio again has the largest impact of the major variables on default likelihood, with an increase of about 4.468 percent in DLI per unit increase of the natural log of the book to market ratio. The major default likelihood mitigating factor for NFB is the natural log of asset value. The results indicate that it decreases DLI by a rate of about 1.042 percent and the Z-score by 0.409 per unit increase of the natural log. Appendix A.3 indicates that there is very little correlation between the independent and dependent variables.

Table 4 illustrates the OLS regression results for all control variables for the FBL sub-sample. The center column again indicates the results for the Merton model based DLI, the right column exhibits the OLS results for Altman's Z-Score.

**Table 7: FBL sub-sample - Impact of variables on Merton DLI and Z-Score**

This table reports the regression results for company characteristics on Merton model DLI and Altman's Z-Score for the FBL sub-sample. Book-to-market ratio indicates the ratio of book value of equity to the market value of equity. Asset value indicates the book value of assets. Age refers to a firm's age at a given point of analysis. Furthermore, the dummies for industry and time are indicated, with the basic materials industry and the year 2007 as defaults. The difference in number of variables is based on data unavailability for the Altman Z-score.

Coefficient	Merton DLI		Altman Z-Score	
	Estimate (%)	(Std. error)	Estimate	(Std. error)
Book-to-market ratio	1.071***	(0.058)	0.816***	(0.120)
Asset value	-2.416***	(0.046)	-0.840***	(0.120)
Age	-1.071***	(0.058)	1.762***	(0.139)
Industry: Communications	-3.250***	(0.175)	0.146	(0.658)
Industry: Consumer, cyclical	-0.795***	(0.144)	-1.477**	(0.555)
Industry: Consumer, non-cyclical	-1.040***	(0.142)	-5.503***	(0.591)
Industry: Energy	8.958***	(0.466)	0.692	(0.762)
Industry: Industrial	-2.768***	(0.100)	-2.491***	(0.565)
Industry: Technology	-4.062***	(0.131)	-2.334***	(0.564)
Time 2008	3.517***	(0.191)	0.689	(0.555)
Time 2009	2.579***	(0.163)	1.479**	(0.545)
Time 2010	2.403***	(0.160)	1.234*	(0.582)
Time 2011	5.650***	(0.213)	0.840	(0.570)
Time 2012	6.125***	(0.247)	0.594	(0.599)
Time 2013	2.770***	(0.152)	0.211	(0.571)
Time 2014	5.647***	(0.205)	1.142*	(0.576)
Time 2015	5.996***	(0.227)	0.192	(0.574)
Time 2016	5.591***	(0.206)	0.462	(0.588)
Time 2017	2.291***	(0.170)	0.502	(0.618)
Time 2018	3.220***	(0.184)	0.223	(0.591)
Time 2019	6.146***	(0.217)	1.432*	(0.612)
Time 2020	5.688***	(0.161)	1.669**	(0.583)
Time 2021	3.008***	(0.179)	1.317*	(0.612)
Intercept	0.911***	(0.166)	-3.055***	(0.691)
Adjusted R square	0.152		0.182	
F statistic	884.9		15.72	
Variables	23		23	
Degrees of freedom	113,338		1503	

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001



The book to market ratio has significant negative impact on the default likelihood of FBL. With an increase of about 1.071 percent DLI and 1.386 for Altman's Z-score for every unit increase in the natural log of the book to market ratio, this variable has the strongest negative effect on default likelihood of a FBL. The largest default likelihood mitigating effect can be seen in the value of assets. Every unit increase in the natural log of the asset value results in a decrease of DLI by about 2.416 percent. Appendix A.4 indicates that there is very little correlation between the independent and dependent variables.

## **4.5 Discussion and conclusion**

The results of this study imply a stark influence of family ownership on default likelihood. FB outperform NFB and FBL with regards to their default risk on the Merton and Altman scales. This result is in line with the extant findings indicating FB outperformance regarding the return on assets (cf. Barontini & Caprio, 2006; Sraer & Thesmar, 2007; Andres, 2008; Achleitner et al., 2019; Abinzano et al., 2020), return on equity (cf. Achleitner et al., 2019), or stock returns (Eugster & Isakov, 2019). The present study furthermore illustrates that FBL have a lower risk of default than NFB. This result has two major implications: First, it exhibits the positive impact of the existence of family block shareholders on the probability of firm survival (cf. Abinzano et al., 2020, among others). On a second and related note, this finding exhibits the necessity of differentiating between FBL and NFB when using this commonly used, yet narrow definition of FB. Not only would not differentiating between the two result in a move away from the European Commission's definition of FB, which is used in the current dissertation, but also in a distortion of results on the performance differences between FB and NFB.

The impact of family management on the default risk of FB is apparent in the results of this study. First, it is shown that external management has a mitigating effect on a FB's default likelihood, as external managers outperform all forms of family internal managers in the present

sample. Following certain strands of extant research, this result makes a lot of sense, as the appointment of an external manager may come with a professionalization of management (Blumentritt et al., 2007) as well as a higher chance of firm survival (Levinson, 1971; Davis & Stern, 1988). Following a SEW based reasoning, however, one would assume a negative impact of appointing family-external management on firm performance due to a lack of certain resources (Patel & Cooper, 2014), which is supported by the findings of better financial performance by family managed FB (cf. Barontini & Caprio, 2006; Sraer & Thesmar, 2007; Andres, 2008). This finding hence goes against the SEW based intuition of family outperformance in the FB management dimension. Furthermore, the results indicate that family successors are associated with a smaller risk of default than founders of FB. This may be a function not mutually exclusive internal and external factors regarding the management's risk profiles as well as investor sentiment and overall market development.

The degree of outperformance of ownership and management forms in the present essay can be illustrated by a look at a study by Löffler (2013). That study illustrates that the difference in DLI calculated using the KMV model between a Aaa and a B rating on Moody's rating scale can be as little as 2.5 percent. This is noteworthy, since the KMV model is a close relative to the model used in this study. The difference between a Aa and a Ba rating may even be as little as 0.5 percent. Therefore, the choice of management or ownership structure of a company may potentially have profound impact on that company's rating and subsequently on its access to and cost of external capital on the loans and bonds markets. Furthermore, the ratings may impact equity investors in their investment decision leaving a potential for a decrease in market value following a fall in ratings. Hence, the relatively small numerical differences in the results of the present study may have significant impact on firm ratings and performance.

## **4.6 Limitations and future research**

A limitation of this study is that it is based solely on listed German companies. Despite the Merton model's illustrated accuracy, it is hence unclear whether these results hold for non-listed companies and companies outside of Germany, since they may exhibit different structures, sizes, and possibly business focusses. This may lead to a similar variation of results across countries, as can be seen for other financial measures. It may hence potentially be fruitful for future research to use this study's approach on samples from different countries.

Furthermore, data in this study is not corrected for CEO tenure, prior experience inside and outside the respective companies, academic track record, or recent succession events (cf. Bennedsen et al., 2007). All these factors may contribute to further understanding in future studies about the differences between family and external managers. However, the inclusion of such data was not possible in the present study, due to data availability issues for mostly the older company cohort in the sample.

While the present study is based on a data set that reflects the effects of risk-free rates above and below zero, it will be interesting for future research to look at the implications of the ongoing increase in values of the risk-free rates and inflation on default likelihood and family ownership and management.

## 5 Conclusion

### 5.1 Summary of results and implications

This doctoral thesis is concerned with some inputs and outputs of the FB succession process. More specifically the essays look into advice to incumbent and successor as the input and the performance of management as the output of the succession process. The first two essays are dedicated to the exploration of the impact, roles, tasks, characteristics, and reasons to be picked for advisors.

Essay 1 addresses the gap in extant literature regarding advisor choice during FB succession processes. The findings address the impact of personal, family, and company level drivers for the advisor choice. On a company level the findings indicate that characteristics such as age, as an indicator for succession experience, or revenue do not seem to lead to a professionalization of the choice of the most influential advisor, as literature-based intuition would suggest. On a family level the impact of conflict on the choice of most influential advisors by incumbents and successors is tested. The results indicate no particular influence of conflict during or before the succession process on the succession related most influential advisor choice. On a personal level the choice of most important advisor is shown to be trust based. By differentiating between trust in others, more accurately trust in behavior and trust in expertise, and trust in self, the findings illustrate the importance of each dimension on the choice of the most influential advisors by each generation. Trust in the advisors' behavior refers to the trust in the most influential advisor's confidentiality, impartiality, knowledge of the limits of their expertise, and overall *tertius iungens* behavior (cf. Simmel, 1950; Obstfeld, 2005; Bertschi-Michel et al., 2020). While literature may suggest a preference for informal advisors when making behavioral trust as the main criteria in advisor choice, the findings indicate that trust in behavior plays the most important role in the choice of formal most influential advisors for the successor

generation. For the incumbent generation this metric leads to a more diverse selection of formal, informal, or board advisors. Trust in expertise refers to the trust in the advisor's expertise with regards to succession related technical or processual intricacies. Findings corroborate the literature-based intuition that formal advisors would be nominated based on this dimension. Finally, trust in self refers to one's trust that oneself can handle any succession related situation the best. This large degree of trust in oneself comes with a large degree of self-esteem and in the cases of this study a dominant personality. The findings in essay 1 indicate that the incumbents illustrating such behavior led them to not include formal or any advisors into the respective succession processes.

The practical implications of this essay are twofold and regard family stakeholders as well as advisors: On the one hand, successors and incumbents alike get a better understanding about what drives their counterpart's decision to involve certain advisors. By raising awareness about the mechanisms leading to advisor choice as well as the general uncertainty surrounding all parties in the succession process, this essay may contribute to open dialogue and understanding between the parties involved. On the other hand, advisors may benefit from the information illustrated in this study. First, advisors may understand that the communication and display of their *tertius iungens* behavior can foster the trusting relationship between parties. Second, advisors can through this study gain a better understanding of the inner working of family stakeholders' decisions about how to involve them. This may lead to the abovementioned optimization of the advisory process and may also give the advisors the possibility to gain insights into the targeting of their clients.

The second essay explores the experiences and roles of formal advisors during the FB succession process. The findings illustrate how the emotions involved in the succession process make succession process advisory significantly different to regular FB or NFB advisory. Some of the reasons for this include a potential change in the stakeholders involved as well as the

potential for conflicts between stakeholders. This oftentimes leads to the advisors' workload exceeding the original project scope. Furthermore, the findings indicate a difference in the kind of formal advisor involved during ownership and management succession: While ownership succession advisory is very technical in nature, management succession advisory may be technical in parts but also involves much more emotionally loaded and driven disciplines. Hence, the kinds of advisors used by family stakeholders differ accordingly between the succession stages. Despite these differences in involvement, the advisors to FB succession may be classified into two groups based on the roles they take on during the succession process: General practitioners and specialists. While specialists work within their niche of specialty, general practitioners act as the center of a star shaped network of advisors and have holistic oversight over parts of or even the entire process. They are either the or one of the main advisors of the family stakeholder and coordinate work beyond their distinct areas of expertise. General practitioners not only exhibit solid skills within the realm of their expertise but also have a widespread network of specialists they can refer clients to. Finally, they also have gained the trust of their FB clients, be it trust in behavior or trust in expertise, to a degree where they feel comfortable making this advisor the general practitioner of the succession process.

This essay has several practical implications relevant to advisors and family stakeholders. On the one hand, the identification of characteristics and relationships needed to act like a general practitioner, allows formal advisors to potentially grow into or substantiate their general practitioner roles. The identification of these roles and the role profiles allows advisors to adapt their behavior before and during a succession advisory event according to the role they want to take on. On the other hand, the findings provide family stakeholders with important information of which parts of the succession process may benefit from involving a formal advisor. Furthermore, the involvement of said formal advisors may be structured in a beneficial way.

Essay 3 explores a major succession output by providing insights into the impact of ownership and management regimes on default likelihood. The findings illustrate the impact of family versus non-family ownership of companies. Furthermore, the impact of family versus non-family management of FB is explored. By including the category of FBL the findings of this study address the defintory grey area between FB and NFB using the FB definition most commonly seen in finance literature. By introducing the FBL category the study moves the results as well as the FB definition closer to the European Commission's definition of FB. The findings of the study illustrate the mitigating impact of family ownership on a firm's default likelihood by exhibiting that FB and FBL have a smaller risk of default when compared to NFB. This result hence underlines and adds to results of extant literature indicating a positive influence of family ownership on financial performance (cf. Barontini & Caprio, 2006; Sraer & Thesmar, 2007; Andres, 2008; Achleitner et al., 2019; Eugster & Isakov, 2019; Abinzano et al., 2020, among others). Furthermore, these results confirm the literature-based intuition that family influence and control have a positive impact on firm default likelihood. With regards to the impact of default likelihood of FB as a function of firm management, it is shown that family-external management performs the best. Also, family internal successors are shown to perform better than the founders with regards to default likelihood. These results are in line with the literature stressing the professionalization of management by the introduction of external managers.

Essay 3 has one major practical succession related implication regarding the choice of managers for FB. Depending on the goals of the company, the family, and the ownership, the choice for managers may vary, as from a strictly financial or even financial markets driven perspective, external managers may perform the best. Therefore, the three circles of owners, business, and family have to have goal congruence in order to decide whether this strictly financial motivation is what they intent to pursue.

The first two essays of this doctoral thesis combined, hence, provide a two-sided overview over advisory as an input factor into the succession process. The combination of the two essays has practical implications beyond their individual contributions to literature and industry: First, one major implication is the provision of a quasi-holistic picture of the succession process. This quasi-holistic picture of advisory process may benefit formal advisors, as it not only shows what kind of tasks and roles they can take on during a succession process but also what the drivers for incumbent and successor are to deem them highly influential and beneficial. Striving to fulfill these tacit expectations may help enhance their *tertius iungens* behavior and potentially establish long term business relationships with their clients. Second, this holistic picture of succession advisory may enable informal advisors and family firm boards understand the boundaries of their own expertise better and subsequently benefit their confidants by advising them to seek out professional advice from a formal advisor. Lastly, the incumbents and successors may benefit from the combination of the two studies as it may serve them as a guide to formal advisor involvement in succession as taken together the essays illustrate the drivers of the choice of the most influential advisor and on the other hand it illustrates the kind of formal advisor and their roles and tasks in succession. Combining these implications with the ones from the third essay allows family stakeholders to make informed decisions on who to involve, for which topic, at which stage of the succession process while considering their emotional states and the implications of the succession goal on the company.

### **5.2 Contributions, future research, and outlook**

This doctoral thesis contributes to several strands of research centered around the succession event of FB.

It is shown that there is no significant level of professionalization, in form of formal advisor involvement, due to size or succession experience of the choice of advisors contributing to the



succession event. This is not only significant because it addresses a current gap in extant literature, but also because it goes against the academic intuition that a certain professionalization comes with the number of previous succession events (cf. Astrachan et al., 2002). Furthermore, findings indicate a difference in advisor preferences between generations, as incumbents choose a variety of kinds of advisors and successors exhibit a clear preference for formal advisors. Moreover, the reasons for denominating an advisor as the most impactful advisor differ between generations: While incumbents mainly rely on expertise, successors show a clear preference for someone they can trust. These findings, again, address a gap in extant literature. It may hence be fruitful for future research to verify these findings across geographies and look deeper into the reasons for this generational disparity with regards for advisor choice and intrinsic reasons for the choice.

From a formal advisor's point of view, it is shown that the FB succession event is very different to regular FB or NFB advisory due to the level of underlying emotions on the incumbents' and successors' sides. Therefore, the level to which formal advisors should adhere to the principles and characteristics of proper FB advisory, laid out in section 1.2.5, to an even higher level than they would under non-succession circumstances. Furthermore, the specific tasks within ownership and management succession advisory are shown and the behavior patterns of general practitioners and specialists are found. These findings contribute to extant literature by addressing gaps in literature and by adding further understanding and granularity with regards to the intricacies of formal FB succession advisory. Since FB and FB behavior are a function of a variety of interests and values by a multitude of stakeholders, and because these values and interests are not only distinct and personal, but may also vary across cultures, future research may further the understanding of these mechanisms in non-Western European cultures.

With regards to the outcome of the succession event, it is shown that appointing external managers may reduce a FB's likelihood of default, when compared to the family internal

alternatives. This finding is in line with multiple previous studies from a host of domains. The use of the measure of default likelihood furthermore adds an academic founding to all studies contemplating the differences between FB and NFB. Hence, the main contribution of the third essay is the adding levels of academic footing to a host of distinct issues with current literature. Since previous findings have indicated regional differences with regards to the performance of FB versus NFB using a variety of key performance indicators, the use of the default likelihood measure together with the FB definition, may further the understanding of FB behavior and performance across the globe.

In conclusion contributions have been made around the succession event. This doctoral thesis sheds light on a variety of unexplored mechanisms around the succession and the advisory of FB. Areas for future research include furthering the understanding of the mechanisms displayed in the three essays of the current thesis as well as an evaluation across geographies to further the understanding of and potentially reasons for the regional disparities in the behavior of FB across the globe.

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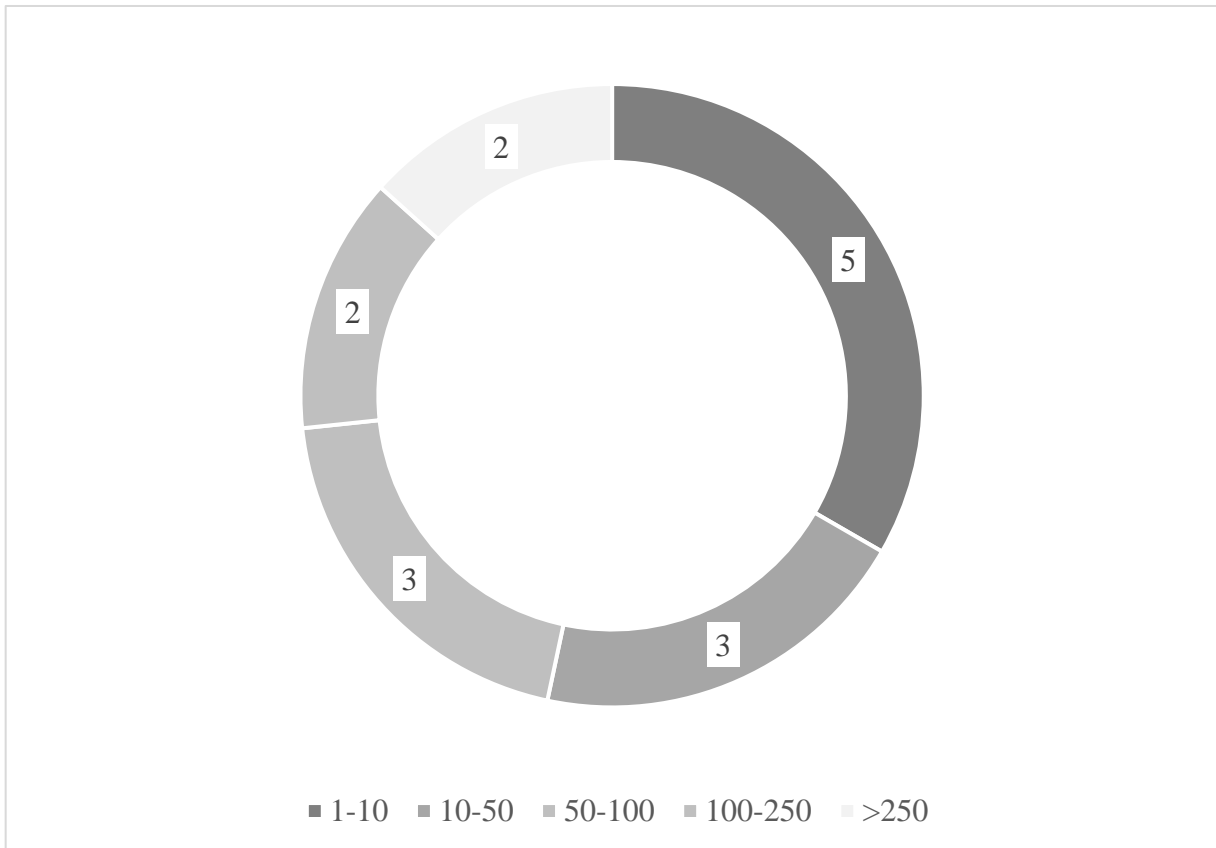
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## **Appendix**

**Appendix 1: Essay 1 - Size of cases measured by their revenues**

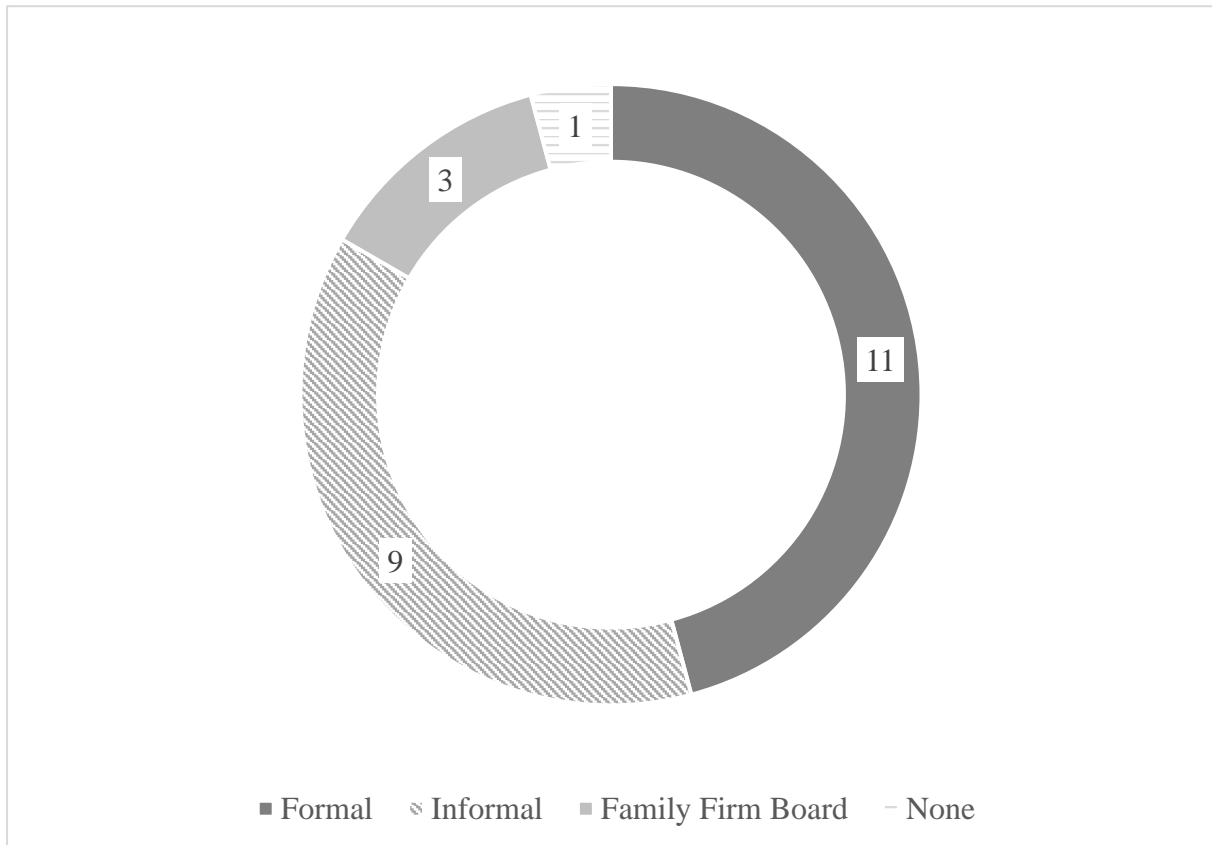
This graph is a representation of the cases' overall size as indicated by their revenues. The categories indicate ranges of revenue between 1-10 Euro millions, 10-50 Euro millions, 50-100 Euro millions, 100-250 Euro millions, as well as greater than 250 Euro millions. The totals indicated by the numbers on the graph indicate the number of incumbent and successor cases in the respective category. Categories increase in revenue size in a clockwise direction.





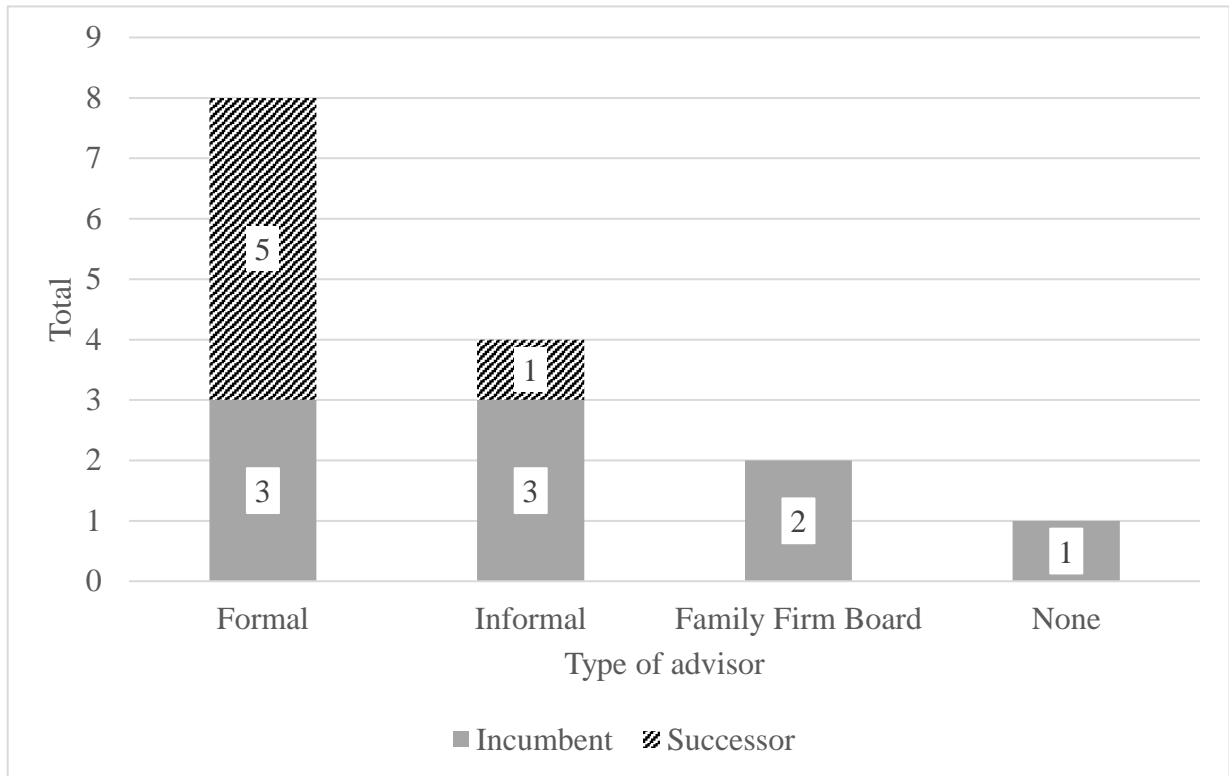
**Appendix 2: Essay 1 - Overall advisors employed by the cases**

This graph is a graphical representation of the cases' overall choice of advisors employed during the succession process. The categories displayed indicate all advisor categories that the incumbents and successors involved during their respective succession processes, as indicated in their interviews. The categories of advisors follow Strike's (2012) categorization of advisors into formal advisors, informal advisors, and family firm boards. Totals indicate the total number of mentions of a category by the incumbent as well as the successor generations.



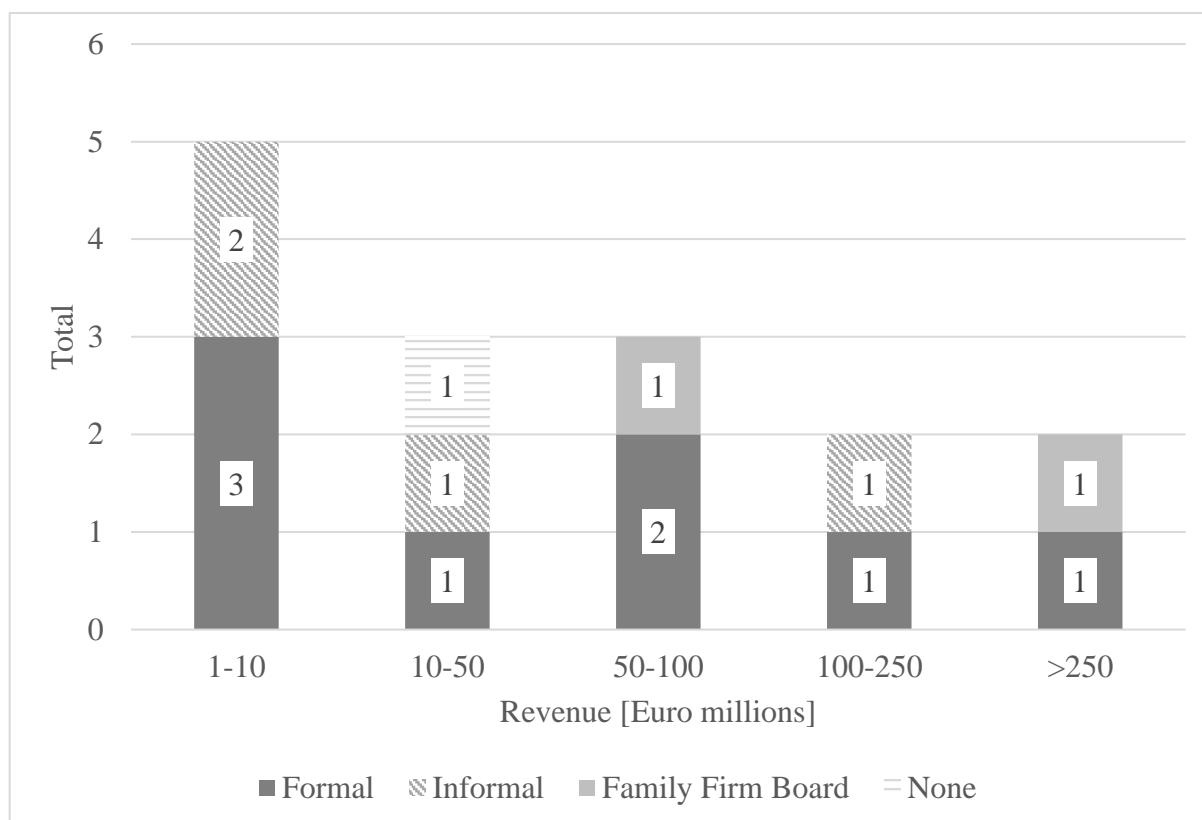
**Appendix 3: Essay 1 - Choice of most influential advisor by case generation**

This graph illustrates the choice of most influential advisors as indicated by the incumbents and successors respectively. The categories of advisors follow Strike's (2012) categorization of advisors into formal advisors, informal advisors, and family firm boards. Totals indicate the total number of mentions of a category by the incumbent as well as the successor generations.



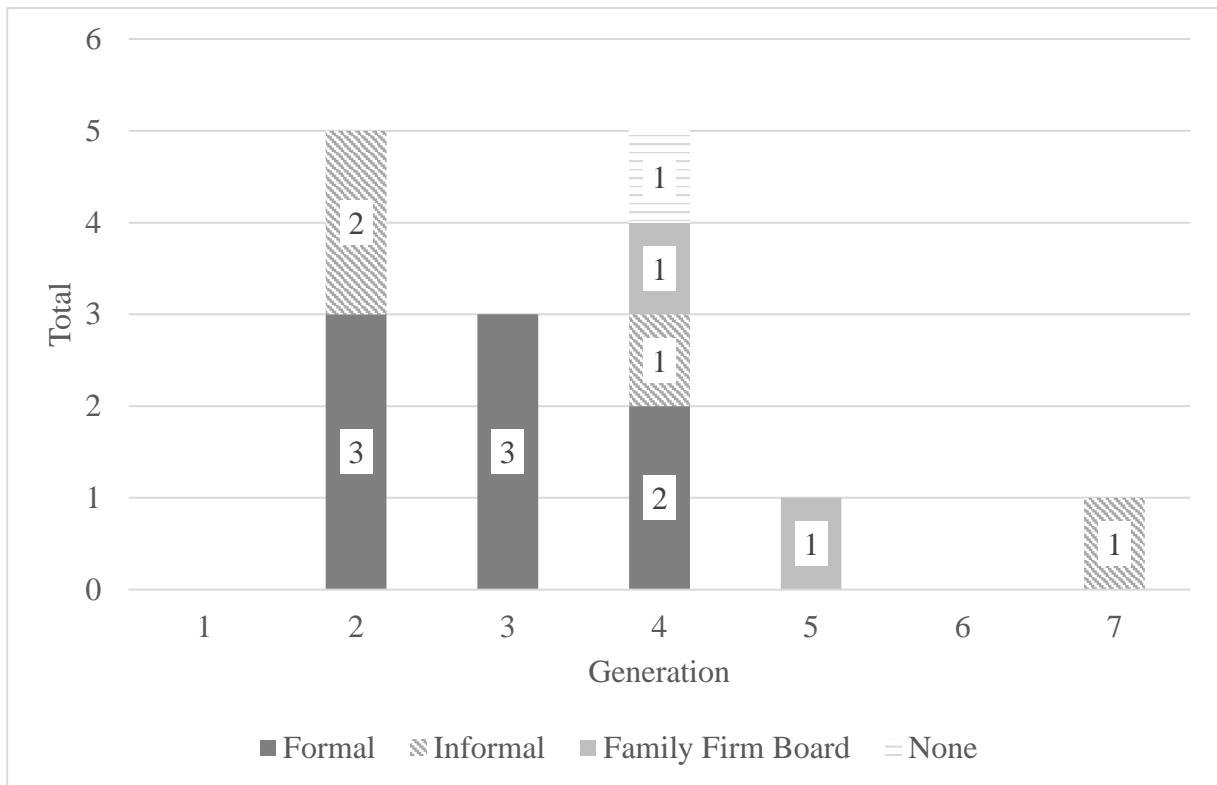
**Appendix 4: Essay 1 - Choice of most influential advisor by case company size**

This graph illustrates the choice of most influential advisors as indicated by the incumbents and successors ordered by company revenue size. The advisor categories of advisors follow Strike's (2012) categorization of advisors into formal advisors, informal advisors, and family firm boards. The revenue categories along the horizontal axis indicate ranges of revenue between 1-10 Euro millions, 10-50 Euro millions, 50-100 Euro millions, 100-250 Euro millions, as well as greater than 250 Euro millions. Totals indicate the total number of mentions of a category by the incumbent as well as the successor generations.



**Appendix 5: Essay 1 - Choice of most influential advisor by case company generation**

This graph illustrates the choice of most influential advisors as indicated by the incumbents and successors by company age. The advisor categories of advisors follow Strike's (2012) categorization of advisors into formal advisors, informal advisors, and family firm boards. The revenue categories along the horizontal axis indicate generation the case company is currently managed by. Totals indicate the total number of mentions of a category by the incumbent as well as the successor generations.



Appendix 6: Essay 1 - Interview Guide

**Algemeine Informationen zum Unternehmen**

Branche \_\_\_\_\_  
 Größe des Unternehmens (Umsatz (EUR))  <1 Mio  1-10 Mio  10-50 Mio  50-100 Mio  >100 Mio  >250 Mio  
 Größe des Unternehmens (Mitarbeiter-FTE)  0-50  51-100  101-500  >500   
 Börsennotiert  Ja  Nein   
 Gründungsjahr \_\_\_\_\_  
 Jahr des Generationenübergangs \_\_\_\_\_

**Interviewee Information**

Company ID \_\_\_\_\_  
 Name des Unternehmens \_\_\_\_\_  
 Interview Partner (Funktion) \_\_\_\_\_  
 Datum (DDMMYY) \_\_\_\_\_  
 Uhrzeit (24h format) \_\_\_\_\_  
 Dauer des Interviews \_\_\_\_\_

**Fragen zum Interviewee:**

- 0.1 Gehen Sie der Gründerfamilie an?  Ja  Nein  Gründer
- 0.2 Zu welchem Prozentsatz in etwa gehören die Unternehmensanteile noch der Gründerfamilie?  
 >25%  >50%  >75%  >100%
- 0.3 Auf wie viele Familienmitglieder sind die Anteile verteilt?  
 <2  >2  >4  >10 Familienmitglieder
- 0.4 Gibt es einen größeren privaten Anteilseigner außerhalb der Gründerfamilie?  
 Nein  <25%  <49%  >74%
- 0.5 Wie lange hält diese Person bereits die Anteile?  
 <2 Jahre  <5 Jahre  <10 Jahre  >10 Jahre
- 0.6 Hält ein anderes Unternehmen Anteile am Unternehmen? Wenn ja, wie in etwa wie viel Prozent?  
 Nein  <25%  <49%  >74%
- 0.7 Was für eine Art Unternehmen ist an Ihrem Unternehmen beteiligt?  
 Finanzinvestor  Marktbegleiter  Sonstiges
- 0.8 Wie lange hält dieses Unternehmen bereits die Anteile?  
 <2 Jahre  <5 Jahre  <10 Jahre  >10 Jahre

Fragen zum Ablauf der Nachfolge:

1.0 Wieso haben Sie mit der Suche nach einem Nachfolger angefangen? Was war der Auslöser?  
 Alter  Druck durch nächste Generation  Sonstiges  Krankheit  Performance

1.1 Hatte Sie Hilfe durch externe Personen während des Nachfolgeprozesses in Ihrem Unternehmen?  
 Ja  Nein (Wenn nein, dann weiter mit Frageblock 4.6)

1.2 Wann haben Sie sich dafür entschieden sich Hilfe für diesen Prozess zu suchen? Warum?  
 Jenstoff Phase  Vorbereitungsphase  Selbststoppphase  Trainingsphase  Machtübergabe

1.3 Wen haben Sie als Unterstützung ins Boot geholt?  
 Formellen Berater  Informellen Berater  Beirat (Mehrfachnennung möglich)

1.4.1 Ab jetzt Konzentration auf wichtigsten Berater. Wen von den eben genannten Beratern würden Sie als den wichtigsten Berater im Nachfolgeprozess (Geschäftsleitung ansehen)? Warum?  
 Formellen Berater  Informellen Berater  Beirat

1.4.2 Wieso haben Sie sich genau für diese Person / Gruppe als Unterstützung entschieden?  
 Prozessexperte  Inhaltliche Expertise  Vertrauen  Sonstiges

1.5 Wann genau war die Person / Gruppe in den Nachfolgeprozess eingebunden? Zu welchem Thema?  
 Jenstoff Phase  Vorbereitungsphase  Selbststoppphase  Trainingsphase  Machtübergabe

1.6 Was genau waren die Aufgaben der Person / Gruppe?  
 Beratung der Familie  Mediation zwischen Parteien  Prozessuale Beratung des Unternehmens  Inhaltliche Beratung des Unternehmens  Führen von Interviews  Other

1.7 Hatte die Person / der Personenkreis direkten Kontakt mit den Kandidaten?  
 Ja  Nein

1.8 Hatte diese Person / dieser Personenkreis direkten Einfluss auf die finale Entscheidung?  
 Ja  Nein

1.9 Wie war die Dauer des Einsatzes dieses Beraters?  
 <3 Monate  3-6 Monate  6-12 Monate  >12 Monate  <24 Monate  >24 Monate

1.10.1 Wie viele Kandidaten gab es insgesamt?  
 1  2-3  4-5  >5  >10



Wenn 1.1 verneint, weiter hier Fragen zum Ablauf der Nachfolge:

4.1 Wieso haben Sie sich gegen Hilfe entschieden?  
 Kein Bedarf  Keine passende Person  Anderer Grund

Fragen zur Erfahrung mit der Einbindung dritter in den Nachfolgeprozess:

5.1 Wie bewerten Sie die Vor- und Nachteile Ihres Vorgehens?

5.2 Würden Sie dieses Vorgehen im Großen und Ganzen der nächsten Generation empfehlen?  
 Ja  Nein

Fragen zur Historie:

6.1 Wie viele Generationenübergänge gab es bisher? In der wie vielen Generation befindet sich das Unternehmen?  
 Einen  Zwei  Drei  > drei

6.2 Wie liefen die vorherigen Generationenübergänge ab?  
 Unproblematisch  Problematisch

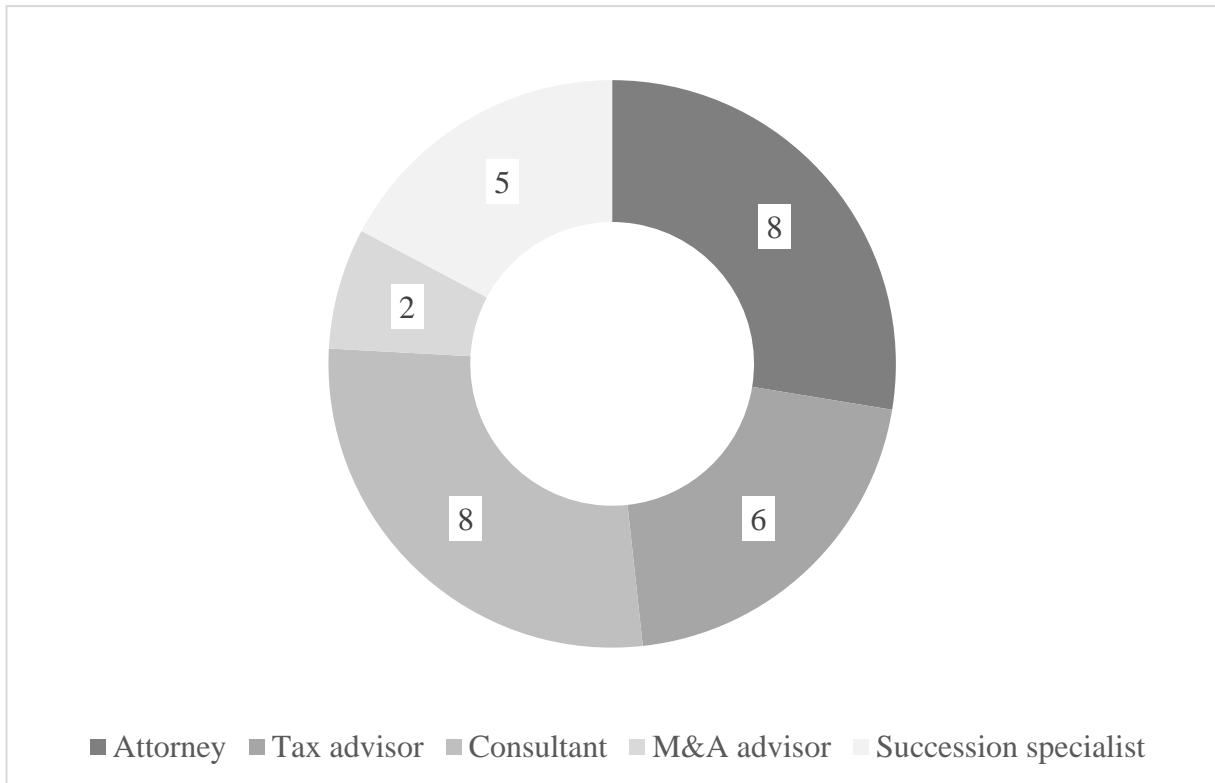
6.3 Wie verteilt sind die Unternehmensanteile? Wie viele Personen / Familienmitglieder halten Anteile?  
 <2  >=2  >=5  >=10

6.4 Gibt / gab es Konflikte (größere / kleinere) innerhalb der Familie? (qualitativ (ja oder nein nicht)) Wie denken Sie haben diese Einfluss auf den Prozess gehabt?  
 Ja  Nein



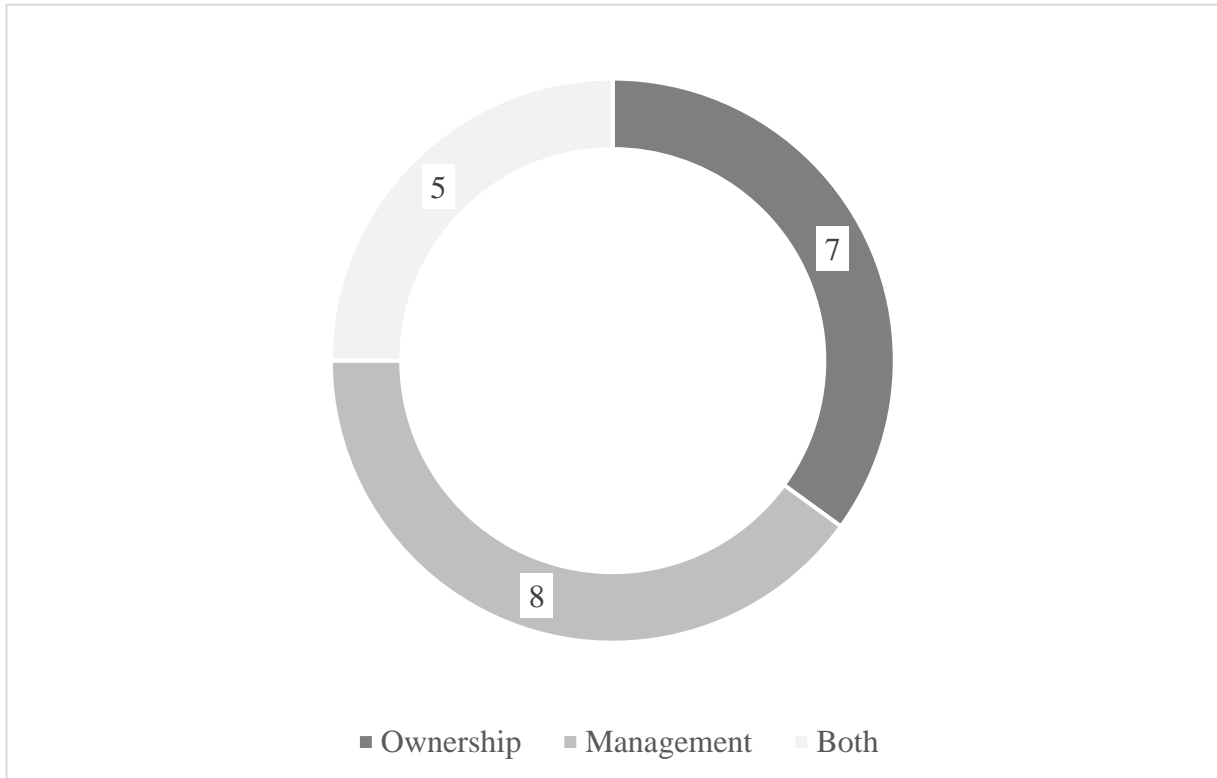
**Appendix 7: Essay 2 - Type of advisors in sample**

This graph represents the types of formal advisors within the sample by trade. The advisors were able to state their trades, which allows them to mention singular or multiple trades. The trades which the advisors mentioned range from less technical to technical consulting. The trades illustrated in this graph follow a clockwise orientation in the order attorney, tax advisor, consultant, M&A advisor, and succession specialist.



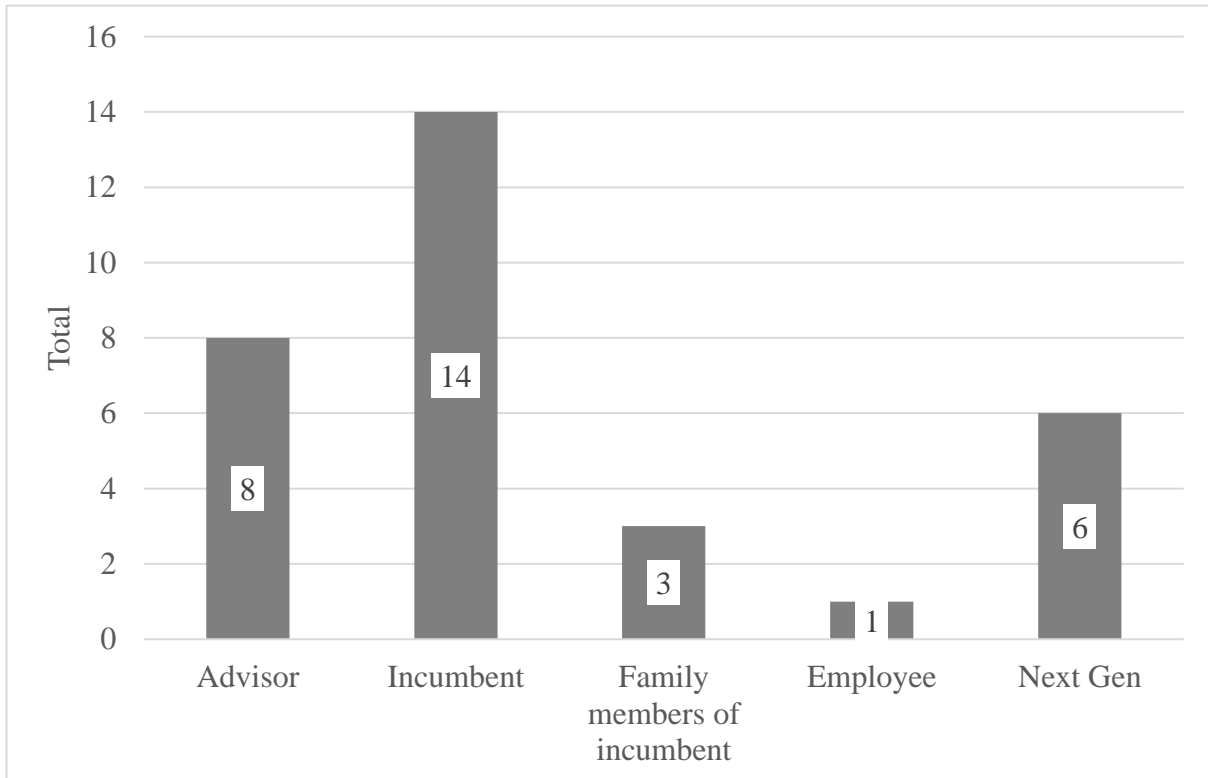
**Appendix 8: Essay 2 - Formal advisors by succession topic specialization**

This graph represents the types of formal advisors within the sample by succession process specialization. The advisors were sorted into the groups based on their statements to open ended questions. Specialization topics are ownership succession, management succession, or both – illustrated in a clockwise direction in the graph.



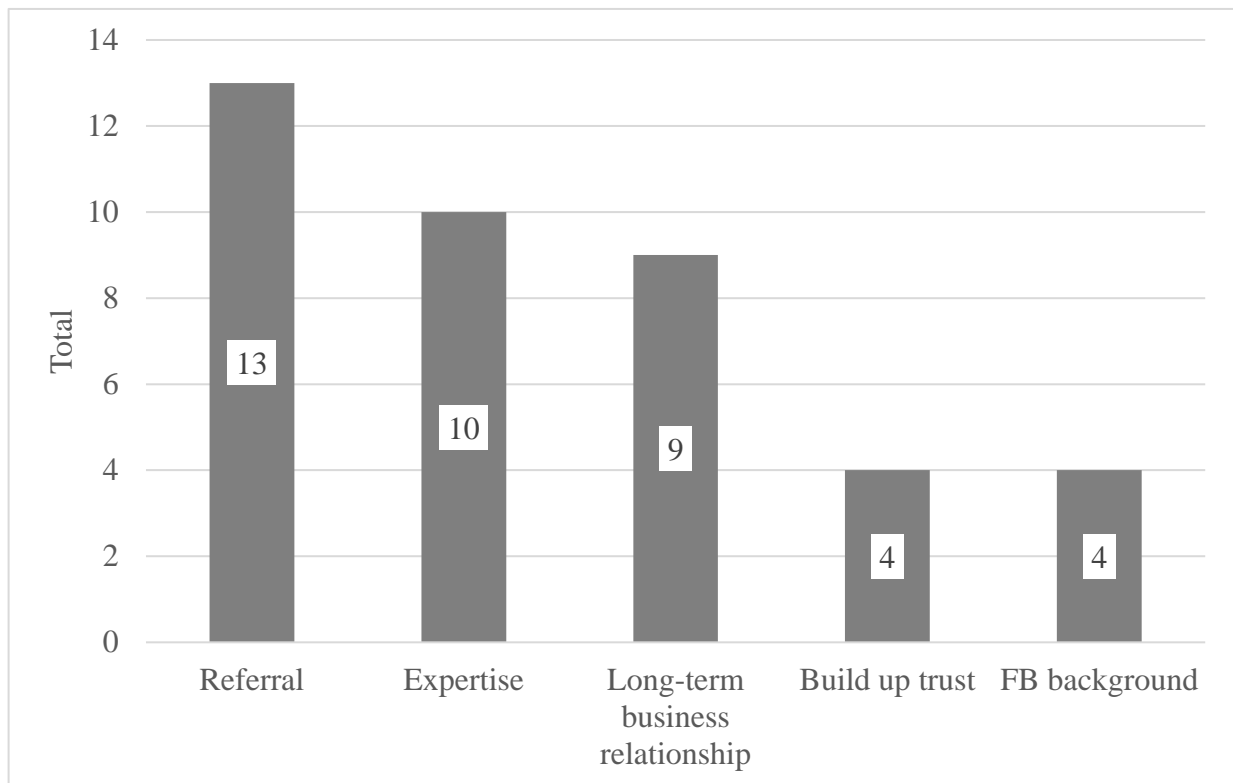
**Appendix 9: Essay 2 - People who typically approach formal advisors for succession related advice**

This graph represents the people who typically approach the formal advisors for succession related advice. The advisors stated the following groups of people who typically approach them for advice in succession situations. These stakeholders vary from case to case, hence advisors gave either singular or multiple answers to this question. The groups stated are other advisors, incumbents, family members of the incumbents, employees, as well as Next Gens, who may or may not be in successor roles. The totals indicate the number of mentions of a group by the advisors.



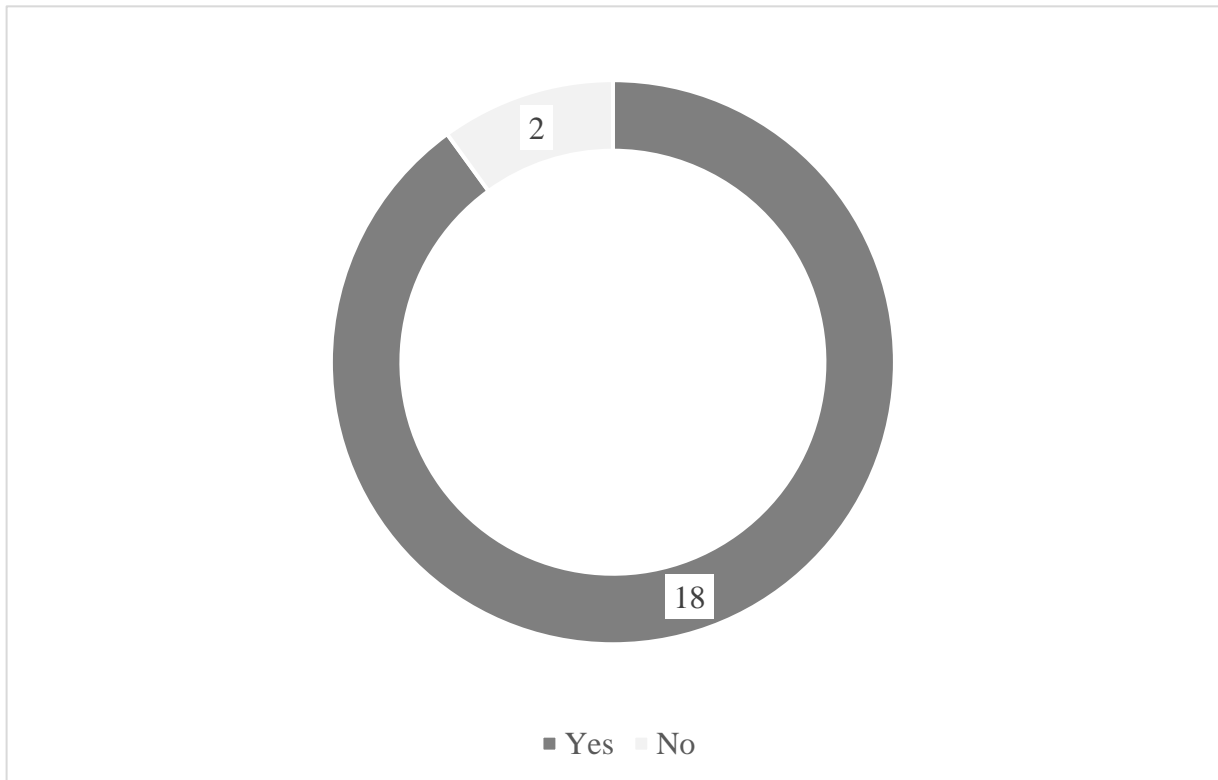
**Appendix 10: Essay 2 - Reasons why formal advisors are approached by FB for succession advisory**

This graph represents the reasons for why FB stakeholders actually approach formal advisors for succession advisory. The reasons were named by the interviewees in open ended questions, hence advisors stated either singular or multiple reasons. The reasons stated during the interviews were referrals, expertise, long-term business relationship with FB, build up trust with family stakeholders, and a personal background in FB.



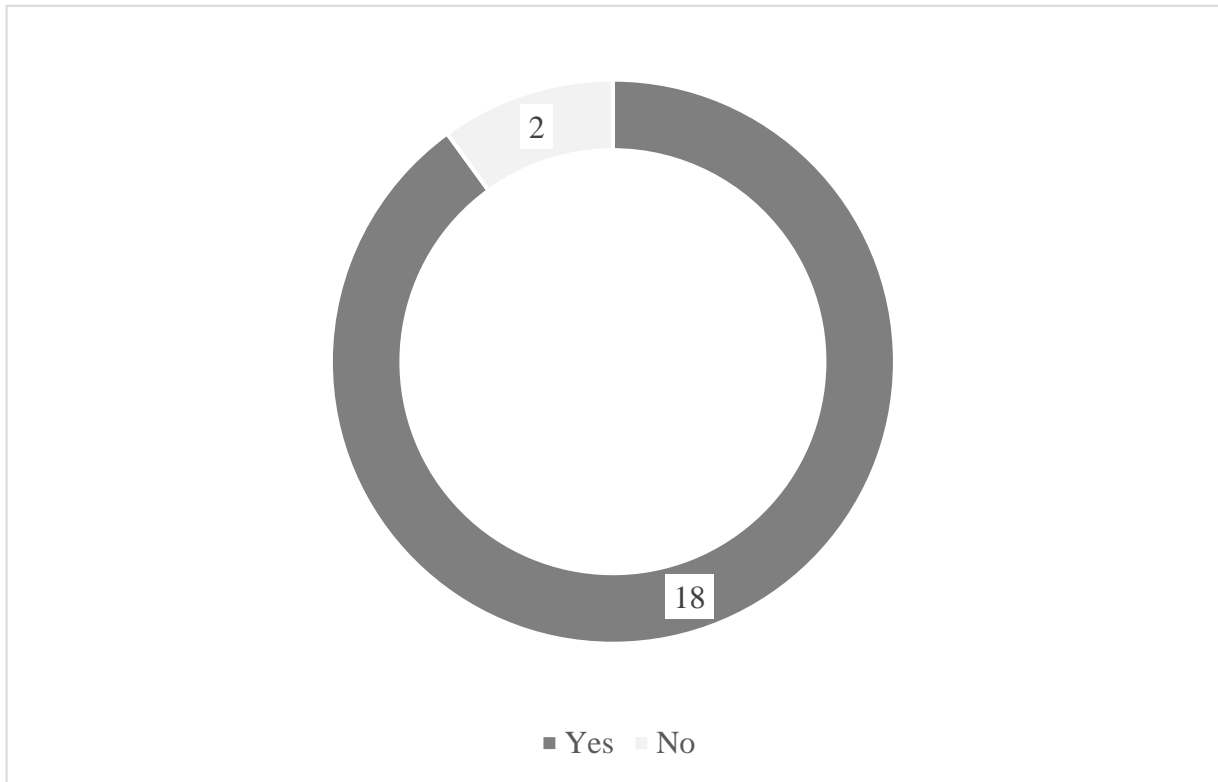
**Appendix 11: Essay 2 - Reasons Difference between regular FB advisory and FB succession advisory**

This graph illustrates the differences in communication that advisors perceive between regular FB advisory versus FB succession advisory. Yes and no indicate the synthesis of the formal advisors' answer to an open-ended question whether there are differences in the communication between regular FB advisory and FB succession advisory. In this case yes indicates that there is a difference between the two, no indicates the opposite.



**Appendix 12: Essay 2 - Need for special set of soft skills during FB succession advisory**

This graph illustrates the answers of the formal advisors to the open-ended question whether a special set of soft skills was needed during FB succession advisory situations versus their day-to-day advisory business. Yes and no indicate the synthesis of their answers, where yes indicates that there is a need for a special set of soft skills, while no indicates the contrary.



Appendix 13: Essay 2 - Interview guide

**Allgemeine Informationen zum Unternehmen**

Typ von Berater	Anwalt	WP / SB	U-Berater	Mediator	Bank-Berater
Größe des Unternehmens (Umsatz [EUR])	<1 Mio <input type="checkbox"/>	1-10 Mio <input type="checkbox"/>	10-50 Mio <input type="checkbox"/>	50-100 Mio <input type="checkbox"/>	>100 Mio <input type="checkbox"/>
Größe des Unternehmens (Mitarbeiter=FTE)	0-50 <input type="checkbox"/>	51-100 <input type="checkbox"/>	100-500 <input type="checkbox"/>	>500 <input type="checkbox"/>	
Börsennotiert	Nein <input type="checkbox"/>	Ja <input type="checkbox"/>			

**Interviewee Information**

Company ID \_\_\_\_\_

Name des Unternehmens \_\_\_\_\_

Interview Partner (Funktion) \_\_\_\_\_

Datum (DD/MM/YYYY) \_\_\_\_\_

Uhrzeit (24h format) \_\_\_\_\_

Dauer des Interviews \_\_\_\_\_

**Allgemeine Fragen zum Berater:**

- 0.1 Beschreiben Sie kurz Ihre Tätigkeit: \_\_\_\_\_
- 0.2 Wie lange beschäftigen Sie sich schon mit Familienunternehmen und wie lange speziell mit der Nachfolge? \_\_\_\_\_

**Fragen zur Initiierung der Nachfolgeplanung:**

- 1.1 Wie läuft die Kontaktaufnahme in Nachfolgeprozessen typischerweise ab?  
 Initiiert durch:  
 Berater  Übergebenden  Angehörige des Übergebenden  Andere Mitarbeiter des Unternehmens
- 1.2 Wieso meinen Sie, dass die Kunden / Mandanten sich mit Nachfolgethematiken an Sie wenden?  
 Empfehlung  Expertise  Langjährige Geschäftsbeziehungen  Aufgebautes Vertrauen (spezifizieren)  Andere:
- 1.3 Der typische Kunde / Mandant, der Sie in einer Nachfolgesituation engagiert, befindet sich mit seinem Unternehmen in welcher Generation?  
 0  1  2  3  4  5 und höher

**Fragen zur Erfahrung mit der Einbindung in den Nachfolgeprozess:**

2.1 Was sind die Themen mit denen Sie typischerweise am meisten im Zuge einer Nachfolgeregelung in Berührung kommen?  
 ja  nein

2.1.1 Wie genau sehen Ihre Aufgaben im Rahmen von Nachfolgeregelungen aus?  
 ja  nein

2.1.2 Wie sehen Sie insgesamt Ihre Rolle im Rahmen einer Nachfolgeregelung? Würden Sie sagen, dass Sie mehr ausfüllen müssen, als die eigentliche Projektbeschreibung?  
 ja  nein

2.1.3 Unterscheidet sich die Kommunikation in einer Nachfolgesituation zum alltäglichen Austausch mit Familienunternehmen?  
 ja  nein

2.1.4 Wenn 2.1.3 "ja": Wieso? Wie?  
 ja  nein

2.1.5 Wenn Sie Nachfolgeprojekte mit anderen Kundenprojekten vergleichen, denken Sie, dass Sie hier besondere Soft-Skills benötigen?  
 ja  nein

2.1.6 Wenn 2.1.5 "ja": Welche?  
 Übergebenden  Familie  Unternehmen  Berater  Außenwelt

2.2 Durch wen werden die Nachfolgedanken und die anschließenden -Prozesse typischerweise angestoßen?  
 Übergebenden  Familie  Unternehmen  Berater  Außenwelt

2.3 Wenn Sie sich an Ihre bisherigen Mandanten in diesem Themenfeld erinnern, gab es hier zumeist bereits einen vordefinierten Nachfolger?  
 ja  nein

2.3.1 Wenn 2.3 "nein", wie wurde in diesen Fällen zumeist der Nachfolger gesucht?  
 ja  nein

2.3.2 Bestand in diesen Fällen schon ein Kandidatenpool?  
 ja  nein

2.4 Wurden Sie in die Suche nach einem passenden Kandidaten mit eingebunden?  
 ja  nein

2.4.1 2.4: Wenn ja, zu welchem Zeitpunkt?  
 ja  nein

2.4.2 2.4: Wenn ja, von wem wurde die Kandidatensuche initiiert?  
 ja  nein

2.5 Hatten Sie direkten Kontakt mit dem / den Kandidaten?  
 ja  nein



2.6 Waren Sie in die finale Entscheidung für den Nachfolger eingebunden?  
 ja  nein

---

2.7 Wären die Übernehmenden typischerweise Familienmitglieder?  
 ja  nein

---

2.8 Wären die Übernehmenden typischerweise bereits vorher im Unternehmen angestellt?  
 ja  nein

---

2.9 Wären Sie in der Einarbeitung des neuen Managers beteiligt?  
 ja  nein

---

2.10 Wie lange bestehen typischerweise Ihre Geschäftsbeziehungen vor Ihrer Einbindung in den Nachfolgeprozess?  
 neu  1-5 Jahre  5-10 Jahre  10-20 Jahre  >20 Jahre

---

2.11 Haben die Beziehungen typischerweise Bestand auch nach der Nachfolge? Wenn ja, wie lange?  
 >1 Jahr   >20 Jahre

---

**Algemeine Fragen zum Mandanten:**

---

3.1 Charakterisieren Sie bitte Ihre Geschäftskunden / -mandanten.

---

3.2 Wie viele Ihrer Kunden / Mandanten würden Sie als Familienunternehmen klassifizieren? (Prozentual)  
 0-20%  21-40%  41-60%  61-80%  80-100%

---

3.3 Welche Größe haben Ihre typischen Kunden / Mandanten? (Umsatz)  
 <1 Mio.  1-10 Mio.  10-50 Mio.  50-100 Mio.  >100 Mio.

---

3.4 Welche Größe haben Ihre typischen Kunden / Mandanten? (Mitarbeiter)  
 0-50  51-100  100-500  >500

**Appendix 14: Essay 3 - Variance Inflation Factors for results in Table 4**

Appendix A.1 indicates the variance inflation factors for the regression displayed in Table 1. All variance inflation factors exhibit relatively low levels and hence do not imply correlation of variables. Firm classification dummy indicates the dummy variable for the company classification into family business, non-family business, and family business light. Asset value denotes the natural log of asset value, while Book-to-market ratio stands for the natural log of the book-to-market ratio of equity. The industry classification dummy and the time dummy indicate the industry and time classification dummies.

<b>Coefficient</b>	<b>Merton DLI</b>	<b>Altman Z-Score</b>
	<b>VIF (DoF)</b>	<b>VIF (DoF)</b>
Firm classification dummy	1.062 (2)	1.106 (2)
Book-to-market ratio	1.267 (1)	1.340 (1)
Asset value	1.260 (1)	1.501 (1)
Age	1.260 (1)	1.391 (1)
Industry classification dummy	1.371 (8)	1.545 (7)
Time dummy	1.322 (14)	1.349 (14)

**Appendix 15: Essay 3 - Variance Inflation Factors for results in Table 5**

Appendix A.1 indicates the variance inflation factors for the regression displayed in Table 1. All variance inflation factors exhibit relatively low levels and hence do not imply correlation of variables. Management dummy indicates the dummy variable for the classification of FB management into external, founder, and family management. Asset value denotes the natural log of asset value, while Book-to-market ratio stands for the natural log of the book-to-market ratio of equity. The industry classification dummy and the time dummy indicate the industry and time classification dummies.

<b>Coefficient</b>	<b>Merton DLI</b>	<b>Altman Z-Score</b>
	<b>VIF (DoF)</b>	<b>VIF (DoF)</b>
Management dummy	1.757 (2)	1.996 (2)
Book-to-market ratio	1.362 (1)	1.541 (1)
Asset value	1.773 (1)	2.378 (1)
Age	2.052 (1)	3.121 (1)
Industry classification dummy	1.873 (7)	2.162 (6)
Time dummy	1.389 (14)	1.479 (14)

**Appendix 16: Essay 3 - Variance Inflation Factors for results in Table 6**

Appendix A.3 indicates the variance inflation factors for the regression displayed in Table 3. All variance inflation factors exhibit relatively low levels and hence do not imply correlation of variables. Asset value denotes the natural log of asset value, while Book-to-market ratio stands for the natural log of the book-to-market ratio of equity. The industry classification dummy and the time dummy indicate the industry and time classification dummies.

<b>Coefficient</b>	<b>Merton DLI</b>	<b>Altman Z-Score</b>
	<b>VIF (DoF)</b>	<b>VIF (DoF)</b>
Book-to-market ratio	1.184 (1)	1.284 (1)
Asset value	1.208 (1)	1.449 (1)
Age	1.184 (1)	1.255 (1)
Industry classification dummy	1.309 (8)	1.521 (7)
Time dummy	1.313 (14)	1.311 (14)

**Appendix 17: Essay 3 - Variance Inflation Factors for results in Table 7**

Appendix A.4 indicates the variance inflation factors for the regression displayed in Table 4. All variance inflation factors exhibit relatively low levels and hence do not imply correlation of variables. Asset value denotes the natural log of asset value, while Book-to-market ratio stands for the natural log of the book-to-market ratio of equity. The industry classification dummy and the time dummy indicate the industry and time classification dummies.

<b>Coefficient</b>	<b>Merton DLI</b>	<b>Altman Z-Score</b>
	<b>VIF (DoF)</b>	<b>VIF (DoF)</b>
Book-to-market ratio	1.243 (1)	1.770 (1)
Asset value	1.208 (1)	1.828 (1)
Age	1.184 (1)	2.142 (1)
Industry classification dummy	1.309 (8)	2.226 (7)
Time dummy	1.313 (14)	1.804 (14)

### Appendix 18: Essay 3 - Full sample - Company fixed effects model for Merton DLI and Z-Score

Appendix A.5 illustrates the within fixed effects model for company fixed effects of the entire sample with DLI and Z-score as a default likelihood measures. It can be seen that book-to-market ratio of equity and asset value exhibit the same respective negative and positive effects on the DLI. Ownership and industry are automatically excluded due to singularities. The dummy for time is indicated, with the year 2007 as defaults.

Coefficient	Merton DLI	Altman Z-Score
	Estimate (%) (Std. error)	Estimate (Std. error)
Book-to-market ratio	2.087*** (0.016)	0.457*** (0.058)
Asset value	-2.578*** (0.032)	-3.876*** (0.219)
Age	-3.161*** (0.078)	0.463 (0.251)
Time 2008	3.043*** (0.061)	0.996*** (0.213)
Time 2009	5.019*** (0.062)	1.669*** (0.212)
Time 2010	4.171*** (0.064)	1.567*** (0.231)
Time 2011	6.067*** (0.065)	1.393*** (0.232)
Time 2012	5.744*** (0.066)	1.145*** (0.245)
Time 2013	6.251*** (0.067)	0.870*** (0.237)
Time 2014	6.944*** (0.069)	1.270*** (0.243)
Time 2015	7.077*** (0.072)	1.742*** (0.243)
Time 2016	5.705*** (0.072)	1.774*** (0.252)
Time 2017	4.732*** (0.073)	1.412*** (0.267)
Time 2018	5.465*** (0.075)	1.266*** (0.259)
Time 2019	5.757*** (0.075)	2.093*** (0.271)
Time 2020	7.188*** (0.078)	2.509*** (0.261)
Time 2021	6.820*** (0.087)	2.349*** (0.285)
Adjusted R square	0.034	0.017
F statistic	2102.46	30.91
Degrees of freedom	1,004,832	11,068

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001

### Appendix 19: Essay 3 - FB sub-sample - Company fixed effects model for Merton DLI and Z-Score

Appendix A.6 illustrates the within fixed effects model for company fixed effects of the FB sub-sample with DLI and Z-score as a default likelihood measures. It can be seen that book-to-market ratio of equity and asset value exhibit the same respective negative and positive effects on the DLI. Ownership and industry are automatically excluded due to singularities. The dummy for time is indicated, with the year 2007 as defaults.

Coefficient	Merton DLI	Altman Z-Score
	Estimate (%) (Std. error)	Estimate (Std. error)
Book-to-market ratio	2.632*** (0.028)	0.995*** (0.064)
Asset value	-1.065*** (0.049)	-1.734*** (0.206)
Age	-2.556*** (0.142)	-1.651*** (0.289)
Time 2008	2.082*** (0.111)	1.319*** (0.233)
Time 2009	3.776*** (0.113)	2.369*** (0.229)
Time 2010	2.618*** (0.114)	2.319*** (0.251)
Time 2011	4.304*** (0.117)	1.964*** (0.251)
Time 2012	5.343*** (0.118)	2.228*** (0.2669)
Time 2013	7.527*** (0.122)	2.292*** (0.259)
Time 2014	5.520*** (0.126)	2.094*** (0.268)
Time 2015	4.491*** (0.129)	2.093*** (0.269)
Time 2016	4.432*** (0.131)	1.967*** (0.279)
Time 2017	3.740*** (0.134)	1.404*** (0.298)
Time 2018	4.027*** (0.137)	1.720*** (0.289)
Time 2019	3.071*** (0.138)	2.889*** (0.302)
Time 2020	5.069*** (0.142)	2.979*** (0.289)
Time 2021	5.248*** (0.161)	2.571*** (0.319)
Adjusted R square	0.051	0.172
F statistic	879.371	39.714
Degrees of freedom	275,470	2721

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001

### Appendix 20: Essay 3 - NFB sub-sample - Company fixed effects model for Merton DLI and Z-Score

Appendix A.7 illustrates the within fixed effects model for company fixed effects of the NFB sub-sample with DLI and Z-score as a default likelihood measures. It can be seen that book-to-market ratio of equity and asset value exhibit the same respective negative and positive effects on the DLI. Ownership and industry are automatically excluded due to singularities. The dummy for time is indicated, with the year 2007 as defaults.

Coefficient	Merton DLI	Altman Z-Score
	Estimate (%) (Std. error)	Estimate (Std. error)
Book-to-market ratio	1.702*** (0.021)	0.331*** (0.049)
Asset value	-3.025*** (0.044)	-4.828*** (0.199)
Age	-4.091*** (0.102)	0.401 (0.209)
Time 2008	3.219*** (0.080)	1.022*** (0.184)
Time 2009	5.267*** (0.082)	1.545*** (0.183)
Time 2010	4.658*** (0.084)	1.712*** (0.199)
Time 2011	6.507*** (0.086)	1.643*** (0.202)
Time 2012	5.491*** (0.087)	1.519*** (0.213)
Time 2013	5.970*** (0.088)	1.451*** (0.205)
Time 2014	7.457*** (0.091)	1.557*** (0.209)
Time 2015	8.071*** (0.094)	1.920*** (0.208)
Time 2016	5.829*** (0.094)	1.833*** (0.217)
Time 2017	4.998*** (0.097)	1.520*** (0.229)
Time 2018	5.938*** (0.099)	1.124*** (0.221)
Time 2019	6.399*** (0.099)	2.148*** (0.231)
Time 2020	8.239*** (0.102)	2.662*** (0.223)
Time 2021	7.667*** (0.116)	2.695*** (0.246)
Adjusted R square	0.031	0.082
F statistic	1175.66	50.0977
Degrees of freedom	616,024	6,836

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001



### Appendix 21: Essay 3 - FBL sub-sample - Company fixed effects model for Merton DLI and Z-Score

Appendix A.8 illustrates the within fixed effects model for company fixed effects of the FBL sub-sample with DLI and Z-score as a default likelihood measures. It can be seen that book-to-market ratio of equity and asset value exhibit the same respective negative and positive effects on the DLI. Ownership and industry are automatically excluded due to singularities. The dummy for time is indicated, with the year 2007 as defaults.

Coefficient	Merton DLI	Altman Z-Score
	Estimate (%) (Std. error)	Estimate (Std. error)
Book-to-market ratio	2.716*** (0.047)	0.247 (0.386)
Asset value	-7.193 (0.147)	-4.961*** (1.391)
Age	6.652*** (0.282)	10.272*** (2.167)
Time 2008	3.294*** (0.171)	-0.053 (1.351)
Time 2009	5.075*** (0.171)	0.244 (1.352)
Time 2010	4.162*** (0.178)	-1.384 (1.458)
Time 2011	6.718*** (0.177)	-1.822 (1.453)
Time 2012	6.653*** (0.179)	-3.780* (1.542)
Time 2013	2.899*** (0.183)	-5.587*** (1.521)
Time 2014	5.798*** (0.189)	-3.013 (1.562)
Time 2015	5.999*** (0.198)	-1.694 (1.613)
Time 2016	5.427*** (0.201)	-1.158 (1.680)
Time 2017	2.847*** (0.209)	-1.726 (1.782)
Time 2018	3.624*** (0.214)	-1.934 (1.792)
Time 2019	5.959*** (0.219)	-2.655 (1.879)
Time 2020	4.198*** (0.226)	-2.338 (1.871)
Time 2021	3.379*** (0.236)	-2.808 (1.985)
Adjusted R square	0.087	0.019
F statistic	636.648	4.68
Degrees of freedom	113,304	1477

Note: \*p<0.01; \*\*p<0.05; \*\*\*p<0.001

### Appendix 22: Essay 3 - Merton model accuracy profile

Following Sobehart and Stein (2000) and Vassalou and Xing (2004) the accuracy of the Merton model used in the present study is determined by a cumulative accuracy profile that determines the model's ability to predict company default in the next five years. In this approach the area under the curve of the model under review is compared to that under a naïve curve (45° line) and a that under a perfect curve (dotted line) are compared. The naïve curve indicates a guess without prior information while the perfect "guess" indicates an assumption made under perfect information at perfect accuracy. Following the denomination used by Vassalou and Xing (2004, pp. 842-843) let there be  $N$  firms in the sample out of which  $M$  firms default within five years. Let  $\lambda$  be an integer between 0 and 100. For every  $\lambda$  percent of the sampled firms with the highest default likelihood it is checked how many firms actually defaulted within five years. Now let  $f(\lambda)$  be the number of firms that defaulted within a respective  $\lambda$  percent of a sample divided by  $M$ , it can be seen that  $f(\lambda)$  will take on values between  $f(0)=0$  and  $f(100)=1$ . For an out of sample, out of time sample of American companies, the present model exhibits 67.66% model accuracy, which is in line with the findings of Sobehart and Stein (2000) and Vassalou and Xing (2004) of about 67 percent and about 59 percent model accuracy for their respective Merton model adaptations.

