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Professionalization of management accounting in family firms: the impact of family members

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Abstract: Literature on the professionalization of management accounting in family firms has extensively focused on non-family experts, such as controllers or CFOs, as drivers of this process, a somewhat one-sided view. The present study therefore aims to explore how family managers may contribute to the professionalization of management accounting in family firms. For this purpose, we develop a framework that identifies the controlling family's ability and willingness to professionalize as necessary conditions for professionalization. We apply this framework to a single case study of a family firm situated in the German-speaking area of Europe, followed from the business' foundation in the 1980s until 2014. Our findings show that under certain conditions, members of the controlling family may indeed primarily promote the professionalization of management accounting. Consequently, further research should not only relate the level of family influence at a firm to measures of management accounting professionalization but also consider the controlling family's ability and willingness to professionalize management accounting.

Keywords: management accounting, family firms, professionalization

JEL Classification: M41

1. Introduction

Recent academic interest in the organization of management accounting and control systems in family firms has increased considerably (for useful summaries, see Prencipe et al. 2014; Salvato and Moores 2010; Songini et al. 2013). Quantitative studies have found that, on average, family firms—especially smaller ones—make less use of formalized instruments of management accounting and control (García Pérez de Lema and Duréndez 2007; Hiebl et al. 2013; Hiebl et al. 2015; Speckbacher and Wentges 2012) and less often employ specialized management accountants (Hiebl et al. 2012) than non-family firms. Quantitative research has also shown that the organization of management accounting and control in family firms depends on the extent and type of family influence (Kallmuenzer et al. 2017; Songini and Gnan 2009; Songini and Gnan 2015; Songini et al. 2015). At the same time, such studies indicate that family firms tend to professionalize management accounting and control systems alongside growth (e.g., Hiebl et al. 2013; Moores and Mula 2000), presumably to address an increase both in levels of complexity due to larger firm size and in agency conflicts due to the increasing involvement of non-family managers and employees (Dekker et al. 2013; Dekker et al. 2015; Flamholtz and Randle 2012; Hiebl et al. 2015; Songini 2006; Songini et al. 2015).

Such assumptions receive further support from qualitative research. For instance, longitudinal case studies by Amat et al. (1994) and Giovannoni et al. (2011) showed that family firms use increasingly formalized management accounting systems to master growing complexity alongside growing size. Such research also shows that the implementation of management accounting systems requires specific knowledge; important sources of this knowledge, current literature suggests, are well-educated, non-family experts, such as financial controllers, chief financial officers (CFOs), and finance directors (e.g., Amat et al. 1994; Giovannoni et al.

2011; Moilanen 2008; Stergiou et al. 2013). For instance, Giovannoni et al. (2011) reported in their case that a university-educated, non-family controller contributed decisively to the establishment of more professional and formalized management accounting systems. Some evidence also suggests that when recruiting finance and accounting executives, family firms purposefully seek expert knowledge in management accounting systems (Hiebl 2014, 2017). Thus, the current literature seems to suggest that the professionalization of management accounting systems in family firms inevitably includes the employment of non-family experts in finance and accounting.

While such non-family experts may undoubtedly be important sources of management accounting knowledge for family firms, the more general literature on family business has recently included doubts regarding whether the help of non-family experts is required for family firms to professionalize (e.g., Dekker et al. 2013; Hall and Nordqvist 2008; Stewart and Hitt 2012). Proposals that family members may be equally capable of driving professionalization are reinforced by recent quantitative findings that family firms with family CFOs may also have professional management systems in place (Songini et al. 2015). However, thus far, the question remains unexplored of how family members can professionalize family firms in the specific field of management accounting systems. As indicated above, such systems may require highly specialized knowledge that is often unavailable within the controlling family, perhaps leading the family to turn to non-family experts (Filbeck and Lee 2000; Hiebl 2013, 2017; Lutz and Schraml 2012). To shed additional light on how family members contribute to the professionalization of management accounting in family firms, this paper presents a longitudinal case study of a family firm situated in the German-speaking area of Europe. As a theoretical lens, we use a framework developed on existing theory concerning the professionalization of family businesses. While the evolving family business theory is not yet as mature as other organizational or economic theories (Chrisman et al. 2005; Gedajlovic et al. 2012; Kraus et al. 2011; Xi et al. 2015; Zahra 2016), it encompasses a set of explanatory concepts—such as what contributes to family business professionalization—which qualifies it as a guiding theory for our research (Ahrens and Chapman 2006; Silverman 2015).

The results of our case indicate that family members can indeed primarily drive the professionalization of management accounting systems in family firms. However, our findings also suggest that family members' ability and willingness to professionalize management accounting systems may be contingent on several factors, with family preferences and family member skills emerging as two such factors.

In summary, we believe this paper makes two important contributions to the literature. First, our study is among the first to highlight that the present literature may overstate the emphasis on non-family experts as sources of the professionalization of management accounting systems. In this vein, our findings imply that future studies, including quantitative ones, not only should distinguish between the presence of family and non-family managers when attempting to explain the establishment of management accounting and control systems but also may need to look much more closely at these actors' specific characteristics, such as education and prior experience. Second, our study enriches the more general literature on family business by contributing evidence on how and under which conditions family members may drive the professionalization of family firms. Further, we present evidence that family members' ability and willingness are important antecedents to family firm professionalization. Several prominent family business scholars (e.g., Chrisman et al. 2016; Dekker et al. 2013; Stewart and Hitt 2012) have recently called for such evidence, which thus far has been scarce.

The remainder of this paper is structured as follows. In Section 2, we present a more detailed view of the current literature on professionalization and management accounting in family firms and our intended contribution to this literature. We also develop a framework for analyzing the professionalization of management accounting in family firms. Section 3 encompasses the research methods applied in our single case study, and Section 4 presents our findings from this case study, utilizing the framework developed in Section 2. Section 5 discusses these findings and offers implications from our research.

2. Professionalization and management accounting in family firms

2.1 Professionalization in family firms

Much of the empirical literature on family business professionalization equates "professionalization" with the presence of non-family managers (Dekker et al. 2015; Hall and Nordqvist 2008), a problematic view implying that only *non-family*, not *family* managers can act "professionally." More recent developments of family business theory display growing awareness that professionalization is a multi-faceted process not confined to the mere presence of non-family managers (e.g., Dekker et al. 2013; Howorth et al. 2016; Stewart and Hitt 2012). In this regard, most authors have agreed that facets of this process include the engagement of non-family managers, the establishment of adequate governance structures, the appointment of non-family board members, the increased delegation of control and decentralization of authority, the implementation of formal human resource control mechanisms, and the establishment of formal financial control mechanisms (Dekker et al. 2013; Dekker et al. 2015; Flamholtz and Randle 2012; Hall and Nordqvist 2008; Howorth et al. 2016; Songini 2006; Stewart and Hitt 2012). The inclusion of “formal financial control mechanisms” in this list suggests consensus in the literature that management accounting practices, which may be used for such control purposes (Malmi and Brown 2008; Rausch 2011), are part of family business professionalization (El Masri et al., 2017; Giovannoni et al. 2011; Songini 2006). At the same time, this discussion highlights the lack of a comprehensive definition of family business professionalization, with current authors in family business theory continuing to view professionalization as an enumeration of various facets (Dekker et al. 2013; Stewart and Hitt 2012). The development of such a comprehensive definition may be difficult to achieve, however, in part because the large group of family firms worldwide displays significant heterogeneity (Chua et al. 2012; Kraus et al. 2011; Siebels and Knyphausen-Aufseß 2012). Thus, “professionalization” may encompass different aspects in different family firms. For this reason, Stewart and Hitt (2012) argued that family business professionalization occurs in different modes and is essentially firm-specific.

While developing a comprehensive definition of family business professionalization would be difficult and beyond the scope of this paper, for the purpose of this study, we need at least to understand what constitutes and what may drive the professionalization of management accounting in family firms. As we aim to analyze the impact of family members on the professionalization of management accounting in family firms, in Section 2.2, we first focus on how family members may drive professionalization. For this purpose, we draw on recent family business literature explaining family business–specific behavior based on family members’ ability and willingness (Chrisman et al. 2015; Chrisman et al. 2016; De Massis et al. 2014). We then use this understanding in Section 2.3 to review the literature on management accounting in family firms, aiming to identify aspects of the professionalization of management accounting in family firms so that, in the empirical part of this paper, we may use these aspects to assess the professionalization of management accounting in the studied case firm.

2.2 Ability and willingness of family members to professionalize their firms

As Stewart and Hitt (2012) pointed out, not all controlling families professionalize their firms; some controlling families, they argued, simply *cannot* do so, while others do *not want* to do so. Similarly, Sharma et al. (1997, p. 16) stated that "some family firms lack the skills or the will to successfully make the transition to professional management." Also focusing on skills, Hall and Nordqvist (2008) noted that formal competence—education and experience—is necessary for family firms to professionalize. To summarize, for family firms to professionalize, these firms must be both *able* and *willing* to do so.

In general, the *ability* and *willingness* of family members have been identified as key drivers of family firm–specific behavior (Chrisman et al. 2015; Chrisman et al. 2016; De Massis et al. 2014). In this vein, ability can be defined as "family owners' discretion of the family to direct, allocate, add to, or dispose of a firm's resources" (De Massis et al. 2014, p. 346). It seems important to note that although family members may enjoy high levels of such discretion due to their ownership stakes in their firms, ownership rights are not necessarily sufficient to enact desired behaviors (Chrisman et al. 2015). By contrast, ability also includes the skills and experience necessary to do so (e.g., to professionalize) (Sharma et al. 1997; Zahra and Filatotchev 2004). In turn, willingness can be defined as the "disposition of the family owners to engage in idiosyncratic behavior based on the goals, intentions, and motivations that drive the owners to influence the firm's behavior in directions diverging from those of nonfamily firms or the institutional norms among family firms" (Chrisman et al. 2015, p. 311). We apply these definitions of ability and willingness, which focus on family firms' idiosyncratic behavior, to family firms' professionalization, because, as shown above, their professionalization is essentially idiosyncratic (see also Chrisman et al. 2016).

Ability and willingness have also been found to influence other important dimensions of family business management, such as R&D and more general processes of innovation (Chrisman et al. 2015; Filser et al. 2016; Steeger and Hoffmann 2016), as well as the ability to achieve organizational ambidexterity (Arzubiaga et al. 2017; Veider and Matzler 2016). Importantly, studies have concluded that it takes family members' ability *and* willingness to enact desired firm behaviors (De Massis et al. 2014). Thus, we expect that the controlling family's ability *and* willingness to professionalize the firm are necessary conditions, and we therefore investigate these two factors in the presented case study concerning the professionalization of management accounting.

2.3 Management accounting in family firms

In general, the literature on management accounting in family firms mostly agrees that family firms use such systems less than comparable, non-family firms (García Pérez de Lema and Duréndez 2007; Hiebl et al. 2012; Hiebl et al. 2013; Hiebl et al. 2015; Senftlechner and Hiebl, 2015; Speckbacher and Wentges 2012). However, when a family firm decides to use and professionalize such systems, existing in-depth case studies have strongly stressed that, as discussed above, the role of non-family experts is crucial for the introduction and formalization of management accounting systems (Amat et al. 1994; Giovannoni et al. 2011;

Huerta et al. 2017; Jazayeri et al. 2011; Moilanen 2008; Stergiou et al. 2013). Most such studies conclude that non-family experts, such as financial controllers, finance directors, and CFOs, can draw on their university education and prior experience in non-family firms to introduce and formalize such systems. Thus, this stream of the literature suggests that non-family experts primarily introduce to family firms the necessary *ability* to professionalize management accounting. By taking responsibility for professionalizing management accounting systems, such non-family experts also seem able to increase their influence on key decisions. For instance, Stergiou et al. (2013) noted that after professionalizing management accounting and thereby gaining the owners' trust, other stakeholders saw the non-family CFO as the most powerful person in the family firm after the owners. Among other responsibilities, this CFO began to handle performance assessments of employees from various functional areas of the firm, thus gaining decisive influence over promotion decisions.

Other studies, by contrast, have described cases where family members seem not to have turned much to non-family experts. The management accounting systems in these family firms are described as much more informal, less formalized, and generally less professionalized (e.g., Efferin and Hartono 2015; Tsamenyi et al. 2008; Uddin and Hopper 2001). In one potential reason for this relationship, the literature frequently describes family members as highly valuing their entrepreneurial freedom, which, they fear, more formalized management systems might limit or restrict (e.g., Mintzberg and Waters 1982; Nordqvist and Melin 2008; Nordqvist and Melin 2010). Thus, in published cases with little professionalization of management accounting, family members seem to show little *willingness* and/or *ability* to professionalize, lending support to the idea that non-family experts, not family members, primarily drive the professionalization of management accounting in family firms.

Quantitative studies have also identified an important role for non-family experts in explaining the adoption of management accounting in family firms. For instance, Hiebl et al. (2015) hypothesized and found evidence that a higher share of non-family managers, directors, and investors is associated with a lower level of family influence and thus greater reliance on formalized management accounting systems. Similarly, Speckbacher and Wentges (2012) found that family firms with non-family managers make greater use of incentive contracts and performance measurement systems. However, they added, such a relationship mainly applies to small family firms; irrespective of the presence or absence of non-family managers, they found, larger family-led firms show similar usage of management accounting systems as do non-family-led firms. While these studies therefore further shape the idea that non-family experts primarily introduce and formalize management accounting systems in family firms, they also suggest that such non-family experts may play a more decisive role in smaller family firms. This is one potential reason why the literature on small firms highlights family influence as a very important antecedent to the adoption and utilization of management accounting systems (Lavia Lopez and Hiebl 2015).

To summarize, most of the existing literature on management accounting in family firms suggests that family firms—especially smaller ones—use management accounting less than comparable non-family firms. To the extent that family firms implement such systems, they rely on the education and knowledge of non-family experts. Such non-family experts may, in turn, gain considerable influence over key decisions in the family firm.

Our reading of this current view in the literature leaves room to challenge the notion that family members cannot themselves professionalize management accounting in their firms. The literature above yields no logically compelling reasons for why family firms must necessarily rely on non-family experts to introduce and professionalize management accounting systems. A recent study by Songini et al. (2015) encourages such a challenge. Based on a sample of 99 Italian family firms, they associated the presence of a CFO position with higher usage of management practices, such as management accounting, further showing that family firms with a family CFO have higher usage of such practices than firms with a non-family CFO. Similarly, another study in Italy positively related the share of family members on a family firm's management team to the usage of management control mechanisms (Songini and Gnan 2015). Given the quantitative nature of these two studies, they naturally could not delve extensively into the details and underlying mechanisms that might make family managers, such as family CFOs, drive the introduction and professionalization of management accounting. However, these studies offer the first hints, especially relevant to the present study, that non-family experts might not be solely responsible for such processes of professionalization. We therefore aim to explore in greater detail the underlying factors (i.e., ability and willingness) that lead family members to professionalize the management accounting systems in their firms by means of a single, in-depth case study. First, however, we must develop a more tangible understanding of what constitutes the professionalization of management accounting in family firms.

2.4 Professionalization of management accounting in family firms

Existing studies of management accounting in family firms have investigated various aspects of the formalization and/or professionalization of these practices. As with the general professionalization of family firms described above, the professionalization of management accounting in family firms also lacks a consensus, comprehensive definition in the literature.

Nevertheless, for our present empirical study, we must define what constitutes the professionalization of management accounting in family firms. Again, as with the overall professionalization of family firms, it seems useful to identify the most important aspects of the professionalization of management accounting in family firms, aspects which can then be examined in both the present case study and in future studies of such professionalization.

For this purpose, the work of Songini (2006) is a good starting point, already drawn upon by other studies on management accounting in family firms (e.g., Giovannoni et al. 2011; Hiebl et al. 2015; Songini et al. 2015). According to Songini (2006, p. 275), more professionalized family firms show "more formalized and clear managerial responsibility" to "delegate the responsibility of different activities to specialized managers who are in charge of different organizational departments, with the use of appropriate mechanisms such as responsibility accounting, budgeting, and performance evaluation systems." More formalized practices and the increased delegation of responsibility to specialized managers may therefore be two aspects of professional management accounting in family firms. In contemporary organizations, information technology often supports the formalization of management accounting practices and increased delegation (Grabski et al. 2011; Rom and Rohde 2007). Most prominently, enterprise resource planning systems (ERPS) may support these developments, which is why many scholars see ERPS as a type of computerized management accounting system (e.g., Coad and Herbert 2009; Hyvönen et al. 2008). For instance, these systems may support the generation of standardized reports, which increases the formalization of management accounting information and reduces error rates (Goretzki et al. 2013; Prasad and Green 2015). At the same time, line managers may use ERPS to track more directly and quickly their budgets and other accounting measures of their own departments (Anastas 1997; Scapens and Jazayeri 2003; Spathis and Constantinides 2003). For this reason, the introduction and sophistication of ERPS may offer considerable support to the formalization of management accounting practices and the delegation of responsibility to specialized managers. However, members of a controlling family may be especially reluctant to introduce new IT systems, such as ERPS (Bruque and Moyano 2007). In fact, the literature offers evidence indicating that many family firms try to avoid making costly investments, such as introducing ERPS, for as long as possible (Wynn 2008). It thus remains to be seen whether more formalization materializes in part in family firms as more standardized IT systems, such as ERPS.

However, the mere formalization of management accounting practices may simply be due to firm growth, without necessarily reflecting professionalization. Various studies have confirmed that management accounting practices become increasingly formalized alongside growth, as more informal operations become infeasible due to the growing number of organizational actors (i.e., managers, employees) involved in growing firms (e.g., Davila and Foster 2005; Lavia Lopez and Hiebl 2015; Moores and Yuen 2001). Consequently, Hiebl et al. (2015) added, a very tangible sign of higher professionalization of management accounting in family firms may be the establishment of a discrete management accounting department and the employment of specialized management accountants. They argued:

> "[E]mploying management accountants, and thus the installation of a management accounting department, requires dedicated expenses, primarily in the form of salaries, for management accounting. Thus, adding such employees may be seen as an even stronger sign of management accounting usage than the usage or the formalization of management accounting practices." (Hiebl et al. 2015, p. 375)

In a family firm, the employment of specialist management accountants and the establishment of a management accounting department signal, in theory, that professionals now handle management accounting practices—even though firm growth may have already led to greater formalization of these practices. Thus, the following two aspects seem to take management accounting beyond mere formalization to professionalization: the establishment of management accounting departments and the employment of specialized management accountants.

In addition, as discussed above, once established, the management accounting function and its leaders may also gain more influence in the family firm alongside the professionalization of management accounting (Giovannoni et al. 2011; Moilanen 2008; Stergiou et al. 2013), even though family members often try to claim most strategic decision-making power themselves (e.g., Barnett et al. 2009; Gedajlovic et al. 2004). Such increased influence of the leaders of the management accounting function may signal that a family firm has accepted management accounting practices and functions as an important device of professional management (cf. Giovannoni et al. 2011). Thus, the increased influence of the leaders of the management accounting function can also be interpreted as a further aspect of the professionalization of management accounting in family firms.

Figure 1. Framework for studying the professionalization of management accounting in family firms

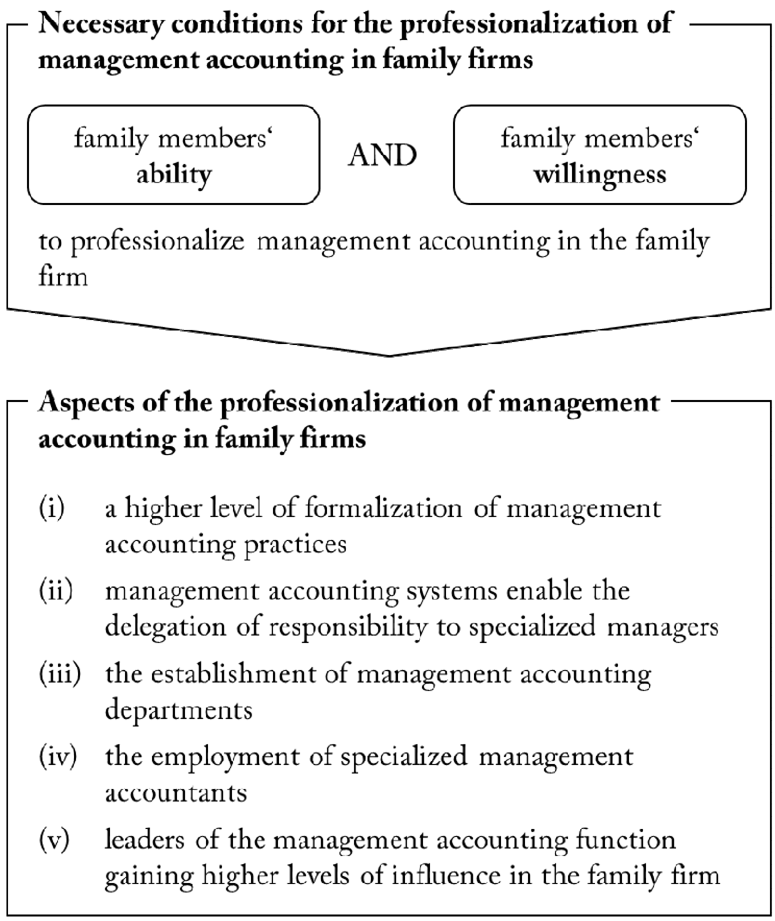


Figure 1 summarizes our framework for studying the professionalization of management accounting in family firms. Building on recent developments in family business theory, we expect that when family members professionalize management accounting in their firms, they must show the ability and willingness to do so.[1] Such professionalization will then materialize

[1] Note that, because our case study focuses on family members’ impact on the professionalization of management accounting, Figure 1 centers on family members’ ability and willingness. However, studies incorporating non-family members’ ability to professionalize management accounting could also use our framework. Even if non-family members might be considered to drive the professionalization of management accounting, the family members’—that is, the business owners’—willingness to professionalize seems to be a

in the five aspects developed above and summarized in Figure 1. However, we expect not every family firm with a management accounting function regarded as professional to necessarily meet all five of these aspects. Instead, following studies of the more general professionalization of family firms (e.g., Dekker et al. 2013; Dekker et al. 2015), we expect a higher application of these aspects to reflect a higher level of professionalization. In the case study below, we use this framework to assess the professionalization of management accounting and role of family members in this process. The next section discusses our methodological steps in this endeavor.

3. Methods

In following our research objective, we relied on a qualitative methodology—the single case study (Yin 2014; Yin 2015). Case studies are quite common and well-established in both management accounting (Hopper and Bui 2016; Kihn and Ihantola 2015; Lachmann et al. 2017; Llewellyn 2007; Parker 2014; Scapens and Bromwich 2010) and family business research (De Massis and Kotlar 2014; Fletcher et al. 2016; Leppäaho et al. 2016), enabling researchers to understand phenomena of management accounting in their organizational contexts. Indeed, the operation of management accounting is usually closely interwoven with its organizational context (Otley and Berry 1994; Scapens 1990), and, as noted above, the professionalization of family firms is a multi-faceted, complex process (Dekker et al. 2015; Stewart and Hitt 2012). We propose our research approach must account for such complexity. As previous authors have argued (Amat et al. 1994; Giovannoni et al. 2011; Hall and

necessary condition; non-family managers likely cannot professionalize management accounting without the consent of the family business owners (cf. Chrisman et al. 2016; Giovannoni et al. 2011).

Nordqvist 2008; Howorth et al. 2016), case studies can usefully enlarge current understanding of the complex phenomena of the professionalization of family firms and their management accounting systems. We therefore adopted the single case study approach to explore the impact of family members on the professionalization of management accounting in their firms.

To collect data, we relied on semi-structured interviews with various family and non-family members working for the case firm, which we term *Electronics* in this paper. Moreover, we accessed various internal documents, such as organizational structure charts, job descriptions of management accountants, and internal reports. We gained extensive access to internal documents because one of the authors worked as a management accountant at *Electronics* from 2011 to 2015, coinciding with the period of our empirical investigation. Thus, as with an interventionist research methodology (Dumay 2010; Westin and Roberts 2010), we not only had access to internal documents and interviewees but could also gain a more thorough understanding of what was taking place in the case firm. However, unlike typical interventionist research, our case had no intervention; the topic of our paper did not fall under the job responsibilities of the second co-author at *Electronics*, driven not by practical but by research interests. Thus, our paper combines aspects of a more traditional, single case study with more intimate knowledge of the case site compared to a case study relying exclusively on an outside-in view. At the same time, and again as with interventionist research (e.g., Chiucchi 2013; Dumay 2010), greater in-depth access, such as ours, also comes with risk that the researchers might become attached to and lose some critical distance to the research site and their observations (Jönsson and Lukka 2007). To circumvent this threat, one of the authors of the present study remained independent of the case and was not involved in data collection.

The findings reported in Section 4 stem mostly from formal interviews or specific documents, put in context through the intimate knowledge of the author who worked for *Electronics*. The interview quotes presented below all originate from 13 formal, semi-structured interviews (Qu and Dumay 2011; Rowley 2012) with key actors at *Electronics*. Table 1 presents an overview of these interviews and interviewees' positions; the group of interviewees comprised executives at various hierarchical levels and with various responsibilities and included all three members of *Electronics*' executive board. The group of interviewees also encompassed both family and non-family members and executives with longer and shorter tenures at *Electronics*. We hoped that this variety in interviewees' positions and backgrounds would lead to an understanding of the professionalization of management accounting at *Electronics* that is confined not to the views of single actors but rather includes a variety of actors both more and less closely related to management accounting systems (such as, respectively, members of the executive and corporate boards and executives from the third hierarchical level), as well as including views of both the controlling family and non-family actors. Moreover, interviews with long-tenured executives, such as family members and (mostly senior) non-family managers, illuminated the development of management accounting at the firm from its very inception in the 1980s until the time our case study ended in 2014.

Hence, while we held all our formal interviews in September and October 2013, the multi-year insights of the author who worked at *Electronics* and the long tenures of most interviewees allowed us to reconstruct the evolution of management accounting at *Electronics* since the firm's inception in 1980. In reconstructing the development of a case firm, earlier related work (e.g., Giovannoni et al. 2011; Moilanen 2008) has also taken this general approach to understanding less distant and more distant events in the past. We acknowledge, however, that as with such related work, our study may have some recall bias due to the limitations of human memory, with recalled data suffering some inaccuracy, particularly after a long period (Bell 2005). We tried to mitigate this bias by adopting synchronic primary data source triangulation (Pauwels and Matthyssens 2004), interviewing different respondents on the same topic. Since we saw no significant variations in the recalled events between interviewees, we do not believe recall bias was a serious problem in our study.

All interviews, each lasting between 30 and 60 minutes, were tape-recorded and transcribed verbatim. As is common in semi-structured interviews, we relied on a core interview manual as a guide (Qu and Dumay 2011; Rowley 2012), adapted slightly for different groups of interviewees. For instance, we only included questions on the controlling family's view of management accounting in interviews with family members. Following recommendations from the literature (Thomas 2006; Yin 2014, 2015), after we conducted and transcribed all interviews, both authors read through the transcripts separately, attempting to understand from the interviews and additional internal material how family members contributed to the professionalization of management accounting in the case firm. We were guided in this analysis by the framework developed above (Figure 1). The findings presented below, therefore, emanate from an abductive research process. As is typical for abductive processes (Alvesson and Sköldberg 2009; Lukka and Modell 2010), we began our analyses from the empirical case material, using the above-developed framework to make sense of our empirical findings and link them to prior knowledge. Thus, as Lukka and Modell (2010, p. 467) suggested, we developed the findings below by relying on the above framework, making use of "everything that is known empirically and theoretically about the issue being examined"—in our case, the professionalization of management accounting in family firms.

Table 1. Overview of conducted semi-structured interviews

Interviewee	Position (hierarchical level)	Member of the controlling family	Interview date
EP1	Executive president and founder (first level)	Yes	October 11, 2013
EB1	Member of the executive board (first level)	No	September 25, 2013
EB2	Member of the executive board (first level)	No	October 11, 2013
EB3	Member of the executive board (first level)	Yes	October 29, 2013
CB1	Member of the corporate board (second level)	No	September 5, 2013
CB2	Member of the corporate board (second level)	No	September 25, 2013
CB3	Member of the corporate board (second level)	No	October 11, 2013
TL1	Team leader (third level)	No	September 25, 2013
TL2	Team leader (third level)	No	September 16, 2013
TL3	Team leader (third level)	No	September 29, 2013
TL4	Team leader (third level)	No	October 11, 2013
TL5	Team leader (third level)	No	September 30, 2013
TL6	Team leader management accounting (third level)	No	September 30, 2013

Both authors then jointly discussed the preliminary findings based on these analyses. Some open questions then arose, questions which we clarified through our good access to interview partners. We did not tape-record these clarifying questions and answers, but we did take field notes after talks with interviewees. To structure our research, we created some broad—mostly chronological—categories to which we assigned findings and representative quotes. The most important findings and illustrative quotes are presented in the next section.

4. Findings

4.1 Case site

Our case firm, *Electronics*, was founded in the 1980s by two family members, one of whom we interviewed (interviewee EP1). *Electronics* manufactures precision systems, mainly supplying semiconductor, microsystems, and nanotechnology firms. Since its inception, *Electronics* has grown and internationalized considerably. Toward the end of our study (early 2014), *Electronics* had more than 600 employees, with several sales offices in North America, Asia, and Australia. At that time, *Electronics* was fully family-owned, not listed, and three family members were part of the top management team, which comprised five members in total (two executive presidents plus three executive board members). Two generations of the controlling family were actively involved in the firm, which shows that the succession process had already been initiated. One of the family members from the succeeding generation served in a joint CEO/CFO role (interviewee EB3). Notwithstanding that family business research still lacks a consensus definition for what constitutes a family firm, these characteristics qualify *Electronics* as a typical family firm by most available definitions (for overviews on such definitions, see, e.g., Chua et al. 1999; Diéguez-Soto et al. 2015; Shanker and Astrachan 1996; Steiger et al. 2015).

Electronics is situated in the German-speaking area of Europe, which has some implications for our study. As discussed in Section 2, we consider the employment of specialized management accountants as one aspect of the professionalization of management accounting (see Figure 1, aspect (iv)). However, unlike in the United Kingdom (UK), for instance, the German-speaking area of Europe has no strong, clearly recognized professional bodies providing education and professional qualifications in management accounting (Heinzelmann 2016).[2] The common route to "becoming" a management accountant in the German-speaking area is to complete more general education in business administration at a university or college (Ahrens and Chapman 2000). Increasingly, such study programs offer the possibility to major in accounting or management accounting (Messner et al. 2008). Graduates from such programs usually start their careers in junior management accounting positions, advancing to more senior roles in management accounting as they gain on-the-job experience (Heinzelmann 2016). However, a university degree is not necessary to work as a management accountant. Some—nowadays mostly older—management accountants have only gained significant on-the-job experience in management accounting without finishing a university degree. Both groups—university graduates and non-university graduates working in specialized management accounting roles—are regularly considered to be specialized management accountants in the German-speaking area (Hiebl et al. 2012). We therefore consider "specialized management accountants" to be those people in the firm whose position is focused mostly or exclusively on management accounting and who have had a university education with a focus in management accounting and/or who have gained significant, on-the-job experience in management accounting.

[2] Although many management accountants in the German-speaking area of Europe take continuing education courses in management accounting, the suppliers of such courses do not possess as strong a social recognition as, for instance, the Chartered Institute of Management Accountants (CIMA) in the UK (Heinzelmann 2016).

4.2 Establishment of the management accounting function and professionalization over time

As indicated above, the employment of specialized management accountants can signal higher professionalization of management accounting in family firms. From our interviews and internal documents, we tracked the number of specialized management accountants since the founding of *Electronics* (see Table 2). The number of management accountants rose considerably along with the total number of employees at *Electronics*. In the early 2000s, a discrete management accounting department was also established, which conforms to aspect (iii) of the professionalization of management accounting, following our framework above (see Figure 1).

Table 2. Number of total employees and management accountants at *Electronics* over time

Time span	Total number of employees at *Electronics*	Number of management accountants at *Electronics*
1980s until 2000	Less than 200	0
2001 – 2002	Ca. 200	1
2003 – 2004	Ca. 300	2
2005 – 2006	Ca. 300	3
2007 – 2008	Ca. 350	4
2009 – 2010	Ca. 350	4
2011 – 2012	Ca. 500	5
End of 2013	Ca. 600	5

Note: To ensure the case firm’s anonymity, we have rounded the number of total employees.

At the time of our study, *Electronics* employed five specialized management accountants, which points to the presence of professionalization aspect (iv) in our framework above (see

Figure 1). One of these management accountants served as team leader (interviewee TL6) of the management accounting department. This team leader was ranked in *Electronics'* third hierarchical level but reported directly to the CEO/CFO. All of the management accountants worked at the firm's headquarters; thus the management accounting function was rather centralized. This centralization of the management accounting function matched the general organizational structure of *Electronics*, with the vast majority (more than 85%) of the approximately 600 employees worldwide working at *Electronics'* headquarters. Worldwide sales officers thus lacked dedicated management accountants in their sales offices, receiving support from central management accountants while performing some management accounting tasks themselves (e.g., creating reports). Interestingly, until the early 2000s, *Electronics* had no specialized management accountants, perhaps signaling a less professionalized management accounting function than what existed at the time of our empirical investigations. The next sub-section, concerning management accounting in *Electronics'* early years, will analyze whether this assumption can be upheld.

4.3 The early years

Given the lack of specialized management accountants in the first 20 years or so after *Electronics'* founding, the founders and other members of the executive board handled the management accounting function. Until a few years ago, one of the founders (interviewee EP1) took primary responsibility for the management accounting function. EP1 reported:

> "We have practiced management accounting since our very foundation. […] In the early years, I took care of management accounts. You have to imagine that in the beginning,

> our firm was small and growing very slowly. We had only a few employees at this time. This is why we could practice management accounting with rather simple tools, such as Excel. […] At the beginning, we performed these management accounting practices only on a monthly basis."

Spreadsheet-based management accounting practices meant that, in the early days of *Electronics*, these practices showed little standardization or formalization. However, at the same time, EP1 indicates above that, from the inception of the firm, the controlling family showed willingness to engage in management accounting. This seems to contrast with some of the findings from earlier literature suggesting that family firm owners, in the early days of their firms, prefer to focus on business operations and try to engage in management accounting as little as possible (e.g., Giovannoni et al. 2011). Interviews with family members also made evident that, due to their lack of financial resources when starting the business, they attached relatively high importance to management accounting practices, such as financial planning, from *Electronics*' inception. EP1 recalled:

> "Especially in the early years, our liquidity was not so stable. At this time, we could not record order intakes as regularly as today. This is why we needed to plan in much more detail, especially our product development and construction projects. Only five years after our foundation, we could actually start with building machines. Until then, we did engineering and applications as well as consulting and support."

At the same time, the basic functions of management accounting seem to have stayed rather stable over time. According to various interviewees (EP1, EB1, EB2, EB3, CB1, CB3, TL1, TL2, TL3, TL4), management accounting's most important functions at *Electronics* were information supply, planning, coordination, control, and support. According to EB3's assessment, these functions are now spread across a larger enterprise:

> "In general, I think that management accounting's functions have always been pretty much the same. Our firm has grown considerably over time, which is why the tasks have increased. We now have many offices worldwide that need to be served by the management accounting function. I do not think that in the early days, management accounting in our firm had different functions. What was definitely different in the first few years after foundation was that we did not have much management accounting manpower. Many management accounting tasks were therefore not performed by management accountants, but by several executives. So they served as 'mini-controllers,' who did their analyses and calculated their key performance indicators themselves—just to have a sound basis for managing their businesses. Today, we have centralized these functions to a much greater extent."

Here, it becomes evident that, in the early years, the controlling family did not dedicate specific resources to management accounting in the form of specialized management accountants or a distinct management accounting department. Instead, EP1, primarily, and, to a lesser extent, other executives handled management accounting practices. While EP1 gained significant management accounting experience over time, her position in the firm was not exclusively devoted to management accounting; it thus cannot be interpreted as a specialized management accounting position, as defined above. The other executives who—in EB3's words—served as "mini-controllers" had neither specific management accounting experience nor education, and their positions clearly did not focus on management accounting. For these reasons, two of the above-described aspects of more professional management accounting—

the employment of specialized management accountants (see Figure 1, aspect (iv)) and the establishment of a management accounting department (see Figure 1, aspect (iii))—were evidently *not* present in the early years of *Electronics*.

Unlike some other small family businesses (cf. Hiebl et al. 2012; Marriott and Marriott 2000), family members at *Electronics* did not outsource their management accounting tasks to external accountants but mostly handled these themselves, which again highlights the controlling family's longstanding willingness to engage in management accounting. According to EP1, delegating management accounting tasks to external accountants was not an option:

> "No, this has never been an option for us. I do not know a single family firm that would have outsourced their management accounting function—at least not a successful one. I do think, however, that this question strongly relates to industry sectors. For a retail firm or a mass manufacturer, outsourcing the management accounting function may be viable. However, in a manufacturing firm in the project business, an external accountant would have to know the product and the market very well. Without such knowledge, an external accountant would have a hard time working for a manufacturing business like ours. Even for our present in-house management accountants, this is a difficult task. Especially for business or finance people, it is not easy to realize and understand the complexity of customer-specific machines, the market, customer needs, and our strategy. For an external accountant who does not come from our industry, I guess, this would be nearly impossible. You would then likely receive performance indicators or analyses that are no good for successfully managing the business."

To summarize, members of the controlling family showed clear willingness to engage in management accounting, holding the function in rather high esteem since *Electronics*' very founding. In the early years, a member of the controlling family took primary responsibility for management accounting; the family did not consider outsourcing to external accounting providers to be a viable option. In the view of family members, and for some long-tenured non-family executives we interviewed, the basic functions of management accounting were already established in the early years, staying mostly the same until our empirical study. However, in the early years, *Electronics* had no specialized management accountants and no management accounting department. The firm's reliance on spreadsheet software for management accounting practices also shows a rather low level of standardization and formalization. The inapplicability of these three aspects of "professional management accounting" as developed in Section 2 suggests that management accounting at *Electronics* was not professionalized to any great extent in the early days, which is common for newly founded firms (Cleary and Quinn 2016; Davila and Foster 2005; Moores and Yuen 2001; Sandino 2007; Quinn 2017). This changed around 2000, when the firm employed specialized management accountants for the first time; this change, as EB3 expressed above, was related to firm growth, which grew the scale—but not the nature—of required management accounting tasks. The next sub-section will analyze this process more closely.

4.4 Specialized management accountants and enterprise resource planning

As indicated in Section 4.2, *Electronics* hired a specialized management accountant for the first time in 2001, which conforms to one aspect of our above framework (see Figure 1, aspect (iv)). According to our interviewees, this hiring accompanied and was mainly due to the implementation of a firm-wide enterprise resource planning system (ERPS). The newly hired management accountant at *Electronics* was also responsible for some tasks of ERPS implementation. However, the family, not the management accountant, had already made the decision to implement an ERPS and had selected an ERPS vendor. According to interviewed family members, they introduced an ERPS primarily to create consistent data management for the internationally growing family firm in order to keep it “manageable.” Hiring a specialized management accountant therefore mainly resulted from an increase in the number of management accounting tasks, not from any need to add fundamentally new tasks in response to the ERPS introduction (see EB3 quote above). External consultants, who brought in experience with ERPS and ERPS implementation, supported the ERPS introduction at *Electronics*. Thus, we cannot say that the controlling family itself had the full ability to introduce the ERPS, but we can identify a clear willingness by the controlling family to foster the professionalization of management accounting through the ERPS introduction. Arguably, moreover, the controlling family had the ability to realize they needed to introduce an ERPS to facilitate standardization in the growing firm.

The introduction of the ERPS also had some organizational consequences relevant to management accounting, offering, for instance, the chance to clearly define cost centers and cost types, which had not—according to our interviewees—been clearly defined or standardized across the whole of *Electronics*. The clear definition of cost centers, caused by the ERPS introduction, also removed ambiguity in responsibilities and increased managerial budgetary discretion for non-family executives. Thus, an effect of the ERPS introduction was to delegate more budgetary responsibility from the family-member founders of *Electronics* to non-family managers. This development falls under one of the aspects of professionalization discussed in Section 2—that management accounting systems enable the delegation of responsibility to specialized managers (see Figure 1, aspect (ii)).

Several years later, in 2007, *Electronics* added a data warehouse to its EPRS. Step by step, management accountants produced an increasing number of reports with the help of this data warehouse. Eventually, and through the time of this study, all regular reports were built with the help of this data warehouse. Thus, the array of standardized reports handled by the management accounting department increased considerably compared with earlier years. Therefore, while the basic nature of the management accounting tasks may have changed little, their number and breadth greatly increased. These observations reinforce the notion that management reports—a key part of the information-supply function of management accounting at *Electronics*—became increasingly formalized after the adoption of the ERPS in 2001, which adheres to aspect (i) of management accounting professionalization (see Figure 1). According to EP1, such formalization was necessary to keep the growing and now globally operating firm manageable:

> "Since the implementation of our ERPS, we can create standardized, meaningful reports very quickly. These are needed for the thorough management of our worldwide operations."

Concurring with this view, a statement from a non-family member of the executive board (EB2) illustrates that the ERPS, together with the data warehouse, contributed substantially to the availability and transparency of management accounting information:

> "Due to the data warehouse, internal transparency has increased massively. Before we had this tool, the supply of information was strongly dependent on personal interactions.

> […] With these new tools, it is now clear that everybody has access to the data he or she needs. […] So, my wish list for management accounting would have been much longer five or ten years ago than it is today."

As indicated above, one driver of the introduction of the ERPS and the data warehouse was the controlling family's goal to standardize and centralize management accounting information. The family member who now serves as CEO/CFO (EB3) was the head of management accounting during the data warehouse introduction. He explains his motivations:

> "We still have some teams and departments that do their own analyses. These analyses could also be centralized and consolidated. I have always been a promoter and advocate of centralization. This is simply because everybody is talking about the same numbers. And this has changed dramatically. Eight years ago, when we talked about order intakes, for instance, if we had five people sitting around a meeting table, all five people were talking about different numbers. Today, we have one established number, which is generally agreed upon, and we do not have to discuss. This would not be possible if we did not complete and provide such analyses centrally. So, we have seen massive change in this regard."

The standardization of the key numbers and reports at *Electronics* also affected non-family executives to some extent. According to several such executives (interviewees EB1, TL3, TL4), the increasing availability and transparency of management accounting information due to the ERPS and the data warehouse enabled them to better analyze and manage their areas of responsibility. For instance, EB1 and TL3 noted that the standardized reports helped them to better identify and track cost-saving opportunities. This evidence also nurtures the notion that the computerization of management accounting systems at *Electronics* fostered the delegation of managerial responsibilities—such as finding cost-saving opportunities—to specialized managers (cf. aspect (ii) in Figure 1). Thus, introducing the ERPS and the data warehouse not only increased the formalization of management accounting (see Figure 1, aspect (i)) but also triggered other aspects of management professionalization. While firm growth may have been the initial trigger for introducing the ERPS and establishing a management accounting department at *Electronics*, the controlling family did not necessarily have to react to growth with these measures. As discussed above, many family firms instead avoid the costly investments associated with professionalization, such as introducing ERPS and/or establishing management accounting departments, as long as possible (e.g., Hiebl et al. 2015; Wynn 2008). To keep their growing firms manageable, families avoiding such measures may also need to introduce some, albeit less costly, aspects of formalization. However, the controlling family at *Electronics* took a more proactive approach to managing growth, implementing an ERPS and a management accounting department relatively early. In our analysis of the case, these measures exceed the minimum requirements for formalizing a growing firm, a deliberate choice by the controlling family that highlights their willingness to professionalize management accounting.

4.5 Handing over management accounting to non-family management accountants

In 2005, EB3 assumed the role as head of management accounting from his mother, EP1, and he held this position until 2008, when he was promoted to his current role as CEO/CFO. However, he was not the only family member working in a management accounting role; EB3's sister had also worked as a management accountant at *Electronics* for several years. In their roles, both EB3 and his sister could rely on their business education:

> "I took over responsibility for management accounting back in December 2005, I think. […] We had some shortage of manpower back then in management accounting, and because I had some qualifications in accounting, I decided to take over this position. My basic accounting knowledge comes from attending a commercial college and from studying management accounting at university. So, I had some basic knowledge, and everything else can be learned. And so I had to bite the bullet and give it my all. […] My sister also worked in a management accounting role to support me. […] She also has a commercial education and had later studied business."

Given that both EB3 and his sister have a university education with a focus on management accounting, they both qualify as specialized management accountants as commonly defined in the German-speaking area of Europe (see Section 4.1). They also worked for *Electronics* in the management accounting function for several years. According to interviews with family and non-family members (e.g., management accounting team leader TL6), the education and experience in management accounting of some family members—particularly EB3—contributed to the controlling family's ability to identify the need for and actively drive the professionalization of management accounting. This manifested not only in the above-described ERPS introduction but also in other types of formalization, as well as in the increased delegation of responsibility to non-family managers. For instance, from the early 2000s, budgeting became a more formalized, standardized process. An interview with non-family member TL5 illustrates the family's ability to drive the professionalization of this management accounting practice:

> "I have been with the firm since 2000. […] Back then, budgeting was very much hands-on. This was then developed thanks to able people. […] We are very lucky that

> our executive team, in particular [EB3], has supported this process thanks to his education and knowledge. And the overall firm has benefited very much from this process. In the long time I have been around here, [EB3's sister] has also supported the management accounting function. This was very beneficial for the management accounting function, since it secured the family's support for this function."

In addition, in his role as CEO/CFO, EB3 initiated in 2010 the formalization of project budgets for research and development. Due to *Electronics*' business model as an equipment manufacturer, such projects can incur significant internal and external costs and thus strongly affect *Electronics*' earnings. In 2010, the treatment of project budgets was formalized and standardized, with internal costs being clearly allocated to the projects incurring them. This development also increased project leaders' accountability for results in terms of incurred costs. Before the formalization of project budgets, overall responsibility for project performance in terms of incurred costs was not clearly assigned to project leaders (remaining, in effect, with the top management team). Consequently, the formalization of project budgets enabled the delegation of responsibility to specialized managers (project leaders, in this case), in line with aspect (ii) of management accounting professionalization (see Figure 1). According to our interviews, this aspect, too, was driven in large parts by the controlling family's ability to professionalize management accounting.

After his promotion to CEO/CFO, EB3 increasingly delegated management accounting tasks to non-family management accountants. However, in his role as CEO/CFO, he kept ultimate responsibility for the finance function. The controlling family therefore still has considerable direct influence on management accounting, as our interview with TL6, the current team leader in management accounting, substantiated. She reported that she and the other management accountants had regular meetings with the CEO/CFO to discuss all important matters of management accounting. She also noted that EB3 still made key decisions in management accounting.

We also asked the family members what they deemed important when hiring non-family experts in management accounting. For instance, while EB3 did not mention the potential advantage of acquiring external knowledge in hiring non-family experts, he expressed some advantages of having family members serve as management accountants:

> "A huge advantage of family firms is that within the firm, we stand together. So, this solidarity that we know as a private family enters the firm. This is what makes traditional family firms so strong—if no one says, 'the devil may care' or the like. […] So, the great advantage of family members is that they have a great deal of trust in each other. And trust is one of the most important things in a management accounting function, because this function has an enormous amount of insight and the potential for great impact, which can be good or bad. So, trust is a prerequisite for management accountants, and family members have a natural advantage in this regard. A new employee who starts as a management accountant must first work hard to earn such trust. Of course, non-family management accountants may have a more neutral position, but, for family members, it also does no good if they should mask any facts—quite the contrary—they should have the ambition to dig deeper in such situations. All in all, family members might have slight advantages as management accountants."

Similarly, one of the founders of *Electronics*, EP1, also stressed trustworthiness as one of the most important prerequisites for non-family management accountants:

> “They have to be respectable, discreet, and very, very precise. […] And of no less importance is trustworthiness, because in the management accounting function, you see quite a bit of data and information, which of course you should not take to the public.”

Obviously, the controlling family successfully found management accountants conforming to these qualities; at the time of our study, they described their management accounting function, which was then fully equipped with non-family management accountants, as in good shape. EB3:

> “If I compare our current situation to the past, I have to say that our management accounting function is now much better than in the past—and when I speak of the past, this also includes my own work as a management accountant.”

Another non-family member of the corporate board, the second hierarchical layer at *Electronics*, viewed the management accounting function at *Electronics* as very professional and supportive. CB3:

> “Here at *Electronics*, it is quite different from the situation that I know from another firm. There, the management accounting function was very uncooperative, which is not the case here. Quite the contrary. Here, management accountants are supportive, and I find it very positive to collaborate with them.”

Despite having such good standing with other executives at *Electronics* and notwithstanding the abovementioned developments in terms of professionalization, some interviewees stressed that *Electronics* nature as a family firm still shapes the way management accounting is performed at the firm. In the words of EB3:

> "Well, the fact that we are not listed on the stock market has a massive influence on how we do management accounting and on the way our management accountants act, and also on the entire firm. […] Take, for instance, the quarterly closing. For us, it is irrelevant to push some sales before December 31 or to adjust something else, because nobody here is interested in such things. Thank God, our firm owners think long-term and are much more concerned that we succeed in the long run. If this has no impact on management accounting, then what else does?"

In addition to these aspects, which interviewees viewed rather positively, some non-family interviewees also mentioned certain challenges that management accountants at *Electronics* face concerning acting professionally. For instance, corporate board member EB3 stated:

> "I think there is also a special challenge for management accountants in a family firm like ours. Some aspects need extra care here. For instance, take communication. You have to know what you may communicate and what not. This might require greater tact or a certain instinct and a feeling of what the owner family wants or does not want."

Highlighting this notion, the current team leader in management accounting (TL6) also stressed that tactful communication was very important for management accountants at *Electronics*. She recalled several conflicts between the controlling family and management accountants that arose in earlier years:

> "Back then, we had some people in management accounting who had rather a commanding tone, saying things like 'Just do that, do this and that!' This was not very well received. But, at the moment, we can all communicate well with one another."

As indicated above, when non-family experts professionalize management accounting systems in family firms, they may also gain more influence in decision-making. However, this was not much in evidence at *Electronics*, where strategic decisions were kept within the controlling family. EB3:

> "Our strategy is something the owners dictate—depending on what they want and what they discuss with our leadership team. The management accounting function is not involved there. But there is also no one else involved, because these are very much individual decisions of the owners. […] However, the management accounting function plays a supporting role; as soon as the strategy is set, it must be executed. And this is where our management accountants, just like other functions, can support us."

One of the founders of *Electronics*, EP1, similarly described management accountants' influence in strategic decisions as non-existent. She also explained that, in her view, management accountants would not aim for such involvement:

> "I think management accountants do not want to manage. The executive board must manage the firm according to the strategy that has been set together with the owners. So, managing, steering, and defining a strategy are tasks for the members of our executive board and the owners. I think such tasks would also desperately overstrain other employees, because they lack the necessary knowledge about the strategy, products, and markets."

Thus, when interpreting TL6 as the "leader of the management accounting function," we could not observe at *Electronics* aspect (v) of management accounting professionalization—increasing influence for the leaders of the management accounting function (see Figure 1).

This assessment changes, however, if we continue to regard EB3 as the “leader of the management accounting function,” since he also serves as CFO and is—as described above—closely involved with changes in the management accounting function.

Despite this ambiguity around aspect (v) of management accounting professionalization (see Figure 1), we conclude that management accounting at *Electronics* has significantly professionalized since 2001, since the firm clearly fulfills the other four aspects of management accounting professionalization developed in Section 2.4 and in Figure 1. The formalization and standardization of management accounts, which was closely connected to the introduction of an ERPS and a data warehouse, reflect this professionalization (cf. Figure 1, aspect (i)). In large part due to such formalization, management accounting also fostered the delegation of responsibility to non-family managers (aspect (ii)), the firm formed a distinct management accounting department (aspect (iii)), and the number of management accountants increased considerably (aspect (iv)). Our case evidence shows that the controlling family always remained closely involved in the management accounting function, never delegating ultimate responsibility for or decision-making power in management accounting. With their university education in business and multi-year experience in management accounting functions, the succeeding generation of family members demonstrated the ability to professionalize management accounting without help from non-family experts in leading internal roles. At the time of our study, just as in the early days of *Electronics*, the family also still seems to highly value management accounting information, viewing trust as an important characteristic of people who work with such information. This may explain the family’s longstanding willingness to actively engage in management accounting (in the early years) and may have later driven the professionalization of management accounting. At the same time, non-family management accountants, though well-regarded as professional counterparts by the family and other executives, had yet to be closely involved in key, strategic decision-making processes.

5. Discussion and conclusions

We aimed to explore how family managers might professionalize management accounting in a family firm. For this purpose, we developed a framework for analyzing the professionalization of management accounting in family firms. This framework starts from the idea that family members need both the ability and the willingness to professionalize management accounting. In turn, according to our framework, such professionalization can be assessed from five key aspects. In our view, the evidence we collected on our case firm well illustrates that not only non-family experts, in roles such as controller, finance director, or CFO, but also family managers can—under certain conditions—primarily drive the professionalization of management accounting in family firms. Our case evidence suggests that such conditions include family members' adequate education in management accounting or business (i.e., the ability to professionalize), the family's high esteem for management accounting information, and, relatedly, the family's willingness to professionalize management accounting.

In contrast with existing evidence in the literature on management accounting professionalization in family firms (Amat et al. 1994; Giovannoni et al. 2011; Stergiou et al. 2013), our findings suggest that a controlling family does not necessarily have to hire non-family experts to professionalize the management accounting function. In turn, our findings add support and depth to some more recent, quantitative findings showing that the presence of family managers, such as family CFOs, may be related not to less but rather to higher levels of management accounting professionalization (Songini and Gnan 2015; Songini et al. 2015). As a contribution to this literature, our findings also show that the introduction of an ERPS and a data warehouse may significantly support the formalization, standardization, and thus professionalization of management accounting in family firms. Consistent with some earlier quantitative findings (Hiebl et al. 2015), in our case firm, the professionalization of management accounting and the growth of the firm both materialized in a growing number of specialized, non-family management accountants.

However, although the number of specialized management accountants increased, in our case, non-family leaders, such as the non-family team leader of management accounting, did not gain more influence due to the professionalization of the management accounting function, contrary to prior literature (Moilanen 2008; Stergiou et al. 2013). Thus, of the five theoretical aspects of the professionalization of management accounting in family firms we developed above, only four apply to our case. This opens two questions: whether our theoretical framework needs refinement and whether a family firm with fewer than five aspects present might nevertheless have "professionalized" management accounting.

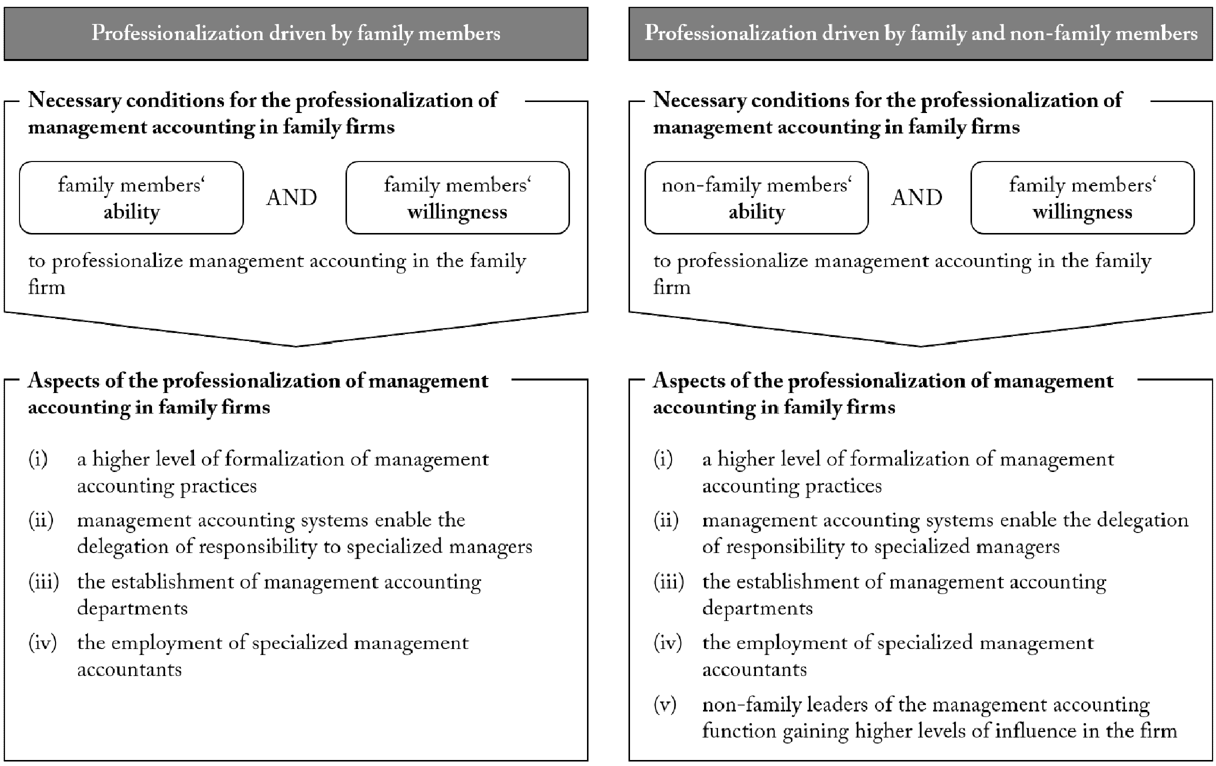
In the case of *Electronics*, the missing fifth aspect might be strongly related to the controlling family's unwillingness to relinquish ultimate responsibility for important management accounting information, which they also seemed to consider confidential (see the quotes in Section 4.5 on the importance of non-family management accountants showing discretion and trustworthiness). In driving the professionalization of management accounting themselves, family members also circumvented the need to delegate the generation of such information to non-family experts. Although not exactly expressed as such in the conducted interviews, the controlling family’s desire to maintain such close control over the management accounting function may be motivated by their desire generally not to lose control over the family firm—a goal that seems rather common in family-controlled businesses (e.g., García Pérez de Lema and Duréndez 2007; González et al. 2013; Mishra and McConaughy 1999).

Perhaps, in a related interpretation of the case of *Electronics*, the family members showed such strong ability themselves to professionalize management accounting that the non-family leader of the management accounting function was both less important for professionalization and therefore gained less influence in the firm. In this respect, our case findings clearly break from case studies in the related literature where the professionalization of management accounting very much relied upon non-family experts’ ability to professionalize (e.g., Giovannoni et al. 2011; Moilanen 2008; Stergiou et al. 2013). In these cases, too, the family was willing to professionalize, but, lacking the ability to do so, they turned to non-family experts, who then gained higher levels of influence through the professionalization process. In our *Electronics* case, by contrast, the family had both the willingness and ability to professionalize. This suggests that a family’s ability to professionalize may eventually hinder non-family leaders in management accounting from gaining higher levels of influence, because non-family leaders in this case do not hold the “missing piece” to professionalize management accounting—that is, the ability to do so—and thus the family need not depend so much on their support.

Based on our case study, then, we conclude that our initially proposed fifth aspect of professionalization—that is, leaders of the management accounting function gaining higher levels of influence (see Figure 1)—is not necessarily part of professionalization driven by family members. Judging from related literature (Giovannoni et al. 2011; Moilanen 2008;

Stergiou et al. 2013), however, we maintain that when family and non-family members jointly drive professionalization, non-family experts' increasing influence is part of the professionalization process.

Figure 2. Refined framework for studying the professionalization of management accounting in family firms



Considering these arguments, we present in Figure 2 a refined framework for understanding the professionalization of management accounting in family firms. This refined framework distinguishes between a type of case in which family members are the key drivers of professionalization (left-hand side of the figure) and a type of case in which family and non-family members jointly drive professionalization (right-hand side of the figure). Our

Electronics case closely matches the first type, with family members having both the ability and the willingness to professionalize management accounting, which materializes in the first four aspects developed and discussed above.

In the second type of case, meanwhile (the right-hand side of Figure 2), family members lack the ability to professionalize and therefore must rely on non-family members' ability to do so. In turn, as demonstrated in prior literature (Giovannoni et al. 2011; Moilanen 2008; Stergiou et al. 2013), these non-family experts gain influence in the overall firm, which becomes a further, fifth aspect closely intertwined with professionalization. At the same time, family members' willingness to professionalize is necessary for the firm to do so. As suggested by numerous recent findings in the family business literature (Chrisman et al. 2015; Chrisman et al. 2016; De Massis et al. 2014; Stewart and Hitt 2012), without family members' willingness for change, successful change will be hard to come by. For this reason, the second type of case (right-hand side of Figure 2) is characterized by family and non-family members jointly driving the professionalization of management accounting, with non-family members contributing ability, and family members contributing willingness.

Note, however, that we have developed this second type of case (right-hand side of Figure 2) entirely based on comparison of our *Electronics* case with insights from the literature, not based on our own empirical evidence. Only the first type of case (left-hand side of Figure 2) is based on our *Electronics* case study. Therefore, we cannot be certain whether such mechanisms might be observed in other family firms that have greatly professionalized their management accounting functions.

These findings may still inform not only further qualitative inquiry but also quantitative studies. To understand the professionalization of management accounting in family firms, it seems insufficient to simply relate management accounting professionalization to the level of family influence (as in, for example, Hiebl et al. 2015). Rather, the findings here suggest that not mere family influence but the willingness of the controlling family and the ability of family or non-family members drive family firms to professionalize management accounting. Findings of existing case studies observing little professionalization of management accounting could therefore be interpreted as a lack of both willingness and ability to professionalize management accounting on the part of the controlling family, who instead opt to keep management accounting rather informal (Efferin and Hartono 2015; Tsamenyi et al. 2008; Uddin and Hopper 2001). Further quantitative studies, therefore, could try to measure the ability and willingness of the controlling family (alongside, potentially, the ability of non-family actors), relating these constructs to management accounting outcomes, such as the four to five aspects of professionalization developed above.

Although not present in our empirical material, we might also theorize interactions between the ability and willingness to professionalize management accounting. For instance, when a controlling family is willing to professionalize management accounting, it may invest in its ability to do so. Though the literature on management accounting in family firms has not yet noted such behavior, related research on strategic planning in family firms has shown that some family business leaders opt to attend classes at management institutes or in other learning formats to gain knowledge about management techniques (i.e., ability) that are considered to be professional (e.g., Nordqvist and Melin 2008, 2010). Thus, future research on management accounting in family firms—using either quantitative or qualitative methodologies—might consider such interactions between the ability and willingness to professionalize management accounting.

Similarly, in the *Electronics* case, we observed some interactions among the aspects of professionalization. That is, the employment of specialized management accountants (see Figures 1 and 2, aspect (iv)) was closely related to the roll-out of the ERPS at *Electronics*. As noted above, we interpret this ERPS adoption as fostering aspects (i) and (ii) of our professionalization framework (higher levels of formalization and increased delegation of responsibility to specialized managers, respectively). However, neither of these two aspects were coupled exclusively with the ERPS roll-out, also materializing in other forms, as discussed in Section 4. Therefore, we cannot certainly identify potential causality between the first, second, and fourth aspects of professionalization; we nevertheless call on future researchers of the professionalization of management accounting in family firms to remain open to such potential interaction effects between the aspects of professionalization.

Our findings also add to the more general literature on family business professionalization, which has recently moved away from equating professionalization with the mere presence of non-family managers (Dekker et al. 2013; Dekker et al. 2015; Hall and Nordqvist 2008; Stewart and Hitt 2012). However, empirical evidence on family business professionalization by family members remains scarce. In shedding light on this issue, we hope to inspire further studies, potentially including study of additional aspects of family firm professionalization beyond management accounting. In addition, we also interpret our results as showing that the ability/willingness view of specific behavior applies to the professionalization of family firms (cf. Chrisman et al. 2016).

Finally, we believe our findings also have some practical implications. Existing literature on family firm professionalization may have given practitioners the impression that professionalizing a family business requires hiring non-family experts. While we would not want to argue that such experts would be unhelpful in professionalizing family firms, our findings suggest the availability of alternative routes towards professionalization. As in our case study, one possible route might be the education of succeeding generations in business studies or related fields, which could give the succeeding family members the necessary knowledge and legitimacy as experts in business—that is, sufficient ability—to work closely together with well-educated, non-family managers in a family firm to drive overall professionalization.

As with all academic studies, ours is not free from limitations. First, our empirical analysis concerns evidence from one single firm. While we feel that we have gained a thorough understanding of this specific firm's professionalization of management accounting, our findings, of course, would not necessarily generalize to other firms. In addition, as indicated above, the second type of case in our refined framework above, in which family and non-family members jointly drive professionalization, relies on existing literature, not on observations of the present case. Further studies must corroborate (or complicate) both our findings and our refined framework for understanding the professionalization of management accounting in family firms. Second, we tried to circumvent recall bias from materializing in our interview data by adopting synchronic, primary data source triangulation, and we complemented our interview data with insights gained through one of the authors' work experience at the case firm. Despite these efforts, we simply cannot be sure that interviewees' accounts were free from post-hoc sense-making and other issues related to recall bias (cf. Bell 2005; Vaisey 2009). Consequently, this limitation reinforces our call for corroborations of our findings.

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