The Development of a Management Accounting Framework for Small and Medium Enterprises Operating in Emerging Economies

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\textbf{Abstract}  

\textbf{Purpose:} This paper proposes a management accounting framework for Small and Medium Enterprises (SMEs) operating in developing countries. The development of the framework was motivated by the existing low uptake of management accounting and inconsistent use of Management Accounting Practices (MAPs) by SMEs, especially in emerging economies. The model framework advanced in this paper is meant to regularise and systematise the use of MAPs by SMEs.

\textbf{Methodology:} The study adopted a qualitative research approach using semi-structured interviews. A total of thirteen focus group meetings, nineteen face-to-face in-depth interviews and twenty-one key informant interviews were conducted in five provinces in Zimbabwe. Data was analysed following a reflexive thematic analysis through content analysis using Atlas.ti.

\textbf{Findings:} The paper proposed a six staged systematic implementation method that makes the application of MAPs less cumbersome and easy to implement. The framework can be applied to other similar contexts in the Global South. It is highly recommended that SMEs should apply management accounting as it use promotes competitive advantage and success for an entity.

\textbf{Originality/Value:} The framework is envisaged to increase the usage of management accounting among SMEs as well as reducing inconsistencies in the application of MAPs among SMEs.
Introduction

Management accounting is a practical science that processes financial and non-financial information for the purposes of decision-making and policy formulation as well as value creation (Kaplan & Atkinson, 1998; Horngren et al., 2005). The application of management accounting is essential for the success and growth of any business entity. Management accounting is particularly relevant for SMEs operating in a dynamic economy as they promote efficiency and improve the competitive edge (Abdel-Kader & Luther, 2006). MAPs are vital tools in promoting development plans, controlling operations, formulating strategy, changing management as they act as the key information system in the decision-making process (Mitchell & Reid, 2000).

SMEs are globally recognised for their contribution to economic growth and development (Kithae, et al., 2013). However, SMEs in developing countries are beset by myriad challenges that include limited access to finance, lack of entrepreneurial and business management skills, poor accounting practices, low productivity and failure to adapt to rapidly changing market conditions (Maseko & Manyani, 2011; RBZ, 2016). Hopper et.al. (1999) suggested that the implementation of MAPs by SMEs might remedy the foregoing challenges. Specifically, management accounting holds the benefit of enhancing the viability of SMEs by fostering value creation (Ahmad, 2012). Yet, several scholars have indicated that there is low uptake of MAPs among SMEs from developing countries (Ahmad et al., 2003; Mulani et al., 2015; Maduekwe & Kamala, 2016; Ahmad, 2017).

This study also observed a dearth of a management accounting framework that is tailor-made for small businesses. Besides, the existing management accounting frameworks were developed for large entities in developed countries, which have different contingent factors compared to small businesses in emerging economies (Cokins, 2001; Greenberg & Wilner, 2015). This implies that there is a need to develop a management accounting framework for SMEs, which is envisaged to increase the use of MAPs and further systematise the application of MAPs among SMEs in emerging economies.
The objective of this paper is to propose a management accounting framework for SMEs operating in developing countries. In a drive to increase the usage of management accounting and systematise its application the proposed framework should be tailor made for SMEs operating in emerging economies. The organisation of the paper is as follows; the paper discusses the purpose of the framework and further reviews existing management accounting frameworks. The paper further proceeds to present a model management accounting framework for SMEs operating in emerging economies. It discusses the management accounting framework implementation process and the last part is the conclusion.

**Materials and Methods**

The study adopted a qualitative research approach using semi-structured interviews. The study obtained comprehensive information about SMEs and MAPs through focus group discussions, face-to-face in-depth interviews, observations and key-informative interviews. Data collection began on the 4th of November 2019, it was forced to stop on the 26th of March 2020 when the President of the Republic of Zimbabwe announced a national lockdown due to COVID-19 pandemic. The researcher resumed data collection from the 17th of August 2020 to the 15th of September 2020 when lockdown measures were uplifted. A total of thirteen focus group meetings, nineteen face-to-face in-depth interviews and twenty-one key informant interviews were conducted over six months. Participants were inquired about the MAPs they are using, factors that influence their use of MAPs, and benefits they obtain in the use of MAPs. The reflexive thematic analysis approach as highlighted by Braun and Clarke (2006) was adopted. The researcher was actively involved in all the six stages of data analysis which are suggested by Braun and Clarke (2006). Data were thematically analysed through content analysis using Atlas.ti.

**Purpose of the framework**

Kittredge (2009) points to the need of management accounting frameworks by arguing that management accounting is distinct from financial accounting. Specifically, management accounting transcends the traditional acquiescence with
financial reporting guidelines and procedures. Management accounting derives its essence from the strategic function it plays in corporate planning and decision-making. Greenberg and Wilner (2015) have highlighted that the lack of management accounting frameworks has hampered the uptake of management accounting. The existing management accounting frameworks largely meet the needs of large entities and they were too complex for small businesses as they were developed based on the needs of large entities (Greenberg & Wilner, 2015).

Furthermore, in financial reporting there are relevant International Financial Reporting Standards (IFRS) for large corporates and those for SMEs as defined. SMEs and large corporates have different needs and levels of capitalisation, hence, IFRS for large entities are not attuned to the contextual dynamics that attend SMEs. The foregoing rationalised the need for different IFRSs (Chenhall, 2007; IASPLUS, 2020). While significant advances have been made in developing financial reporting frameworks that standardise the application of financial accounting principles by small businesses, the same cannot be said regarding management accounting frameworks (PWC, 2009). Consequently, in management accounting there is a dearth of frameworks that systematise the application of MAPs among SMEs. The respondents also indicated that the implementation of contemporary MAPs required knowledge as well as skill and these techniques are complicated. Furthermore, some SMEs lack knowledge and guidance on the selection of the management tools that are pertinent for their entities. Hence, there is limited information and guidance relating to the application of MAPs among SMEs.

This study also observed a trend that there are inconsistent practices on MAPs application among Zimbabwean SMEs. The study further found that there is, in general, low utilisation of management accounting by SMEs included in this study. Although, there is low utilisation of MAPs by SMEs, costing systems, budgeting systems and performance evaluation systems are the most prevalent pillars of the five of management accounting pillars. Respondents attributed the low usage of decision support systems and strategic management accounting to a lack of capital needed to utilise these systems. This is consistent with findings by Ahmad (2017)
and Armitage et al. (2016). However, the study suggests that SMEs should first implement the traditional MAPs, their use could improve entity resources, and thus the availability of resources will ease the application of MAPs in a holistic approach. Furthermore, it is worth noting that respondents cited the sophisticated nature of MAPs as one of the reasons that explain their limited adoption by SMEs. Further, SMEs operating in emerging economies are hard-hit by numerous factors that influence the usage of MAPs and these factors are not limited to organisation size, knowledge on MAPs and qualification of the accounting personnel. Chief among these factors is the lack of adequate resources and the socio-economic environment. SMEs cannot afford to secure management accounting software which is paramount for wide application of MAPs. From the limited resources within the small businesses, it is difficult to retain qualified management accountants. Therefore, there is a need to develop a framework that will simplify and ease the application of management accounting among SMEs. The development of a management accounting framework that systematises the application of MAPs could address the above. The proposed framework is intended to achieve the following:

i) The framework will systematise the application of MAPs within the SME sector.

ii) The availability of a management accounting framework will increase the uptake of MAPs by providing a template that will make their application less cumbersome.

iii) The framework will also provide a foundation for those who develop management software for both SMEs and large entities.

iv) The framework will increase users’ confidence and perception of management accounting.

v) It is also envisioned that the framework will simplify management accounting to SMEs.

vi) The framework will functions as a reference for national and global policymakers concerned with management accounting in the SMEs sector.

vii)
It is also envisaged that the proposed framework will probe the academic fraternity to criticize it and in the process, numerous developments will be achieved in the field of management accounting.

Given the benefits that are associated with the use of management accounting, the framework will enhance the usage of MAPs since management accounting creates and sustains the value of the entity (Lucas et al., 2013). Besides, prior studies revealed that there is a correlation between the application of MAPs and availability of resources within an entity (Demirbag et al., 2006; Kober et al., 2007; Ahmad, 2017). In this regard, a positive uptake of MAPs is likely to increase the availability of resources within an entity that in turn will further enhance ease of application of all MAPs categories. The adoption of the framework will enable the application of MAPs in a standardized approach. The proposed management accounting framework is furthermore informed by a review of existing management accounting frameworks.

The following section discusses the existing management accounting frameworks.

**Survey of existing management accounting frameworks**

Management accounting practitioners have developed various costing model frameworks for use. For instance, Greenberg and Wilner (2015) suggested a product costing model framework. The Institute of Management Accountants (IMA) (2014) proposed a managerial costing framework that addressed the needs of managerial decision accentuating in costing models. Cokins (2001) developed a management accounting framework with a “tree, branch, and leaf” structure. Figure 1 illustrates the framework that was proposed by Cokins in 2001.
Cokins based the framework on the costing pillar, by suggesting that cost measurement and cost uses were cardinal components of management accounting. The cost measurement branch of the framework contained the cost collection methods as well as the cost assignment methods. Conversely, the cost uses branch encompassed the decision making support function that included operational control, performance measurement and predictive planning (Cokins, 2001). As is evident from the above, Cokin’s framework pays minimal attention to performance evaluation and planning and is silent about the other pillars of management accounting. The framework was also designed for large corporates operating in developed economies and is thus not suited to the context of SMES in developing countries. The management accounting framework proposed in this paper accommodates the other pillars of management accounting (budgeting, decision support systems and strategic management accounting) that were overlooked in
Cokins’ framework. The following section presents the proposed management accounting framework that has been tailored to the needs of SMEs.

**Proposed management accounting framework for SMEs**

Management accounting is situated at the core of an organisation and it renders solutions to structured and unstructured problems (CIMA, 2015). The successful implementation of management accounting also lies in the apprehension of the four Global Management Accounting Principles (GMAP) that were developed by the American Institute of Certified Public Accountants (AICPA) in association with the Chartered Institute of Management Accountants (CIMA). GMAPs are principles set to guide best management accounting practice to ensure that challenging decisions can be taken. This in turn ensures that MAPs are used following guidance to achieve the desired output. Effective application of the four principles rest upon the following three factors: i) understanding and appreciating the need of management accounting to achieve sustainable success, ii) use of appropriate tools and techniques which must be continually refined, and iii) diagnosis of the environment to identify areas for improvement (CIMA, 2015).

Several scholars have suggested that it is imperative to have a management accounting framework for guidance in the application of MAPs as it enhances the uptake of management accounting (Cokins, 2001; Kittredge, 2009; Greenberg & Wilner, 2015). The existing frameworks targeted large entities after considering factors that affect these entities. In that regard, the dearth of a management accounting framework for SMEs influenced the development of the proposed framework, as it is essential for systematising the usage of MAPs and promoting their usage among small businesses. Management accounting is a decision-making support tool to management at all the levels in an organisation (Muza, 2018). This framework will be a decision support tool for SME management at all levels of the organisation. Thus, the proposed framework can also be referred to as a decision-making framework.

Management accounting has five pillars, namely, costing systems, budgeting systems, performance evaluation systems, decision support systems and strategic
management accounting. Several scholars have identified these five pillars as the major components of management accounting and they have analysed management accounting under these components (Abdel-Kader & Luther, 2006; Ahmad, 2017; Dlamini, 2020). The separation of the five components of MAPs enables an easy understanding and application of the landscape of managerial accounting. The proposed framework can also be referred to as a decision-making framework. Figure 2 presents the proposed broad management accounting framework for SMEs.
Figure 2: Management accounting Framework

Source: Adapted from Abdel-Kader and Luther (2006), Ahmad (2012), Dlamini (2020)
The framework has five pillars that constitute management accounting as revealed by literature and the respondents. In Figure 2, the pillars in the yellow bar are at the same level and these pillars are interdependent but can be implemented separately. For instance, budgeting depends on costing but budgets can be used without a functioning costing system. However, a budget that takes into account costing dynamics is more desirable than one that does not. Participants identified techniques that are relevant for SMEs operating in emerging economies and these are discussed in detail under each stage in the implementation process. The following section discussed the MAPs implementation process in detail.

MAPs implementation process

Respondents revealed that most contemporary MAPs are sophisticated and thus difficult to comprehend and implement. The study found that the majority of SMEs do not have qualified management accountants. Furthermore, the study observed that SMEs have limited access to resources as the participants cited inadequacy of resources as one of the major factors influencing low adoption of MAPs. Additionally, Zimbabwean SMEs are operating in a harsh economic environment that is characterised by numerous bedevilling factors, which negatively affect the application of MAPs. In light of the above, the proposed framework is designed in such a way that allows for its phased implementation. The phased implementation approach facilitates easy and simple adoption of management accounting among SMEs. Further, the phased approach also allows SMEs to generate resources that will be used in implementing other pillars of management accounting especially at the final stage of the implementation process. The following subsections provide details how the five pillars can be applied.

Stage 1: Costing pillar

The initial stage of a decision-making framework is to determine the cost of a product or a service. Other management accounting pillars cannot be properly implemented if the costing pillar is not applied precisely (Yoshikawa, 1994; Lukka & Granlund, 1996). While most sampled SMEs use costing systems, some SMEs uncritically copy and paste their competitors prices or just use random estimation to
determine the cost of their products. Costing systems play a watchdog function and keep an entity’s expenses in line with its profit margins (Dlamini, 2020). Literature indicated that improper product costing is one of the factors that lead to the failure of SMEs (Turney, 2008). This implies that it is important for small businesses to properly cost their products or services. SMEs should understand the procedures that are taken when determining the cost of a product or a service. For ease application of costing system the SME should consider the nature of the industry under which the entity operates in and the production flowchart (Drury, 2012). For instance, if the entity is operating in the service industry the entity should apply service costing, if an entity manufactures products in batches it should use batch costing and if it is in continuous production it should apply process costing. Proper costing ensures success as it leads to correct product pricing, appropriate decision making and profitability. Costing systems have two branches and these are cost assignment and costing technique (Ahmad, 2012). Under cost assignment and costing techniques, there are traditional and contemporary methods as depicted in Figure 3.

**Figure 3:** Costing pillar

Cost assignment enables the assigning of costs to a product or service to determine the unit cost for that particular product or service (Dlamini, 2020). Participants revealed that the traditional costing methods, which include process costing, batch
Costing, job costing, absorption costing and marginal costing are more appropriate for SMEs. Given that respondents highlighted that inadequate resources hindered the implementation of MAPs, they can implement the framework in stages. Stage one of the framework proposes the use of traditional costing systems as they are not expensive and are simple to use as compared to contemporary systems which require advanced accounting expertise. After determining the cost of a product or a service, the next step is to plan for the resources that are required to production a particular product.

**Stage 2: Budgeting pillar**

Budgeting is an essential tool for forecasting, allocating resources and controlling activities in the institution (Drury et al., 1993). The budgeting system has two branches, the “types of budgets and the budgeting approach” and these have both traditional and contemporary components (Ahmad, 2012), as illustrated in Figure 4.

**Figure 4:** Budgeting pillar

![Budgeting pillar diagram](source: Own formulation)

Under the budgeting pillar, the framework proposes that the initial step is to decide on the approach to be used. The study findings revealed that the few entities that have a budgeting system in place use the flexible budgeting approach. The
respondents also indicated that the application of this approach requires few resources and it is simple to use. This is consistent with the empirical literature that shows that the flexible approach is highly used by SMEs both in developed and developing economies (Abdel-Kader & Luther, 2006; Lorenz, 2015; Ahmad, 2017). It is against this backdrop that the proposed framework suggests that the flexible budgeting approach should be the default budgeting system used by SMEs because of its simplicity.

The study revealed that the SMEs are utilising functional budgets namely sale budgets, production budgets and material utilisation budgets among others. However, findings point to variations in the use of these budgets. In that regard, this framework proposes a systematic application of budgeting, where budgets are prepared for all the functions of the organisation. In achieving a systematic approach, SMEs must bear in mind that the decision on the type of budget the entity is going to use is influenced by the nature of the industry and by the functions within the entity (Chenhall & Langfield-Smith, 1998). For instance, an entity that is involved in manufacturing has to prepare the production budget and the material utilisation budget whereas entities in retail or service industries do not need to prepare these two types of budgets. The framework proposes that small businesses should prepare their budgets “according to function” and these functional budgets will be consolidated to develop a master budget for the entity. These budgets will inform resource allocation, improve coordination and communication within the organisation. The entity should identify the constrained resource, which is the “principal budget factor” (Horngren et al., 2005). The function that has the limiting factor should be the one for which the first functional budget is prepared for and the necessary resources mobilised accordingly. Furthermore, the preparation of budgets according to function necessitates systematisation of MAPs as entities in the same sector can use similar budgets.

Stage 3: Performance evaluation pillar

The third stage is to evaluate the performance of various aspects of the entity against the initial plan. Performance evaluation further acts as a guide in assisting managers
in planning and benchmarking for future periods (Neely et al., 1995). The pillar has two components, the financial measures (traditional), and the non-financial measures (contemporary) as illustrated by figure 5. Performance measurement should not only be retrospective but prospective as well (Bhimani & Bromwich, 2010). It is important that experiences inform future business plans if success is to be guaranteed (Lorenz, 2015). The study revealed that the majority of the SMEs under study are high users of financial measures as compared to non-financial measures. The most used financial measures are profitability ratios, sales growth and residual income. These measures use data that is easily obtained from financial reporting. However, the use of financial accounting information in performance evaluation has been criticized because of its vulnerability to manipulation (Ittner & Larcker, 2001). The framework proposes that SME owners should ensure that financial and non-financial measures are used concurrently used in their organisations as these tools supplement each other. Financial measures provide statistical indicators on the performance of an entity whereas the non-financial measures assess both the internal and the external context of the business they are complementary and when used in conjunction, give a holistic picture of business performance.

**Figure 5:** Performance evaluation pillar

![Performance Evaluation Pillar Diagram]

**Source:** Own formulation

The use of non-financial measures is based on the nature of the industry and an entity's product portfolio (Bhimani & Bromwich, 2010). For instance, an entity
involved in manufacturing can apply the manufacturing defect rate, which cannot be applied by a retail shop. On the other hand, a retail shop can apply the number of complaints per till operator rule as a measure of the quality of rendered services but a manufacturing plant cannot use the same.

**Stage 4: Decision support pillar**

The fourth stage concerns the decision support pillar. Decision-making is a critical aspect of management as managers at various levels have a certain degree of autonomy and are faced with planned and unplanned circumstances (Wu et al., 2007). After the evaluation of performance, managers needs to make informed decisions that contribute to the viability and competitiveness of a business (Ahmad & Zabri, 2015). The respondents indicated that the decision support systems are meant for large entities, which have complex production processes and are of limited value to small enterprises. However, it is prudent for entities to have a decision support system that will enhance effective decision making since some of the respondents highlighted that decisions are made on an ad hoc basis. Figure 6 illustrates the decision support pillar.

**Figure 6: Decision support system**

Source: Own formulation
The decision support system has two components, the short-term and the long-term and these components have both traditional and contemporary methods (Ahmad, 2012). The study revealed that most SMEs under study use short-term decision support systems and a minority use long-term decision support systems. Respondents further highlighted the unavailability of resources and complexity of the systems as a major factor that affect the use of decision support systems. Hence, the framework proposes the use of traditional methods for both short and long-term decision support systems. The traditional methods can be used without the use of advanced technology, in other words, with simple training of the accounting personnel the traditional methods can be used without complications. Short-term methods are used to support decision-making for issues that fall within twelve months and the activities are not funded from the capital investment but utilise working capital (Drury, 2012).

The study observed that the few entities that are using decision support systems use cost profit volume analysis, relevant costs, inventory controls, product profitability analysis, customer profitability analysis, payback period, and net present value. The framework proposes the use of these methods, which are simple and require few resources especially considering that the Zimbabwean economy is in recession. The framework further suggests that SME owners should capitalise on the benefits of short-term decision-making processes when making strategic decisions. Regarding long-term financial decisions, SME owners will apply the capital budgeting techniques such as discounted payback period, net present value, internal rate of return and accounting rate of return to enhance effective investment decisions.

**Stage 5: Strategic management accounting pillar**

Strategic Management Accounting (SMA) is the monitoring of the strategies of the entity and its rivals through the anatomization of pecuniary and non-pecuniary information with the aim of developing a sustainable business strategy (Bromwich, 1990). The feasibility of implementing pillar number five depends on the successful implementation of stages one to four.
Figure 7: Strategic management accounting pillar

Source: Own formulation

Findings revealed that the cost of applying SMA is prohibitive and that it is technologically intensive. The issue of inadequate financial resources is a hindrance in securing resources like computers and management accounting software (Ahmad, 2012; Dlamini, 2020). The prediction is that successful implementation of these stages will improve the capital outlook of an SME and make possible the purchase of requisite software and human resources needed for strategic management accounting (Tuanmat, & Smith, 2011). Unlike the other four pillars, SMA is a contemporary accounting practice with no traditional precedent. SMEs use less sophisticated SMA methods like the target costing, product profitability analysis (PPA) and customer profitability analysis (CPA) among others. Hence, the proposed framework suggests that SMEs should start with simple methods such as benchmarking, target costing, PPA and CPA for easy adoption of SMA. Although SMA tools require management accounting software, other tools like target costing only require integrated software solutions or Microsoft Excel spreadsheets.

Stage 6: Application of contemporary methods

The framework proposes that SMEs should apply the traditional methods of management accounting before moving on to contemporary components. This was informed by the findings of the current study, which revealed that those few SMEs
who are applying MAPs have a high adoption rate for traditional MAPs as compared to the contemporary ones. At stage 6, the organisation can consider whether the resources at their disposal allow the organisation to implement all the contemporary methods within the five pillars. The framework proposed that small businesses should first adopt contemporary methods that can be applied manually like; benchmarking, customer profitability analysis, and product profitability analysis among others. An entity should apply both traditional and contemporary MAPs as these components complement each other in producing excellent results for the entity. The practice of management accounting proposed is not an event but a process. For an entity to fully benefit from the proposed framework, it should implement all the six stages identified herein.

Conclusion

This paper used views expressed in the literature and insights from empirical findings to develop a management accounting framework for SMEs in emerging economies. The proposed framework incorporates all the five pillars of management accounting, namely, costing systems, budgeting systems, performance evaluation systems, decision support systems and strategic management accounting. The model advanced in this paper is meant to regularise and systematise the use of MAPs by SMEs. Further, the proposed framework is meant to make the application of MAPs less cumbersome and easy to implement. The framework proposes a simple and easy way of adopting management accounting by SMEs in emerging economies as well as in developed economies. The framework can be applied to other similar contexts in the Global South. The framework might increase the usage of management accounting among SMEs as well as reducing inconsistencies in the application of MAPs among SMEs. The framework will increase users’ confidence and perception of management accounting among various stakeholders. It is also the aspiration of any economy to witness small businesses graduating into large entities. If these SMEs become large entities that fully implement management accounting, they stand a chance of being competitive even at a global level. The successful implementation of the framework
needs a buy-in from various stakeholders. The management accounting framework for SMEs will act as a starting point for a management accounting initiative among SMEs. The framework may need to be refined further as new information that may enhance its accessibility and usability is availed given the fact that there has not yet been any existing management accounting framework for SMEs.

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