

## Role of Management Accounting Systems in Sustainable Survival of SMEs in Pakistan: A Conceptual Framework

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### ABSTRACT

This conceptual paper proposes a new framework for ensuring Pakistani SMEs' sustainable survival. SME owners always strive to survive in the long run, but most SMEs cannot sustain themselves due to resource constraints. In the ensuing survival of SMEs, the role of management accounting is critical. Management accounting provides financial and non-financial information for planning, controlling and decision-making. This information can persuade SME owners to think in a strategic way which can enhance their strategic thinking. Arguably, management accounting can cognitively engage SME owners by enhancing their strategic thinking, leading SMEs to enhance sustainable survival. Based on these arguments, a conceptual framework has been proposed in which strategic thinking mediates the relationship between management accounting systems and sustainable survival. This conceptual paper has endeavored to advance the understanding of strategic thinking in management accounting scholarship. Furthermore, this paper has also provided practical guidelines for SME owners to concentrate on sustainable survival by developing management accounting systems and focusing on strategic thinking.

**Keywords:** SMEs, Management accounting systems, Strategic thinking, Sustainable survival, Cognitive psychology

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## **Role of Management Accounting Systems in Sustainable Survival of SMEs in Pakistan: A Conceptual Framework**

### **1. Introduction**

Researchers have always been concerned with uncovering a response to what makes some entrepreneurs better than others, especially in SMEs from emerging economies that predominantly struggle with survival (Hyder & Lussier, 2016). Pakistan, a significant developing economy, confronts the same dilemma (Fatima & Bilal, 2019). It is evident that SMEs are a significant part of the economy, and the same is true for Pakistan, where 90% of the businesses are comprised of small and medium firms with a 40% contribution to GDP (SMEDA, 2019). Despite the significance of SMEs, these small and medium enterprises have numerous challenges and constraints in growth and survival owing to limited financial resources (Bilal et al., 2016; SMEDA, 2019). As a result of these challenges, SMEs in Pakistan witnessed a slump in their performance (Fatima & Bilal, 2020). Factors responsible for causing SMEs' failure have induced a significance of sustaining long-term or sustainable survival. For ensuring sustainable business practices, an emerging area of management accounting (MA) for sustainability has received the attention of scholars (Ghosh et al., 2019).

Over the last few years, there has been an escalated interest in building a better understanding of management accounting (MA) usage in organizations (Ma et al., 2022; Nandan, 2010; Perren & Grant, 2000). Notably, from the perspective of small and medium enterprises (SMEs), the usage of MA has become a significant area of concern in management accounting literature (Cleary et al., 2022; López & Hiebl, 2015). MA scholars are engaged in demonstrating a great effort to investigate SMEs (Azudin & Mansor, 2018). The contemporary competitive environment has persuaded SMEs to bring changes to respond to new challenges continuously (Pedroso & Gomes, 2020). These challenges have contributed to the accelerated significance of the quality of information valuable for decision-making purposes (Pedroso & Gomes, 2020). Arguably, in perspective of these challenges, management accounting is critical for managing the business efficiently and effectively (Youssef et al., 2020).

Management accounting systems are much significant that provide information at all levels of an organization. Particularly at the strategic level, there are specific management accounting tools such as "strategy mapping, core competencies analysis, long-range and business planning, risk management, environmental impact assessment, value for money audits, value engineering or value analysis, competitor analysis", etc. (Oyewo, 2021). All these MA tools provide enriched information that is useful for decision-making. In recent research, the role of accounting in generating strategic thinking in managers has been acknowledged, and even this is still an unexplored area of investigation (Aaltola, 2019). Accounting and control literature has highlighted the value of organizational strategizing and innovation activities (Davila et al., 2009). In this line of argument, the traditional accounting perspective focused on just strategy implementation has been questioned, as argued by Aaltola (2019). Scholars Otley (1994), and Kaplan and Norton (2004) have asserted that literature on MA indicates that strategies are interconnected in terms of formulation and implementation and that the role of the employees at various levels of the business lies in the intensive work to sustain its organizational competitiveness. On the other side, research in MA is now witnessing the extensiveness of applying psychology perspectives (Wibbeke & Lachmann, 2020). Kaplan (2018) has asserted that psychological theories can be potentially applied from the perspective of behavioral accounting. Traditionally, MA has been explored by applying various economic, sociological or organizational theories (Hopper & Bui, 2016; Lachmann et al., 2017). Nevertheless, psychological perspectives are scantily discussed in this regard (Wibbeke & Lachmann, 2020).

Considering these gaps in the literature, we propose a conceptual model in which strategic thinking can act as a potential mediator between management accounting and the survival of SMEs. This conceptual paper's contribution to MA scholarship and SMEs in emerging markets like Pakistan

is threefold. Firstly, we have presented a novel conceptual model keeping in view the dilemma of SMEs' survival. Secondly, the perspective of cognitive psychology has been incorporated as a theoretical lens which is highly acknowledged in recent scholarship (Wibbeke & Lachmann, 2020). Lastly, it reveals that the strategic thinking of managers of SMEs can be enhanced based upon information generated by MA, which ultimately addresses the survival problem of SMEs in a better way and endeavors to sustain survival.

## **2. Literature Review**

### ***2.1. Management Accounting in SMEs***

Management accounting (MA) pertains to those activities that assist managers in planning, organizing and controlling to enhance organizational efficiency (Shields & Shelleman, 2016; Ahrens & Chapman, 2006). Management Accounting is defined as “a profession that involves partnering in management decision-making, devising planning and performance management systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organization’s strategy”. There is a wide variety of MA concepts and tools discussed in the literature, such as budgeting systems, planning, performance management, strategic analysis, and financial and non-financial performance measures (Andersén & Samuelsson, 2016; López & Hiebl, 2015; Drury, 2019; Chand & Dahiya, 2010). Nevertheless, these MA systems are extensively discussed in larger firms where resource constraints are minimal, and managers use management accounting function for handling complex business situations (Ma et al., 2022; Pelz, 2019; López & Hiebl, 2015; Scapens & Bromwich, 2010;). Even Pelz (2019) has argued that the IMA definition of MA is primarily associated with larger firms and overlooks the specificity of SMEs, which is rarely addressed in the literature (Cleary et al., 2022).

Regarding the relevancy or irrelevancy of MA for SMEs, there are two schools of thought in the literature (Pelz, 2019). Some advocates argue that MA is not suitable for SMEs. For instance, planning systems (tool of MA) are not much beneficial for such firms due to the probability of high costs, which SMEs endeavour to avoid (Honig & Samuelsson, 2014; Sarasvathy, 2001). In this perspective, Granlund and Taipaleenmäki (2005) have argued that planning and budgeting systems are unsuitable for SMEs. In contrast to these arguments, other scholars emphasize the usage of management accounting for enhancing the growth of an organization (Davila & Foster, 2005; Davila et al., 2010), and corporate planning generates benefits for business (Ma et al., 2022; Delmar, 2015; Greene & Hopp, 2017). Even recent scholarship in this regard has asserted that the information provided by MA has the capacity to enhance the SMEs’ competitiveness (Hamadi & Fournès, 2023; Pedroso & Gomes, 2020). Therefore, Chenhall and Moers (2015) have challenged the argument of the unsuitability of management accounting for SMEs. Because of innovation and specific organizational characteristics, SMEs may have different management accounting systems from larger organizations (Pelz, 2019). Due to this reason, recent research has emphasized exploring MA systems in SMEs (Azudin & Mansor, 2018; Albalushi et al., 2019; López & Hiebl, 2015; Pelz, 2019; Sandalgaard & Nielsen, 2018). Other recent studies (Kuttner et al., 2023; Latif et al., 2023) have argued that MA function in SMEs augments the probability of firm survival). Based on these paradoxes, it can be reasoned that MA is beneficial for SMEs’ growth and addresses the survival concerns of these firms.

#### ***2.1.1 The role of management accounting in strategic thinking***

The concept of *strategic thinking* can be defined in the words of Näsi (1991) as, "strategic thinking extends both to the formulation and execution of strategies by business leaders and to the strategic performance of the total enterprise. It includes strategic analysis, strategic planning, organization and control and even strategic leadership" (p. 29). In general, strategic thinking entails the acquisition of information regarding organizational circumstances to strengthen organizational governance (Ershadi & Dehdazzi, 2019). According to Lončar (2017), businesses that use strategic thinking strategies effectively acquire customers' loyalty and trust while developing and introducing new products. To achieve operational excellence, firms need also be proactive in analyzing and

applying the results of strategic thinking (Hameed et al., 2022). Taboli and Baghdadam (2016) also underlined that strategic thinking has a role in innovation, leading to a reassessment of the company's primary operating strategies. Other scholars (Ershadi & Dehdazzi, 2019; Tan, 2017) argued that to determine the management abilities required for globalization, all managers chose *strategic thinking* as an essential skill necessary to enhance managerial performance. As argued earlier, MA provides information for planning, decision making and controlling. Some earlier studies (Davis & Albright, 2004; Van der Stede et al., 2006; De Geuser et al., 2009) have asserted that MA has a critical role in strategy development and implementation to enhance organizational performance. The plausible reason for associating MA with strategy development and implementation is that MA generates financial and non-financial information that is essential in decision-making, including strategic decisions (Oyewo, 2021). Even MA scholarship has focused on strengthening the association between accounting and strategic management (Roslender & Hart, 2003; Nyamori et al., 2001). Due to this association, recent literature has also discussed the significance of accounting in the context of management perspective (Aaltola, 2019).

MA provides information that assists managers at a strategic level; arguably, MA also reflects corporate-level information needs (Cinquini & Tenucci, 2010). Revellino and Mouritsen (2015) have argued that accounting as a calculative practice works as an engine that triggers the process of knowledge mobilization. Aaltola (2019) has also corroborated that MA literature reflects the strategy formulation process. Therefore, MA is relevant for strategy development, and the traditional viewpoint of the unsuitability of MA for strategy is defied (Chenhall & Moers, 2015). There are different MA tools, such as the balanced scorecard has become a significant performance management framework (Kaplan & Norton, 1996; Drury, 2019). Oyewo (2021) has argued that at a strategic level, MA tools such as strategy mapping, value analysis, risk management, long-range and business planning etc. Arguably, these tools generate enriched data that can stimulate the thinking of users of this data. Nevertheless, Aaltola (2019) has argued that in accounting scholarship, little attention is paid to MA and strategic thinking from a managerial viewpoint. Literature has discussed some inconsistencies in this regard. For instance, Brandau and Hoffjan (2010) have asserted the low usage of MA in strategic decision-making. Denis et al. (2006) proclaimed that unexpected results could be assumed under the power of numbers, which further restricts individuals' ability to make reasonable actions. They further asserted that numbers might jeopardize the ability to deal with the complex strategy development process. Asserting the implication of the accounting field in strategy, certain scholars (Nixon & Burns, 2012; Taipaleenmäki, 2014; Langfield, 2008) have argued the absence or partial presence of accounting in a strategic context. Despite this criticism, the role of MA in the strategic management field is evident, thus strategic thinking (e.g. strategy formulation and implementation) as well (Aaltola, 2019). Therefore, recent studies reflect that different MA tools are studied in the context of the strategic management field (Bracci et al., 2022; Krishnan et al., 2022).

As argued earlier, MA and strategic thinking are associated, but previous studies lack a theoretical explanation of this association (Aaltola, 2019). In the recent scholarship of MA, psychological perspectives, particularly cognitive psychology, have gained scholarly attention (Wibbeke & Lachmann, 2020). Earlier, Caplan (1966) argued that MA comprises behavioural functions, which can be analyzed robustly by incorporating psychosocial perspectives in MA (Wibbeke & Lachmann, 2020). The psychology domain exhibits differences in personalities, intelligence levels, and cognitive functions (Anastasi, 1971; Boyle & Saklofske, 2004). Due to this reason, the domain of psychology is thus termed “the scientific investigation of mental processes (thinking, remembering, feeling, etc.) and behavior” (Westen, 2002). Cognitive psychology observes the behaviors of individuals performing various tasks of cognitive nature in order to explore human cognition (Eysenck & Keane, 2010). In this behavior, certain processes are involved, such as perception, language, learning, memory, reasoning, problem-solving and thinking (Eysenck & Keane, 2010). Westen (2002) believes that cognitive psychology focuses on how people perceive, process and retrieve information for decision-making. Previous scholarship has emphasized incorporating psychological perspectives regarding the impact of MA systems and practices at the organizational level (or any non-individual or business unit level) (Hall, 2016).

In cognitive psychology, mental models are significantly addressed, meaning individuals process the information in their heads and try to envisage the possibilities (Johnson, 2013). This concept is also incorporated in the investigation of diversity in performance management, a type of MA system (Hall 2008, 2011). Conversing about mental models, these exhibit the cognitive and subjection representation of concepts that assist in making judgments and decisions (Birnberg et al., 2006; Hall, 2008, 2011). In the line of this argument, Hall (2008) conversed about performance management systems (MA concept) that influence the psychological aspects, cognition and even motivation that ultimately enhance performance. Based upon arguments of previous scholars' debate in the perspective of cognitive psychology application, MA generates valuable information. Based upon that information, the cognitive aspect can be activated, which may assist in developing strategic thinking. As rightly argued by Hall (2008) that performance management systems influence psychological aspects and cognition. Therefore, MA systems and tools generate the data that influence the decision-makers psychologically, and strategic thinking can be provoked. Based on these assertions, it can be argued that MA can influence strategic thinking.

### **2.2.2. The role of strategic thinking in sustainable survival**

Ahmad et al. (2020) have explained the concept of sustainable survival, which refers to the firm's longevity. They have argued that a firm may achieve sustainable survival after enhancing five key areas: *financial strength*, *customer orientation*, *internal capabilities*, *strategic perspective*, and *learning and growth*. Financial strength is associated with high-profit margins, positive cash flows, high return on capital, and abundant financial resources. Customer orientation revolved around the ability of the firm to maintain long-term customer relations by providing multiple communication channels. Internal capabilities are related to a firm's ability to produce efficient products, strong communication between departments, and robust internal controls. Strategic perspective revolves around communicating a strong vision and developing and implementing strategies. These five aspects jointly form the concept of *sustainable survival* (Ahmad et al., 2020). Ahmad et al. (2019) have termed sustainable survival as corporate sustainable longevity (CSL); arguably, both terms are equivalent. Other scholars (Ahmad et al., 2021; Rashid et al., 2022; Sharma & Salvato, 2013) has associated longevity with the long-term continuity of the firm. Previously, sustainable survival has been addressed from various perspectives. For instance, the role of corporate social responsibility in a family firm's sustainable survival (Ahmad et al., 2020); family involvement in a firm's survival (Ahmad et al., 2021); technology adoption in SMEs survival (Das et al., 2020); survival strategies in enhancing SMEs long term survival (Adebisi & Bakare, 2019); the role of creativity in enhancing SME's resilience (Zutshi et al., 2021); networking abilities in the survival of SMEs (Shah et al., 2019; Baloch & Rashid, 2022); managerial skills on SMEs' success (Ismail & Naqshbandi, 2022; Khan et al., 2022). These recent studies have revealed different factors that enhance the survival of SMEs. Despite the significance of these factors, the role of strategic thinking is scantily addressed in the literature (Aaltola, 2019).

Akinyele and Fasogbon (2010) have discussed that strategic planning has a significant role in affecting the survival rate of the firm. Hashmi et al. (2020) argued that strategic thinking plays a significant role in organizational performance. They further argue that psychological attachment enhances by incorporating all stakeholders in the planning process. Lončar (2017) has also identified the role of strategic management and strategic thinking in the context of strategic planning to plan and deploy business resources to augment business success effectively. Scholarship based on mental models has asserted that strategy maps influence decision-making quality, ultimately impacting long-term profit performance (Humphreys et al., 2016). It is further argued by Hall (2011) that the cognitive process of developing new and confirming existing mental models is supported by performance management systems that affect organizational performance. Theoretically, the mental models are thought of as cognitive representations of external reality and are used for building explanations, reasoning and events anticipations (Jones et al., 2011). In the field of cognitive psychology, theoretical evidence is mounted that people who use mental models are involved in reasoning and making predictions regarding the world around them (Jones et al., 2011). Arguing on the thinking patterns, Houghton et al. (2003) have exhibited that these patterns can influence the

sustainability of the work teams from a cognitive perspective. In another research, Dane et al. (2011) argued that those individuals who think about problem-solving can exhibit more creativity. From the perspective of building construction, thinking pertaining to the life cycle approach can stimulate the sustainability of buildings (Ingrao et al., 2018; Hashmi et al., 2021). All these studies have focused on the cognitive thinking of firms in enhancing their survival. Therefore, drawing on these assertions, strategic thinking can also influence the sustainable survival of the firms.

### 2.2.3. Strategic thinking as a mediator

As rightly argued by Goldman et al. (2015) an organization’s performance depends on managers’ thoughts and decision-making skills. Further, they argue that even the characteristics of employees play a crucial role in organizational development and performance. Ahmad et al. (2019) have asserted that an effective strategy plays a critical role in sustaining performance. Hall (2008) asserted that comprehensive performance management systems (type of MA) influence the cognition process and other psychological aspects that ultimately influence managerial performance. As management accounting systems provide the data even at the strategic level (Oyewo, 2021), arguably, data provided by these systems are responsible for stimulating the cognitive process because the formulation of judgments and decisions are based upon mental models (Birnberg et al., 2007; Hall 2008, 2011). To put it differently, MA can arguably be reasonable for cognitive simulation that can play a role in developing strategic thinking. Lončar (2017) also highlighted the role of strategic management and strategic thinking in strategic planning to prepare and deploy business resources efficiently to improve business performance. Ershadi and Dehdazzi (2019) have argued that strategic thinking is a technique that allows businesses to respond competitively to expected environmental changes. In particular, strategic planning provides a company and its environment with an attitude to identify an organization’s present position and recognizes critical factors that influence its performance (Ershadi & Dehdazzi, 2019). Therefore, strategic thinking can argumentatively play a role in the success of an organization and reduce the survival problem; in other words, sustainable survival can be enhanced. Consequently, strategic thinking plays a crucial role in transferring the impact of management accounting systems towards ensuring the success and sustainable survival of the firm. In conjunction with the above arguments, we argue that *strategic thinking* mediates the relationship between management accounting systems and sustainable survival. the following conceptual framework has been developed below.

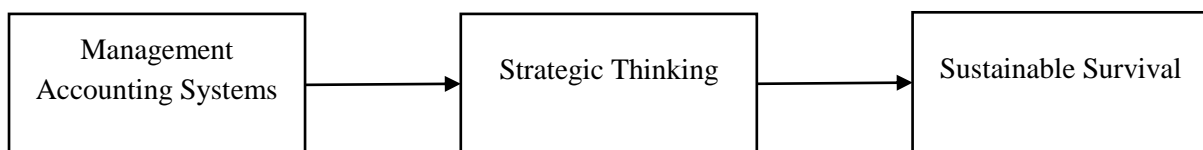


Figure 1: Conceptual framework

### 3. Discussion and Conclusion

Due to the increased interest in comprehending the factors that put SMEs on the verge of failure (Shepherd et al., 2013), it is ingrained in the owners of SMEs to focus on long-term survival (Fatima & Bilal, 2020). Hence, this study proposes a conceptual model for SMEs in Pakistan, considering the critical dilemma of sustainable survival. This conceptual study addressed the notions of MA systems, strategic thinking, and sustainable survival. Based on the cognitive psychology theory of mental models, we propose that strategic thinking might mediate between management accounting systems and sustainable survival. MA systems, such as performance management systems, influence cognition, motivation, and even self-psychological factors, hence improving performance (Hall, 2008). Performance management systems can facilitate the cognitive process of producing new mental models and validating current mental models, in order to improve firms’ growth (Hall, 2011). Further, Hall (2016) has argued that cognitive psychology is advantageous in the study of MA in

order to grasp how individuals in organizations interpret information generated by MA systems. Roetzel (2019) stated that as the information load increases, so does the decision-making capacity. Consequently, MA gives information for decision-making and may induce managers to process facts cognitively. Nonetheless, we suggest that management accounting systems provide information that is actually responsible for stimulating strategic-level thought processes, ultimately motivating an organization to strive for sustainable survival, illustrated in figure 1.

In addition to the conceptual framework presented in figure 1, this has significant theoretical and practical implications. Theoretically, this conceptual paper has endeavored to highlight the research on strategic thinking, which is scantily addressed from the perspective of cognitive psychology (Wibbeke & Lachmann, 2020; Aaltola, 2019). This conceptual paper has also addressed the significance of MA in SMEs in Pakistan, where literature related to MA is also limited (Latif et al., 2023). This paper also contributes by advancing the role of MA in strategic thinking, which is arguably an emerging trend in MA scholarship (Aaltola, 2019; Shahul et al., 2022). Furthermore, this paper has presented that strategic thinking can potentially mediate between MA systems and sustainable survival. Although the literature has addressed the sustainable survival of SMEs from various perspectives, as debated in the literature section, however strategic thinking as a potential mediator is rarely addressed, due to which it has been proposed as a mediator.

### **3.1. Implications and Limitations**

In the practical sense, this proposed conceptual model may assist SME owners and managers in diverting their thinking towards *strategic thinking* so that survival concerns may be diminished. SME owners could develop and improve MA systems in firms that can generate relevant information not only at the operational but also at the strategic level. This information at the strategic level may stimulate SME owners' strategic thinking, which can augment survival probability. Furthermore, SME owners need to invest in developing MA systems where these systems are not present or weakly developed. Literature has also emphasized developing MA systems in such firms to enhance the probability of survival (Latif et al., 2023). Lastly, SME owners should endeavor to develop strategic thinking not at the managerial level but production labor level as well. The plausible reason for this effort is that SMEs do not have strict formal structures, and SME owners have close ties with their workers and labor. Therefore, such workers and laborers must be trained to enhance their strategic thinking to put effort into sustainable survival.

This conceptual paper has limitations, but these limitations suggest a direction for further research. In this study, the conceptual model was proposed but not tested. Future research can empirically test in the setting of SMEs. The addition of potential moderators, such as education, age, experience, etc., is another possible direction in this regard.

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