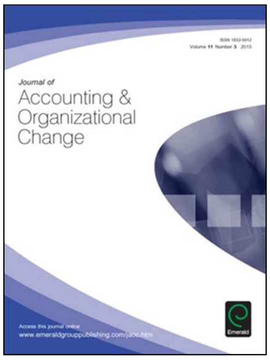


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# The role of management accounting in international entrepreneurship

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## Structured Abstract

**Purpose:** This paper analyzes the role of management accounting in international entrepreneurship. Its role, thus far, has been a neglected topic in research on accounting and international entrepreneurship, although some quantitative findings indicate the positive influence of

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management accounting on internationalization capability.

**Design/methodology/approach:** This paper is based on a multiple case study of Austrian firms and draws on the resource-based view of the firm as well as effectuation/causation logics. Data for this study was collected via semi-structured interviews, press reports, company chronicles, organizational brochures and websites of the analyzed case firms.

**Findings:** We find that management accounting may indeed serve as a key capability for international entrepreneurship. However, reliance on this capability seems to be contingent on the phase of international entrepreneurship and pathway and mode of internationalization.

**Research limitations/implications:** Our findings add to the accounting literature by showing that the phase as well as the mode and pathway of international entrepreneurship may serve as contingency factors for management accounting, which have been overlooked in the literature. At the same time, we also contribute to the international entrepreneurship literature by offering an initial view on the neglected capability of management accounting.

**Originality/value:** This is the first study to analyze the role of management accounting in international entrepreneurship.

**Keywords:** management accounting, international entrepreneurship, internationalization mode, internationalization pathway, resource-based view, effectuation

**Paper type:** Research paper

## 1. Introduction

Given the paucity of research on the role of accounting in internationalization decisions (Sykianakis and Bellas, 2005), in this paper we study the role of management accounting in international entrepreneurship. Following Oviatt and McDougall (2005, p. 540), we view international entrepreneurship as “the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services”. A large amount of research shows that firms *invest* significant amounts of time and other resources in international entrepreneurship and that such resources and capabilities are important factors for international entrepreneurship (e.g., Cavusgil and Knight, 2015; Keupp and Gassmann, 2009; Knight and Cavusgil, 2004; Peng, 2001). We therefore argue that international entrepreneurship may be regarded as a special form of strategic investment, where firms expect to receive some return on their investment. It seems likely that before actually investing, firms will evaluate whether international entrepreneurship opportunities “pay off” by assessing whether they can be expected to create a satisfactory return on investment. Similar to other investment decisions, in many firms, such information is regularly provided by the finance function or—more precisely—by financial controllers or management accountants (Carlsson-Wall *et al.*, 2015; Emmanuel *et al.*, 2010; van Cauwenbergh *et al.*, 1996). Besides evaluating such strategic investment opportunities, the literature also suggests that the management accounting function may also play a key role in the identification and the later implementation of such opportunities (e.g., Burns *et al.*, 2013).

Based on these considerations, we expect that management accounting is an important ingredient in identifying, evaluating and exploiting international entrepreneurship opportunities. Indeed, some quantitative research shows that management accounting systems are positively related to internationalization capability (Gómez-Conde *et al.*, 2013) or associated capabilities such as entrepreneurship and innovativeness (Henri, 2006). However, given its methodological nature, such research is unable to explain *why* management accounting may be an important capability for the pursuit of international entrepreneurship and—more generally—which role management accounting systems play in international entrepreneurship. This is why the present paper focuses on the following research question:

*Which role does management accounting play in the international entrepreneurship process?*

We examine this question with the help of a multiple case study (Eisenhardt, 1989; Eisenhardt and Graebner, 2007) consisting of ten cases. For each case site, we conducted semi-structured interviews with the firm owners and management accountants and sifted additional corporate material. For analyzing our case material, we draw on the concepts of effectuation and causation and view management accounting as a potentially important capability for international entrepreneurship as consistent with the resource-based view (RBV).

Our findings contribute to the literature in several ways. In general, this paper underpins the relevance of accounting for managerial work (e.g., Gerdin *et al.*, 2014; Hall, 2010) by shedding light on the role of management accounting in one specific area of managerial work—international entrepreneurship. In this regard, our paper provides a preliminary understanding why quantitative studies may have found positive associations between management accounting and internationalization or entrepreneurship (Gómez-Conde *et al.*, 2013; Henri, 2006). Our paper is among the first to apply the concepts of effectuation and causation to explain accounting phenomena and also helps to better understand management accounting as a capability in line with the RBV, which has thus far been an underleveraged theoretical perspective in management accounting research (Henri, 2006; Nixon and Burns, 2012). Further, our study adds to the management accounting literature by showing that a firm's international entrepreneurship activities may be associated with the usage of management accounting and therefore serve as a thus far neglected contingency factor in management accounting research. Ultimately, our findings provide evidence that management accounting may be a highly relevant capability in international entrepreneurship, which has been overlooked in the relevant entrepreneurship literature so far (e.g., Al-Aali and Teece, 2014; Autio *et al.*, 2011; Knight and Cavusgil, 2004; Yiu *et al.*, 2007).

The rest of the paper proceeds as follows. In the next section, we detail our understanding of management accounting and explain why it can serve as a capability in the pursuit of competitive advantage. We also discuss the related literature and our rationale for analyzing the role of management accounting in the discovery, enactment, evaluation and exploitation of international entrepreneurship opportunities. In the subsequent section, we present the applied empirical research methods. Afterwards, we report on our main findings and develop seven propositions on the role of management accounting in international entrepreneurship. We then discuss our results and conclude with implications for research and practice.

## 2. Management accounting as a capability for international entrepreneurship

### 2.1 Management accounting as a capability

There is no universally agreed-upon definition of the term "management accounting" (e.g., Lavia Lopez and Hiebl, 2015). However, most scholars agree that at the core of management accounting is the provision of information for managers and other organizational decision-makers (e.g., Burns *et al.*, 2013 Malmi and Brown, 2008). In line with this general view, in the seminal paper by Malmi and Brown (2008, 290), management accounting systems are defined as "[a]ccounting systems that are designed to support decision making at any organisational level". Such systems may comprise various management accounting techniques such as budgeting, strategic planning and capital budgeting (Burns *et al.*, 2013; Malmi and Brown, 2008). For the purpose of this paper, we stick with this general view of management accounting.

Given its significance for managerial decision-making, management accounting has increasingly been analyzed in light of the RBV in recent years (Gómez-Conde *et al.*, 2013; Henri, 2006).[1] Generally, the RBV posits that a firm's resources are crucial to achieving and sustaining competitive advantage (Barney, 1991). As noted by Barney (1991, 101), such resources include "all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness". Some authors later suggested that resources are somewhat different from capabilities. Capabilities are seen as the organizational processes used to synthesize, acquire and generate new applications from resources (Eisenhardt and Martin, 2000). Hence, capabilities may be interpreted as moderating the relationship between resources and competitive advantage: capabilities allow the successful orchestration of resources, so that they can create competitive advantage (Sirmon *et al.*, 2011).

Following this view, management accounting may also be regarded as a capability (Henri, 2006). For instance, when considering a capital budgeting situation and various investment opportunities, the usual aim is to find the best use of scarce resources such as capital and human resources. In such situations, proper management accounting systems such as capital budgeting techniques may be applied to find the best use and orchestration of resources. Oftentimes, "properly" applying such management accounting is not straightforward, as exemplified by the literature on failing investment projects (Haka, 2007). Having proper management accounting in place can therefore be a crucial capability to create competitive advantage. Accordingly, some quantitative empirical results show positive relationships between management accounting techniques, capabilities and organizational performance (Gómez Conde *et al.*, 2013; Henri, 2006). For instance, Gómez Conde *et al.* (2013) present evidence that management accounting systems such as cost accounting, balanced scorecards and budgets are positively associated with internationalization capability and, in turn, that internationalization capability is positively related to organizational performance. While such studies underpin the above-presented notion that management accounting may serve as an important capability to foster entrepreneurship and internationalization, due to being quantitative studies, they cannot present findings on *why* such relations may be present. It is therefore this paper's objective to shed some light on the role of management accounting in international entrepreneurship.

### 2.2 Effectuation, causation and varying reliance on management accounting

In Section 1, we suggested that international entrepreneurship may be viewed as an investment decision that needs to be carefully planned and properly supported by management accounting information. As a limitation, however, recent entrepreneurship literature indicates that not many firms pursue such well-planned approaches to internationalization decisions—and business decisions more generally. Inspired by the seminal paper by Sarasvathy (2001), this recent literature centers on the concepts of effectuation and causation. According to Sarasvathy (2001, p. 245), "[e]ffectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means", whereas "[c]ausation processes take a particular effect as given and focus on selecting between means to create that effect". Effectuation proves useful for decisions that cannot be planned in detail. In such situations, decision-makers do not target specific effects but strive for an ideal allocation of available resources with only a general vision for their business in mind (Sarasvathy, 2001).

This decision-making paradigm dominates in many small and entrepreneurial firms (Chandler, 2015). Due to the novelty of their products or services, detailed planning may not be viable for such firms (Brinckmann *et al.*, 2010; Sarasvathy, 2001). Brinckmann *et al.* (2010, p. 24) claim that entrepreneurs may therefore be unable to plan but rely on effectual decision-making and "just storm the castle". Being unable to make detailed plans in the first place hints that elaborate management accounting information on intended actions may not be available or useful either, because such information usually builds on clearly defined goals and other plans (e.g., Burns *et al.*, 2013). Thus, it may be theorized that in situations of effectual decision-making, management accounting capabilities may be used less than in situations of causational decision-making, in which detailed plans can be drawn up and accurate information is available or can be generated.

These considerations imply that the underlying decision-making paradigm in a given firm (effectuation vs. causation) affects the present paper's research question. Managerial decision-makers that rely on effectuation are likely to also resort to this paradigm for decisions regarding international entrepreneurship. Put differently, they may not decide or be able to devise detailed plans for internationalization activities but rather seize the opportunities at hand and "just" go international (Andersson, 2011). Consequently, international entrepreneurship endeavors that base on effectuation may attribute less importance to management accounting than those that rely on causational decision-making. Due to this reasoning, we will have a look at the concepts of effectuation and causation when analyzing our findings on management accounting as a capability for international entrepreneurship.

### 2.3 Capability utilization and the phases of international entrepreneurship

As discussed in section 1, we follow Oviatt and McDougall's definition (2005) of international entrepreneurship. The pursuit of each international opportunity may therefore be understood as a process involving the phases of discovery, enactment, evaluation and exploitation.

At the beginning of this process, opportunities may be enacted or discovered (Oviatt and McDougall, 2005). Similar to the distinction between effectuation and causation, the difference between these two modes is that opportunities are *discovered* by active search behavior (comparable to causation), while opportunities are *enacted* when they are "endogenously formed in the unfolding of the everyday entrepreneurial practice and interactions between various actors" (Mainela *et al.*, 2014, p. 108) (comparable to effectuation). Similarly, Zahra *et al.* (2005, p. 131) propose that "some opportunities are located and discovered; others are the result of a process of enactment where the entrepreneur conceives of an idea and gives it meaning". Following this view, it seems likely that an international entrepreneurship opportunity is initially identified through discovery *or* enactment (Oviatt and McDougall, 2005).

In other phases of international entrepreneurship, opportunities are *evaluated* and—if decided to be tackled—*exploited*. In many cases, international entrepreneurship is an iterative process (Jones and Coviello, 2005; Zahra *et al.*, 2005). Therefore, these phases need not all be equally represented or take place in exactly this order. Nevertheless, to analyze the role management accounting plays in international entrepreneurship, analytically separating them seems useful because resources and capabilities and their orchestration may change in different stages of a firm's life-cycle (Sirmon *et al.*, 2011) or on different growth paths (Wright and Stigliani, 2013). Thus, the same set of capabilities may support a firm's competitive advantage in one phase, while another set may be needed in another phase. By accepting the above view that management accounting may serve as a capability, we can therefore assume that the role of management accounting changes over the various phases of international entrepreneurship outlined above. Our findings are therefore structured along the phases of discovery/enactment, evaluation and exploitation.

Entering an international market and therefore the actual realization of international entrepreneurship opportunities can take several forms. Depending on the risk involved, resources required and degree of control, entry modes can be clustered into three groups (Claver *et al.,* 2007): exporting, contractual agreements and foreign direct investments. The internationalization mode of exporting requires fewest resources and involves least risk (Leonidou and Katsikeas, 1996). By contrast, contractual agreements such as licensing, franchising and other forms of interfirm cooperation with no or only minimal capital contribution are associated with more risk and resource requirements. In the case of foreign direct investments, ranging from joint ventures (JVs) to subsidiaries with minority or full ownership, resource requirements and risk increase substantially; however, this type of internationalization mode also benefits from a higher degree of control (Claver *et al.,* 2007).

Firms may consider international entrepreneurship earlier or later in their life-cycle. For the purpose of this paper and presenting our findings, we distinguish between three pathways of internationalization. First, firms that act internationally from their very inception are generally referred to as "born globals" (Oviatt and McDougall, 1994). These companies not only internationalize rapidly but are also characterized by a high degree of international commitment. Second, "born-again globals" usually become well established in their local markets before rapidly internationalizing and becoming "global" (Bell *et al.,* 2001). Third are firms that follow a step-wise or incremental approach to internationalization. Such firms start with fewer risky internationalization steps such as exporting and pursue more risky internationalization steps such as foreign direct investments later in their life-cycle (Bell *et al.*, 2001).

Although the three internationalization pathways characterize distinct patterns of internationalization, in practice the delineation between these is not always clear-cut and may be perceived as context-specific (Cesinger *et al.*, 2012). Consequently, literature has developed criteria in terms of (i) speed, (ii) degree and (iii) scope of internationalization (Cesinger *et al.*, 2012) that help to distinguish between born-globals, born-again globals and firms that follow an incremental internationalization path. Concerning (i) *speed* (or pace) of internationalization, born globals either adopt a global focus right from their inception or within a few years of establishment. This time frame varies from two to eight years (Bell *et al.*, 2001; Taylor and Jack, 2013). With respect to a firm's (ii) *degree* (or scale) of internationalization, born globals derive a high percentage of their turnover from international markets; whereby surpassing the threshold of 25% foreign sales qualifies a business as "born global" (e.g., Andersson and Wictor, 2003; Taylor and Jack, 2013). For European research studies, however, higher levels than these 25% are recommended due to the small size of domestic markets in Europe (Cesinger *et al.*, 2012). Finally, (iii) *scope* refers to the number of countries or regions a company operates in. Born globals cultivate a high number of foreign markets simultaneously. Although mostly the number of countries a firm is active in is not exactly specified, born globals are assumed to select their markets more strategically and to attribute less importance to cultural or geographic proximity (Taylor and Jack, 2013). Thus, they may skip several stages of internationalization (Cannone *et al.*, 2014).

Firms that are considered "born-again globals" compare to "born globals" in terms of their internationalization activities. The main distinction between "born globals" and "born-again globals" is that the latter are well-established firms whose internationalization, once initiated, advances rapidly and matches that of born globals in terms of scale and scope (Bell *et al.*, 2001).

# 3. Methods

## 3.1 Research approach

With this paper, we want to move beyond the quantitative research results suggesting that management accounting systems are positively associated with (international) entrepreneurship (Gómez-Conde *et al.*, 2013; Henri, 2006). We therefore opted for qualitative research methods to analyze the underlying dynamics of this relationship. In general, management accounting systems are known to be contingent on firm characteristics (e.g., Chenhall, 2003; Otley, 2016). Hence, any given firm is unlikely to have in place exactly the same management accounting systems as another firm. To account for this variety of management accounting systems in our analysis, we carried out a cross-sectional field study consisting of ten cases. This approach is in line with Eisenhardt and Graebner's (2007, p. 27) suggestion that "theory building from multiple cases typically yields more robust, generalizable, and testable theory than single-case research". Concerning the number of included cases, we opted for the top end of Eisenhardt's (1989) recommended range of four to ten cases for multiple case studies.

While Eisenhardt and Graebner (2007) view creating a generalizable theory as a major objective of multiple case studies, this notion of generalizability does not imply that our below findings can necessarily be generalized *statistically*. In contrast, a common aim of qualitative research is to develop *theoretically* generalizable findings. Whether or not theoretically generalizable findings also hold for larger populations is beyond the scope of most qualitative empirical work (Parker and Northcott, 2016; Ryan *et al.*, 2002) and requires investigation through quantitative studies (Eisenhardt and Graebner, 2007). Thus, the propositions we develop are meant to further theory on the role of management accounting in international entrepreneurship and represent our most important findings in a concise way. However, they still need testing by quantitative studies to potentially move from theoretical to statistical generalizability.

To select these cases, we followed a theoretical sampling approach (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). Theoretical sampling means that “cases are selected because they are particularly suitable for illuminating and extending relationships and logic among constructs” (Eisenhardt and Graebner, 2007, p. 27). As we are particularly interested in the relationships between management accounting and the phases of international entrepreneurship, we selected cases that had already gained some experience in international entrepreneurship and the use of management accounting in this process. Moreover, to create meaningful data for each case, we needed interviewees who could offer insight into (i) their firms’ international entrepreneurship endeavors and (ii) the role of management accounting in these endeavors.

Given these requirements, we opted to include only family-owned businesses in our sample. The owners of family-owned businesses are knowledgeable about their firms’ recent and more distant history (e.g., Nordqvist and Melin, 2010; Senftlechner and Hiebl, 2015), which should include in-depth knowledge about their international entrepreneurship endeavors. Not only firm owners, but also key personnel in finance and accounting functions such as chief financial officers, financial controllers and management accountants achieve long tenures in family-owned businesses (e.g., Giovannoni *et al.*, 2011; Hiebl, 2014). Therefore, management accountants, who usually bear the primary responsibility for management accounting systems, are expected to be well suited for reporting on the role of management accounting in international entrepreneurship. In addition, international entrepreneurship is not confined to entrepreneurial or nascent firms (Jones *et al.,* 2011; Oviatt and McDougall, 2005). Thus, long-standing family firms appeared most appropriate for inclusion in our sample.

Moreover, since international diversification (Hitt *et al.*, 2006) and management accounting are industry-specific (Messner, 2016) and previous studies found manufacturing firms to exhibit a significantly higher level of internationalization (e.g., Mitter *et al.*, 2014), we restricted our sample to companies from the manufacturing sector.

### 3.2 Data collection and analysis

In line with our theoretical sampling approach, we aimed to keep some of the characteristics of the case firms consistent throughout our sample, whereas for other characteristics, we included some variance. This approach should, on the one hand, increase the comparability of the cases and, on the other, enrich the findings through variety and broader sampling (Eisenhardt, 1989; Yin, 2014).

As indicated above, one such characteristic that we aimed to keep consistent for all sample firms was their status as family firms. Although consensus in the academic literature concerning the definition of a "family firm" is lacking, most definitions focus on some form of family involvement in ownership and management (e.g., Steiger *et al.*, 2015). Accordingly, we relied on the substantial family influence (SFI) formula by Klein (2000), which measures the strength of family influence by adding up the family's share of equity in the firm as well as its share of positions on the management and supervisory boards. The SFI scale ranges between 0 and 3. To be classified as a family firm, the SFI score must reach the value of 1 and some shares must be owned by the family. All the selected case firms needed to meet these minimum requirements. Additionally, as mentioned above, only companies classified as manufacturing firms were eligible for our study. To ensure further comparability of the case firms, they also needed to be headquartered in Austria and have at least 250 employees and thus be considered as large according to the European Commission's recommendation (2003/361/EC). In turn, the investigated cases were intended to differ in terms of their pathways and modes of internationalization to be able to adequately consider the influence of these contingencies.

Potential case study firms were identified through publicly available information (e.g., their websites) and contacted with an invitation to participate in this study. Potential interviewees also received initial information on the goals and design of the study and were ensured anonymity. This way, we identified ten sample firms that met the above-specified criteria and were willing to participate in the study. Table 1 provides an overview of these firms' internationalization characteristics. Given that the delineation between the three specified internationalization pathways is not always clear-cut, we reverted to the three criteria discussed in Section 2.3. Consequently, we assigned sample firms to the category of born globals if they internationalized at the firm's inception or shortly after their establishment, intensified their international commitment quickly, were currently active in a high number of foreign, not primarily neighboring countries and derived a significant amount of their sales from these international activities. The cluster of born-again globals features similar characteristics with the only exception being that these firms, for a longer period of time, exclusively focused on the domestic market before they started their rapid and dedicated internationalization. As can be seen in Table 1, born globals and born-again globals exhibit foreign sales levels of 90% and more, export worldwide and have subsidiaries in Europe and/or overseas. This clearly reflects that the sample firms that represent these two pathways are characterized by a global orientation and a considerably higher scale and scope of international activity than incrementally internationalizing firms.

Primarily, data were collected by using semi-structured expert interviews (Rowley, 2012). Twenty such interviews were conducted with owners and management accountants from the ten firms between April and July 2014. Table 2 provides more detail on the characteristics of the case firms as well as the interviews. All interviews were digitally recorded and transcribed. Transcripts were then sent back to the interviewees to sort out misunderstandings and undertake corrections where needed. In addition, when necessary, e-mails were exchanged to complete information and clarify inconsistencies. To improve the objectivity and validity of the findings through triangulation (Yin, 2014), the data collected in the interviews were then complemented with secondary material such as press reports, company chronicles, organizational brochures and websites of the analyzed case firms.

The collected data were subjected to a qualitative content analysis with the help of cross-case pattern searching methods (Eisenhardt, 1989). We followed the general inductive approach (Thomas, 2006). This approach aims to let issues emerge from the text without establishing a coding system before transcripts are read and analyzed. When a pattern became apparent in one transcript, the other transcripts were scanned for the same pattern and coded accordingly. Whenever similar patterns emerged, they were clustered into categories. Two researchers were involved in this coding of patterns concerning the relationship between management accounting and the various phases of the international entrepreneurship process. These researchers continuously synchronized their interpretations of the text (Yin, 2014), and, whenever they disagreed, the final coding decision was intensively discussed and eventually agreed. By drawing on this cross-case pattern searching and replication logic, the multiple case study approach allows researchers to identify subtle similarities and differences in the analyzed cases. If similar patterns emerge in multiple cases, substantial support exists for the development of a preliminary theory that describes the phenomena under study (Eisenhardt, 1989; Eisenhardt and Graebner, 2007; Yin, 2014). We finally compared the identified patterns with related studies to discuss the differences and similarities and then developed propositions based on our findings.

**Table 1. Internationalization characteristics of case firms**

| | Start of internationalization | | | Further internationalization steps | Current state of internationalisation | Foreign sales | Internationalization pathway |
|---|---|---|---|---|---|---|---|
| | Year | Gener-ation | Market Entry | | | | |
| **A** | approx. 1970 | 1st | Exporting to Germany | Subsidiary in Germany – further exporting worldwide – coope-rations in China and USA – subsidiaries in Mexico and China | Export worldwide, cooperations overseas, subsidiaries in Europe and overseas | 90% | Born global |
| **B** | 1971 | 2nd | Exporting to Germany and the former Yugoslavia | Sales offices in the USA and Canada – subsidiaries in Europe and Asia – production plants in Vietnam, Brazil, Mexico and Egypt | Export worldwide, affiliated companies and production plants worldwide | 95% | Born-again global |
| **C** | End of the 1940s | 2nd | Exporting to Germany | Exporting to France – subsidiary in Switzerland – exporting to North and South America as well as Asia (but these markets were exited because of the low USD) – field staff in Germany, France and Italy – exporting to Europe and some overseas countries | Export to Europe and overseas, subsidiary in Europe | 70% | Incremental |
| **D** | Beginn-ing of the 1980s | 1st | JVs in Slovenia | Exporting to Germany and other EU countries – exit of JVs in Slovenia – subsidiary in Hungary – JV in Thailand (also exited later) – subsidiaries in Germany, in the Czech Republic (exited later) | Export worldwide, subsidiaries in Europe, one overseas | 90% | Born global |
| **E** | 1992 | 3rd | Exporting to Germany | JV in the Czech Republic – subsidiaries in Germany, Slovakia, Hungary and Croatia – JV in China | Export to neighboring countries, JV overseas, subsidiaries in Europe | 2% | Incremental |
| **F** | 1960s | 2nd | Exporting to Italy | Production plant in Czech Republic (sold later) – export activities worldwide – production plants in Romania | Export worldwide, production plants in one European country | 95–98% | Born-again global |
| **G** | 1992 | 2nd | Exporting to and franchi-sing in Germany | Intensification of franchising in Germany – end of franchising activities – exporting to Switzerland, Liechtenstein, Luxemburg, Netherlands, Belgium, Czech Republic, Slovakia and Italy – subsidiary in Germany | Export to Europe, subsidiary in one European country | 30–35% | Incremental |
| **H** | 1964 | 1st | Export to Belgium, Denmark and Canada | Intensification of exporting worldwide – subsidiaries in most European countries and overseas (Brazil, Japan, USA) – regional offices in Dubai and Hong Kong | Export worldwide, subsidiaries in Europe and overseas | 95% | Born global |
| **I** | 1974 | 1st | Exporting to neigh-boring countries | Intensification of exporting to neighboring countries (Germany, Switzerland, Northern Italy and Czech Republic) – subsidiary in Poland – sales offices in Germany | Export to neighboring countries, subsidiaries in Europe | 42-47% | Incremental |
| **J** | 1990s | 1st | Exporting to Germany | Push of export activities in 2000 in Europe –licensing in Europe, mainly Switzerland and France – franchising in Germany – subsidiaries in the Czech Republic and Germany – export overseas | Export to Europe mainly and some overseas countries, licensing/franchising in Europe, JV and subsidiary in Europe | 18% | Incremental |

**Table 2: Descriptive information on the case firms and conducted interviews**

| Case | Year of establish-ment | Industry segment | Employees (at time of interview) | Interviewee positions | Date of interview | Interview length (in minutes) |
|---|---|---|---|---|---|---|
| **A** | 1968 | Metal con-struction | 590 | Owner / Management accountant | 15/04/2014 | 51 / 44 |
| **B** | 1930 | Chemical | 1,200 | Owner / Management accountant | n.a */ 24/04/2014 | n.a. */ 45 |
| **C** | 1910 | Machine building | 400 | Owner / Management accountant | 12/05/2014 | 51 / 43 |
| **D** | 1979 | Tool manu-facturing | 540 | Owner / Management accountant | 15/05/2014 | 60 / 40 |
| **E** | 1912 | Construc-tion | 870 | Owner / Management accountant | 28/05/2014 | 25 / 24 |
| **F** | n.a. (2nd generation since 1956) | Wood-working | 3,300 | Owner / Management accountant | 01/06/2014 | 51 / 50 |
| **G** | 1924 | Food | 1,270 | Owner / Management accountant | 23/04/2014 | 35 / 50 |
| **H** | 1964 | Optics | 1,500 | Owner / Management accountant | 11/06/2014 | 24 / 40 |
| **I** | 1962 | Con-struc-tion | 335 | Owner / Management accountant | 12/06/2014 | 43 / 48 |
| **J** | 1960 | Wood-working | 850 | Owner / Management accountant | 08/07/2014 | 27 / 20 |

* Owner B did not agree to give an interview, provided, though, the data in writing. Accordingly, neither date nor duration can be specified for this interview.

# 4. Findings and proposition development

## 4.1 Management accounting and the discovery or enactment of international entrepreneurship opportunities

Concerning the first phase of international entrepreneurship (i.e., discovery or enactment), going international was not a planned endeavor in most analyzed firms and was not the result of a strategic decision. In Table 3, as well as in the subsequent tables, we provide information on which themes were present in the analyzed cases as well as from which interviewees (owners and/or management accountants) the relevant information could be retrieved. As illustrated by the quotes in Table 3, the international entrepreneurship opportunities of the analyzed firms cannot be regarded as *discovered* but as *enacted*. This process of enactment was either driven by requests or soft pressure from customers and/or pure coincidence and simply “happened”. Thus, the reaping of international entrepreneurship opportunities in our case firms can be described as utilizing opportunities at hand without a detailed plan of what such behavior entails—which is clearly in line with the effectuation paradigm described in Section 2.2.

**Table 3. Identification of international entrepreneurship opportunities**

| Theme | Owners | Management accountants | Illustrative quote(s) |
|---|---|---|---|
| Enactment of international opportunities | D, E, G, H, I | A, B, F, G, I | "... it rather was this way: the company had international customers and they were followed to America." (management accountant B)<br>"Internationalization started on the first day and happened. We had no exact plans." (owner H) |
| Customer-driven | A, B, D | A, B, D, F | "Some big international groups were our customers that expanded with their products and sites to China, Mexico etc. And to some extent we followed them." (management accountant A)<br>"We followed European customers [to America]. They now want us to be more active there." (management accountant D) |
| Coincidence-driven | E, H, I | I | "... going to China just happened. We met this joint venture partner at a trade fair. This way, we recognized that there was an opportunity." (owner E) |

We also found evidence that when international entrepreneurship opportunities were enacted, firm owners (firms F, G and H), top management team members (firms D, F, G) and/or the sales function (firms B, H, I) mostly seized them. However, not a single interviewee reported that management accountants or management accounting practices were involved in the enactment or effectuation of international entrepreneurship opportunities.

Therefore, despite the above-presented theoretical reasoning about management accounting being an important capability for identifying international entrepreneurship opportunities, we found no such evidence. Potentially, however, the non-involvement of management accounting or management accountants in the identification of international entrepreneurship may also be explained by the fact that all analyzed firms can be considered to have *enacted* or *effectuated* rather than *discovered* international entrepreneurship opportunities. In clear-cut investment decision processes, which distinctly detect and plan the objective of such investments, management accounting information plays an important role (e.g., Burns *et al.,* 2013; Carlsson-Wall *et al.,* 2015; Emmanuel *et al.,* 2010). However, if such opportunities are not or cannot be systematically identified and are thus—as coined by Oviatt and McDougall (2005)—not discovered, but enacted, management accounting information may be more or less kept out of this initial phase of international entrepreneurship. A reason for such a relationship may be found in management accounting being usually relied upon in processes of causational decision-making, but less so in processes of effectuation, which may be characterized by reactive, unsystematic or intuitive decision-making (cf. van Cauwenbergh *et al.,* 1996). The evidence from our case firms suggested that the realization of international entrepreneurship opportunities relied on reactions to external developments and on rather effectual decision-making, which warrants the label *enactment*. Hence, from our multiple case study, we can conclude that if international entrepreneurship opportunities are enacted, management accounting may not play an important role. Thus:

**Proposition 1**: In situations where international entrepreneurship opportunities are enacted and the result of effectuation rather than discovered and the result of causation, management accounting information is largely ignored.

## 4.2 Management accounting and the evaluation of international entrepreneurship opportunities

After an international entrepreneurship opportunity has been identified, the management accounting literature (e.g., Burns *et al.*, 2013) suggests that it should be thoroughly screened and evaluated. In contrast to the initial enactment of international entrepreneurship opportunities, we found a much stronger involvement of management accounting in this evaluation phase: in all case firms analyzed, management accounting was somehow involved in evaluating international entrepreneurship opportunities (see Table 4). However, in the interviews, the involvement was not always mentioned by both the owners and the management accountants of the respective firms. Further, these two groups of interviewees did not always attach the same level of importance to management accounting information when evaluating international entrepreneurship opportunities. Hence, we can conclude that the role of management accounting in the evaluation phase may considerably vary in different firms. We therefore searched for patterns that might contribute to explaining the varying influence of management accounting in evaluating international entrepreneurship opportunities.

**Table 4. Relevance of management accounting for evaluating international entrepreneurship opportunities**

| Theme | Owners | Management accountants | Illustrative quote(s) |
|---|---|---|---|
| Management accounting is involved in evaluation | A, B, D, D, F, G, H, J, M | A, B, C, D, E, F, H, I, J | "…certainly this involves management accounting. We do have to understand the nature and scope of the investments that precede entering a market." (owner A) |
| Relevant role of management accounting | A, B, D, F, H, J | D, H, I, J | "…management accounting information is highly relevant. It will, though, go hand in hand with a gut decision." (owner D)<br>"The management accounting function is absolutely crucial, because we have to integrate the information into the budget or plan, which comprehensively covers all relevant aspects of resources allocation such as personnel as well as considerations regarding financing possibilities. We build the decision base. This is a key phase for management accounting." (management accountant D) |
| Importance of involvement depends on entry mode | D, H | I | "… that depends on how seriously one goes about penetrating a new market. In the US, we started small with one sales representative and workshop; that was easy. Entering a market on a large scale means to take over a company. Then management accounting plays a major role e.g., for analyzing the market on site." (owner D)<br>"[Management accounting] is more important when fully owning a subsidiary rather than cooperating with a distributor, which requires no own money and funding. In case of setting up a subsidiary, management accounting is involved from the very beginning. […] For new internationalization steps, management accounting is extremely helpful." (owner H)<br>"…management accounting will be strongly involved when future subsidiaries are set up. " (management accountant I) |

**Table 5. Management accounting's role in the evaluation phase as per internationalization pathway**

| Internationalization pathways | | |
|---|---|---|
| Born globals (A, D, H) | Born-again globals (B, F) | Incremental internationalizers (C, E, G, I, J) |
| "Actually, management accounting was involved right from the start up until the last minute." (owner A)<br>"Management accounting is always involved. (...) Drawing on the workshop, a decision is then taken – we call that small management circle, which includes all department heads, me as head of management accounting and the executive board. There, all goals are approved and agreed upon." (management accountant A)<br>"Management accounting acts as a warning system if, e.g., something is overlooked such as certain taxes. Beforehand, one tends to be a bit naïve and only sees the opportunities, not though what they entail. Being prepared is essential and calculating for a longer drought also helps." (owner D)<br>"In principle we set up a business plan with distribution. Of course we then also contribute immensely to the implementation of the project." (management accountant H) | "[Management accounting] plays an important role for the company's development." (owner B)<br>"This is planned meticulously and considered a strategic issue. Market analyses complement it strategically." (management accountant B)<br>"Every kind of investment requires management accounting." (owner F) | "Early stage, when we enter the (foreign) market the main focus of management accounting lies on cost reporting - what are the market and what the project operating costs. However, all these are minor expenses." (owner C)<br>"You know, budgeting capital requires calculating something." (management accountant E)<br>"Management accounting merely supports decision-making. (…) If our management accounting evaluates ideas negatively and I therefore refrain from implementing them, this does not necessarily mean that their judgment is correct, because everything can be improved." (owner I)<br>"In the past, management accounting played a minor role, although we want to strengthen it now." (owner J)<br>"Management accounting assumed a rather passive role due to its limited operation scope and thus neither supported nor impeded endeavors. I think we rather focused on gut decisions. " (management accountant J) |

We identified one such pattern in the foreign market entry mode as we found evidence that reliance on management accounting in the evaluation phase depends on the planned mode of entry.

Our multiple case study suggests that the more resource-intensive and risky the intended internationalization mode is, the more management accounting becomes involved and is valued (see Table 4).

We identified another such pattern for different internationalization pathways. As the sample quotes in Table 5 suggest, management accounting's role in the evaluation phase is appreciated more by born globals (firms A, D and H) as well as born-again globals (firms B and F). In contrast, among incremental internationalizers, management accounting's importance in this phase was only emphasized by firms I and J. However, the statement of the management accountant of firm J confirmed that management accounting was not valued this highly in the evaluation phase. The owner of firm J commented on this clearly: "*In the past, management accounting did not have an important role, but we would like to strengthen it in the future.*" In firm I, the management accountant stated that *"management accounting has an important function in every decision because it extracts the relevant information out of data piles so that the top management has a solid decision base."* In contrast to this view, owner I expressed his skepticism about the value of management accounting in evaluating international entrepreneurship opportunities (see Table 5).

On the basis of our findings, we suggest the following proposition:

**Proposition 2**: Management accounting's involvement in the evaluation of international entrepreneurship opportunities depends on the intended entry mode and chosen internationalization pathway.

Although we could not tease out direct explanations from our interviewees on the relationship expressed in Proposition 2 concerning internationalization pathways, we believe that the relationship should hold due to the varying reliance on international business and dependence on the chosen pathway as displayed in Table 5. Our findings point to the notion that born global and born-again global firms more often use management accounting information to evaluate international entrepreneurship opportunities than firms that internationalize incrementally. Born globals and born-again globals show high reliance on international business from their very inception (born globals) or from their "re-birth" as born-again global firms (Andersson and Wictor, 2003; Bell *et al.,* 2001). By contrast, firms that internationalize step-wise often show lower reliance on international business operations (Bell *et al.,* 2003). This generally higher reliance on international business for born global and born-again global firms may be associated with a more standardized and thorough evaluation of international entrepreneurship opportunities than is the case in firms that internationalize incrementally, which may explain these firms' higher reliance on management accounting in evaluating international entrepreneurship opportunities. Viewed from an effectuation/causation standpoint, it seems as if both, born globals and born-again globals of our sample—once it was clear which international entrepreneurship opportunities they wanted to tackle—rather relied on causation logics and accordingly management accounting than incrementally internationalizing firms. As Andersson (2011) puts it, such causational decision-making occurs in rather predictable situations.

We also found evidence that firms with more capital-intensive entry modes such as foreign direct investments exhibit higher reliance on management accounting in evaluating international entrepreneurship opportunities than firms with less capital-intensive entry modes such as exporting. As argued by Sarasvathy (2001), effectuation logics well suit situations characterized by an "affordable loss". That is, the amount of capital a specific decision puts at stake is not large enough to ruin the firm in case of failure. In contrast, situations that affect high amounts of capital—such as capital-intensive international entry modes—may make causation logics appear necessary. Therefore, we can theorize that higher reliance on management accounting for entry modes such as foreign direct investments may be due to the more thorough and formalized evaluation of such entry modes, which are usually characterized by higher risk in terms of the capital invested (Claver *et al.*, 2007).

**Table 6. Management accountants' role in the evaluation phase**

| Theme | Owners | Management accountants | Illustrative quote(s) |
|---|---|---|---|
| Support | A, F, G, J | B, D, E, I | "My function here [in the strategy team] is predominantly supportive, arranging and preparing numbers concerning various questions; provider of information indeed." (management accountant I) |
| Advice / sparring partner | A, D, G, H | B, F, G | "I would not have the heart to do that without management accounting. If I have somebody in the firm who is on one's side with advice, who also challenges critically, then it would be careless to do that only because of sales' recommendation." (owner A) |
| No "brake-man" | D, H | B | "Then I expect him [the management accountant] to take certain risks though. If he only warns, we will do nothing. No risk, no fun. And therefore he is a management accountant; he has to trade off these issues." (owner D) |

Additionally, we tried to understand how management accounting may support the evaluation phase. We found evidence that to evaluate international opportunities, strategic planning (all firms except firm E) and business plans (all firms except firms G and I) are predominantly applied. Management accountants are involved in this evaluation phase to support and advise, as shown in Table 6.

While management accounting's support was claimed as valuable by most interviewees, the high relevance of this advice was only mentioned by the owners and/or management accountants of born globals and born-again globals (with firm G the only exception). Three interviewees of these rapidly internationalizing firms also mentioned the danger that management accountants are too risk-averse and that they therefore may try to block internationalization endeavors.

Generally, management accounting was used interactively in the evaluation phase. In particular, it was used to facilitate discussions about internationalization steps and to enable continuous challenge and debate about the underlying assumptions and plans. Interviewees appreciated this involvement for several reasons. First, according to their statements, relying on management accounting in the evaluation phase allows a more structured preparation of the decision (owners D, H and J and management accountant A), which clearly implies causational decision-making. While the first internationalization steps of our case firms just "happened" and were taken with little analysis and screening (see above)—and may therefore be regarded as following an effectuation pattern—the later involvement of management accountants helped perform a more thorough evaluation or should—according to our interviewees—at least ensure such an evaluation in the future. Thus, it seems that with increasing internationalization experience, causation logics became more relevant than effectuation logics.

Second, our interviewees mentioned that involving management accounting information in the evaluation phase also enhances the legitimation of decisions on international entrepreneurship opportunities, as explained by owner A: *"[T]hese decisions are made easier when you can rely on numbers and figures."* Management accountant F added that *"[w]e make business plans predominantly for banks to get funding. They always want a business plan as prerequisite for a loan."* Similarly, management accountants E added: *"The bottom line is that it is often a gut decision, but you still need a business plan to account for the steps taken, even if they were taken* *intuitively."*

Third—and again following the principles of causation logics—management accounting's screening of the planned international entrepreneurship steps reduced risks, as management accountant C described: *"The better the analysis prior [to the international market entry], the fewer surprises afterwards. However, you can only reduce risks with such an analysis; you cannot eliminate them."* In a similar vein, owners A and D highlighted that management accounting enables them to better assess the risks of internationalization by demonstrating the potential dangers of going international. Summing up, involving management accounting in the evaluation of international entrepreneurship opportunities may have several benefits, which leads us to suggest the following proposition:

**Proposition 3**: In the evaluation of international entrepreneurship endeavors, higher reliance on management accounting is associated with support and advice from management accountants. In line with causation logics in decision-making, such support and advice contributes to a more structured decision-making process, legitimation of decisions and closer examination of the risks involved.

Thus, in the evaluation of an investment proposal, management accounting information may form an important basis for decision-making (see Table 7). However, some interviewees rather adopted an effectuation view and argued that the utility of management accounting information in the decision-making process is limited when evaluating new markets (management accountant C) and soft facts (management accountants C and D). Further, some interviewees saw limited practicability of management accounting information in international entrepreneurship decisions due to its lack of market intimacy (owner H and management accountant I) and its backward orientation (owner I).

In the analyzed firms, international entrepreneurship decisions were made by owners, top management team members, the sales function and/or strategy teams. Management accountants, however, did not have decision authority. Thus, we found evidence that management accountants may offer support and advice on international entrepreneurship decisions (see above), but such advice is not binding to decision-makers. Thus, although management accountants may push for causation logics in international entrepreneurship decisions, actual international entrepreneurship decisions may still involve effectuation aspects.

We therefore propose the following:

**Proposition 4**: Management accountants support decision-making processes in international entrepreneurship by providing information, but they do not hold decision authority. Thus, their causation-oriented advice is not binding and may be overruled by parties holding decision authority such as firm owners and top managers.

Regarding Proposition 4, we again found some varying patterns in our multiple case study along different internationalization pathways. Generally, a number of interviewees stated that using management accounting information in the decision-making process in international entrepreneurship may add value (see Table 8). These benefits were an easing of the decision (owners A, D, F) and more rational and fact-based decisions (owners F, H, J), which may also help legitimize the decisions taken and/or reduce wrong decisions.

**Table 7. Management accounting in the decision phase**

| Theme | Owners | Management accountants | Illustrative quote(s) |
|---|---|---|---|
| Basis for decision-making | A, D, F, J | B, D, E, F, G, H, I | "Management accounting strongly supports collecting the data we need for decision-making." (owner A) |
| | | | "First, you decide what to do. Then management accounting takes over and evaluates it. It then shows whether it is good or bad and how valuable the idea is." (management accountant B) |
| Limited utility of management accounting information | H, I | C, D, I | "Management accounting – dealing with hard facts – works well in established markets. Here, I can calculate the decimal of the contribution margin, know how discounts work. But in a new market, where I completely depend on acquiring a first contract – there it may not be relevant what numbers I calculate today." (management accountant C) |
| | | | "Management accounting only reflects the internal view" (owner H) |
| No decision authority of management accountants | F, I | B, D, E, I | "Management accounting prepares decisions, but does not make them." (management accountant D) |
| | | | "If the boss wants to build a production plant abroad, we will do so. Even if our calculations indicate that it will not pay off." (management accountant E) |
| | | | "If the management accounting function says no, that does not mean it will not be implemented. Management accountants cannot veto such decisions." (management accountant I) |

**Table 8. Value added by management accounting in the decision phase**

| Theme | Owners | Management accountants | Illustrative quote(s) |
|---|---|---|---|
| Easing of decision | A, D, F | | "... then he [the management accountant] prepares everything excellently and this makes it so much easier." (owner D) |
| | | | "Management accountants do not decide, however, they can facilitate the decision." (owner F) |
| More rational and fact-based | F, H, J | | "If management accounting numbers indicate a flop, there is no point in taking a gut decision." (owner F) |
| | | | "The management accountant can contribute for the decision to be taken rationally, although we tend to go with the gut." (owner H) |

Such views were mostly provided by the owners of born globals (A, D, H) and born-again globals (F), but not by owners of firms that internationalized incrementally (with owner J the only exception). The interviews also revealed that two of these owners from born globals or born-again globals (F and H) were the driving forces in their companies' international entrepreneurship endeavors. Our findings indicate that having a critical counterpart in decision-making in the form of management accountants was highly relevant for them. Consequently, born global and born-again global relied on management accounting in the decision-phase to a higher extent and attached a higher level of importance to it than incremental internationalizers—as illustrated by the sample quotes in Table 9.

**Table 9. Management accounting's role in the decision phase as per internationalization pathway**

| Internationalization pathways | | |
|---|---|---|
| Born globals (A, D, H) | Born-again globals (B, F) | Incremental internationalizers (C, E, G, I, J) |
| " …the information management accounting provides is, of course, relevant for further internationalization decisions." (management accountant A)<br>"The opportunities management accounting offers today must be seized. It will not mitigate setbacks once they occur but rather prevent them from happening. Today every business can be run on numbers." (owner D)<br>"Management accounting understands the mechanisms of each and every detail. Management accounting can certainly support new internationalization steps." (owner H) | "Those times when firms could cope without management accounting are over. Today, the accuracy and availability of data, evaluations and analyses are highly appreciated." (management accountant B)<br>"Management accounting highly impacts decisions." (owner F) | "Management accounting does not provide the only basis for decision." (management accountant C)<br>"If I do not know what to do, the best management accounting practices are useless. In such cases, you always take the wrong decision." (owner I)<br>"The corporate structure of our firm does not allow for management accounting functions to veto decisions. [...] Basically the sales functions are strong drivers and it is important to do what the market demands. Here I still see management accounting in a supporting role as it is oriented towards the past and also lacks a comprehensive understanding of market activities." (management accountant I)<br>"Management accounting played a minor and rather passive role due to its limited structure and thus neither supported not impeded decisions. I would say most were gut decisions." (management accountant J) |

Again, interviewees could not directly draw associations between their internationalization pathways and reliance on management accounting information in decisions on international entrepreneurship. However, in our view, the above-presented reasoning of why management accounting information may be more utilized to *evaluate* international entrepreneurship opportunities by born global and born-again global firms also holds for actual *decision-making* on such opportunities. As supported by the exemplary quotes in Table 9, we therefore view our results as indicating that management accounting can be beneficial for this process and is especially valued by born globals and born-again globals. We therefore propose:

**Proposition 5**: Drawing on management accounting in the decision on international entrepreneurship opportunities facilitates decision-making and allows for more rational decisions. This is valued more by the decision-makers of firms that follow a born global or born-again global pathway of internationalization.

### 4.3 Management accounting and the exploitation of international entrepreneurship opportunities

As illustrated in Table 10, we found evidence that once a firm has decided to tackle international entrepreneurship opportunities, management accounting becomes involved more intensively. All interviewees highlighted the importance of management accounting in controlling international activities. The analyzed firms relied on various management accounting practices to plan, track and monitor their international entrepreneurship endeavors, ranging from strategic control to planning/budgeting, reporting and variance analyses. This allows the interpretation that when international entrepreneurship opportunities have already been tackled and are thus better predictable (Andersson, 2011), causation logics that involve planning and monitoring (i.e., management accounting) take center stage in international entrepreneurship.

**Table 10. Management accounting in the exploitation phase**

| Theme | Owners | Management accountants | Illustrative quote(s) |
|---|---|---|---|
| Intensive involvement of management accounting | C, F, H | F | "The effect of management accounting indeed first becomes visible in this phase, when there is a certain volume of international activities, when we have foreign sales, costs and a classifiable contribution margin." (owner C)<br>"Management accounting actually starts with production [abroad]." (management accountant F) |
| Dependent on entry mode | H | A, B, I | "A management accounting department was established in 2013, in response to internationalization activities. Equity investments had been made in subsidiaries abroad, which increased requirements for management accounting in order to support these subsidiaries." (management accountant A)<br>"The top management team as well as the sales and management accounting functions are involved [in the management of international activities]. However, one has to differentiate: with subsidiaries, we are involved intensively; with distribution partners, we are involved much less." (owner H) |

Once again however, we found evidence that management accounting's involvement in the exploitation of international entrepreneurship opportunities depends on the international entry mode chosen (see Table 10). As mentioned by owner H and management accountants A, B and I, management accounting is highly involved in the management of more capital-intensive and riskier internationalization modes such as subsidiaries, while its role seems less important in the management of foreign distribution partners.

Based on these findings, we propose:

**Proposition 6**: Management accounting's involvement increases in the exploitation phase of international entrepreneurship and depends on the chosen international entry mode.

It seems that all interviewees (except owner I) considered management accounting's involvement in the exploitation phase to be more self-evident and a matter of fact compared with the earlier phases of international entrepreneurship. According to them, management accounting is used to continuously diagnose the firm's progress towards its internationalization goals. For instance, the owner of firm C commented: *"It is always good to know your position when you are on the high seas."* This way, management accounting may help track and ensure the success of international activities. For example, if the planned success of an international entrepreneurship project does not materialize, management accountants can give warning signals. Owner F explained that he expects management accounting to perform such tasks: *"They [management accountants] have to give a heads up immediately if a certain result deviates from the budgeted numbers."*

Some interviewees (management accountants C, D and F) further mentioned that as a result of this ongoing control function, deviances from pursued targets may be detected early, which enables firms to initiate countermeasures. The majority of the interviewed management accountants (A, B, C, D, F, H and J) argued that management accounting information also forms the basis, or at least one factor, in decisions to reduce international activities or to exit foreign markets (see Table 11). Thus, in the exploitation phase, management accounting not only controls international entrepreneurship endeavors, but may also signal that such endeavors do not pay off. This leads to our last proposition:

**Proposition 7**: In the exploitation phase of international entrepreneurship, management accounting enables the continuous control of the internationalization steps taken. By doing so, deviances from the planned outcomes of international entrepreneurship can be recognized and countermeasures (such as exits from certain foreign markets) may be initiated.

**Table 11. Management accounting's value added in the exploitation phase**

| Theme | Owners | Management accountants | Illustrative quote(s) |
|---|---|---|---|
| Continuous control of international activities | A, B, C, D, E, F, G, H, J | A, B, C, D, E, F, G, H, I, J | "Management accounting provides the hard facts, accompanies strategy implementation, cost and performance controls." (management accountant C)<br>"Management accounting assumes an important role reporting on and controlling activities. When developing alternatives and further steps, existing targets are adjusted together with local business unit managers." (management accountant D) |
| Early detection of deviances | | C, D, F | "Reports give clear feedback on the success of our activities. Such reports also indicate if and to what extent we have to readjust our activities in certain circumstances." (management accountant C) |
| Basis for downscaling or exit decisions | | A, B, C, D, F, H, J | "… we simply showed that we did not generate sales with these distribution partners and, nevertheless, provided them with support services such as product information etc. After 1-2 years, it was clear – based on the numbers we contributed continuously – that there was no sales volume." (management accountant A)<br>"Monthly profitability reports reveal this constantly. If they show massive deviances from the budget over a longer period, discussions increase and eventually consequences are drawn." (management accountant B) |

## 5. Discussion and conclusions

Our findings demonstrate that management accounting is an important capability in international entrepreneurship, but that its role—and thus, the reliance on effectuation and causation—depends on the phase of the international entrepreneurship process. While our results suggest that management accounting—and thus, causation—is highly involved in the exploitation phase and an essential element in the continuous control of foreign operations, it seems to have only a minor role in the evaluation phase and in the decision to go international. In these earlier phases, effectuation logics seem to dominate. Accordingly, we find that management accounting is not involved at all in the identification of international opportunities, as all of our case firms *enacted* and not *discovered* their international entrepreneurship opportunities.

Our results also point to the notion that management accounting's role—and thus, by trend also causation logics more generally—is more pronounced and valued the more resource-intensive and riskier the firms' internationalization modes are and the more rapidly firms internationalize. Involving management accounting in international entrepreneurship appears more important for higher internationalization modes, especially for wholly-owned subsidiaries. This entry mode is related to the highest risk and resource commitment and thus—and in line with causation logics (Sarasvathy, 2001)—a proper evaluation of the intended internationalization strategy ex ante as well as the continuous control of the chosen strategy's success ex post is expedient. Higher internationalization modes also go along with an increased level of complexity. To cope with the (more) complex business environment, professional structures are often required and one such professional structure is management accounting (Songini, 2006).

A firm's internationalization pathway seems to be another important factor that influences management accounting's role in international entrepreneurship. Our findings suggest that born globals and born-again globals involve management accounting—and thus, causation logics—to a larger extent, particularly in the evaluation phase. They not only ask for support in the evaluation phase but also require management accountants to act as sparring partners who can critically challenge the intended internationalization steps. Born globals and born-again globals are characterized by a high level of and a high reliance on international activity. Consequently, a large amount of resources are committed to international entrepreneurship in such firms and they rely on more risky internationalization modes. Given their worldwide activity, they are also confronted with a variety of cultures and diverse environments, increasing complexity further. To cope with such risks and complexity, they draw on professional structures such as management accounting and refer to causation-based planning in general. This notion may explain why management accounting's involvement is valued more in born globals and born-again globals.

In summary, the seven propositions developed in this study add to the accounting and international entrepreneurship literatures in several ways. First, our study contributes to a better understanding of the role of accounting in one specific area of managerial work (Gerdin *et al.*, 2014; Hall, 2010)—international entrepreneurship. Our study yields preliminary explanations of the positive link between management accounting usage and internationalization capability (Gómez-Conde *et al.*, 2013) and the related capabilities of entrepreneurship and innovation (Henri, 2006). On this link, our findings suggest that management accounting may not help identify international entrepreneurship opportunities, but rather that management accounting information is an important capability to evaluate such opportunities and continuously monitor their exploitation. Management accounting may therefore help filter the most promising international entrepreneurship opportunities and abandon them again if they do not develop as intended. Such functions seem crucial for successful international entrepreneurship, not least because not all international entrepreneurship endeavors are considered to be a success (e.g., Autio *et al.*, 2011; Keupp and Gassmann, 2009). While our study is a starting point for research on the role of management accounting in international entrepreneurship, corroboration and extension by further works would be valuable.

We also contribute to the nascent literature that views management accounting as an important resource or capability in line with the RBV (Dekker *et al.*, 2013; Henri, 2006) by demonstrating that management accounting may serve as a capability for international entrepreneurship, but that reliance on this capability varies with different phases of international entrepreneurship, international entry modes and internationalization pathways. Our study therefore shows that the role of management accounting not only varies with different life-cycle stages (Moores and Yuen, 2001), but also with phases of more granular processes such as international entrepreneurship. This way, our study adds further important factors (international entry modes and internationalization pathways) to the contingency literature on management accounting and control systems (e.g., Chenhall, 2003; Otley, 2016).

Our study is among the first to view management accounting in the light of effectuation and causation logics. Present management accounting literature is often based on a rational view of managerial decision-making (e.g., Carlsson-Wall *et al.*, 2015; Nixon and Burns, 2012). In essence, this view draws on causation logics and assumes that all managerial actions can be planned comprehensively and necessary information is available ex ante. However, our findings suggest that the identification of important strategic opportunities such as international entrepreneurship may be not planned but just "happens", which goes in line with effectuation. In our view, management accounting literature therefore needs to embrace such effectual decision-making, which at first sight may seem "irrational" but is frequently applied in business practice—especially in smaller firms (Chandler, 2015).

In addition to these contributions to the accounting literature, our findings shed light on an important, but thus far mostly neglected capability in international entrepreneurship research—management accounting. Our findings therefore complement and extend the literature on the capabilities needed for international entrepreneurship endeavors (Al-Aali and Teece, 2014; Autio *et al.,* 2011; Knight and Cavusgil, 2004; Yiu *et al.,* 2007). Our results illustrate the importance of management accounting—as one form of professionalization—for coping with the increased complexity and risks that result from international entrepreneurship and thus complements previous research that highlights the sophistication of financial management for mastering the challenges of going international (Dick *et al.*, 2017). Since we find that reliance on management accounting varies across the phases of international entrepreneurship, internationalization pathways and international entry modes, our results also add to the literature that views capabilities for international business as highly contingent on firm and life-cycle characteristics (Sirmon *et al.*, 2011) and growth paths (Wright and Stigliani, 2013).

In terms of practical implications, our study provides evidence that management accounting supports international entrepreneurship. It may enable a thorough evaluation of the intended international entrepreneurship steps, structure the decision-making process, facilitate internationalization decisions, and generally make international entrepreneurship endeavors more well-grounded and rationally thought-through. In the evaluation phase, relying on management accounting can provide legitimation and a better assessment of the risks involved in international entrepreneurship. Once the firm has gone international, management accounting can ensure that the resources committed to internationalization are used and orchestrated in the best way by disclosing deviances from planned milestones and initiating countermeasures early.

Like any piece of research, this study is not free from limitations. First, while our qualitative research design allows to explore cause-effect relationships, gain in-depth insights and thus *theoretical* generalizability, the generated findings cannot readily be generalized *statistically* (Ryan *et al.*, 2002). Hence, future studies replicating our study in different contexts and quantitative studies testing our propositions are needed to corroborate our findings (Eisenhardt and Graebner, 2007). Second, the distinction between the three pathways of internationalization may not be always clear-cut. Although we relied on the three basic criteria literature offers to distinguish between born globals, born-again globals and incremental internationalizers (Cesinger *et al.*, 2012) and received clearly separable clusters from these criteria, this classification still may be regarded as subjective and specific to the Austrian context. Accordingly, the development and application of a more fine-grained clustering of these pathways must be left to future research.

## Notes

[1] To be precise, Gómez Conde *et al.* (2013) and Henri (2006) do not frame the practices they study as “management accounting systems”, but as “management control systems”. These two terms are, however, closely related and sometimes even used interchangeably (Chenhall, 2003) or—as “management accounting and control systems”—as an umbrella term (Lavia Lopez and Hiebl, 2015). In fact, the very same practices such as budgeting and capital budgeting may be either considered to be management accounting or management control (Malmi and Brown, 2008). For this reason, we do not distinguish between management accounting and management control. Therefore, when referring to the results of Gómez Conde *et al.* (2013) and Henri (2006), we use the term “management accounting”.

[2] Performance measurement systems may be regarded as management accounting systems (e.g., Burns *et al.*, 2013; Lavia Lopez and Hiebl, 2015).

## References

Al-Aali, A. and Teece, D.J. (2014), "International Entrepreneurship and the Theory of the (Long-Lived) International Firm: A Capabilities Perspective", *Entrepreneurship Theory and Practice*, Vol. 38 No. 1, pp. 95–116.

Andersson, S. (2011), "International entrepreneurship, born globals and the theory of effectuation", *Journal of Small Business and Enterprise Development*, Vol. 18 No. 3, pp. 627–643.

Andersson, S. and Wictor, I. (2003), "Innovative Internationalisation in New firms: Born Globals– the Swedish Case", *Journal of International Entrepreneurship,* Vol. 1 No. 3, pp. 249–275.

Autio, E., George, G. and Alexy, O. (2011), "International Entrepreneurship and Capability Development-Qualitative Evidence and Future Research Directions", *Entrepreneurship Theory and Practice,* Vol. 35 No. 1, pp. 11–37.

Barney, J. (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management,* Vol. 17 No. 1, pp. 99–120.

Bell, J., McNaughton, R. and Young, S. (2001), "'Born-again global' firms", *Journal of International Management,* Vol. 7 No. 3, pp. 173–189.

Bell, J., McNaughton, R., Young, S. and Crick, D. (2003), "Towards an Integrative Model of Small Firm Internationalisation", *Journal of International Entrepreneurship,* Vol. 1 No. 4, pp. 339–362.

Brinckmann, J., Grichnik, D. and Kapsa, D. (2010), "Should entrepreneurs plan or just storm the castle? A meta-analysis on contextual factors impacting the business planning–performance relationship in small firms", *Journal of Business Venturing*, Vol. 25 No. 1, pp. 24-40.

Burns, J., Quinn, M., Warren, L. and Oliveira, J. (2013), *Management Accounting*, McGraw-Hill Education, Maidenhead.

Cannone, G., Pisoni, A. and Onetti, A. (2014), "Born global companies founded by young entrepreneurs: A multiple case study", *International Journal of Entrepreneurship and Innovation Management*, Vol. 18 Nos. 2/3, pp.210–232.

Carlsson-Wall, M., Kraus, K. and Lind, J. (2015), "Strategic management accounting in close inter-organisational relationships", *Accounting and Business Research,* Vol. 45 No. 1, pp. 27–54.

Cavusgil, S.T. and Knight, G. (2015), "The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization", *Journal of International Business Studies,* Vol. 46 No. 1, pp. 3–16.

Cesinger, B., Fink, M. Madsen, T.K. and Kraus, S. (2012),"Rapidly internationalizing ventures: how definitions can bridge the gap across contexts", *Management Decision*, Vol. 50 No. 10 pp. 1816–1842.

Chandler, G.N. (2015), "Effectual Decision Making: Applications for Small Business", in Newbert, S.L. (Ed), *Small business in a global economy: Creating and managing successful organizations*, Praeger, Santa Barbara, pp. 71–101.

Chenhall, R.H. (2003), "Management control systems design within its organizational context: Findings from contingency-based research and directions for the future", *Accounting, Organizations and Society,* Vol. 28 Nos. 2-3, pp. 127–168.

Claver, E., Rienda, L. and Quer, D. (2007), "The internationalisation process in family firms: choice of market entry strategies", *Journal of General Management,* Vol. 33 No. 1, pp. 1–16.

Dekker, H.C., Groot, T. and Schoute, M. (2013), "A Balancing Act? The Implications of Mixed Strategies for Performance Measurement System Design", *Journal of Management Accounting Research,* Vol. 25 No. 1, pp. 71–98.

Dick, M., Mitter, C., Feldbauer-Durstmüller, B. and Pernsteiner, H. (2017) "The impact of finance and governance on the internationalisation modes of family firms", *European Journal of International Management*, Vol. 11 No. 1, pp. 42–64.

Eisenhardt, K.M. (1989), "Building Theories from Case Study Research", *Academy of Management Review,* Vol. 14 No. 4, pp. 532–550.

Eisenhardt, K.M. and Graebner, M.E. (2007), "Theory Building from Cases: Opportunities and Challenges", *Academy of Management Journal*, Vol. 50 No. 1, pp. 25–32.

Eisenhardt, K.M. and Martin, J.A. (2000), "Dynamic capabilities: what are they?", *Strategic Management Journal,* Vol. 21 Nos. 10-11, pp. 1105–1121.

Emmanuel, C., Harris, E. and Komakech, S. (2010), "Towards a better understanding of capital investment decisions", *Journal of Accounting & Organizational Change,* Vol. 6 No. 4, pp. 477–504.

Gerdin, J., Messner, M. and Mouritsen, J. (2014), "On the significance of accounting for managerial work", *Scandinavian Journal of Management,* Vol. 30 No. 4, pp. 389–394.

Giovannoni, E., Maraghini, M.P. and Riccaboni, A. (2011), "Transmitting Knowledge Across Generations: The Role of Management Accounting Practices", *Family Business Review*, Vol. 24 No. 2, pp. 126–150.

Gómez-Conde, J., López-Valeiras Sampedro, E., Ripoll Feliu, V. and González Sánchez, M. B. (2013), "Management Control Systems and ISO Certification as Resources to Enhance Internationalization and Their Effect on Organizational Performance", *Agribusiness,* Vol. 29 No. 3, pp. 392–405.

Haka, S.F. (2007), "A Review of the Literature on Capital Budgeting and Investment Appraisal: Past, Present, and Future Musings", in Chapman, C.S., Hopwood, A.G. and Shields, M.D. (Eds), *Handbook of Management Accounting Research: Volume 2,* Elsevier, Oxford, pp. 697–728.

Hall, M. (2010), "Accounting information and managerial work", *Accounting, Organizations and Society*, Vol. 35 No. 3, pp. 301–315.

Henri, J.-F. (2006), "Management control systems and strategy: A resource-based perspective", *Accounting, Organizations and Society*, Vol. 31 No. 6, pp. 529–558.

Hiebl, M.R.W. (2014), "A finance professional who understands the family: family firms' specific requirements for non-family chief financial officers", *Review of Managerial Science,* Vol. 8 No. 4, pp. 465–494.

Hitt, M.A., Tihanyi, L., Miller, T. and Connelly, B. (2006), "International diversification: antecedents, outcomes, and moderators", *Journal of Management,* Vol. 32 No. 6, pp.831–867.

Jones, M.V., Coviello, N. and Tang, Y.K. (2011), "International Entrepreneurship research (1989–2009): A domain ontology and thematic analysis", *Journal of Business Venturing,* Vol. 26 No. 6, pp. 632–659.

Jones, M.V. and Coviello, N.E. (2005), "Internationalisation: conceptualising an entrepreneurial process of behaviour in time", *Journal of International Business Studies,* Vol. 36 No. 3, pp. 284–303.

Keupp, M.M. and Gassmann, O. (2009), "The Past and the Future of International Entrepreneurship: A Review and Suggestions for Developing the Field", *Journal of Management,* Vol. 35 No. 3, pp. 600–633.

Klein, S.B. (2000), "Family Business in Germany: Significance and Structure", *Family Business Review,* Vol. 13 No. 3, pp. 157–181.

Knight, G.A. and Cavusgil, S.T. (2004), "Innovation, organizational capabilities, and the born-global firm", *Journal of International Business Studies,* Vol. 35 No. 2, pp. 124–141.

Lavia Lopez, O. and Hiebl, M.R.W. (2015), "Management Accounting in Small and Medium-Sized Enterprises: Current Knowledge and Avenues for Further Research", *Journal of Management Accounting Research,* Vol. 27 No. 1, pp. 81–119.

Leonidou, L.C. and Katsikeas, C.S. (1996), "The Export Development Process: An Integrative Review of Empirical Models", *Journal of International Business Studies,* Vol. 27 No. 3, pp. 517–551.

Mainela, T., Puhakka, V. and Servais, P. (2014), "The Concept of International Opportunity in International Entrepreneurship: A Review and a Research Agenda", *International Journal of Management Reviews,* Vol. 16 No. 1, pp. 105–129.

Malmi, T. and Brown, D.A. (2008), "Management control systems as a package: Opportunities, challenges and research directions", *Management Accounting Research,* Vol. 19 No. 4, pp. 287–300.

Messner, M. (2016), "Does industry matter? How industry context shapes management accounting practice", *Management Accounting Research*, Vol. 31, pp. 103–111.

Mitter, C., Duller, C. and Feldbauer-Durstmüller, B. (2014), "The relations between governance and the internationalisation of SMEs: evidence from medium-sized Austrian firms", *International Journal of Entrepreneurial Venturing*, Vol. 6 No. 4, pp. 367–390.

Moores, K. and Yuen, S. (2001), "Management accounting systems and organizational configuration: A life-cycle perspective", *Accounting, Organizations and Society,* Vol. 26 Nos. 4-5, pp. 351–389.

Nixon, B. and Burns, J. (2012), "The paradox of strategic management accounting", *Management Accounting Research,* Vol. 23 No. 4, pp. 229–244.

Nordqvist, M. and Melin, L. (2010), "Entrepreneurial families and family firms", *Entrepreneurship & Regional Development,* Vol. 22 Nos. 3-4, pp. 211–239.

Otley, D. (2016), "The contingency theory of management accounting and control: 1980–2014", *Management Accounting Research*, Vol. 31, pp. 45–62.

Oviatt, B.M. and McDougall, P.P. (1994), "Toward a Theory of International New ventures", *Journal of International Business Studies,* Vol. 25 No. 1, pp. 45–64.

Oviatt, B.M. and McDougall, P.P. (2005), "Defining International Entrepreneurship and Modeling the Speed of Internationalization", *Entrepreneurship Theory and Practice,* Vol. 29 No. 5, pp. 537–554.

Parker, L.D. and Northcott, D. (2016), "Qualitative generalising in accounting research: concepts and strategies", *Accounting, Auditing & Accountability Journal*, Vol. 29 No. 6, pp. 1100–1131.

Peng, M.W. (2001), "The resource-based view and international business", *Journal of Management,* Vol. 27 No. 6, pp. 803–829.

Perry, J.T., Chandler, G.N. and Markova, G. (2012), "Entrepreneurial Effectuation: A Review and Suggestions for Future Research", *Entrepreneurship Theory and Practice,* Vol. 36 No. 4, pp. 837–861.

Rowley, J. (2012), "Conducting research interviews", *Management Research Review,* Vol. 35 Nos. 3/4, pp. 260–271.

Ryan, B., Scapens, R.W. and Theobald, M. (2002). *Research method and methodology in finance and accounting,* Cengage Learning, Andover.

Sarasvathy, S.D. (2001), "Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency", *Academy of Management Review,* Vol. 26 No. 2, pp. 243–263.

Senftlechner, D. and Hiebl, M.R.W. (2015), "Management accounting and management control in family businesses: Past accomplishments and future opportunities", *Journal of Accounting & Organizational Change,* Vol. 11 No. 4, pp. 573–606.

Sirmon, D.G., Hitt, M.A., Ireland, R.D. and Gilbert, B.A. (2011), "Resource Orchestration to Create Competitive Advantage: Breadth, Depth, and Life Cycle Effects", *Journal of Management,* Vol. 37 No. 5, pp. 1390–1412.

Songini, L. (2006), "The Professionalization of Family Firms: Theory and Practice", in Poutziouris, P. Z., Smyrnios, K.X. and Klein, S.B. (Eds), *Handbook of Research on Family Business,* Edward Elgar, Cheltenham, pp. 269–297.

Steiger, T., Duller, C. and Hiebl, M.R.W. (2015), "No Consensus in Sight: An Analysis of Ten Years of Family Business Definitions in Empirical Research Studies", *Journal of Enterprising Culture,* Vol. 23 No. 1, pp. 25–62.

Sykianakis, N. and Bellas, A. (2005), "The foreign direct investment decision-making process: Strategy, politics and uses of management accounting information", *Managerial Auditing Journal,* Vol. 20 No. 9, pp. 954–969.

Taylor, M. and Jack, R. (2013), "Understanding the pace, scale and pattern of firm internationalization: An extension of the 'born global' concept", *International Small Business Journal,* Vol. 31 No. 6, pp. 701–721.

Thomas, D.R. (2006), "A General Inductive Approach for Analyzing Qualitative Evaluation Data", *American Journal of Evaluation,* Vol. 27 No. 2, pp. 237–246.

van Cauwenbergh, A., Durinck, E., Martens, R., Laveren, E. and Bogaert, I. (1996), "On the role and function of formal analysis in strategic investment decision processes: results from an empirical study in Belgium", *Management Accounting Research,* Vol. 7 No. 2, pp. 169–184.

Wright, M. and Stigliani, I. (2013), "Entrepreneurship and growth", *International Small Business Journal*, Vol. 31 No. 1, pp. 3–22.

Yin, R.K. (2014), *Case study research: Design and methods.* Fifth edition, Sage, Los Angeles.

Yiu, D.W., Lau, C. and Bruton, G.D. (2007), "International venturing by emerging economy firms: the effects of firm capabilities, home country networks, and corporate entrepreneurship", *Journal of International Business Studies*, Vol. 38 No. 4, pp. 519–540.

Zahra, S.A., Korri, J.S. and Yu, J. (2005), "Cognition and international entrepreneurship: implications for research on international opportunity recognition and exploitation", *International Business Review*, Vol. 14 No. 2, pp. 129–146.