

THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE CONFIGURATION IN FAMILY BUSINESSES AND THE USE OF MANAGEMENT ACCOUNTING

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ABSTRACT

Extant research has shown that family businesses use less management accounting practices than non-family businesses. In our study, we extend the research in this field by analysing the effects of various corporate governance configurations in family businesses on the usage of management accounting. We find that the composition of the supervisory board (with or without family members) does not have a positive impact on management accounting usage, whereas the introduction of non-family members into the top management team partly does. Our findings suggest that the mere existence of corporate governance bodies such as the supervisory board in family businesses is positively associated with the use of management accounting. Our study also indicates that management accounting information may play a pivotal role in the communication between the top management team and the supervisory board of a family business.

Keywords: Management accounting; family business; corporate governance; top management team; supervisory board

1. INTRODUCTION

It is widely recognized that family businesses (FBs) have high economic importance and merit focused investigations due to their idiosyncratic features (IFERA 2003; Gedajlovic et al. 2012). These features were found to affect the design and usage of corporate functions in FBs, such as accounting, finance, marketing and human resources. However, research on the FB-specific usage of these functions is still limited (Sirmon and Hitt 2003; Salvato and Moores 2010; Reuber and Fischer 2011). Therefore, this paper focuses specifically on one topic within the larger field of accounting in FBs: the impact of an FB's corporate governance (CG) configuration on the usage of management accounting (MA). We aim to extend the extant literature on MA in FBs, which has mainly focused on comparisons between FBs and non-family businesses (NFBs). In contrast, we investigate the impact of CG configurations on MA usage in an all-FB sample.

In general, MA can be regarded as a collection of practices such as budgeting or product costing, which may be used systematically to achieve some goal (Chenhall 2003). For instance, MA may provide management with information to assist them in planning, evaluating and controlling its business (Malmi and Granlund 2009). Compared to extant knowledge on financial accounting in FBs, research on MA in FBs is especially scarce (Salvato and Moores 2010; Duller, Feldbauer-Durstmüller, and Mitter 2011; Hiebl 2012). How various CG configurations affect the use of MA in FBs has not, to date, been analysed. However, some related findings suggest that MA institutionalization in FBs is influenced by CG configuration. Recently, Speckbacher and Wentges (2012) showed that FBs, especially smaller FBs that also employ non-family members in their TMTs, use more formalized MA practices. In addition, Davila (2005) found that in entrepreneurial startup firms (most of which can be regarded as family-controlled), the replacement of founding CEOs with professional managers and the existence of outside investors (and thus a reduction of ownership concentration) foster the use of MA systems. Furthermore, Davila (2005) found the adoption of budgets in such startup firms to be positively correlated with the presence of venture capitalists in these firms, who can also be regarded as professional outsiders.

As a general tendency, FBs were found to use less MA instruments than NFBs (García Pérez de Lema and Duréndez 2007), and the implementation of these instruments requires consideration of FB peculiarities (Moores and Craig 2006). However, MA practices were also found to overcome FB-specific challenges such as business succession because they force older family generations to codify their informal knowledge, thereby easing the transfer of knowledge to succeeding generations or non-family managers (Amat, Carmona, and Roberts 1994, Giovannoni, Maraghini, and Riccaboni 2011). Analysing FBs' life-cycles and the uses of MA demonstrated that in later stages of the FB life-cycle, FBs use more bureaucratic control practices such as delegated authority for budgets, computerized accounting systems

and profit centres than in earlier life-cycle stages (Moores and Yuen 2001). To summarize, although research on MA in FBs may still be regarded as in its infancy, already available studies nurture the notions that the usage of MA differs in FBs and NFBs and that an FB's CG configuration might substantially influence the usage of MA.

The most obvious CG feature that distinguishes FBs from NFBs is the integration of a controlling family in the business (Gersick et al. 1997; Siebels and zu Knyphausen-Aufseß 2012). Over an FB's life-cycle, the level of family involvement in the firm may change (Moores and Mula 2000; Westhead and Howorth 2007; Stewart and Hitt 2012), but as long as a controlling family is able to carry out a significant level of influence in the firm, the firm's characteristics will be heavily intertwined with those of the family (Klein 2000; Zellweger, Eddleston, and Kellermanns 2010). Thus, as an important part of an FB's CG configuration, academia has examined both governance issues relating to the composition of top management teams (TMTs) and the size and composition of the supervisory board (SB) (Bammens, Voordeckers, and van Gils 2011; Siebels and zu Knyphausen-Aufseß 2012). In both streams of literature, the integration of family and non-family members into the TMT or the SB has been discussed. For non-family managers as part of the TMT in firms in which the controlling family practices high influence, it was found that less non-family managers are generally employed (Sonfield and Lussier 2009) and that non-family managers experience tight controls (Burkart, Panunzi, and Shleifer 2003). However, when employing non-family managers, other studies found that the FB performance benefits from rather loose monitoring and giving non-family managers enough freedom to unfold their potentially positive impact (Blumentritt, Keyt, and Astrachan 2007; Lin and Hu 2007). However, Minichilli et al. (2010) note that the positive impact of family TMT members diminishes when non-family members are also part of the TMT because schisms could potentially arise between family and non-family managers. Apart from studies focused on FBs, research has shown that characteristics of the TMT and its members influence the design of MA systems (for example Davila and Foster 2005; Naranjo-Gil and Hartmann 2007; Davila and Foster 2007; Naranjo-Gil, Maas, and Hartmann 2009). Davila and Foster (2005) show that for start-up firms, the existence of a professional finance manager (which might be translated to a non-family manager) positively affects the adoption of an MA system. This finding supports this paper's primary hypothesis that FB-specific CG configuration may affect MA usage.

As another important part of CG, the SB is seen as a corporate body that seeks to align the interests of owners and managers (Voordeckers, van Gils, and van den Heuvel 2007; Jaskiewicz and Klein 2007; Bammens, Voordeckers, and van Gils 2011). Because the SB's primary tasks are controlling and advising the TMT, communication between it and the TMT is pivotal for a firm's efficient governance (van den Heuvel, van Gils, and Voordeckers 2006; Cruz, Gomez-Mejia, and Becerra 2010). In recent years, scholars acknowledged that not only financial accounting information but also MA information plays an important role in TMT reporting to the SB about the current and future course of the firm (Seal 2006; Johanson 2008; Ratnatunga and Alam 2011). Based on case study approaches, Johanson (2008) and Ratnatunga and Alam (2011) have shown that forward-looking MA information, such as budgets, competitor overviews, cost-benefit and risk-benefit analyses, is an integral part of the communication between the TMT and the SB. Thus, it may be hypothesized that similarly to the TMT composition, the SB composition also affects the usage of MA.

To partially close the research gap and the intersection of the fields of CG, FB and MA, in this paper, we examine the following research question:

How does CG configuration in FBs affect the usage of MA?

In doing so, we respond to the call by Salvato and Moores (2010) to further analyse how family involvement in management and governance influences MA practices. We draw on agency theory and stewardship theory to hypothesize that the existence of non-family members in the SB and the TMT, as well as non-family shareholders, increases the usage of MA. We test our hypothesis using logistic regression analysis on survey results from Germany and Austria.

This study extends the existing body of literature by investigating whether the composition of SBs and TMTs, as well as ownership concentration, in FBs affects the usage of MA. Moreover, we also control for additional CG characteristics such as the sizes of the SB and TMT. Our findings suggest that for FBs that have already installed both a TMT and an SB, the composition of the SB and the presence of ownership concentration does not significantly influence MA usage. We ascribe these findings to the notion that in FBs with an SB (in comparison to FBs without such a corporate body), the basic philosophy of control may have changed from trust-based to a more formalized version. Thus, not the composition, but the

mere presence of a more formal CG structure including an SB might already be a main driver for using more formal controls, including MA information. This could be interpreted as an indication that more formalized CG structures rather limit the applicability of a trust-based stewardship-like culture and move FBs more to an agency-like culture, in which trust is replaced by formal controls. Among these formal controls, MA information should be an important component.

The remainder of this paper is organized as follows: in the following section, we briefly review the relevance of the economic theories we use for our study, present our conceptual framework and derive our research hypotheses; we then discuss sampling procedures and variable construction and present results in the subsequent section; we conclude with a discussion of results as well as avenues for further research.

2. THEORY AND HYPOTHESES

Reference theories and conceptual framework

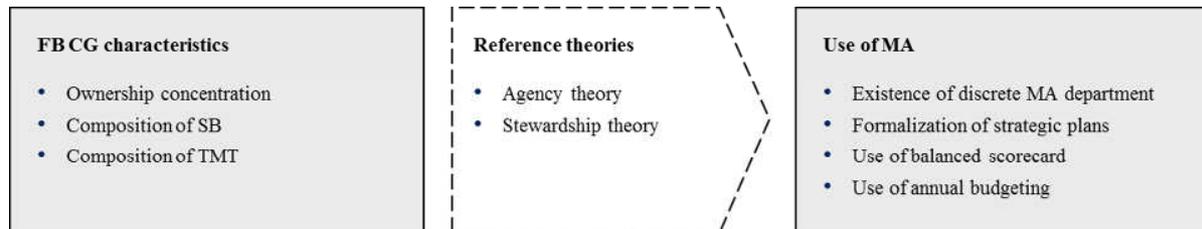
The most commonly used theory to explore CG issues is agency theory because CG problems usually originate from the separation of the ownership and management of firms (Fama and Jensen 1983). Also for the field of FB research, agency theory provides a useful lens to study CG issues including the compositions of the TMT and the SB as well as ownership concentration. From the viewpoint of agency theory (Jensen and Meckling 1976), the integration of family members in an FB should lower agency costs because family members can manage the FB themselves and therefore mitigate potential conflicts between owners and managers (Chrisman, Chua, and Litz 2004). However, research on FBs has revealed that FBs may also experience specific agency conflicts; family owners may favour less skilled family members over professional, non-family managers as members of the TMT or the SB, thereby harming the business' future potential due to suboptimal management (Schulze et al. 2001). In general, uncontrolled owner-management in FBs and connected problems of corporate control can lead to situations in which owners exploit the FB for personal interests (Schulze, Lubatkin, and Dino 2000; Gedajlovic, Lubatkin, and Schulze 2004). For instance, in a situation where a controlling family only holds the majority of shares (as opposed to all of them), governance problems from the viewpoint of minority shareholders may arise. The controlling family could use its decision power to expropriate minority shareholders, which previous studies have referred to as type II agency conflicts (Villalonga and Amit 2006; Sacristán-Navarro, Gómez-Ansón, and Cabeza-García 2011; Setia-Atmaja, Haman, and Tanewski 2011). Therefore, we study ownership concentration as one aspect of an FB's CG configuration in this paper.

The widely inhomogeneous group of FBs not only relies on owner-management but also utilizes mixed management teams, which consist of family and non-family managers or management teams entirely composed of non-family members (Klein and Bell 2007). In particular, larger FBs generally employ more non-family managers than smaller FBs (Klein 2000). Thus, FBs can also face a separation between ownership and control, which is regarded as a type I agency conflict (Villalonga and Amit 2006). Controlling families were found to face these type I agency conflicts usually when introducing or strengthening mechanisms of management control when employing non-family managers (Burkart, Panunzi, and Shleifer 2003; Chua, Chrisman, and Sharma 2003; Lin and Hu 2007). Therefore, for our study, we conclude that it is important to distinguish between pure owner-management, non-family management and mixed forms of management in FBs. A similar argument also applies to the composition of the SB, which may act differently depending on its composition of family and non-family members. Therefore, we also study the composition of the SB in this paper.

However, agency theory is not the only theory heavily utilized in FB research to assess the owner-manager relationship (Siebels and zu Knyphausen-Aufseß 2012). Stewardship theory offers another approach for analysing this relationship. It perceives managers not as self-serving, personal income-optimizing egoists, but as stewards to the firm, who are intrinsically motivated and adjust their behaviour for the well-being of the firm (Davis, Schoorman, and Donaldson 1997). FB scholars have applied the steward model of man to analyse family member behaviour in the context of FBs, mainly by assuming that the goals of the family manager and the FB are one and the same (Corbetta and Salvato 2004). Thus, in FBs, the result should be a culture of mutual trust, a lower need for goal alignment and less introduction of monitoring mechanisms or incentive pay schemes. Furthermore, research has shown that stewardship theory not only applies to family members as part of an FB's TMT but also to non-family members; Vallejo (2009) demonstrated that the level of commitment of non-family managers positively influences FB performance and survival ability, and he concludes that non-family members can also act

as stewards to the FB. Moreover, whereas agency theory may be useful for analysing the monitoring part of the SB agenda, stewardship theory seems to be more appropriate in examining the advisory role played by the SB because mutual trust is considered essential for the effective giving and taking of advice (Cruz, Gomez-Mejia, and Becerra 2010; Bammens, Voordeckers, and van Gils 2011). Given that research results show applicability of both agency and stewardship to an FB's governance, we draw on both theories for this study.

FIGURE 1: CONCEPTUAL FRAMEWORK



This paper's main rationale for studying the impact of FB CG characteristics on MA usage is the interrelation between governance characteristics and the basic philosophy of control in FBs. According to agency and stewardship theory, we theorize that with a higher share of family influence and involvement in ownership, the SB and the TMT, the level of trust is increased in the FB. This argument is based on the notion that when owners and managers share a common set of values and goals, there is less need for formalized control mechanisms such as MA systems (Eisenhardt 1985; Chrisman, Chua, and Litz 2004). As extant research has shown, such value agreement may be characteristic of FBs, as family members usually are socialized in the same or a substantially similar way (Klein 2009). Moreover, family members typically also share a common set of goals, which may include the FB's longevity or family-internal succession (Jaskiewicz and Klein 2007; Pieper, Klein, and Jaskiewicz 2008; Fattoum and Fayolle 2009). We therefore expect that with a higher share of family involvement in ownership, the SB and the TMT lead to increased value and goal alignment and subsequently to a culture in which trust serves as the most important control mechanism. In turn, such corporate culture is expected to limit the need for intense MA usage. Put differently, a higher share of non-family members in an FB's key governance bodies should change the culture from trust-oriented to more formalization-oriented and therefore also increase the need for MA practices.

In summary, this paper's conceptual framework is displayed in Figure 1. As seen, in this paper we study the effect of the FB CG characteristics "ownership concentration", "composition of the SB" and "composition of the TMT" on the usage of MA and do so by utilizing agency and stewardship theory. The use of MA serves as the dependent variable in this paper. However, complex constructs, such as MA systems, and their use likely cannot be feasibly explained with one variable. As such, in this paper we rely on four aspects of MA systems as a proxy for the usage of MA: the existence of discrete MA departments, the formalization of strategic plans, the use of the balanced scorecard (BSC) and the use of annual budgeting. The first two of these four aspects were selected because they represent both the institutional realm of management accounting and the realm of action (Burns and Scapens 2000). Moreover, we selected the MA instruments balanced scorecard and annual budgeting to include one typical strategic MA instrument (balanced scorecard) and one typical operational MA instrument (annual budgeting) (Chenhall and Langfield-Smith 1998; Chenhall 2003; Abdel-Kader and Luther 2008).

Impact of ownership dispersion on the use of MA

As indicated above, when a controlling family does not hold all shares of an FB, type II agency conflicts may arise between the controlling family and the minority shareholder(s). Family members may use their operational decision-making power and above-par knowledge of the FB to influence the FB's course in favour of their own or the controlling family's personal wealth, thereby expropriating minority shareholders (Villalonga and Amit 2006; Setia-Atmaja, Haman, and Tanewski 2011; Bjuggren, Duggal, and Giang 2012). However, by acknowledging these potential shortcomings, minority shareholders may try to mitigate type II agency problems (Sacristán-Navarro, Gómez-Ansón, and Cabeza-García 2011). Assuming that minority shareholders are not actively involved in the FB's operational management, they rely on written reporting and SB meetings to remain informed about the FB's situation. Therefore, to monitor the activities of the FB, they require more formalized information than family members who may be actively involved in the FB's management. Normally, such information includes (forward-looking) MA information (Johanson 2008; Ratnatunga and Alam 2011). Furthermore, the TMT may also be expected

to drive formalization in a minority shareholder setting because it has to communicate with at least two groups of shareholders and therefore cannot rely solely on its oral commitments with one, the controlling family. The TMT may also favour more formalized information to justify actions confronting different shareholders (Gedajlovic, Lubatkin, and Schulze 2004). Thus, when non-family shareholders exist in an FB, from the standpoint of agency theory, the FB is expected to show a higher use of MA.

From the perspective of stewardship theory, this notion is also supported; the same stewardship culture cannot be expected when a controlling family does not own its FB's entire equity as when a single family wholly controls its FB. Different shareholders may have different goals and interests, and as such, family members employed in the FB may also have to serve the minority shareholders' goals. This could interfere with their intentions and create a lower value commitment in the FB, resulting in more self-serving, agency-like behaviours. In addition, the FB's non-family employees may not be able to identify with the direction of the FB because there could be more than one set of goals proposed by the owners (Davis, Allen, and Hayes 2010; Pearson and Marler 2010). These developments may result in a situation where reciprocal trust in the FB is lower than in FBs that are entirely family-owned. Because there is a lack of trust, more formalized controls are usually used to ensure proper collaboration and as a basis for decision making. Part of these formalized controls could be the increased use of MA (Songini 2006; Pearson and Marler 2010). Therefore, a lower level of stewardship culture due to the existence of different shareholders could also result in the increased use of MA. This argument is also supported by the findings of Henri 2006, who suggested that organizational culture is heavily intertwined with the use of MA systems.

An example of the existence of minority shareholders in FBs is the integration of venture capital in the family firm to finance growth or internationalization projects (George, Wiklund, and Zahra 2005). For startup firms, Davila (2005) has already shown that the presence of venture capital investors is positively correlated with the use of management controls. However, such venture capital firms may not have a similar long-term orientation as the controlling family (Gompers 1994; Black and Gilson 1998) and might therefore want to secure being able to effectively monitor the FB's progress towards set goals also in the short-term. Thus, using the above-mentioned reasoning based on agency and stewardship theories, we conclude that in FBs (regardless of whether they are start-ups or aged), a similar relationship should exist between the existence of minority shareholders and MA usage. In this regard, an increased and more formalized use of MA practices and institutions could serve as a valuable resource, mainly to the minority shareholders, for providing more information as to the current and future courses of the FB. Hence, the use of MA could mitigate potential conflicts between majority and minority shareholders because the transparency created from MA information could prevent tension and negative impacts on firm performance. We therefore hypothesize the following:

H1: FBs that are not entirely family-owned show a higher usage of MA than FBs that are entirely family-owned.

Impact of TMT composition on the use of MA

In this paper, we distinguish between family members and non-family members and thus derive three TMT configurations based on composition: pure family TMTs, pure non-family TMTs and mixed TMTs composed of both family and non-family members. Drawing on agency theory, when FBs first employ non-family managers, family members in the FB's SB cannot be certain that the new TMT members will automatically perform in line with the family's or the FB's goals (Stewart and Hitt 2012). Research has also revealed that controlling families tend to only hire non-family members when they are forced to do so (for example due to situations of financial distress) (Lutz and Schraml 2012). Subsequent to the appointment of a non-family manager in an FB's TMT, the controlling family may also face the problem that it loses its former information monopoly on the non-family manager's area of responsibility. In other words, information asymmetries between the family and the non-family manager may arise (Baiman 1990; Johanson 2008). These developments usually lead the controlling family to introduce mechanisms in-line with agency theory, such as monitoring tools or incentive pay schemes, which should make the non-family manager's actions more transparent and align his or her goals with those of the family (Eisenhardt 1989; Burkart, Panunzi, and Shleifer 2003; Chua, Chrisman, and Bergiel 2009).

Both mechanisms usually draw on MA information; to monitor the non-family manager's actions and his or her adherence to set strategies, MA tools such as performance measurement or performance management systems may be used (Henri 2006; Kraus and Lind 2010; Ratnatunga and Alam 2011). Incentive pay schemes also rely on information, often non-financial, provided by MA systems (Ittner, Larcker, and Rajan 1997; Banker, Potter, and Srinivasan 2000; Nagar 2002; Ibrahim and Lloyd 2011).

However, non-family managers may not only experience monitoring from family members in the SB but also from family managers in the TMT. In mixed TMTs, which are comprised of family and non-family managers, tension between the two groups may accrue (Minichilli, Corbetta, and MacMillan 2010). Therefore, non-family managers may rely more on MA information than family members to justify their proposals or decisions in TMT discussions. Hence, from an agency perspective, the increased usage of MA can be expected when non-family members are part of an FB's TMT.

For pure family TMTs, such a need for MA information cannot be drawn. In these situations, stewardship theory should be more applicable because family members can intrinsically be expected to act in line with the FB's goals and therefore require less reciprocal excusatory mechanisms (Corbetta and Salvato 2004; Davis, Allen, and Hayes 2010). Thus, a lower need for monitoring and goal alignment is also a result of reciprocal trust. Therefore, in FBs with pure family TMTs, there should be less need for MA information.

Family members usually remain in their management positions in the FB for long periods of time. As such, they gain deep firm- and market-specific knowledge that often only implicitly exists (Chirico 2008; Giovannoni, Maraghini, and Riccaboni 2011). Non-family managers, especially outsiders who recently joined an FB, typically do not possess such extensive experience in the FB or the same level of knowledge about the firm. Nevertheless, in FBs, non-family managers also stay in the FB for long periods of time and, on average, show longer management tenures than in comparable NFBs. However, even if non-family managers stay in FBs for longer periods of time, they are not likely to reach the same tenure length as family managers (Stewart and Hitt 2012). Thus, formalized information may be a more important resource for non-family managers than for family managers. Such information most likely also includes MA information (Giovannoni, Maraghini, and Riccaboni 2011). Related previous research on financial management in FBs supports this idea, showing that FBs that employ non-family TMT members increasingly use sophisticated financial management techniques (Filbeck and Lee 2000; Di Giuli, Caselli, and Gatti 2011; Lutz and Schraml 2012). Moreover, non-family managers may have been socialized in the non-family world and may therefore be accustomed to making decisions based on facts, including those from MA information (Dyer 1989). Therefore, we hypothesize the following:

H2: If an FB's TMT is not composed entirely of family members, there is a higher usage of MA.

Impact of SB composition on the use of MA

An argument similar to that for non-family TMT members may also be valid for non-family SB members; due to their likely shorter integration into the FB and less firm-specific knowledge, non-family SB members should rely more on formalized information and, consequently, MA systems. From an agency perspective however, the SB itself serves as a control mechanism that attempts to align the interests of both shareholders and managers (Voordeckers, van Gils, and van den Heuvel 2007; Johanson 2008; Bammens, Voordeckers, and van Gils 2011). Because the SB members are not normally actively involved in the firm's operations, to monitor the TMT, they have to rely on information reported to them, which typically also includes MA information (Seal 2006; Ratnatunga and Alam 2011).

However, non-family SB members in FBs may have to not only monitor the TMT but also attempt to ensure that the controlling family does not harm the firm through altruistic or FB-specific agency behaviours (Schulze et al. 2001; Gedajlovic, Lubatkin, and Schulze 2004). Therefore, non-family SB members in FBs may also have to "protect" the FB from the controlling family. Within this dynamic, non-family SB members likely rely on fact-based MA information to challenge and scrutinize the potentially FB-harming behaviour of family members (Jaggi, Leung, and Gul 2009; Setia-Atmaja, Tanewski, and Skully 2009; Setia-Atmaja, Haman, and Tanewski 2011). In this manner, non-family SB members may possess purely a steward role because they are more concerned about the long-term development of the FB than about the controlling family's personal wealth. In trying to avoid FB-specific agency costs, non-family SB members may even foster a stewardship-like culture, at least in the SB.

A similar type of independent challenge may not be possible for family members in the SB because they may be constrained by family ties (Bammens, Voordeckers, and van Gils 2011). For instance, due to the overlap of family and business relationships with family TMT members (Gersick et al. 1997), family SB members may not judge or criticize the family TMT's actions as objectively as non-family SB members. Moreover, they may refrain from proving their family members' actions wrong by using MA information. Thus, family-specific agency behaviour could decrease the need for MA systems in FBs, which are governed by SBs composed purely of family members (Schulze et al. 2001).

To summarize, it seems likely that non-family members in an FB's SB possess a more steward-like role and family SB members possess an FB-specific agency-like role. Eventually, the existence of non-family members in the SB should foster the usage of MA in FBs because information derived from MA should aid non-family SB members in preventing the FB from being harmed by family-centered agency behaviour. Hence, we hypothesize the following:

H3: If an FB's SB is not composed solely of family members, there is a higher usage of MA.

3. METHODS

Sample

To test our hypotheses, we carried out an online survey of medium- and large-sized German and Austrian firms with at least 50 employees (European Commission 2003). We focused on firms with at least 50 employees because in smaller firms, the existence of various CG and MA institutions, such as an SB or a discrete MA department, is less common (Klein 2000; Davila and Foster 2007; Sandino 2007; Lohr 2012) and results would therefore provide less insight into the interrelation between CG configuration and the use of MA. Prior to launching the survey, we pilot-tested the questionnaire for intelligibility with 10 executives. Small and medium-sized firms normally use less sophisticated finance and MA practices than large firms (Cassia, Paleari, and Redondi 2005; Becker, Ulrich, and Staffel 2011; Di Giuli, Caselli, and Gatti 2011; Lohr 2012). Therefore, we also included two executives from smaller firms in our pilot test to ensure that all terms and technical expressions used in the questionnaire were understood correctly by participants from medium-sized businesses. We eventually contacted 7,550 firms in the German federal states of North Rhine-Westphalia and Lower Saxony in 2009 and 2010. In Austria, we contacted all 5,406 medium-sized and large firms. We invited the CEOs of the firms to participate in our online survey via e-mail. After a first wave of responses, we sent out follow-up e-mails to non-respondents.

In total, we received 1,422 responses, which amount to a gross response rate of 11%. Of that, 986 survey responses could be evaluated. Eighty-nine survey responses had to be eliminated because of missing information regarding the number of employees or because the actual number of employees quoted was lower than 50. In addition, we could not examine 85 firms' statuses as an FB or NFB, so those responses were also excluded from the analysis. The remaining 812 survey responses were then categorized into FBs and NFBs, with and without SBs. Because this paper seeks to analyse the specific impact of different CG configurations (including the composition of the SB) on the use of MA in FBs, we excluded all NFBs as well as FBs without an SB from further analysis.

To do this, it is necessary to define what is meant by the term "FB" in this paper. An internationally acknowledged definition for "FB" has not yet been formulated (Litz, 1995; Chua, Chrisman, and Sharma 1999; Rutherford, Kuratko, and Holt 2008). For the purpose of this paper, we use the power subscale of the F-PEC scale to distinguish between FBs and NFBs. The F-PEC has been proposed as a holistic view of family influence on a firm and features three subscales: power, experience and culture (Astrachan, Klein, and Smyrnios 2002; Klein, Astrachan, and Smyrnios 2005). Among these three, the power subscale was found to show an especially significant relationship with the firm's organizational structure (Lindow, Stubner, and Wulf 2010). As the MA system is a component of a firm's organizational structure, we also employ the power subscale when defining an FB. Moreover, the power subscale of the F-PEC scale (also known as "substantial family influence") has been previously used in several other empirical studies (for example Klein 2000; Jaskiewicz et al. 2005; Duller, Feldbauer-Durstmüller, and Mitter 2011; Lutz and Schraml 2012), which underpins its practicability in empirical research. The power subscale itself features three dimensions in measuring family involvement in the firm: ownership, governance and management (Astrachan, Klein, and Smyrnios 2002). To assess the family influence in a firm, the share of family ownership (from "0" for no family ownership to "1" for complete family ownership), family members in the SB (again, from "0" for no family members in the SB to "1" for only family members in the SB) and family members in the TMT (again, from 0 to 1) are summed together. This results in the power subscale values ranging from "0" (no family influence) to "3" (total family influence because all equity is owned by the family and all SB and TMT positions are staffed with family members). We follow Klein's (2000) recommendation that a firm may be classified as an FB when it shows an F-PEC power subscale value of at least "1" and at least some family ownership. When determining the family share in ownership, governance and management, the question may arise "What counts as family?" In our study, we left the definition of "family" to survey participants. Thus, we let them chose freely how to determine the family share in ownership, the SB and the TMT. This is in line with the notion in FB literature that to qualify as an

FB, the firm must behave FB-like, which includes the family's self-conception that one or more families control the dominant coalition in the firm (Chua, Chrisman, and Sharma 1999).

Using this methodology, from the aforementioned 812 survey responses, we could identify 445 firms as FBs and 367 firms as NFBs. From the 445 FBs, we had to exclude 340 responses due to not having both a TMT and an SB. Thus, the remaining 105 survey responses build the basis of this study (58 from Germany and 47 from Austria). We controlled for non-response bias by comparing early respondents (first third) with late respondents (last third) (Leslie 1972). We could not find any indication for such a bias as we could not detect significant differences in the response behaviours between these two groups (Fowler 2009).

Dependent variables

As indicated in section 2.1, as a proxy for the usage of MA, we use the existence of discrete MA departments (DISMAD), the formalization of strategic plans (FORSTRA), the use of the balanced scorecard (USEBSC) and the use of annual budgeting (USEBUD). The binary variable "existence of discrete MA departments" (DISMAD) equals "1" if the respondents stated that there exists a separate organizational unit for MA in their firm. DISMAD equals "0" if MA tasks are performed by other organizational units in the firm (such as the financial accounting department or members of the TMT themselves) or if MA is not institutionalized at all. The variable "formalization of strategic plans" (FORSTRA) is also binary and was generated via the question: "To what extent are strategic plans being formalized in a written form in your firm?" The variable equals "1" if the respondent answers that all strategic plans or the majority of strategic plans would be formalized in a written form; it equals "0" for those respondents who stated that the minority of strategic plans or no strategic plans would be formalized in a written form. The variables USEBSC and USEBUD are binary and both equal "1" if the responding firm uses the respective MA instrument or "0" if the responding firm does not use the instrument.

Independent variables

To reflect the CG configuration in an FB, we examine three independent variables: ownership concentration (OWNCONC), the composition of the TMT (COMPTMT) and the composition of the SB (COMPSB). The binary variable OWNCONC equals "1" if the controlling family holds all shares of equity in the firm or "0" if the controlling family does not hold all shares. The "0"-state of OWNCONC therefore reflects the existence of non-family shareholders. The relationship between ownership concentration and the four dependent variables, which represent the use of MA, is intended to examine the applicability of hypothesis *H1*.

Regarding the composition of the TMT (COMPTMT), there are three possible configurations: the TMT is entirely staffed with family members, the TMT is entirely staffed with non-family members, or the TMT is staffed with both family and non-family members. In preparation for the logistic regression analysis, we created two dummy variables (TMTs composed solely of family members serve as the reference class):

- COMPTMT_NONFAM: "1" if the TMT is composed only of non-family members.
- COMPTMT_MIXED: "1" if the TMT is composed of both family and non-family members.

The same procedure was performed for the composition of the SB (COMPSB), also resulting in two dummy variables (where SBs staffed only with family members serve as the reference class):

- COMPSB_NONFAM: "1" if the SB is composed only of non-family members.
- COMPSB_MIXED: "1" if the SB is composed of both family and non-family members.

The impact of the composition of the TMT and the SB on the use of MA will be used to judge hypotheses *H2* and *H3*.

Aside from the governance bodies that are termed "SBs", FBs often establish advisory boards that do not have the same legal standing as SBs, but perform similar tasks (Blumentritt 2006; Fahed-Sreih and Djoundourian 2006; van den Heuvel, van Gils, and Voordeckers 2006). Thus, in German-speaking countries, both supervisory and advisory boards play a role comparable to the role of non-executive directors in Anglo-American countries (Jaskiewicz and Klein 2007). Because we do not want to exclude medium-sized firms that have installed an advisory instead of a supervisory board from our study, we have chosen, for the course of this paper, the term "SB" to mean both supervisory and advisory boards.

Control variables

In the logistic regression analyses, we control for both traditional control variables, such as firm size, age

and industry sector, and CG characteristics, which are not FB-specific.

Firm size: Several research results from the fields of FB research and MA research indicate that firm size has an influence on both firm type (FB vs. NFB) and on the use and design of MA systems. There is a tendency for the share of FBs in the total population of firms to decrease as firms increase in size (for example Astrachan and Shanker 2003; IFFERA 2003). For instance, Klein (2000) shows that among firms with annual sales of between 1 and 5 million Euros, the share of FBs is greater than two thirds, whereas among firms with annual sales of greater than 250 million Euros, the share of FBs decreases to roughly one third. With respect to MA systems, evidence from existing research shows that a correlation exists between the size of a firm and the use of MA systems (Chenhall 2003; Gordon, Loeb, and Tseng 2009). In this study, we measure firm size as the total number of the employees. For the question regarding the number of employees, we offered the respondents a limited list of answers in accordance with the European Commission's definition of small and medium enterprises (European Commission 2003). For the purpose of this study, we can therefore distinguish between two groups of firm size: the control variable SIZE equals "1" if the firm has 250 or more employees and is regarded as "large"; it equals "0" if the firm has between 50 and 249 employees and is regarded as "medium-sized" according to the European Commission (2003).

Firm age: Both FB and MA research revealed that there is a significant relationship between a firm's age and its FB status and/or the use of MA (Cromie, Stephenson, and Monteith 1995; Moores and Yuen 2001; Chua, Chrisman, and Chang 2004). Combining these research streams, Moores and Mula 2000 found that in later life-cycle stages, FBs tend to use more bureaucratic mechanisms such as MA practices. We control for firm age using the metric variable AGE. This variable was constructed by asking survey participants for the year of the firm foundation and subsequently subtracting the founding year from the year the survey was conducted (2009 for Austria, 2010 for Germany).

Industry sector: Our sample includes firms from various industry sectors. We include a variable on industry sector in our analyses as there is evidence that the use of MA practices varies amongst different industry sectors (Powell 1992; Williams and Seaman 2001; Speckbacher and Wentges 2012). The variable INDUSTRY features three categories: industrial firms, retail firms and other firms. In preparation for the logistic regression analysis, we created two dummy variables ("other industry sector" serving as the reference class):

- COMPTMT_INDUSTRIAL: "1" if the survey participants declared that their firm is an industrial company.
- COMPTMT_RETAIL: "1" if the survey participants declared that their firm is a retail company.

Size of SB and TMT: Several existing studies on CG issues have also examined the impact of board size on organizational aspects (for example Eisenberg, Sundgren, and Wells 1998; Xie, Davidson, and DaDalt 2003; Jaskiewicz and Klein 2007; Jaggi, Leung, and Gul 2009). Therefore, in this paper we control for both the size of the SB (SIZSB) and the size of the TMT (SIZTMT). Both variables are of the metric scale and reflect the actual number of SB and TMT members in the responding firms.

Firm's country of origin: Because we used two different countries, distortions due to cultural differences in the two surveyed countries may have arisen. Specifically, country effects may have influenced the usage of MA (Endenich, Brandau, and Hoffjan 2011). Thus, we constructed the dummy variable COUNTRY, which equals "0" for German survey responses and "1" for Austrian survey responses.

An overview on all variables, their categories and variable abbreviations can be obtained from Table 1.

TABLE 1: VARIABLE DEFINITIONS AND DESCRIPTIVE RESULTS

Nominal dichotomous variables			Frequency (valid)		Valid Cases
Abbreviation	Description	Categories	absolute	relative	
SIZE	Firm size measured via number of employees	0 = medium-sized (50-249 employees)	45	0,43	105
		1 = large (≥ 250 employees)	60	0,57	
COUNTRY	Firm's country of origin	0 = Germany	58	0,55	105
		1 = Austria	47	0,45	
OWNCONC	Ownership concentration	0 = also non-family shareholder(s) exist	19	0,18	105
		1 = all shares owned by family	86	0,82	
DISMAD	Existence of discrete MA department	0 = no discrete MA department exists	37	0,35	105
		1 = discrete MA department exists	68	0,65	
FORSTRA	Formalization of strategic plans	0 = strategic plans not formalized or only to a little extent	6	0,07	89
		1 = strategic plans fully formalized or majority of them formalized	83	0,93	
USEBSC	Usage of Balanced Scorecard (BSC)	0 = firm does not use BSC	71	0,71	100
		1 = firm does use of BSC	29	0,29	
USEBUD	Usage of annual budgeting	0 = firm does use annual budgeting	4	0,05	87
		1 = firm does not use annual budgeting	83	0,95	

Nominal variables			Frequency (valid)		Valid Cases
Abbreviation	Description	Categories	absolute	relative	
INDUSTRY	Firm's industry sector	0 = other (non-industrial, non-retail)	26	0,25	105
		1 = industrial	62	0,59	
		2 = retail	17	0,16	
COMPSB	Composition of supervisory board (SB)	NONFAM = only non-family members	29	0,28	105
		MIXED = both family and non-family members	68	0,65	
		FAM = only family members	8	0,08	
COMPTMT	Composition of top management team (TMT)	NONFAM = only non-family members	36	0,34	105
		MIXED = both family and non-family members	48	0,46	
		FAM = only family members	21	0,20	

Metric variables							Valid Cases
Abbreviation	Description	Min	Max	Mean	Std. error		
SIZSB	Number of supervisory board (SB) members	1	16	4,84	0,26	105	
SIZTMT	Number of top management team (TMT) members	1	7	2,52	0,13	105	
AGE	Firm's age (in years)	2	739	80,09	9,22	105	

Design of analysis

For each of the four aspects of MA usage examined in this paper, we performed two logistic regression analyses. The first one includes all control variables: firm size, country of origin, industry sector, size of the SB, size of the TMT and firm age. With this type of model in place, we analysed the impact of control variables on the dependent variables. In doing so, we examined whether the control variables already showed a significant impact on the depending variables. Furthermore, these models enabled us to later assess whether the integration of the independent variables increases the model fit.

The second model also includes all independent variables and displays the first step of a forward logistic regression analysis. It thus also shows non-significant independent and control variables. These regression models enable us to analyse whether the independent variables have a significant impact on the four dependent variables. Therefore, these regression models are used to judge the applicability of our three hypotheses.

4. RESULTS

Descriptive results and correlations

Descriptive statistics of all variables used in the following regression analyses are provided in Table 1. Concerning this paper's independent variable, Table 1 reveals a number of insights. The mean size of the FBs' SBs was found to be approximately 5 members, which is in line with former research on SB sizes in German-speaking countries (for example Jaskiewicz and Klein 2007). With respect to the composition of the SBs (COMPSB), it seems interesting that only 8% of the FBs' SBs are equipped entirely with family members. In contrast, 20% of the TMTs are staffed only with family members (COMPTMT). As many as 82% of the sample FBs are owned entirely by family shareholders (OWNCONC). Thus, only 18% of the FBs also show non-family shareholders. These numbers are completely in line with Klein's (2000) findings, who reported that in 79% of all German FBs, the entire stock capital is owned by the family.

With respect to the four aspects of MA investigated in this paper, in our sample, there is a high dissemination in the use of formalized strategic planning (93% of all FBs) and annual budgeting (95% of all FBs). Sixty-five percent of the sampled FBs have established a discrete MA department, whereas only 29% of FBs use a balanced scorecard. This dissemination of the balanced scorecard confirms former findings on the usage of the balanced scorecard in German-speaking countries (Speckbacher, Bischof, and Pfeiffer 2003).

For calculating correlations different correlation measures had to be used, due to different scales. Several significant correlations exist; however, none of them lie within the critical range of 0.6-1.0, indicating multicollinearity and precluding the combined utilization of these variables in the regression analyses (Grewal, Cote, and Baumgartner 2004; Tabachnick and Fidell 2007). Thus, we regard the results of the following regression analyses to not be limited by multicollinearity.

Regression models contain both control variables and independent variables and are presented in Table 2. It is evident that in only two models do some control variables appear as significant predictors of MA usage. Model 1 reveals that Austrian, larger, industrial and retail FBs, as well as FBs with larger SBs, are significantly more likely to have established a discrete MA department than German, medium-sized, non-industrial and non-retail FBs and FBs with smaller SBs. The influence of firm size also holds for the use of the balanced scorecard: from our analysis, we find that larger FBs more often implemented a balanced scorecard than medium-sized FBs. Thus, the regression models at least partly confirm the finding that larger FBs use MA to a significantly higher extent than smaller FBs (Schachner, Speckbacher, and Wentges 2006; Speckbacher and Wentges 2012; Hiebl, Feldbauer-Durstmüller, and Duller 2013). Model fit statistics increase compared to the baseline models (which include control variables only) for each model, which supports the hypothesized need for including an FB's CG configuration when analysing MA usage. Again, control variables COUNTRY, SIZE, INDUSTRY and SIZSB show a significant impact on the existence of discrete MA departments, and SIZE also emerges as an explanation for the usage of the balanced scorecard in FBs. However, only in the model to explain the formalization of strategic plans (Model 2) was one of the variables considered as independent included for being a significant predictor (that being the composition of the TMT (COMTMT)). In line with hypothesis *H2*, Model 2 shows that TMTs in FBs, which are either staffed with both family and non-family managers or are entirely staffed with non-family members, are significantly associated with the formalization of strategic plans. In other words, Model 2 shows that in FBs with all-family TMTs, strategic plans are less formalized. Thus, there is partial support for *H2*.

Concerning the other two dependent variables considered in this paper (COMPSB, OWNCONC), our results are mixed but insignificant. For the composition of the SB, we found both (insignificant) positive and negative relationships with the four aspects of MA usage. Thus, *H3* clearly finds no support from our data. In contrast, the existence of ownership concentration (OWNCONC) points to a lower usage of MA because OWNCONC has negative relations with all four aspects of MA usage. However, these relations are also not significant. Thus, the impact of SB composition (COMPSB) as proposed by *H3* and the impact of ownership concentration (OWNCONC) as formulated in *H1* on the usage of MA in FBs cannot be confirmed by our analysis.

TABLE 2: LOGISTIC REGRESSION MODELS (ALL VARIABLES)

<i>Dependents</i>	<i>Model 1</i>			<i>Model 2</i>			<i>Model 3</i>			<i>Model 4</i>		
	DISMAD			FORSTRA			USEBSC			USEBUD		
<i>Independents</i>	β coeff.	exp(β)	p value	β coeff.	exp(β)	p value	β coeff.	exp(β)	p value	β coeff.	exp(β)	p value
COUNTRY	2,023	7,558	0,005 ***	1,393	4,027	0,255	0,451	1,570	0,351	1,391	4,020	0,369
SIZE	3,170	23,801	0,000 ***	2,156	8,640	0,201	0,967	2,630	0,082 *	0,722	2,059	0,704
AGE	-0,007	0,993	0,181	0,013	1,013	0,359	0,003	1,003	0,298	0,025	1,026	0,210
INDUSTRY_INDUSTRIAL	2,801	16,469	0,001 ***	0,003	1,003	0,998	-0,030	0,970	0,958	-0,322	0,725	0,867
INDUSTRY_RETAIL	3,070	21,547	0,005 ***	-1,645	0,193	0,375	-0,688	0,503	0,404	-2,908	0,055	0,286
SIZSB	0,405	1,499	0,020 **	-0,138	0,871	0,606	0,016	1,016	0,869	0,914	2,494	0,120
SIZTMT	-0,356	0,700	0,246	-0,665	0,515	0,193	-0,212	0,809	0,401	-0,069	0,933	0,930
COMPTMT_NONFAM	-0,027	0,973	0,979	4,254	70,413	0,061 *	1,069	2,912	0,180	-1,344	0,261	0,583
COMPTMT_MIXED	0,379	1,461	0,690	3,874	48,138	0,036 *	0,698	2,010	0,392	1,917	6,799	0,472
COMPSB_NONFAM	0,793	2,211	0,515	-0,595	0,552	0,796	-0,042	0,959	0,973	-0,018	0,982	0,994
COMPSB_MIXED	0,616	1,852	0,612	-0,382	0,683	0,805	0,075	1,078	0,951	-0,843	0,430	0,722
OWNCONC	-0,260	0,771	0,753	-19,675	0,000	0,998	-0,165	0,848	0,804	-17,515	0,000	0,998
Constant	-4,843		0,010 **	19,969		0,998	-1,956		0,192	15,816		0,999
<i>Model fit</i>												
Cox & Snell Pseudo-R ²	0,436			0,156			0,089			0,129		
Nagelkerkes Pseudo-R ²	0,599			0,401			0,127			0,413		
Valid Cases	105			89			100			87		

Level of significance: * p < 0,10; ** p < 0,05; *** p < 0,01

To summarize our results, our data does not support hypotheses *H1* and *H3*, but does partially support *H2*. Moreover, the existence of discrete MA departments (DISMAD) was found to be positively associated with FB size, industry sector, the size of the SB and the FB being Austrian.

Our data suggests that the formalization of strategic plans (FORSTRA) in FBs can be explained by the existence of non-family members in the TMT.

The use of the balanced scorecard (USEBSC) seems to depend mainly on higher FB size. The use of annual budgeting (USEBUD) could be explained by neither control nor independent variables. However, the high dissemination of annual budgeting in the sampled FBs (95%, see Table 1) suggests that in FBs that have installed both a TMT and an SB, annual budgeting can be regarded as a standard practice, regardless of CG configuration.

5. DISCUSSION AND CONCLUSION

The present paper evaluates the impact of various CG configurations in FBs on the use of MA. Specifically, we drew the hypotheses that the existence of non-family shareholders and non-family members in the TMT and the SB foster MA usage. We tested our hypotheses using a survey sample of medium- and large-sized German and Austrian firms.

Using logistic regression analyses, we could not find evidence that the existence of non-family shareholders or non-family SB members impacts MA usage.

However, we did find some evidence that the existence of non-family TMT members is associated positively with the formalization of MA information.

Although regression analyses did not reveal a significant relationship between the existence of non-family shareholders and MA usage, our data identified a tendency for FBs that are entirely family-owned to show a negative association with MA usage.

We interpret this result as an indication that there may be a relationship as that derived in hypothesis *H1*. Our non-significant results could also be ascribed to the relatively small dataset available for regression models. The majority of FBs do not have an SB, limiting the regression analyses to a minority of surveyed FBs – those with such a corporate body. Therefore, we call for further research to investigate this relationship.

The results on the effect of SB composition on MA use are mixed; both negative and positive associations between the existence of non-family members in the SB and MA usage could be detected, although all were not significant.

Therefore, we can conclude that SB composition in general does not have a major impact on MA usage. Furthermore, it can be argued that the family status of SB members is not important for MA usage. This supports former findings that both family and non-family SB members act according to the classical agency model, exerting tight control and potentially using MA information to monitor the TMT (Long, Dulewicz, and Gay 2005; Nicholson and Kiel 2007).

However, we only studied FBs that had already implemented an SB. Thus, our findings could demonstrate that the mere existence of an SB serves as a sufficient precondition for increased MA usage.

This argument also receives support from Johanson (2008) and Ratnatunga and Alam (2011), who stress the importance of MA information in the TMT-SB communication.

We therefore propose that when an FB establishes an SB, it is also likely that the usage of MA information will increase due to the importance of MA information to the TMT when reporting to the SB.

Moreover, our analyses also revealed that SB size is positively associated with the existence of discrete MA departments. By interpreting MA practices as one method for goal alignment, our results were consistent with the findings of Jaskiewicz and Klein (2007), who argued that a higher need for goal alignment in FBs comes with larger SBs.

Thus, the increased usage of MA departments along with larger SBs found in our data could be a sign of an increased need for goal alignment between owners and managers. Thus, as proposed by our hypotheses, the increased usage of MA could be an indication of a corporate culture that is more inclined towards an agency culture than a stewardship culture of reciprocal trust.

The only results that partly support our hypotheses concern TMT composition. We found that the existence of both pure non-family TMTs and mixed family/non-family TMTs is positively associated with the level of formalization of strategic plans.

Because these results could be detected for both TMT compositions including non-family managers, it follows that the existence of non-family TMT members primarily drives the formalization of MA in FBs. In other words, for the formalization of MA, it does not seem to matter whether the TMT is staffed with both family and non-family managers or only non-family managers; all that is important is that it is not staffed solely with family managers.

Thus, our results are in line with the findings by Speckbacher and Wentges (2012), who concluded that family firms led by family managers show a lower usage of formalized MA practices.

In light of agency theory, formalized MA information seems to build a mechanism to justify or codify the actions of non-family managers (Gedajlovic, Lubatkin, and Schulze 2004). Conversely, non-family managers seem to rely more on formalized information than non-family managers.

Formalized MA information may also be used by the controlling family as a part of an agency-like contract between managers and FB owners to track the non-family managers' progress in fulfilling strategic goals of the FB or the controlling family. However, exactly which driving force is predominant remains to be elucidated by future studies.

Consequently, our results also indicate that pure family TMTs are associated with the decreased usage of formalized MA information. Thus, for those FBs, a stewardship-like culture seems to prevail. This culture relies more on reciprocal trust than on reciprocal control.

Our findings therefore support the former findings that suggested that family members, rather than non-family members, act according to the steward model of man (Davis, Allen, and Hayes 2010). Consequently, our findings do not support the notion that non-family members in the TMT can also create a stewardship-like culture (Vallejo 2009).

In summary, our results add to the understanding of MA usage in FBs. Whereas extant studies have shown that FBs, especially smaller ones, employ less MA practices than NFBs (Speckbacher and Wentges 2012; Hiebl, Feldbauer-Durstmüller, and Duller 2013), we analysed an all-FB sample to test whether the family share in ownership, the TMT and the SB affects MA usage. To do so, we had to focus on FBs that had already installed both a TMT and an SB.

This focus of the present paper could also be a primary reason for the mostly insignificant results we found. A theoretical explanation for this argument might be that while most FBs in German-speaking countries have not installed an SB (Klein 2000; Frey et al. 2004; Haas 2010), those which have an SB might already feature more formalized governance rules and consequently an increased need for MA. FBs with an SB might already have felt the need to professionalize and formalize the business in the first place and consequently installed an SB.

Another explanation could be that FBs had to install an SB due to legal requirements (based on legal form, number of employees and/or amount of nominal capital). Subsequently, as SBs rely to a high degree on formalized reports and information (Johanson 2008; Ratnatunga and Alam 2011), the usage of MA should have also increased. In the light of stewardship theory, this could mean that due to the establishment of formal corporate bodies such as SBs, a formerly informal culture based on reciprocal trust could be replaced by a culture based on formal controls including MA information.

In other words, a stewardship-like culture might be viable in FBs that have not (yet) installed more formal CG mechanisms, including SBs and associated controls based on MA. Following this line of argumentation, our finding that the formalization in FBs increased with the presence of non-family managers could mean that, aside from the existence of an SB, the presence of non-family managers further increases formalization needs because non-family managers need to be more tightly controlled and rely on formalized strategic plans to fulfil their tasks.

Our study is of both practical and academic relevance. With regards to the practice of FBs, if controlling families are contemplating employing non-family managers in their TMT, based on our results, they could assume that these managers will demand more formalized information as a basis for decision-making or FB owners themselves will need this type of information to more tightly control non-family managers. Therefore, the employment of non-family TMT members should also increase the need for MA information and resources.

To the best of our knowledge, this is the first study that examines the impact of the CG configuration in FBs on the usage of MA. Thus, at the intersection of CG and MA, especially in FBs, there remain several potentially rewarding avenues for further research. First, as discussed above, we could only identify a weak tendency that the existence of non-family shareholders drives the usage of MA. This weak tendency favouring a relationship between ownership concentration and MA usage in our data could be further tested on a larger dataset and/or other cultural settings.

Studies on this issue would foster the comprehension of the driving factors for MA usage in FBs. FB owners could then better assess the potential organizational outcomes of an introduction of non-family equity to the FB. Thus, future research should be conducted to analyse the effect of non-family shareholders on MA institutionalization.

Second, our study is of a descriptive nature and could only show that the composition of the SB in FBs does not seem to have an impact on MA usage, whereas there are indications that ownership concentration and TMT composition in FBs influence MA institutionalization. However, based on these results, we can only offer probable explanations derived from theory for these findings.

Further research is needed to analyse the underlying reasons and driving factors for our results. To this end, qualitative research methods (for example case studies or qualitative interviews with FB owners, FB managers, FB directors or management accountants) may also be a good starting point for further increasing our understanding of MA usage in FBs.

Third, especially to increase our understanding of the drivers of stewardship culture in FBs, it could be valuable to further investigate the proposed relationship that a trust- and stewardship-based culture is negatively affected by the introduction of formal governance bodies such as an SB and the subsequent introduction of more formal control mechanisms, including MA information.

Fourth and last, it would be interesting to investigate the impact of different CG configurations and levels of MA usage on key financial indicators in FBs, such as performance metrics. The question of whether lower usage of MA due to high family involvement in the TMT affects performance could be answered.

Limitations: As is to be expected, there are limitations of our study, which we acknowledge here. Foremost, as a proxy for the use of MA, we used four aspects of MA. In our view, these four aspects convey a satisfactory representation of MA usage for the purpose of this study.

However, four aspects cannot possibly represent the complexity and diversity of MA systems. As such, a verification of our results based on another operationalization of "MA usage" would be potentially valuable. The same is true for the identification of FBs, which, in this paper, refers to the distinction between FBs and NFBs based on the F-PEC power concept.

Although this concept seems theoretically and empirically proven, there exist several other FB definitions in FB research that could also be used in a potential repetition of our study. Furthermore, in this paper we focused on the family status of SB and TMT members as a potential driving force for MA use.

However, family status is only one of a multitude of characteristics of TMT and SB members. Further analysis could also include the educational level, tenure in the FB, total years of work, or industry experience, which may also be contextual factors in the TMT and SB members' need for MA information.

Our empirical results on the effect of ownership concentration on MA use only revealed a weak tendency in favour of *H1*. This result could be ascribed to the small set of cases that qualified for our type II regression analyses. Hence, testing this hypothesis on larger sample sizes might be rewarding. Lastly, we performed our empirical analyses based on survey information from two German-speaking countries.

Our results cannot be expected to apply directly to other cultural contexts (Endenich, Brandau, and Hoffjan 2011).

Moreover, results could differ in countries that employ a one-tier-board system. However, aside from the establishment of a discrete MA department, we used aspects of MA institutionalization (the use of annual budgeting, the use of the balanced scorecard, formalization of strategic planning) that are not specific to German-speaking countries; therefore, our findings on MA usage should be at least partially transferable to other cultural contexts.

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Duller, C., Feldbauer-Durstmüller, B., and Mitter, C., "Corporate Governance and Management Accounting in Family Firms: Does Generation Matter?", *International Journal of Business Research*, Volume 11, Number 1, Pages 29-46, 2011.

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