

# COGNITIVE PATHWAYS IN SMALL BUSINESSES DECISION-MAKING PROCESSES

Carmela Rizza \*

\* Department of Economics and Business, University of Catania, Italy

Contact details: Department of Economics and Business, University of Catania, Corso Italia, 55, 95129, Catania, Italy



## Abstract

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Research on small firms decision-making processes has stimulated accounting scholars to investigate how peculiarities of these firms could affect the way how they are managed, focusing on the limited diffusion of managerial accounting practices in these contexts. Controversial results on how managerial accounting practices work in small firms, claim for further research that mostly focus on how managerial accounting systems work in the decision-making processes of small firms. In this view, adopting a sociological perspective managerial accounting practices are interpreted as tools for making sense of past decisions and to discover future alternatives through cognitive pathways. Thus, the attention is on learning processes activated through balance sheet analysis in a small firm that was implementing this tool. The main contribution of this paper concerns the crucial role that balance sheet analyses play in supporting the organizational actors to monitor the state of the company and the decision-making processes. The discussion of balance sheet analyses results enabled the owner and his staff to appraise the current situation and pinpoint weaknesses, allowing them to analyse past events with a new lens and activating new knowledge pathways. Case evidence supports theoretical contributions to the decision-making processes of small businesses helping to better understand how managerial accounting practices work to discover future alternatives through cognitive pathways. The paper provides also a practical contribution concerning the crucial role that balance sheet analyses play in small firms.

**Keywords:** Decision-Making, Small Firms, Knowledge, Balance Sheet Analysis

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## 1. INTRODUCTION

The significant role small firms play in the global economy has stimulated research on this field to determine how the peculiarities of these firms could affect the way they are managed. Acknowledging the limited usefulness of the rationality model to explain decision-making in small firms (Busenitz & Barney, 1997; Papadakis, Lioukas, & Chambers, 1998; Brouthers, Andriessen, & Nicolaes, 1998; Gilmore & Carson, 2000), we suggest that the more willing entrepreneurs use their instincts for decision-making in order to guarantee their ability to

adapt to environmental changes (Gibcus, Vermeulen, & De Jong, 2009).

Particularly, accounting scholars have focused their attention on the limited diffusion of managerial accounting practices in small firms. They recognize the internal culture, the lack of managerial capacity, and the limited capital resources as the main factors that could hinder the diffusion of managerial accounting practices (Chenhall, 2003; Garengo, Biazzo, & Bititci, 2005; Broccardo, Giacosa, Culasso, & Ferraris, 2017). Concurrently, other contributions have underlined how the environmental turbulences in small firms act as

a stimulus to use managerial tools (Aram & Cowen, 1990; Granlund & Lukka, 1998; Anderson & Lanen, 1999; Luther & Longden, 2001). Coherently, evidence has shown that small firms were more disposed to use managerial accounting practices when they have to face an increasingly complex crisis or period (Broccardo et al., 2017).

Moving from the controversial results on how managerial accounting practices work in small firms, this paper aims to mostly focus on the decision-making processes of these firms by investigating how managerial accounting systems work in their decision-making processes. To this end, we adopted a sociological perspective of analysis; we consider the small firms as socially constructed realities. This theoretical choice is motivated by the intent to better understand how social actors are embedded in decision-making processes and interact with each other and how managerial accounting practices provide for the binding of social interactions in these firms across time and space (Tillmann & Goddard, 2008). Following this approach, managerial accounting practices can work as tools for making sense of past decisions and the present so as to discover and evaluate future alternatives through cognitive pathways (Ansari & Euske, 1987; Brunsson, 1990; Ahrens & Chapman, 2007; Corbett, 2007). On this issue, Kolb (1984) explained that learning is grounded in experience and that learning occurs and new knowledge is created when an individual acquires information and transforms it with existing knowledge. This process consists of three distinct elements: the existing knowledge, the process through which individuals acquire new information and experiences, and the manner in which individuals transform new information and experiences into new knowledge (Corbett, 2007; Tillmann & Goddard, 2008; Kimmitt & Muñoz, 2018; Introna, 2019).

To investigate the research questions previously stated, we conducted a longitudinal case study over a period of 3 years in a small firm that was implementing managerial accounting systems. Evidence drawn from the case allowed us to better clarify how managerial control systems interact in the decision-making processes of small firms, through the enactment of cognitive pathways able to sustain the processes of new knowledge social construction.

## 2. SMALL BUSINESSES' DECISION-MAKING PROCESSES

A substantial body of research has emphasized decision-making as a key process of strategic management but has only investigated within the context of large organisations; meanwhile, these studies have overlooked strategic decisions in smaller firms (Robinson & Pearce, 1983; Julien, 2018). This emphasis is justified given that strategic decisions are fundamental in shaping the success of a firm over the course of its existence (Eisenhardt & Zbaracki, 1992), but given the recognized differences of small businesses compared to the large ones, a deeper understanding of how the decision-making process in small businesses is different is required.

Studies on decision-making have focused on large firms, and very little research has been conducted on the decision-making process in small businesses. According to academic researchers and practitioners in the field, however, the decision-making process in small businesses is different from large firms and many studies have provided empirical evidence on this argument (Papadakis et al., 1998; Brouthers et al., 1998; Gilmore & Carson, 2000; Rizza, Leotta, & Ruggeri, 2017). According to Busenitz and Barney (1997), entrepreneurs use more heuristic and biased approaches to decision-making due to limited access to information and opportunities in the market (Brouthers et al., 1998). Entrepreneurs in small businesses do not have access to information that is accessible to large firms; thus, they perceive uncertainty differently from large firms, which are supported by a huge number of staff and managers who make the environment less uncertain (Hambrick & Crozier, 1985; Covin & Slevin, 1989; Busenitz and Barney, 1997; Gibcus et al., 2009; Burns & Dewhurst, 2016; Broccardo et al., 2017). Additionally, Mador (2000) argued that entrepreneurs can have various approaches to decision-making: emotional, rational, or intuitional. The decision, in turn, whether it is good or bad, has an impact on the experience and the knowledge of the entrepreneur (Gibcus et al., 2009), so that a cognitive decision-making process of entrepreneurs is shaped by the strategic decisions of the past and their outcomes.

Decisions taken by entrepreneurs are mostly impatient and action-oriented (McGrath, MacMillan, & Scheineberg, 1992). Entrepreneurs usually are risk-takers, favour individualism, and are not democratic. They use a deductive approach to making decisions. Also, they are not trained as managers, so the decisions they make usually reflect an over-confidence in themselves (Gibcus et al., 2009; Murphy, Tocher, & Burch, 2019). Busenitz and Barney (1997) have asserted that entrepreneurs follow specific decision-making processes in which they use biases and heuristics (Gibcus et al., 2009).

Contributions on strategic decision-making are traditionally grounded on rationality and political perspectives. According to the perspective of rationality, decision-makers have all relevant information and are able to select the best alternative to fully maximize utility (March & Simon, 1958); otherwise, they cannot have all the relevant information due to cognitive limitations, and decisions are made on whatever information is available to the individuals involved in the process (Simon, 1957). From a political perspective, many actors with conflicting opinions use coalitions to protect their interests in the decision-making process (Eisenhardt & Zbaracki, 1992). Hendry (2000) argued that these streams of research are 'traditional' perspectives in which actions follow logically from decisions taken at some point earlier in time. He introduces two divergent perspectives that are posed as a critique to the traditional perspective: the action perspective, in which decisions are used to motivate and mobilize resources for actions that have already been chosen (Hendry, 2000, p. 959), and the interpretative perspective, where decisions are located, articulated, and ratified, "bringing it forward to the present, and

claiming it as the decision that has just been made" (Hendry, 2000, p. 961).

Given that small firms also tend to be less rational in their decision-making processes (Rice & Hamilton, 1979; Brouthers et al., 1998; Byers & Slack, 2001; Julien, 2018), we feel that the context for strategic decision-making in small firms clearly differs from the context in large firms for at least three reasons. Firstly, entrepreneurs face a more hostile or uncertain environment in their decision-making activities (Hambrick & Crozier, 1985; Covin & Slevin, 1989). Unlike managers in large firms, they do not have access to extensive information sources. Managers of large firms tend to be supported by staff members who continuously scan the environment and gather information (Busenitz & Barney, 1997). Secondly, the entrepreneurial environment is dynamic and complex (Covin & Slevin, 1991). Large firms often develop decision-making routines that simplify the process of decision-making for managers, whereas entrepreneurs do not develop such routines and often act on the basis of opportunism, biases, and heuristics (Gartner, Bird, & Starr, 1992). Thirdly, entrepreneurs are often believed to have specific characteristics that influence the decision-making process and are distinct from other people (Brouthers et al., 1998; Mador, 2000).

A key determinant of decision-making tactics is the entrepreneur's background or firm's characteristics (Avery, Bostic, & Samolyk, 1998; Chaganti, DeCarolis, & Deeds, 1996; Watson 2002).

We focus our attention on small enterprises whose successes basically depend on the entrepreneur, who is personally responsible for managing the activities of the company. This model is characterized by flexibility and an ability to react quickly and adapt to the competitive and changing environment; organizational processes that are not very structured; significant concentration of decision-making processes in the entrepreneur; focus on technical aspects and production; and the existence of specialist and tacit knowledge that is essentially technological and evolves through learning processes based on learning by doing (Jennings & Beaver, 1997; Garengo et al., 2005; Kimmitt & Muñoz, 2018). In this context, we aim to mostly focus on the decision-making processes of these firms by investigating how managerial accounting systems work in their decision-making processes.

### 3. COGNITIVE PATHWAYS IN SMALL BUSINESSES' DECISION-MAKING PROCESSES

Studies that have analysed driver factors of management accounting and control systems in small firms have highlighted that business size and growth are key drivers (Giovannoni, Maraghini, & Riccaboni, 2011; Speckbacher & Wentges, 2012), while the role of trust is still controversial. Some studies pointed out that trust in the management of the company may reduce the need for management accounting (Moilanen, 2008; Tsamenyi, Noormansyah, & Uddin, 2008; Stergiou, Ashraf, & Uddin, 2013), whereas others have discussed the irrelevance of trust in contexts of growing complexity. In those cases, there is a need for more

formal control systems irrespective of the level of trust in the management (Giovannoni et al., 2011).

Other contributions have recognized the negative influence of entrepreneur orientation of the business on the adoption of management accounting practices and control systems, showing that the entrepreneur's involvement is negatively associated with the use of management accounting practices and control systems (Leenders & Waarts, 2003; Tsamenyi et al., 2008; Uddin, 2009; Speckbacher & Wentges, 2012).

The evidence suggests that small firms consider management accounting and control systems as less relevant than bigger firms do (Duréndez, Madrid-Guijarro, & García-Pérez-de-Lema, 2011) and that they tend to use less sophisticated tools (Neubauer, Mayr, Feldbauer-Durstmüller, & Duller, 2012; Samuelsson, Andersén, Ljungkvist, & Jansson, 2016).

Studies examining the role of managerial accounting in small firms have also shown that management accounting practices can significantly influence the transfer of knowledge across generations as well as between the management team and the owners (Giovannoni et al., 2011).

Research on the role of accounting information in developing knowledge has highlighted the decision-facilitating role of accounting information (Horngren, Bhimani, Datar, & Foster, 2005; Sprinkle, 2003). The dynamics of managers' working context force them to face turbulence and uncertainty and use the information to develop knowledge of their work or past experiences (Dane & Pratt, 2007). As such, most of the information that managers gather is not for decision-making purposes but rather to develop a context of knowledge and meaning for future actions (March, 1987; Feldman & March, 1981; Preston, 1986; McKinnon & Bruns, 1992; Simon, Guetzkow, Kozmetsky, & Tyndall, 1954). The flow of this process of developing knowledge makes accounting a key source of information about business performance. In particular, it can help all organizational actors develop knowledge and visualize daily activities while providing an overall quantitative perspective of them (Hall, 2010).

To accomplish this role, the managers' closeness to operational activities, time horizon, and diversity of operational factors under consideration are required. Managers with little contact with operations, however, devote considerable attention to accounting reports as they have limited opportunities for picking up information from actual observations of work being conducted (McKinnon & Bruns, 1992; Simon et al., 1954). Additionally, scholars have shown that the ability of accounting information to communicate a common-sense, credible story of business operations is far more important than the creation of a statistically valid, predictive business model (Malina, Nørreklit, & Selto, 2007). These findings are consistent with the expectation that the process of developing knowledge of the work environment could be promoted by engaging simpler information that challenges existing points of view (Hall, 2010).

The ability of accounting information to activate and support the process of knowledge development in doing business is strictly linked to the role of accounting information as a common language in facilitating communication among

actors with different backgrounds, experiences, and knowledge. In this sense, accounting information acts as an anchor to frame discussions amongst involved actors (Ahrens & Chapman, 2007; Simons, 1990), playing a key role in consensus building by constructing a common set of information to facilitate communication and helping to produce meaning (Simons, 1990; Tversky & Kahneman, 1981).

This learning process could be better understood by considering its main phases: information collection (scanning), interpretation, and learning (action taken) (Daft & Weick, 1984). Thus, the provision of information is the first step of organizational learning, when knowledge is created and organized by the very flow of information and anchored on the commitment and beliefs of its holder. Shared mental models act as the knowledge base or belief structure of an organization that guides individual actions and ultimately organizational decision-making (Kim, 1998). Through the sharing and integration of individual mental models, the organization's shared mental models are newly formed, changed, and updated. Hence, the provision of information is the beginning and a necessary condition of organizational learning. Accounting information plays a critical role in these learning processes by fostering the integration of organizational mental models. Effective organizational learning is not automatically accomplished by the offering of information; it must be facilitated through structures and processes that make effective learning easy (DiBella, Nevis, & Gould, 1996). In this view, interactions and communication between individuals serve as a means to enhance the exchange or sharing of information, leading to the development of shared mental models (Nonaka, 1994). Specifically, accounting tools can support these organizational actors' learning processes and help them to interpret the business's well-being and determine the pathways that could be pursued in the future, offering them the possibility of interacting through a common language that overcomes the different backgrounds, experiences, and knowledge they have.

#### 4. METHODOLOGY

To improve our understanding of how managerial accounting practices could activate cognitive pathways in small businesses' decision-making processes, we carried out a longitudinal case study (from 2016 up to 2019) at a small firm that has operated since 1995 in the cosmetics and pharmaceutical business with the objective of innovating and promoting the regional context in which it works. The founder of this company aims to apply his technical competences to the business and try to develop worldwide new essences and smells that characterize the local region.

To this end, the founder is mainly devoted to innovating and guaranteeing the high quality of the company's products to customers. This company is in a growing period and has 9 mln euros of revenues in 2018. It employed about 30 people in 2018.

According to the aim of the study, we focus on the learning processes activated in this company after the introduction of management accounting tools. This event was strongly promoted by the entrepreneur, who sought every kind of innovation

for his business. In 2016, he implemented the managerialization of the company to prepare for the period of growth by employing a general director who followed a managerial approach to support all organizational actors to change how they had been handling business. The entrance of the general director activated a delegation process that is still in the making. At the same time, the process of change coincided with the introduction of new calculative practices that were implemented to better explain to all employees how business was to be carried out and managed in the future. This case study analysis aims to describe the main challenges that emerged during the development of the balance sheet analysis and the presentation of its main results. It refers mostly to the interactions of all the organizational actors involved in the managerialization process and to the learning pathways that were activated.

The case study followed a retrospective approach that intended to grasp subjects' perceptions of the accounting information systems (Scapens, 2004) by collecting field data through ten semi-structured interviews conducted with the founder, general director, controller, and actors involved in the process (purchasing manager, customer/sales manager, accountant). The interviews focused on: a) how introducing such management accounting tools could change the way decisions were made; b) how these tools impacted knowledge sharing among all organizational actors; and c) how introducing these tools activated perceived learning. Interviews were not recorded because of the confidential nature of the issues discussed (Kajüter & Kulmala, 2005). They were conducted in an informal style; the interviews were written down as a draft report and shared with the interviewees.

The limitation of relying on a retrospective approach is asking interviewees to describe, explain, and reflect on events they had experienced (Nor-Aziah & Scapens, 2007), but respondents misreport their past choices in order to appear more consistent with their current choice (Shachar & Eckstein, 2007). We do not see this bias as a limit to the validity of this study because we were able to contain it through data triangulation. We also formulated our perceptions to directly participate in meetings where the results from the management accounting tools were discussed.

#### 5. CASE STUDY EVIDENCE

The company under study is categorized as a small family firm. The founder was a pioneer in the research and development of new products for the market in which he decided to enter. In the beginning, the company took advantage of this strength. The impetus and the personality of the founder gave the business an advantage and helped gain the trust of some critical customers, who supported the growing period of this company.

The founder's business instinct was the main driver of the development of this company in increasing the volume and number of products it offers to the market. The growing phase also raised the organizational complexity linked to the rise of production assets and of customers and markets to serve. These changes in the last years made it more

difficult for the founder to follow everything personally. He stated, "It was too much for one person and I'm convinced that it is necessary to involve additional competences able to manage the growing phase of last year's".

The recognition of his limitations is linked to managerial and professional competence. It allowed the founder to select a manager with significant experience in beginning the managerialization process, who pushed the company to transform how it handled activities from a business manner to a professional one. This choice occurred in 2016, and the professionalization process is still ongoing. However, the initiation of this process was able to activate learning processes that involved all organizational actors. This occurrence gradually required managerial tools, which were explained during meetings to make them user-friendly to all organizational actors who could understand the outcomes indicated in the balance sheet analyses.

The company's success basically depended on the figure of the entrepreneur, who was personally responsible for managing the critical activities of the company. This business model is characterized by flexibility and an ability to react quickly and adapt to a competitive and changing environment, as well as centralized decision-making processes and specialist and tacit knowledge that is essentially technological in nature (Jennings & Beaver, 1997; Garengo et al., 2005).

To facilitate growth, the general director's first action was to introduce a middle management team assigned to specific responsibilities and roles. These young managers were also enrolled in some professional courses focused on soft skills such as problem-solving, leadership, working group, etc. in order to inspire their managerial vision for the business.

This organizational change permitted the company to improve in each business area and thus guarantee that each function had specialized competences and roles.

Simultaneously to these organizational changes, the first professional tools, such as the balance sheet analysis, which was provided by external professionals, were introduced. The founder agreed with the general director to seek the best solution for the lack of competence in financial analyses.

This evidence highlights that in this case study, the driving factors of managerial systems were business size and growth (Giovannoni et al., 2011; Speckbacher & Wentges, 2012), which the founder was unable to manage. His awareness of the lack of professional skills and capabilities was the engine that drove the company to utilize accounting information analyses to help all organizational actors acquire new knowledge about their work environment. These cognitive pathways were promoted by engaging with simpler information that modified existing points of view (Hall, 2010) and by spreading accounting information as a common language that facilitated communication among actors with different backgrounds, experiences, and knowledge.

The involvement of external professionals allowed the firm to acquire information, thus opening the possibility of sharing common mental models that could drive organizational actions

(Kim, 1998). According to this view, the information in the balance sheet analyses is the beginning and a necessary condition of future organizational learning processes.

The results of the first financial statements analyses were jointly discussed among the company's main organizational actors. The meeting was initiated by the founder and included the general director, the office worker, the accountant, the controller, the production manager, and another stockholder. The founder's daughter was devoted to the R&D function, and his son was involved in the commercial function.

During the first meeting, to explain how the analyses were done and how they should be used to support decision-making processes, the external professionals attempted to simplify the main concept of financial statement analysis. They wanted to be sure that all were able to understand what they were discussing, what the numbers meant, and how they could be interpreted. On this point, the general director stated, "The first meeting was hard! Even if the external advisors attempted to simplify the discussion of financial statement analyses, everyone was dubious! There were some people (i.e., the founder, his daughter, his son, the production manager, and the other stockholder) that ignored the financial language; they were not used to interpret the intrinsic meanings of balance sheet numbers, so such misunderstandings occurred! In order to avoid this, the main concept of the balance sheet analysis was illustrated... We were at lesson! Everyone was involved... People who knew the financial language were sometimes hesitant (i.e., the accountant, the office worker) because a new way of reading the balance sheet was proposed..."

The introduction of the balance sheet analysis established a new language among all organizational actors. This allowed the company to better sustain the decision-making processes and simultaneously augmented the knowledge of the people involved. Everyone after the first meeting was more conscious of the causal relationship between activities and financial results. What were the critical points of attention? What possibilities could sustain the company's competitive advantage?

Establishing the financial language among all organizational actors fostered also a sense of belonging. They were more aware of how business results were reached. What processes and activities were the causes of financial results, and who was responsible for these results?

Balance sheets analyses showed good results in terms of return on investments (ROI), ascribed both to good levels of productivity and competitiveness. The positive contribution offered by operational activity to the income was confirmed by the cash flows analysis that showed a high level of cash flow generated from the operational cycles.<sup>1</sup> This determined a high amount of cash that until now was constantly maintained without a particular purpose. This occurrence traditionally acts as a safety net for all organizational actors. On this point, the founder argued, "A high level of cash reassured me... we could be able to face anything happened. For me, financial liquidity was a strength!" On this point, the discussion of balance

<sup>1</sup> The 86% of cash flow amount was generated from the earnings before interest and taxes (EBIT), while the 14% was due to the depreciation.

sheet analyses taught all organizational actors that an excessive amount of cash was not necessarily a good signal. As explained by the external professionals, cash that exceeds the amount of short-term debts is a signal of financial equilibrium, but at the same time, it represents an unproductive resource that should be able to be used differently. The discussion about the optimal cash level involved all actors' participation in the meeting. They acquired new awareness about cash management and should be able to identify novel business opportunities that could be pursued using the excess of cash. During the meeting, the founder and his sons began to discuss how to employ this resource and especially for the internationalization process. On this argument, the founder's son stated, "We serve the U.S. market by using such commercial agents that well know the main characteristics of this context...but our intent is to attempt a foreign direct investment. I'm convinced that the existence of a branch will permit us to achieve better results on the US market...Now we have the opportunity...we can try!"

Regarding the solvency analyses, the external professionals highlighted the need to give attention to realignment on durations of payments, in order to ensure better financial equilibrium. This emerged in the discussion about payment deadlines in the meeting. The office worker asserted, "We had the possibility to manage more the payment deadlines of our supplier, but we did not have this opportunity with our customers...usually, they decide payment deadlines...we were not used to negotiate payment deadlines!" This approach toward managing payment deadlines was fostered by the high amount of cash that guarantees periods of cash deficiencies caused by the payments misalignment. As discussed during the meeting, this was not a professional way to manage payments, so the meeting members agreed on the need to better align payments for the future. On this point, one of the external professionals emphasized, "It is needed that cash flow related to the operating activities, as outflow for supplier's payments and inflow deriving from customer's payment, are aligned...the outflows for supplier's payments should be able to cover approximately the inflows deriving from customer's payment...this equilibrium will release the cash need for further investments".

The analyses of financial policies pursued by the company showed high solvency. This evidence was linked to the traditional conviction, mainly of the founder, that a company with a high level of risk capital was more robust than one supported by debts. As a consequence, the company had few debts, but there could be an advantage in getting into debt. Once again, the discussion of financial statements analyses was the starting point of a new learning activity centred on properly combining debts and risk capitals. The new knowledge of financial leverage use pushed the founder to be more conscious of the effective management of funding sources, stating the need to maintain the company's financial soundness and autonomy.

These learning processes activated through the introduction of balance sheet analyses and are still in the making. "Every occasion is the chance to learn something new!" This is the founder's belief and was

often confirmed and shared by the other organizational actors.

The general director was the main actor in this process. When he joined the company, he has placed a significant role; for instance, he has not conformed to the current organizational reality (total absence of internal control accounting systems). On the contrary, he was hired to introduce a shift in current company reality concerning the use of professional tools and the dissemination of managerial culture within the organization. Given that owners and their staff did not have an economics background, they had to learn these new concepts over time in order to engage in decision-making processes in which they are involved. All organizational actors progressively recognized the importance of managerial tools by means of balance sheet analyses.

Balance sheet analyses were based on financial parameters designed to catch information on working capital management, assets management, solvency and liquidity, and operational risk. Following this purpose, these parameters highlighted the growth of working capital due to the increasing amount of inventories. This was mainly due to the peculiarities of the sector in which the company works. Raw materials were often stocked to prepare for seasonal trends and to avoid the breakdown of production processes. On this point, interviewees confirmed the difficulty of making such provisions about the purchasing volumes. The production manager argued, "We were used to purchasing raw materials of high quality, for us quality is essential! We must be sure of obtaining raw materials, not anyone but the best of them... for this reason, we often stock raw materials in large quantity without considering the real needs coming from the production processes".

Financial analyses revealed a low debt ratio even if the firm can obtain cheap funding provided by financial institutions. The company did not use leverage to make investments, so the discussion of the financial analyses' results prompted a learning process in this area. The founder and his staff began to discuss the opportunity of restructuring funding sources and considered borrowing money from banks. All actors were made conscious that this was needed to ensure a correlation between sources and investments. This way, the balance sheet analyses worked as a medium of the new language, which gradually became more common among the organizational actors involved in the decision-making processes of the company.

This evidence led us to interpret managerial practices as tools for making sense of past decisions and the present and provided opportunities to discover and evaluate future alternatives through cognitive pathways (Tillmann & Goddard, 2008).

The decision-making process in 2017 for this firm involved new long-term investments such as the opening of a branch in the United States and the purchase of new machinery that allowed the company to increase production capacity. On this point, the general director stated, "We have made structural investments in order to maintain high levels of revenues over time, but on the other hand the cost structure has become more rigid...It was impossible to keep the same break-even point as the year 2015 and the information that financial

statement analysis provides us will be essential to develop the path for the future. In fact, we have stopped other investments right now while we are waiting for the results of 2018 and those of the first quarter of 2019. Then, we will decide whether to continue to invest or not, although I believe that 2019 will be a year of consolidation”.

In this case, the importance of the financial statement analysis as a means of raising awareness amongst the owners was again evident. It supported their decision-making processes and guided future choices.

This evidence highlights that organizational learning is not automatically accomplished with the acquisition of information; it requires circumstances that facilitate the process of creating new knowledge and updating the organization’s shared mental models. The interactions and communication between the individuals served as a means to enhance the exchange or sharing of information. The discussion of balance sheet analyses supported the organizational actors’ learning processes, helping them to interpret how a business should be handled and what pathways should be pursued in the future. In particular, meetings in which balance sheet analysis was discussed every year supported the organizational members, owners, and employees in better understanding facts characterizing the business in which they were involved. They had the possibility to extensively evaluate the current results and identify weaknesses and strengths through a new language that allowed them to be more conscious of their current financial results. Consequently, they were able to discuss risks and opportunities for the company. Information about the existing cost structure of the company showed weakness but also opened an opportunity to make new investments that correlated assets and liabilities so they could enter the U.S. market and purchase new machinery.

## 6. CONCLUSION

Controversial results regarding managerial accounting practices in small firms emphasize the need for further investigation on this topic. Thus, this paper aimed to mostly focus on the decision-making processes of small firms by investigating how managerial accounting systems align with these processes. Considering small firms as socially constructed realities from a sociological perspective, we investigated how social actors are embedded in decision-making processes and interact with each other and how managerial accounting

practices bind these social interactions in these firms across time and space.

In this view, managerial accounting practices work as tools for making sense of past decisions and the present and encouraging future alternatives through cognitive pathways. The ability of accounting practices to provide new knowledge was investigated in this longitudinal case study about a small firm that was implementing managerial accounting systems. Evidence from this case study highlights how managerial control systems interact in the decision-making processes of small firms through cognitive pathways that can sustain the processing of new knowledge and promote social construction that involves all organizational actors.

The main contribution of this paper concerns the crucial role that balance sheet analyses play in small firms in supporting the organizational actors to monitor the state of the company and the decision-making processes. As previously discussed, in the case study, the results from the balance sheet analyses enabled the owner and his staff to appraise the current situation and pinpoint weaknesses. This allowed them to analyse past events with a new lens.

Moreover, case evidence enabled us to study the dynamics of this company; the company moved from focusing on past weaknesses to seizing new opportunities.

Additionally, the balance sheet analyses allowed the company’s organizational actors to better interact with each other by sharing a new language that can be gradually understood by all. In this case, accounting information from the balance sheet analyses acted as an anchor to frame discussions amongst involved actors and played a key role in consensus building by constructing a common set of information to facilitate communication and produce meaning.

Despite the differences in the organizational actors’ skills and backgrounds, the financial statement analyses forced them to cooperate by way of a managerial language that gradually branched out and became the new means of communication.

The paper suffers limitation of relying on a retrospective approach, asking interviewees to describe events they had experienced and of discussing only case studies whose evidence depends on the specific context. So, different roles of managerial accounting practices could emerge in other settings. Finally, further research could investigate how MA practices, providing a specific language, can play an active role also in promoting organisational innovations in the small business.

## REFERENCES

1. Ahrens, T., & Chapman, C. S. (2007). Management accounting as practice. *Accounting, Organizations and Society*, 32(1-2), 1-27. <https://doi.org/10.1016/j.aos.2006.09.013>
2. Anderson, S. W., & Lanen, W. N. (1999). Economic transition, strategy and the evolution of management accounting practices: The case of India. *Accounting, Organizations and Society*, 24(5-6), 379-412. [https://doi.org/10.1016/S0361-3682\(97\)00060-3](https://doi.org/10.1016/S0361-3682(97)00060-3)
3. Ansari, S., & Euske, K. J. (1987). Rational, rationalizing, and reifying uses of accounting data in organizations. *Accounting, Organizations and Society*, 12(6), 549-570. [https://doi.org/10.1016/0361-3682\(87\)90008-0](https://doi.org/10.1016/0361-3682(87)90008-0)
4. Aram, J. D., & Cowen, S. S. (1990). Strategic planning for increased profit in the small business. *Long Range Planning*, 23(6), 63-70. [https://doi.org/10.1016/0024-6301\(90\)90103-B](https://doi.org/10.1016/0024-6301(90)90103-B)
5. Avery, R. B., Bostic, R. W., & Samolyk, K. A. (1998). The role of personal wealth in small business finance. *Journal of Banking & Finance*, 22(6/8), 1019-1061. [https://doi.org/10.1016/S0378-4266\(98\)00016-8](https://doi.org/10.1016/S0378-4266(98)00016-8)
6. Broccardo, L., Giacosa, E., Culasso, F., & Ferraris, A. (2017). Management control in Italian SMEs. *Global Business and Economics Review*, 19(5), 632-647. <https://doi.org/10.1504/GBER.2017.086781>

7. Brouthers, K. D., Andriessen, F., & Nicolaes, I. (1998). Driving blind: Strategic decisionmaking in small companies. *Long Range Planning*, 31(1), 130-138. [https://doi.org/10.1016/S0024-6301\(97\)00099-X](https://doi.org/10.1016/S0024-6301(97)00099-X)
8. Brunsson, N. (1990). Deciding for responsibility and legitimation: Alternative interpretations of organizational decision-making. *Accounting, Organizations and Society*, 15(1-2), 47-59. [https://doi.org/10.1016/0361-3682\(90\)90012-J](https://doi.org/10.1016/0361-3682(90)90012-J)
9. Burns, P., & Dewhurst, J. (2016). *Entrepreneurship and small business*. <https://doi.org/10.1007/978-1-137-43034-2>
10. Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1), 9-30. [https://doi.org/10.1016/S0883-9026\(96\)00003-1](https://doi.org/10.1016/S0883-9026(96)00003-1)
11. Byers, T., & Slack, T. (2001). Strategic decision-making in small businesses within the leisure industry. *Journal of Leisure Research*, 33(2), 121-136. <https://doi.org/10.1080/00222216.2001.11949934>
12. Chaganti, R., DeCarolis, D., & Deeds, D. (1996). Predictors of capital structure in small ventures. *Entrepreneurship Theory and Practice*, 20(2), 7-18. <https://doi.org/10.1177/104225879602000202>
13. 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*, 28(2-3), 127-168. [https://doi.org/10.1016/S0361-3682\(01\)00027-7](https://doi.org/10.1016/S0361-3682(01)00027-7)
14. Corbett, A. C. (2007). Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of Business Venturing*, 22(1), 97-118. <https://doi.org/10.1016/j.jbusvent.2005.10.001>
15. Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75-87. <https://doi.org/10.1002/smj.4250100107>
16. Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behaviour. *Entrepreneurship Theory and Practice*, 16(1), 7-26. <http://doi.org/10.1177/104225879101600102>
17. Daft, R. L., & Weick, K. E. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review*, 9(2), 284-295. <https://doi.org/10.5465/amr.1984.4277657>
18. Dane, E., & Pratt, M. G. (2007). Exploring intuition and its role in managerial decision making. *Academy of Management Review*, 32(1), 33-54. <https://doi.org/10.5465/amr.2007.23463682>
19. Duréndez, A., Madrid-Guijarro, A., & Garcia-Pérez-de-Lema, D. (2011). Innovative culture, management control systems and performance in small and medium-sized Spanish family firms. *Innovar*, 21(40), 137-153. Retrieved from <https://www.redalyc.org/pdf/818/81822453011.pdf>
20. Eisenhardt, K. M., & Zbaracki, M. J. (1992). Strategic decision making [Special issue]. *Strategic Management Journal*, 13(52), 17-37. <https://doi.org/10.1002/smj.4250130904>
21. Feldman, M. S., & March, J. G. (1981). Information in organizations as signal and symbol. *Administrative Science Quarterly*, 26(2), 171-186. <https://doi.org/10.2307/2392467>
22. Garengo, P., Biazzo, S., & Bititci, U. S. (2005). Performance measurement systems in SMEs: A review for a research agenda. *International Journal of Management Reviews*, 7(1), 25-47. <https://doi.org/10.1111/j.1468-2370.2005.00105.x>
23. Gartner, W. B., Bird, B. J., & Starr, J. A. (1992). Acting as if: Differentiating entrepreneurial from organizational behavior. *Entrepreneurship Theory and Practice*, 16(3), 13-32. <https://doi.org/10.1177/104225879201600302>
24. Gibcus, P., Vermeulen, P. A. M., & De Jong, J. P. J. (2009). Strategic decision making in small firms: A taxonomy of small business owners. *International Journal of Entrepreneurship and Small Business*, 7(1), 74-91. <https://doi.org/10.1504/IJESB.2009.021610>
25. Gilmore, A., & Carson, D. (2000). The demonstration of a methodology for assessing SME decision making. *Journal of Research in Marketing and Entrepreneurship*, 2(2), 108-124. <https://doi.org/10.1108/14715200080001542>
26. Giovannoni, E., Maraghini, M. P., & Riccaboni, A. (2011). Transmitting knowledge across generations: The role of management accounting practices. *Family Business Review*, 24(2), 126-150. <https://doi.org/10.1177/0894486511406722>
27. Granlund, M., & Lukka, K. (1998). Towards increasing business orientation: Finnish management accountants in changing cultural context. *Management Accounting Research*, 9(2), 185-211. <https://doi.org/10.1006/mare.1998.0076>
28. Hall, M. (2010). Accounting information and managerial work. *Accounting, Organizations and Society*, 35(3), 301-315. <https://doi.org/10.1016/j.aos.2009.09.003>
29. Hambrick, D. C., & Crozier, L. M. (1985). Stumblers and stars in the management of rapid growth. *Journal of Business Venturing*, 1(1), 31-45. [https://doi.org/10.1016/0883-9026\(85\)90005-9](https://doi.org/10.1016/0883-9026(85)90005-9)
30. Hendry, J. (2000). Strategic decision making, discourse, and strategy as social practice. *Journal of Management Studies*, 37(7), 955-977. <https://doi.org/10.1111/1467-6486.00212>
31. Horngren, C. T., Bhimani, A., Datar, S. M., & Foster, G. (2005). *Management and cost accounting*. Harlow, the UK: Prentice Hall.
32. Introna, L. D. (2019). On the making of sense in sensemaking: Decentred sensemaking in the meshwork of life. *Organization Studies*, 40(5), 745-764. <https://doi.org/10.1177/0170840618765579>
33. Jennings, P., & Beaver, G. (1997). The performance and competitive advantage of small firms: A management perspective. *International Small Business Journal: Researching Entrepreneurship*, 15(2), 63-75. <https://doi.org/10.1177/0266242697152004>
34. Julien, P.-A. (Ed.). (2018). *The state of the art in small business and entrepreneurship*. <https://doi.org/10.4324/9780429429545>
35. Kajüter, P., & Kulmala, H. I. (2005). Open-book accounting in networks: Potential achievements and reasons for failures. *Management Accounting Research*, 16(2), 179-204. <https://doi.org/10.1016/j.mar.2005.01.003>
36. Kim, D. H. (1998). The link between individual and organizational learning. In D. A. Klein (Ed.), *The strategic management of intellectual capital* (pp. 41-62). <https://doi.org/10.1016/B978-0-7506-9850-4.50006-3>
37. Kimmitt, J., & Muñoz, P. (2018). Sensemaking the 'social' in social entrepreneurship. *International Small Business Journal: Researching Entrepreneurship*, 36(8), 859-886. <https://doi.org/10.1177/0266242618789230>
38. Kolb, D. A. (1984). *Experiential learning: Experience as a source of learning and development*. Englewood Cliffs, NJ, the USA: Prentice-Hall Publisher.

39. Leenders, M., & Waarts, E. (2003). Competitiveness and evolution of family businesses: The role of family and business orientation. *European Management Journal*, 21(6), 686-697. <https://doi.org/10.1016/j.emj.2003.09.012>
40. Luther, R. G., & Longden, S. (2001). Management accounting in companies adapting to structural change and volatility in transition economies: A South African study. *Management Accounting Research*, 12(3), 299-320. <https://doi.org/10.1006/mare.2001.0163>
41. Mador, M. (2000). Strategic decision making process research: Are entrepreneur and owner managed firms different. *Journal of Research in Marketing and Entrepreneurship*, 2(3), 215-234. <https://doi.org/10.1108/14715200080001547>
42. Malina, M. A., Nørreklit, H. S. O., & Selto, F. H. (2007). Relations among measures, climate of control, and performance measurement models. *Contemporary Accounting Research*, 24(3), 935-982. <https://doi.org/10.1506/car.24.3.10>
43. March, J. G. (1987). Ambiguity and accounting: The elusive link between information and decision making. *Accounting, Organizations and Society*, 12(2), 153-168. [https://doi.org/10.1016/0361-3682\(87\)90004-3](https://doi.org/10.1016/0361-3682(87)90004-3)
44. March, J. G., & Simon, H. A. (1958). *Organizations*. New York, the USA: Wiley.
45. McGrath, R. G., MacMillan, I. C., & Scheineberg, S. (1992). Elitists, risk-takers, and rugged individualists? An exploratory analysis of cultural differences between entrepreneurs and non-entrepreneurs. *Journal of Business Venturing*, 7(2), 115-135. [https://doi.org/10.1016/0883-9026\(92\)90008-F](https://doi.org/10.1016/0883-9026(92)90008-F)
46. McKinnon, S. M., & Bruns, W. J. (1992). *The information mosaic*. Boston, MA, the USA: Harvard Business School Press.
47. Moilanen, S. (2008). The role of accounting in the management control system: A case study of a family-led firm. *Qualitative Research in Accounting & Management*, 5(3), 165-183. <https://doi.org/10.1108/11766090810910209>
48. Murphy, G., Tocher, N., & Burch, T. (2019). Small business owner persistence: Do personal characteristics matter? *Journal of Small Business Strategy*, 29(1), 99-114. Retrieved from <https://pdfs.semanticscholar.org/f671/06effa6494979b702c84e93c056cbd96d2e8.pdf>
49. Neubauer, H., Mayr, S., Feldbauer-Durstmüller, B., & Duller, C. (2012). Management accounting systems and institutionalization in medium-sized and large family businesses: Empirical evidence from Germany and Austria. *European Journal of Management*, 12(2), 41-60. Retrieved from [https://www.researchgate.net/profile/Stefan\\_Mayr/publication/263146662\\_Management\\_Accounting\\_Systems\\_and\\_Institutionalization\\_in\\_Medium-sized\\_and\\_Large\\_Family\\_Businesses/links/53e0c1800cf2235f3526ffd9.pdf](https://www.researchgate.net/profile/Stefan_Mayr/publication/263146662_Management_Accounting_Systems_and_Institutionalization_in_Medium-sized_and_Large_Family_Businesses/links/53e0c1800cf2235f3526ffd9.pdf)
50. DiBella, A. J., Nevis, E. C., & Gould, J. M. (1996). Understanding organizational learning capability. *Journal of Management Studies*, 33(3), 361-379.
51. Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37. <https://doi.org/10.1287/orsc.5.1.14>
52. Nor-Aziah, A. K., & Scapens, R. W. (2007). Corporatisation and accounting change: The role of accounting and accountants in a Malaysian public utility. *Management Accounting Research*, 18(2), 209-247. <https://doi.org/10.1016/j.mar.2007.03.003>
53. Papadakis, V. M., Lioukas, S., & Chambers, D. (1998). Strategic decision-making processes: The role of management and context. *Strategic Management Journal*, 19(2), 115-147. [https://doi.org/10.1002/\(SICI\)1097-0266\(199802\)19:2%3C115::AID-SMJ941%3E3.0.CO;2-5](https://doi.org/10.1002/(SICI)1097-0266(199802)19:2%3C115::AID-SMJ941%3E3.0.CO;2-5)
54. Preston, A. (1986). Interactions and arrangements in the process of informing. *Accounting, Organizations and Society*, 11(6), 521-540. [https://doi.org/10.1016/0361-3682\(86\)90034-6](https://doi.org/10.1016/0361-3682(86)90034-6)
55. Rice, G. H., & Hamilton, R. E. (1979). Decision theory and the small businessman. *American Journal of Small Business*, 4(1), 1-9. <https://doi.org/10.1177/104225877900400101>
56. Rizza, C., Leotta, A., & Ruggeri, D. (2017). Accounting information systems as sensemaking tools in decision-making processes of small firms. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(4), 248-262. <https://doi.org/10.6007/IJARAFMS/v7-i4/3570>
57. Robinson, R. B., & Pearce, J. A. (1983). Impact of formalized strategic planning on financial performance in small organizations. *Strategic Management Journal*, 4(3), 197-207. <https://doi.org/10.1002/smj.4250040302>
58. Samuelsson, J., Andersén, J., Ljungkvist, T., & Jansson, C. (2016). Formal accounting planning in SMEs: The influence of family ownership and entrepreneurial orientation. *Journal of Small Business and Enterprise Development*, 23(3), 691-702. <https://doi.org/10.1108/JSBED-12-2015-0167>
59. Scapens, R. W. (2004). Doing case study research. In E. Christopher, & B. Lee (Eds.), *The real life guide to accounting research* (pp. 257-279). <https://doi.org/10.1016/B978-008043972-3/50017-7>
60. Shachar, R., & Eckstein, Z. (2007). Correcting for bias in retrospective data. *Journal of Applied Econometrics*, 22(3), 657-675. <https://doi.org/10.1002/jae.939>
61. Simon, H. A. (1957). *Administrative behaviour*. New York, the USA: MacMillan.
62. Simon, H. A., Guetzkow, H., Kozmetsky, G., & Tyndall, G. (1954). *Centralization vs decentralization in organizing the controller's department: A research study and report*. New York, the USA: Contollership Foundation.
63. Simons, R. (1990). The role of management control systems in creating competitive advantage: New perspectives. *Accounting, Organizations and Society*, 15(1/2), 127-143. [https://doi.org/10.1016/0361-3682\(90\)90018-P](https://doi.org/10.1016/0361-3682(90)90018-P)
64. Speckbacher, G., & Wentges, P. (2012). The impact of family control on the use of performance measures in strategic target setting and incentive compensation: A research note. *Management Accounting Research*, 23(1), 34-46. <https://doi.org/10.1016/j.mar.2011.06.002>
65. Sprinkle, G. B. (2003). Perspective on experimental research in managerial accounting. *Accounting, Organizations and Society*, 28(2-3), 287-318. [https://doi.org/10.1016/S0361-3682\(01\)00058-7](https://doi.org/10.1016/S0361-3682(01)00058-7)
66. Stergiou, K., Ashraf, J., & Uddin, S. (2013). The role of structure and agency in management accounting control change of a family owned firm: A Greek case study. *Critical Perspectives on Accounting*, 24(1), 62-73. <https://doi.org/10.1016/j.cpa.2012.09.007>
67. Tillmann, K., & Goddard, A. (2008). Strategic management accounting and sense-making in a multinational company. *Management Accounting Research*, 19(1), 80-102. <https://doi.org/10.1016/j.mar.2007.11.002>

68. Tsamenyi, M., Noormansyah, I., & Uddin, S. (2008). Management controls in family-owned businesses (FOBs): A case study of an Indonesian family-owned university. *Accounting Forum*, 32(1), 62-74. <https://doi.org/10.1016/j.accfor.2006.10.001>
69. Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481), 453-458. <https://doi.org/10.1126/science.7455683>
70. Uddin, S. (2009). Rationalities, domination and accounting control: A case study from a traditional society. *Critical Perspectives on Accounting*, 20(6), 782-794. <https://doi.org/10.1016/j.cpa.2007.11.004>
71. Watson, J. (2002). Comparing the performance of male- and female-controlled businesses: Relating outputs to inputs. *Entrepreneurship Theory and Practice*, 26(3), 91-100. <https://doi.org/10.1177/104225870202600306>