# BINDURA UNIVERSITY OF SCIENCE EDUCATION



**PROJECT TOPIC:**

**THE IMPACT OF MANAGEMENT ACCOUNTING TECHNIQUES ON FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS: CASE STUDY OF MSASA INDUSTRIAL AREA.**

 **BY**

**B190158A**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE BACHELOR OF ACCOUNTANCY HONOURS DEGREE OF BINDURA UNIVERSITY OF SCIENCE EDUCATION.**

**FACULTY OF COMMERCE**

**DECEMBER 2022**

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DEGREE TITLE: BACHELOR OF ACCOUNTANCY HONOURS DEGREE

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## DEDICATION

This research is gratefully devoted to my family and friends, who have consistently served as my sources of motivation. The completion of this dissertation would not have been feasible without their love and support.

## ABSTRACT

The research sought to establish the impact of management accounting techniques on financial performance of manufacturing firms in Msasa Industrial Area. Manufacturing companies in Zimbabwe are seen as the pillar of the economy. However, they are facing difficulties in their operations that are obstructing their performance and the capability to function on full capacity. This research implemented descriptive research design. The research was restricted to 60 manufacturing companies in Msasa Industrial Area. Stratified and random sampling methods were used to obtain the sample size of 60 respondents and the researcher targeted specific respondents for her research who were finance managers and management accountants who have much knowledge about management accounting techniques. In addition, Qualitative approach was implemented where structured questionnaires and interviews were used for data collection. Primary and secondary data was used in this project whereby the core sources of associated literature were text books and internet journals. In this research, the Statistical Package for Social Sciences (SPSS) version 24 was used for regression analysis and descriptive statistics, permitting the researcher to present the data in form of tables. This was simplified mainly with the aid of the Likert Scale model ranging from a very lesser extent to a very greater extent. The study concluded that many manufacturing firms in Msasa Industrial Area are applying management accounting techniques especially Activity based costing, throughput accounting as well as capital budgeting for investment decisions. Applying management accounting techniques is helping firms in sound decision making although the greatest challenge manufacturing firms are facing is lack of resources to fully implement the needed management accounting techniques.

## ACKNOWLEDGEMENTS

I would like to thank greatly the Almighty God for giving me the strength to reach this far with my studies and being with me throughout the way. My sincere gratitude goes to my supervisor for supervising this project. Without the assistance he provided during this study, the research would not have been finished. I am also appreciative that Bindura University of Science Education, my learning institution, gave me the resources I needed to do this study.

I also value the efforts made by many workers at particular industrial companies in the Msasa Industrial Area for providing data for my research. The contributions of the above mentioned people helped the research project to be completed.

This study offers evidence of devotion and sacrifice of numerous people, each of whom deserves special recognition. I want to thank my loving family, friends and everyone for all their efforts to this project.

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# CHAPTER I

# INTRODUCTION

## 1.0 Introduction

This section aims at introducing the reader to the project and it provides the background information of the study. Also, this chapter consists of the aims of the study, research objectives along with a problem statement of this study. Additionally, research questions, assumptions, the significance of study, delimitations as well as limitations to this research are all included in this chapter. Before this chapter comes to an end, key terms are also well explained.

## 1.1 Background of the study

Various manufacturing companies worldwide have identified management accounting techniques as ways of enhancing efficiency of existing operations. Caplan (2000) defined management accounting techniques as the methods of estimating and reporting information about activity within businesses, to be used by managers in performance evaluation, operational control and planning. This point of view identifies that managers can use a wide range of techniques to deal with each and every aspect which leads to improved decision making and quality planning. The core duty of management is decision making, which is a practice of choosing an appropriate and effective course of action among two or more alternatives in order to achieve a desired result.

Waweru (2010) stated that scholarly writers of management accounting were writing from two different sources which are the Economic Approach and Non- Economic Approach. He further explained that the researchers who were writing from the Economic Approach perspective argued that management accounting techniques emerged from the private sector to enable efficient running of business activities. Those highly ranked firms in the 19th century became the source of modern management accounting. Prior to the uprising of many companies, the proprietor managed and directed all company activities and employees were paid wages since they would work only temporarily. During the 19th century, the idea of increasing production efficiency was brought in. That led to the growth of many companies and employees were now being employed permanently.

Another key contributor to the rise of management accounting techniques was the prompt growth of railways during the mid-19th century (Waweru, 2010). Newly developed techniques namely cost per ton per mile, cost per passenger per mile as well as proportionate of operating expenses to revenue were established and published regularly. Rapidly, these techniques were acquired and they expanded throughout the business sector.

Caplan (2006) explained that management accounting tools continuously developed quickly throughout the early part of the 20th century. No later than 1950, the majority of these techniques which are being used today were already prevailing. Waweru (2010) also supported that further modifications in management accounting might likely have contributed to the development of many and various companies during the 20th century. Many firms switched from being owner managed to letting divisional managers operate the firm's activities. The top management would be responsible for synchronizing various activities, designing strategies and making decisions on how to apportion capital amongst those many business activities. Modified management accounting tools were implemented to promote those activities. Budgetary preparation and control techniques were created to make sure that various organizational tasks of all the departments at the company are working hand in hand with the organizational objectives. In order to assess the success of each department and the organization as a whole, a tool to measure the return on investment was implemented.

Hoskin and Macve (1988) stated that advocates for Non-Economic Approach explained that during the 19th and 20th century governmental organizations like military created standards by assessing individual accomplishments as well as checking it through comparing with their principles and level of attainment. Waweru (2010) asserted that institutions that were responsible for recording national health statistics (Hacking, 1990) established these systems before they prevailed in the industry. They further argued that management accounting techniques were not established to prop up organizational operations but for the sake of disciplinary motives and scholarly assessment uses.

Caplan (2006) indicated that textiles and railroads were the most dominant firms during the industrial revolution and they performed significant roles in management accounting evolution period. Textiles mills utilized raw materials and workforce to produce fabrics and other goods, and techniques to ensure efficiency during production were established. Railroads needed large capital outlay which takes a long time to rise in order to get enough amounts to start the construction of roadbed and track. As soon as railroads start functioning, large quantities of cash receipts from many customers were obtained. This led to the establishment of financial as well as operational techniques to boost efficiency for both passengers and freight.

Caplan (2006) argued that with just a small number of exclusions, management accounting was not needed for guiding motives till the Foreign Corrupt Practices Act of 1977, under which the use of sufficient internal control systems in big firms was authorized. So up to date, organizations have a big duty of selecting wisely the management accounting techniques which suits the company operations and these techniques actually vary even in companies within the same industry. As a result of this background study, the researcher deduced that there should be embracement of management accounting tools for effective financial performance.

## 1.2 Problem Statement

Commercial businesses are becoming more aggressive as well as vibrant in establishing approaches that secure profitability existence as the business environment of today gets more competitive. Consolata (2019) state that declining profitability, rising expenses, completion, and financial crises are what drive the perception of managerial accounting’s significance. Competition may be ascribed to commercial developments, technological advancements, and shifting consumer demand. The increased demand means higher costs of production and if there is a shortage in working capital it will lead to the company running inefficiently. Due to stiff competition being faced by many manufacturing companies, if a company is inefficient and there is poor decision making by management then it will be cumbersome for it to survive in the industry (Consolata (2019); Gichiiaga (2014). Despite the importance of other previous researches, a significant barrier to improved financial performance of manufacturing enterprises in emerging countries such as Zimbabwe is the widespread absence of management accounting techniques for enhancing financial performance and absence of technical abilities to do so (Gichiiaga, 2014). As a result of this drop back, the researcher was motivated to examine how management accounting techniques affect the financial performance of manufacturing firms in Zimbabwe with a specific emphasis on those in Msasa Industrial Area.

## 1.3 Research Objectives

This research’s objectives are to:

1. Ascertain the management accounting techniques which are being applied by manufacturing firms in Msasa Industrial area.
2. Find out if management accounting techniques have an effect on financial performance.
3. Find out the challenges manufacturing firms are facing when implementing management accounting techniques.
4. Ascertain the benefits derived from applying management accounting techniques in manufacturing firms.

## 1.4 **Research questions**

1. To what extent are management accounting techniques being applied by manufacturing companies in Msasa Industrial Area?
2. Which challenges are manufacturing firms facing when implementing management accounting techniques?
3. What are the benefits derived from applying management accounting techniques in manufacturing firms?

## 1.5 Hypothesis of the study

**H0-** Use of management accounting techniques has no effect on financial performance.

**H1-** Use of management accounting techniques has an effect on financial performance.

## 1.6 Significance of the study

**To the researcher**

This exploration is a sectional fulfillment as per the Bachelor of Accountancy Honors Degree requisites, which means that its accomplishment will enrich the researcher’s educational position. This analysis will help the analyst to gain adequate knowledge on the effect of management accounting tools in improving financial performance of manufacturing companies in Msasa industrial area.

**To the university**

This exploration will act as a fountainhead of literature review to upcoming researchers who might want to carry on a research related to this one as it might be a component of the library resources.

**To the organizations in Zimbabwe**

It helps management to identify the importance of management accounting tools in improving financial performance. This means that this research will act as an eye opener to management to identify ways to minimize costs at the same time maintaining quality so as to increase profits. It also enables management to strategize and implement any management accounting techniques which might be lacking in the running of the firm effectively and efficiently.

## 1.7 Assumptions

1. Manufacturing firms in the case study showed the true resemblance of manufacturing firms nationwide.
2. Selected respondents gave unbiased and authentic data.
3. Manufacturing firms are applying management accounting techniques in their operations.

## 1.8 Delimitations

This study was restricted to manufacturing companies in Msasa Industrial area only. Also, the target group only consisted of finance managers and management accountants whose aim and duty is to enforce and maintain the implemented management accounting techniques.

## 1.9 Limitations

1. There was limited access of data due to confidentiality which resulted in limiting the scope of the analysis.
2. Monetary constraints mainly during the data collection process which limited the researcher to actually visit every company thereby she ended up collecting data from respondents through online platforms.
3. Samples collected from the target population may not be truly symbolizing all manufacturing firms in Msasa Industrial Area.

## 1.10 Definition of terms

**Management accounting**

This branch of accounting deals with giving information to company personnel so they can make better decisions as well as running their company operations more effectively (Drury, 2018).

**Manufacturing firms**

Firms that buy raw materials and turn them into finished goods, typically with the aid of labor and other auxiliary processes, technologies, and infrastructure (overheads) (Sivabalan, 2018).

## 1.11 Summary

This chapter has been essential in setting a strong foundation of this project. It covered the background of this research, objectives, assumptions, limitations and delimitations. Also, research questions, importance of the study together with definitions of terms were explained in this chapter. The following chapter will be literature review which will be focusing on past literature pertaining management accounting techniques.

# CHAPTER II

# LITERATURE REVIEW

## 2.0 Introduction

This chapter will focus on theoretical framework and empirical evidence regarding management accounting techniques. It also consists of empirical summary by other past reseachers.

**2.1 Purpose of Literature Review**

Bibliographical review’s purpose is to discuss studies which were done by other researchers in relation to management accounting tools as well as how they enable better financial performance thus improving efficiency.

## 2.2 Theoretical framework

### 2.2.0 Theories of Management Accounting

In order to lay a theoretical starting point of the researcher, the researcher depicts three concepts of management accounting techniques which are the Balance Scorecard Theory, the Contingent Theory and Agency Theory.

### 2.2.1 Contingency Theory

The theory was established in the 1960s by Professor Fred Fiedler. Contingency theory issues a way to create an illustrative theory of management accounting procedures relying upon the opinion that the efficacy of a management accounting technique is contingent on an organization’s structure. Tiessen and Waterhouse (1983), suggested that one common interpretation of contingency theory holds that the company’s organizational structure is influenced by its technological and environmental factors. The source of information related to the technological and environmental factors has a great effect on the organizational structure. In indefinite contexts with non-routine technology, information is typically internal yet in some environments with routine technology, information is usually external.

Tiessen and Waterhouse (1983), explained that authority and activity structure, which are norms and tasks that determine individual discretion, are two aspects of structure and control. Social power is related to authority. Where uncertain surroundings and non-routine technology are present, the contingency theory favors decentralized authority. When conditions are predictable, centralized authority is preferable.

However, the Contingency theory ignores any commonalities in management accounting systems across businesses as well as the stability of these systems, focusing instead on the interaction between organizational structure, environment, and technology.

### 2.2.2 The Agency Theory

The Agency Theory was put forward by Alchian and Demsetz (1972) and Jensen and Meckling (1976). Waweru (2013) stated that according to the agency hypothesis, a company’s employees have a contractual obligation to one another. It acknowledges the presence of two social classes which are principals also known as superiors, and agents, also known as subordinates. The agents will be given decision-making authority by the principals, and in exchange for compensation, they are expected to carry out specific tasks.

Management accounting benefits greatly from the use of Agency Theory, particularly in terms of enhanced modeling capabilities. A fascinating work by Christensen (1981) establishes a clear connection between agency models and managerial accounting communication tools, particularly budgeting. The principal is demonstrated to not always benefit from providing the agent with more information because he might use it to avoid his duties.

According to Banker, Datar and Kerke (1988), surplus capacity is needed to handle overloads brought on by varying setup and processing as well as uncertainty in scheduling. Another interesting paper that focuses on manufacturing overhead costs is Foster and Gupta (1990). It empirically evaluates the data from three different perceptions and discovers that the explanatory variables are more closely related to volume than to efficiency and complexity.

The development of a comprehensive model by Nandakumar, Datar, and Akella in 1993 revealed the joint effects of all quality expenses, accounts for them all, and proposes optimization techniques for total quality management (TQM). The findings of an experiment by Roodhooft and Warlop (1999) revealed that managers are very sensitive to decision to purchase assets but appear to be unreasonably sensitive to the sunk costs typical of outsourcing decisions.

Agency theory has numerous drawbacks, notwithstanding its contributions to management accounting. In most cases, the principal-agent model overlooks the impact of the capital markets by supposing a single owner as opposed to a set of owners and debt holders (Baiman, 1990). The theory also excludes the concepts of justice and trust, which are also asserted.

The foregoing arguments, however, are less convincing, in Baiman (1990), if we regard the principal-agent model as a basis for delving into concerns and emphasizing issues that need to be taken into account when applying managerial accounting methods to actual world circumstances. As a result, agency theory provides insights into some of the complex problems and contentious topics related to the creation of management accounting systems.

### 2.2.3 Balance scorecard

In 1992, Robert Kaplan and David Norton established the Balance Scorecard. Balance scorecard was initially formulated as a measurement system and a way of responding to the criticism in regards to the unilateral measurement of the performance of a company. It was structured according to four different perspectives thus financial, internal, customer and the learning perspective (Margarita, 2008). Balance scorecard enables every worker to put strategies into action thus every employee at the firm will be focusing on essential business drivers. The continuous amendment of measurement feedback on financial and non-financial measures enables the balance scorecard to be more beneficial and efficient.

## 2.3 Conceptual framework

### 2.3.1 Management Accounting

Management accounting is a procedure of assessing and disclosing detailed data to the leaders at different managerial ranks pertaining economic operations of the firm, which can be employed by managers for planning purposes, performance evaluation, as well as operational control (Caplan (2006) and Institute of Company Secretaries of India (2017)). Cost accounting is mostly financial in nature and dollar-denominated, despite the fact that management accounting tools also progressively cumulate and review nonfinancial data.

Management accounting seeks to provide managers of a company with sufficient financial data so they can make decisions on various organizational problems and carry those decisions out to ensure the firm runs smoothly thus it also covers the creation of plans and budgets that encompass every part of the firm (Sahaf (2018), (Institute of Company Secretaries of India (2017) and Khandelwal & Somar (2022)).The key goal of management accounting is to help the management carry out their responsibilities effectively in order to maximize profits and avoid losses for the firm.

Khandelwal and Sonar (2022) explained that since many people are aware that the market is saturated with options for products because it is the age of competition, manufacturing companies must become more adept at maintaining along with reducing their costs if they are to thrive in the face of mounting global demand and maintain their competitiveness.

### 2.3.2 Management Accounting Techniques

Management accounting techniques involves the implementation of different techniques of reporting, analyzing, interpreting as well as presenting, making the financial and costing, and additional information available and effective in the performance of managerial duties through control, planning and decision making (Institute of Company Secretaries of India (2017).

#### 2.3.2.1 Capital budgeting

It is a technique which focuses more on making decisions in advance pertaining financial activities required to achieve the company’s crucial goals. This consists of determining the short term and long-term financial goal of the firm, creating financial policies and developing the financial procedure to accomplish the set targets. Financial policies’ role can not only be about maximizing return on the capital employed. It also takes into consideration the amount of capital required, sources of capital, distribution of capital together with determining the optimal level of investment in different assets.

#### 2.3.2.2 Budgeting for planning and controlling costs

The Institute of Company Secretaries of India defined budgetary control as the creation of financial plans in advance, linking executive duties to policy requirements, and routinely comparing actual results to budgeted ones in order to ensure that each individual is achieving the policy’s goals or to provide a solid foundation for its revision. This technique is typically used to plan and manage many organizational tasks. Budgetary control is crucial for guiding corporate procedures in the right direction and safeguarding a positive return on investment. The use of budgetary control enables management to evaluate every department’s performance in the company so as a result, every department makes an effort to meet its goals. This leads to increased efficiency and performance may be effectively controlled (Mehta (2021); Khandelwal & Sonar (2021); Sahaf (2018).

#### 2.3.2.3 Marginal costing

According to the Institute of Cost Accountants of India, the process of marginal costing involves classifying costs into fixed and variable costs. The split of total expenses into fixed and variable costs is the fundamental component of marginal costing, without which this would not be possible. This managerial strategy is focused on how variable costs fluctuate in response to variations in production volume. With this division, numerous managerial decisions are made. Managers may divide expenses more effectively and identify which variable costs can be controlled to lower costs. The measurement of the profitability of various manufacturing lines, departments and business divisions can be done easily when using marginal costing technique (Mehta (2021); Khandelwal &Sonar (2021). This means that marginal costing enables managers to decide on the ultimate profitable sales mix option and sound production practices.

#### 2.3.2.4 Absorption costing

It is a method that considers charging all expenses thus, variable and fixed, to manufacturing process of goods and services. According to Caplan (2006), fixed manufacturing overhead expenses are only incurred when it is anticipated that the resources they represent will be employed to produce inventory. Therefore, the revenue from the sale of that inventory should be compared to these costs.

#### 2.3.2.5 Standard costing

This costing method is used to follow up product costs over the course of time and sorts necessary alterations for any discrepancies between standard costs and actual costs at the end of the period. Standard costing systems are implemented by many industrial companies and these firms frequently employ this strategy to boost efficiency and employ control over the expenses of important tasks. In this method, costs are calculated in advance, and standards are created while taking into account the current state of the economy. Under the most effective functional environments, this technique establishes standard costs then analyzes actual costs to the standard, computing and assessing variances, as well as pointing out causes and allocating blame allow for the prevention of unfavorable outcomes in the future (Caplan (2006); Khandelwal & Sonar (2021); Sahaf (2018); Mehta (2021)).

#### 2.3.2.6 Total Quality Management

Total Quality Management (TQM), according to Lakhe and Mohanty (1993), is described as constant pursuit of excellence by developing the proper abilities and attitudes in people to make defect prevention possible and completely satisfy consumers always. Because of the emphasis on quality, there is need for a managerial accounting system that offers data regarding quality, including quality cost assessment and reporting for manufacturing and service businesses.

 It essentially involves and organizes every aspect of the firm, including every division, every activity, and every single employee at all levels. TQM proponents assert that costs associated with defects have previously been underestimated, especially the damage done to future sales as well as consumer goodwill when supply of a faulty product is done. Quality agendas assert that removing all defects as they arise is the most economical approach to ensure quality. This would imply that business as a whole needs to adopt quality oriented mind system in order to keep up with the shift in demand of consumer taste and preference (Sahaf (2018); Weygandt et al. (2020); Sands et al. (2018).

When successful, “zero defect” initiatives do not only increase customer satisfaction levels, instead, this would also do away with expenditures related to more traditional quality techniques, such as costs related to processing customer returns, reworking defective items, and end-of-production line inspection costs (Caplan, 2006). It is important to understand that neither the consumer’s expectations nor the level of competition remain constant, and that no good or service even reaches perfection. In light to this, this business philosophy advocates for the idea of ongoing process improvement in order to make the firm extremely competitive. Instead of faulty controls that discover and fix the defect after it has already occurred, the target is on preventive controls that prevents the defect from occurring in at first.

#### 2.3.2.7 Just-in-time

According to Sahaf (2018), the just-in- time inventory system is a strategy where raw materials are procured from suppliers in the necessary amounts only when they are required for the production process. This strategy needs an extensive and dependable logistics infrastructure because any interruption in the flow of materials might cause the entire production process to come to an abrupt halt. According to Caplan (2006), various businesses have just-in-time procedures in place to reduce the amount of inventory on hand. This is because JIT views inventory as excessive waste and encourages purchasing items only when needed rather than buying large quantities at once and keeping them in stock. In essence, it is a mindset that aims to increase a company’s productivity by removing all sources of waste from the entire production chain (Abdullah (2020).

JIT is an organizational innovation management concept that emphasizes continuous improvement, managing material flow, and planning production. These businesses have considered many advantages that come with the reduction of all sorts on inventories thus finished goods, work-in-progress as well as raw materials. These benefits mainly include reduced inventory holding expenses like warehouse costs, lesser inventory obsolesce loses, and improved quality control (Sahaf (2018); Weygandt et al. (2020); Abdullah (2020).

However, JIT also calls for a stronger focus on product quality. JIT businesses cannot afford to halt production due to flaws or machine breakdowns because they do not keep excess inventory on hand. Customers will be upset if they cease producing since deliveries will be delayed (Weygandt et al. (2020). Because input expenses like labor, operational, and raw materials have been continually rising in value, JIT has become increasingly significant.

#### 2.3.2.8 Activity-Based Costing (ABC)

The aim of this technique is to point out as many costs as possible during production which can be later recorded as direct costs and it focuses mainly on the activities carried out to manufacture products (Institute of Company Secretaries of India). Sahaf (2018) explained that the fundamental tenet of ABC is that there is a strong correlation between the activities engaged in producing a good or service and the final goods themselves because those activities have costs associated with them. Realizing the importance of such a relationship, ABC recommends classifying all indirect costs by activities, tracing those activities’ indirect costs, and then allocating activity costs to products in accordance with cost drivers. A cost driver is any activity that essentially causes costs to be incurred.

ABC is appropriate where overhead volume is quite high, when there is product diversity that is the product consuming activities and inputs in different ratios and volume diversity that is firms producing products in various batch sizes. With the help of this method, managers can therefore develop an enhanced strategy by using precise cost information (Wing Sun Li (2017); Sahaf (2018). ABC also promotes the examination of value and non-added value producing activities so that non-productive activities can be stopped. ABC is hence viewed as a crucial component of strategic cost management.

#### 2.3.2.9 Target Costing

This technique involves figuring out the per-unit variable cost required to provide the intended profits, then making an attempt to attain the desired per-unit cost by those in charge of product design and manufacturing (Caplan, 2006). Target costing is a systematic method for establishing and achieving a target cost for a product by using facts and information in a logical sequence of actions. Additionally, the cost and price are for a certain product functionality, which is established by knowing the customer’s taste and preferences as well as the willingness to pay for each function (Lovely Professional University).

#### 2.3.2.10 Funds Flow Analysis

Using this method, it is possible to compare the organization’s financial situation between two dates and determine whether any substantial changes have occurred. Khandelwal & Sonar (2021) stated that this analysis shows that working capital is impacted by changes in current assets and current liabilities between two accounting periods. Additionally, it describes the sources from which the money is obtained and the destinations for which it is used.

In a meaningful way, the study of financial statements adds new data that is very helpful for comparative studies, financial analysis and control (Sahaf (2018). The data needed to prepare a funds flow statement is taken from fundamental financial statements thus the statement of profit and loss and other comprehensive income and the statement of financial position (The Institute of Company Secretaries of India).

#### 2.3.2.11 Break-even analysis

Break-even analysis refers to a logical method for examining the link between expenses, profits, and sales volume (Martono and Harjito, 2015).When a business reaches a breakeven point, it is neither profitable nor making losses (Gudio, 2022). The primary return point or production level where the business avoids making losses but at the same time is not yielding profits is the breakeven point.

#### 2.3.2.12 Throughput accounting

According to Kadhim et al. (2020), throughput accounting is described as performance evaluation method that exploits on the links between throughput, costs, and production. To put the key concepts of the Theory of Constraints into exercise, measurements are provided by the throughput accounting. Additionally, it assist in regulating and measuring the cost of producing goods, sales, and output growth and it also helps to lower operating expenditures and inventory costs while helping managers in making sound decisions.

In other words, this technique aims to optimize the return on the activity involving restricted resources. By reducing obstacles and bottlenecks at work, it achieves its ultimate purpose of generating revenue. As contrasting to activity based costing and standard costing, throughput accounting does not allocate costs but it measures the value added from the firm’s cash inflows which comes from sales.

The impact of management accounting techniques on financial performance is shown by the diagram below.



Figure 2 Relationship between management accounting techniques and financial performance

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### 2.3.3 Financial Performance

Financial performance shows how well an organization can manage its funds by keeping track of all its income, expenses, and other financial transactions (Vidya, 2022). Experts evaluate the financial statements of the organization, such as the statement of profit and loss and other comprehensive income, statement of financial position, cash flow statement as well as annual reports in order to gauge the financial health of the firm in terms of its assets, liabilities, income, expenditures, equity and profitability.

A key performance indicator (KPI) is a tool used by businesses for measuring performance. Metrics used to assess financial performance consist of ratios like Current Ratio, Gross Profit Margin, Net Profit Margin, Return on Equity (ROE), Return on Asset (ROA) and Return on Capital Employed (ROCE (Vidya, 2022).

Bernard Marr (2021) stated that a KPI is unique since it serves as a key to the accomplishment of a certain activity that the company is involved in. It also enables managers to see where the money is going instantly and in real time. KPIs provide management with thorough understanding of patterns over time, prompt detection of issue areas, and the ability to steer clear off significant mistakes that may harm the organizational performance. He further explained that the precise set of indicators will shed light on performance as well as pointing out areas that require consideration. The maxims “what gets measured gets done” as well as “if you cannot measure it, you cannot manage it” are the common sayings that emphasize the significance of indicators thus without the proper KPIs, management will be operating in the dark.

This inevitably leads to the conclusion that KPIs are significant and few, depending on a variety of variables, such as the nature of the business, the nature of the activity, and the desired level of control. By condensing them into the crucial KPIs, effective managers and decision-makers are able to understand the performance of their company’s important aspects. Every company’s management must maintain a balance between its KPIs because, while fewer KPIs are generally preferable, too few KPIs make it difficult to have an impact on an activity and its resulting goal (Bernard Marr (2021).

This in-depth evaluation of the firm’s financial statements aids management in identifying the company’s assets and liabilities as well as its strengths and weaknesses, enabling an assessment of the overall health of the business. The company’s current year performance will then be compared to its prior periods and to that of its rivals. Profitability analysis, liquidity analysis, investment decision analysis and financial structure analysis are the four basic categories under which a company’s financial performance can be examined (Logose (2017); Bernard Marr (2021); (Vidya, 2022). The diagram below illustrates the key ares of financial performance.

## 2.4 Empirical Literature Review specific to research objectives

### 2.4.1 Ascertain the extent to which management accounting techniques are being used by manufacturing firms in Msasa Industrial area.

The TQM method is the management accounting method that manufacturing firms use the most. The reason for this is that using this strategy effectively helps businesses survive, continue, and deal with the intense market rivalry. This in turn would mean a negative relationship on the resort of Jordanian manufacturing companies’ debt financing (Junidi, 2019). Total Quality Management (TQM), according to Lakhe and Mohanty (1993), is described as constant pursuit of excellence by developing the proper abilities and attitudes in people to make defect prevention possible and completely satisfy consumers always. Because of the emphasis on quality, there is need for a managerial accounting system that offers data regarding quality, including quality cost assessment and reporting for manufacturing and service businesses.

It essentially involves and organizes every aspect of the firm, including every division, every activity, and every single employee at all levels. TQM proponents assert that costs associated with defects have previously been underestimated, especially the damage done to future sales as well as consumer goodwill when supply of a faulty product is done. This would imply that business as a whole need to adopt quality oriented mind system in order to keep up with the shift in demand of consumer taste and preference (Sahaf (2018); Weygandt et al. (2020); Sands et al. (2018).

From the results of the study conducted by Junidi (2019) the Target Costing tool is the second mostly used management accounting technique by Jordanian manufacturing firms. This technique involves figuring out the per-unit variable cost required to provide the intended profits, then making an attempt to attain the desired per-unit cost by those in charge of product design and manufacturing (Caplan, 2006). It a mostly used technique due to the fact that departments in manufacturing firms often focus on the so-called ‘Triangle of Quality’, Time and Cost in an effort to save costs, maintain quality, and shorten production times in order to maximize profits.

 This means that Target Costing is mainly focused on the costs to be incurred to achieve operating economies and the efficient use of resources available taking into consideration an optimum level of quality in order to attain the target profit margin for investors. This enables its use significant to the Jordanian manufacturing firms, thereby leading to a negative effect of the implementation of this tool on the financial structure as measured by debt financing.

According to a research by Jariya et al. (2021), non-financial information-related strategies of strategic planning, and capital budgeting are mainly accepted at a reasonable level of adoption. The results showed that publicly traded manufacturing companies in Sri Lanka are starting to prioritize using management accounting practices. However, the respondents’ preferred capital budgeting methods thus the payback period and accounting rate of return. D. Caplan (2006) emphasized that the payback period is heuristic and that it indicates the timeframe to recuperate the initial investment in the capital asset. This indicates that it is a decision-aid that is simple to comprehend and express, yet it is possible that this could not always lead to the best answer. This approach favors initiatives that quickly recoup their original expenditure.

 Also, this technique is usually used because funds for other investments are obtained quicker than when using other methods. However, both the time value of money as well as cash flows that happen after the payback period have passed are ignored by the payback period. According to Graham & Harvey (2001) accounting rate of return refers to earnings (after taking into consideration tax and depreciation) from a project expressed as percentage of the initial investment. This method is mainly used by firms which relies mostly on accounting profits more than cash flows.

Fundamental problems of accounting rate of return in project valuation include arbitrary measure which means that this method is on the basis of accounting profits instead of cash flows. It is dependent on accounting decisions like treatment of depreciation and inventory. Also, it does not take into account timing of the earning stream thus there is no application of time value of money concepts, since equivalent weight is assumed to accounting profits in each accounting period of the life of the project (Graham & Harvey, 2001).

These findings demonstrates that manufacturing companies listed on the Sri Lanka stock exchange base their long-term capital judgments on non- discounted cash flow approaches. This indicates that Sri Lanka’s listed manufacturing firms rarely employ discounted capital budgeting strategies like internal rate of return and net present value. Graham and Harvey (2001) explained that the total current worth of both the present and upcoming discounted net cash flows is what is referred to as net present value.

A project’s net present value consist of overall cash flows that are obtained from year zero and the present value of upcoming cash flows because the present value of a cash flow that occurs today is its face value. Net present value is a good technique to use in an inflationary environment since it considers inflation on future cash flows. Graham and Harvey (2001), emphasized that a project with a positive net present value will leave a firm in a better position that it was before, and that, all else being equal, the company’s market share value should rise. Additionally, managers should approve a project, if the net present value of the discounted cash flows remains positive.

Graham and Harvey (2001) explained that the internal rate of return (IRR) is the discount rate that balances the initial cash outlay with the present value of a project’s net cash flows. They added that IRR is the rate of return at which there is zero net present value. Under internal rate of return, the investment is approved if the internal rate of return is above the given discounting factor. Caplan (2006) stated that the IRR technique offers a performance indicator that is independent of the project’s size. Therefore, IRR can be utilized to contrast initiatives that require significantly different initial investments.

This result is comparable to Ahmad’s (2014) results that Malaysian enterprises used fewer capital budgeting approaches. Contrarily, Chenhall and Langfield-Smith (1998) discovered that Australian businesses largely embraced capital budgeting approaches.

Total quality management, just in time and Activity-Based-Costing (ABC) are slightly being implemented by manufacturing companies in Sri Lanka (Jariya et al. 2021). The aim ABC technique is to point out as many costs as possible during production which can be later recorded as direct costs and it focuses mainly on the activities carried out to manufacture products (Institute of Company Secretaries of India). ABC also promotes the examination of value and non-added value producing activities so that non-productive activities can be stopped. ABC is hence viewed as a crucial component of strategic cost management. Sahaf (2018) explained that the fundamental tenet of ABC is that there is a strong correlation between the activities engaged in producing a good or service and the final goods themselves because those activities have costs associated with them.

Realizing the importance of such a relationship, ABC recommends classifying all indirect costs by activities, tracing those activities’ indirect costs, and then allocating activity costs to products in accordance with cost drivers. A cost driver is any activity that essentially causes costs to be incurred. ABC is appropriate where overhead volume is quite high, when there is product diversity that is the product consuming activities and inputs in different ratios and volume diversity that is firms producing products in various batch sizes. With the help of this method, managers can therefore develop an enhanced strategy by using precise cost information (Wing Sun Li (2017); Sahaf (2018).

According to Caplan (2006), various businesses have just-in-time procedures in place to reduce the amount of inventory on hand. This is because JIT views inventory as excessive waste and encourages purchasing items only when needed rather than buying large quantities at once and keeping them in stock. In essence, it is a mindset that aims to increase a company’s productivity by removing all sources of waste from the entire production chain (Abdullah (2020).

### 2.4.2 Find out if management accounting techniques have an impact on financial performance.

Budgeting is a crucial management accounting tool that gives managers the ability to distribute funds while staying within spending limits. Typically, budgets are made for the whole company as well as for each department, making it simpler for line managers to cut costs. This is supported by the study done by Ahmad (2017) which revealed that there is a strong and favourable correlation between budgeting and financial performance. Without budgets, managers face the risk of overspending or improperly allocating resources, which would lower overall profits (DeBenedetti, 2022).

According to the research by Niar (2019) Indonesian manufacturing firms’ profitability is unaffected by investment decisions. The research is similar with the research by Chandra et al. (2019) on manufacturing companies in Indonesia which came to the conclusion that decisions about investments had no impact on the firm’s profitability. This data suggests that the return on investment typically occurs over a long period of time rather than in the short term which increases uncertainties.

The capital structure of the firm must be understood in order to sustain a healthy balance between the firm’s debt and equity ratios. According to a study by Ichsan and Syamni (2021), industrial companies’ financial performance is significantly impacted by the debt-to-equity ratio. This result suggests that businesses with the best levels of debt that they can pay off prosper. To put it another way, businesses opt to finance their investments with outside capital in order to increase overall corporate profitability. This is in line with the trade-off approach, which contends that corporations should use debt to boost their financial performance.

To help management in making decisions, capital budgeting methods take into consideration initial cash outlays, the time value of money, as well as expected operating life times. For capital structure and profitability analyses, understanding the anticipated rates of inflation and return on investments is essential (DeBenedetti, 2022). However, according to Ichsan and Syamni’s research from 2021, investment decisions have little impact on how profitable manufacturing enterprises are.

The findings of this research are also consistent with Dalci’s (2018) investigation into the priorities of earlier Chinese manufacturing firms and Das and Swain (2018) concentrated on 50 manufacturing firms in India. Dimitriae et al. (2019) concentrated on hotel companies in various Mediterranean nations; Vatavu (2015) focused on the firms on the Exchange in Rome and Nhung and Okuda (2015) concentrated on firms on the Vietman Stock Exchange. Their results show that debt has an effect on a company’s performance. The findings demonstrated that trade payables view businesses as legitimate when they are able to pay their debts in full. This stipulation makes it simple for businesses to obtain additional loans from third sources. However, this study contradicts with Niar’s (2019) and Chadha and Sharma (2015) study on Indonesian manufacturing firms which found no correlation between capital structure and profitability.

Yacoub (2015) scrutinized the financial structure and how it impacted the Khartoum Stock Exchange-listed public shareholding firms’ financial performance. According to that study’s findings, the composition of a firm’s financial structure has an impact on its financial performance, and adding more debt to a firm’s financial structure could put it at risk of financial losses. This could ultimately lead to the firm’s going bankrupt and being liquidated. On the other hand, if the firm relied more on equity than on borrowings to pay its debts and meet its financial needs, its financial performance might become more stable and financial risks might decrease. When deciding on the financial structure, public shareholding firms should consider the elements that help achieve financial balance and lower the danger of bankruptcy.

The findings of the research by Aduvaga (2020) show that target costing significantly and favorably influences investment decisions. This view is also supported by the research done by Altin et al. (2020). JIT and Target Costing approaches are seen to hasten decision making process for investments. Before finalizing decisions on product design and development, management must carefully consider the investment options. In this way, Target Costing influences and accelerates investment decisions in a market setting that is competitive. Target Costing is typically utilized in the planning of new products, which frequently requires expenditures in tooling, equipment, and other assets influencing costs. To sustain the product, the required amount of investment is needed.

According to the research findings of Aduvaga (2020), JIT manufacturing had no impact on enterprises’ investment decision because the effect was not statistically substantial. The outcomes conflict with those of Jbarah (2018) who found that usage of JIT production by manufacturing enterprises in Jordan led to successful investment decision. The study of Altin et al. (2020) also reviewed that JIT activates manufacturing which enables investors to respond quickly to various product demand. Therefore, using management accounting tools can speed up decision making process for investments.

Alnasser, and Shabanand Al-Zubi (2018) studied on the impact of breakeven analysis on planning, controlling and decision making in Jordanian manufacturing firms. The results indicated that the majority of Jordanian manufacturing firms are applying breakeven analysis in their operations and decision making processes, and there is a statistically major link between this practice and successful planning, control and decision making. Due to its significance, effectiveness, and precision in the rationalization and control of decisions, the research has indicated that businesses must adopt the breakeven analysis as their primary instrument for decision making and planning oversight.

### 2.4.3 Find out the challenges manufacturing firms are facing when applying management accounting techniques.

According to the research done by Junidi (2019) the ABC technique is the least used among the management accounting approaches used in manufacturing organizations. In the view of analysts, this can be ascribed to the expenses, time commitments, and efforts that businesses must do in order to comply with the requirement of the ABC technique. Application of this technique is therefore judged impractical for many businesses and may actually result in losses rather than gains. As a result, many Jordanian manufacturing firms were unable to fully implement the ABC method which in turn leads to a negative effect on the financial structure of the firm.

JIT technique could achieve success if there are minimal number of suppliers, near and robust hyperlink with current suppliers, sufficient manufacturing relying upon the demand, consumer’s satisfaction, teamwork and product quality. JIT technique is easy in concept however difficult to achieve in practice. If there is a problem anywhere during production like failure to offer required raw materials from suppliers or machine failure, then all production may totally stop (Altin et al., 2020).

### 2.4.4 Ascertain the benefits derived from applying management accounting techniques in manufacturing firms.

Business executives can measure and improve profit margins while reducing operating costs using management accounting strategies. If firms are making use of capital budgeting, management can decide how much money to set aside for new projects whilst maintaining profits. Additionally, it permits management staff to invest in capital projects with assurance (DeBenedetti, 2022).

Too much inventory, flawed monitoring schemes, and lack of priorities severely interrupt business operations and thereby lowering profit margins. Managers can reduce holding and reordering expenses by using JIT inventory management and related calculations. As a result, the company is able to boost profit margins (Gichaaga, 2014).

The connection between Just-In-Time and Total Quality Management is crucial. Many imperfections in raw materials or the production process can be permanently neglected if high quality materials can be used to substitute imperfect materials and the majority of first-class products can be produced to substitute defective units. In a non-Just in time (JIT) environment, defective parts and incomplete units could be kept in a production corner whereas if the company obtains high quality raw materials, a just-in time techniques could not have any premium products on hand to replace the high quality materials. In extreme situations the production line may be terminated till the best supplies are available. Therefore a just in time technique focus mostly on quality control ways that are uncommon in non-just in time contexts (Caplan, 2006).

Management can determine how much of a good or service they need to sell to cover costs and earn a profit by using a breakeven analysis. Firms have a chance of making a profit if a breakeven analysis is done correctly (DeBenedetti, 2022).

According to the Institute of Company Secretaries of India, under the Activity Based Costing (ABC) overhead costs are related to each action that acts as a cost driver, which will be the reason behind incurring overhead costs. Cost drivers include the issue of purchase orders, quality checks, maintenance requests, material requests, inventory movements, power usage, as well as machine time. If the overhead costs related to each cost center have been identified, the cost per unit of cost driver may be calculated. The overhead expenses can be divided across each job based on the number of tasks needed to finish it. This is frequently used as technique to understand the profitability and expense of items and clients. Because of this, the main use of ABC has been to support strategic decisions by providing better and more usable cost information.

 From a large pool of various techniques such as cash flow analysis, marginal costing, just- in-time, differential costing capital budgeting, standard costing and other approaches, management accounting assists the management in choosing the optimal option that will maximize the profitability of the company. Under cash flow analysis, cash is considered to be the life blood of the business. The cash inflows of the businesses are the major factor determining the cash resources’ availability. The proper balancing of cash inflows and outflows allows the firm’s activities to run smoothly. Lovely Professional University emphasized that for business operations to run well, the needs to have a sufficient amount of cash resources that are available quickly and outweigh its financial obligations. By conducting an appropriate planning study of the company’s cash resources, this smoothness might be achieved.

Through this examination, the inflow and outflow of cash and cash equivalents between two accounting periods are shown. In other words, it details the amount of money made or lost as a result of various business operations, including operating, investing and financing. This means that the variations in cash are explained. This insightful assessment is only feasible through analyzing a cash flow statement, which enables the business to pinpoint potential cash resources as well as costs and expenditures (Khandelwal & Sonar (2021).

Standard costing is used to follow up product costs over the course of time and sorts necessary alterations for any discrepancies between standard costs and actual costs at the end of the period. Standard costing systems are implemented by many industrial companies and these firms frequently employ this strategy to boost efficiency and employ control over the expenses of important tasks. In this method, costs are calculated in advance, and standards are created while taking into account the current state of the economy. Under the most effective functional environments, this technique establishes standard costs then analyzes actual costs to the standard, computing and assessing variances, as well as pointing out causes and allocating blame allow for the prevention of unfavorable outcomes in the future (Caplan (2006); Khandelwal & Sonar (2021); Sahaf (2018); Mehta (2021)).

According to the Institute of Cost Accountants of India, the process of marginal costing involves classifying costs into fixed and variable costs. The split of total expenses into fixed and variable costs is the fundamental component of marginal costing, without which this would not be possible. This managerial strategy is focused on how variable costs fluctuate in response to variations in production volume. With this division, numerous managerial decisions are made. Managers may divide expenses more effectively and identify which variable costs can be controlled to lower costs. The measurement of the profitability of various manufacturing lines, departments and business divisions can be done easily when using marginal costing technique (Mehta (2021) and Khandelwal &Sonar (2021). This means that marginal costing enables managers to decide on the ultimate profitable sales mix option and sound production practices.

## 2.5 Empirical Summary

**Ganda (2017): ‘The impact of management accounting techniques in decision making and performance measurement in a manufacturing firm. A case study of Rockshell manufacturing’**

The research’s objective was to determine how management accounting methods at Rockshell Manufacturing affected decision-making and performance evaluation. An aggregate percentage of 66.7% managers from the samples used were at least in a position of authority and were responsible for decision making. The research’s findings revealed that Rockshell most employed conventional management accounting procedures, such as budgetary control, fund flow analysis, which solely solve financial problems while disregarding on-financial ones that emphasize competitiveness.

Since old ways of overheads allocation were thought to be inefficient in terms of enhancing global competitiveness, this indicates that there is a delay in implementing current and improved relevant procedures that should boost competitiveness. All approved that the paybacks attained at Rockshell through the application of management accounting procedures were not well-desired.

Less than 30% of responders awarded the benefits an acknowledgement rating in each of the following major categories; organization, management information help, effective strategic decision making, and resource allocation. This lack of widely discernible benefits shows that the methods now in use are inadequate.

**Dahal (2022); “Management accounting practices and organizational performance”**

The aim of the study was to examine the management accounting tools utilized by Nepalese manufacturing firms, compare them, and ascertain how they related to organizational performance. The first two goals of the study were to review and evaluate the application of management accounting techniques in the industrial area of Nepal. Temporary management accounting techniques were utilized more frequently and to a higher extent for standard costing thus capital budgeting (77.13%), variance analysis (79.37%), break-even analysis (55.60%) and budgetary control (67.70%).

 The study’s ultimate goal was to compute the correlation between management accounting methods and organizational performance. The study revealed that the organizational performance in Nepalese manufacturing enterprises was not expressively correlated with management accounting methods. Even though the amount of contemporary management accounting techniques package use has drawn more attention, these behaviors were not significantly associated with the organizational performance. The results demonstrated that the emphasis on adopting management accounting methods did not benefit managers who were attempting to advance organizational performance. The aggregate measure of performance that is employed can conceal the compromises between several performance measuring dimensions.

Manufacturing companies in Nepalese have been seen to employ both of these tactics in order to adjust to large changes in the business environment. Giving managers the relevant information they required to make informed decisions was the main objective of management accounting techniques. Poor information delivery may result in both performance degradation and inefficient resource management. Management accounting procedures adjustment must be planned in order to account for modifications in the business environment. As a result, the context should be taken into consideration while modifying management accounting processes.

The company will have a competitive advantage and perform even better with appropriate management accounting processes that are designed to assist business operations. The reason for this is that working representatives can concentrate more effectively on needs for difference that is to excellent management accounting methods, which can support and raise consumer expectations, especially those pertaining to quality and usefulness.

**Gichaaga (2014): “Effects of management accounting practices on financial performance of manufacturing companies in Kenya”**

This project was conducted to find out the impact of management accounting techniques on financial performance of manufacturing companies in Kenya. The research brought to light that in 455 manufacturing firms which was the target population, decision making tools such as capital budgeting and cost-volume-profit analysis were extremely applied. Also costing methods were mainly utilized. These costing techniques consisted of target costing, activity-based costing, cost of quality and many others. These costing techniques aided greatly in cost reduction. Budgeting techniques such as zero-based budgets, flexible budgeting and budgeting for planning were mainly exercised in manufacturing firms in Kenya. Benchmarking was also another performance assessment procedure which was greatly used by many manufacturing companies. The researcher deduced that decision making techniques were the most common tools implemented by a lot of manufacturing firms in Kenya. Management accounting practices enabled firms to pinpoint main elements which have an impact on performance and these practices helps to easily identify risky areas that need amendments.

**Murambiwa (2014): “An investigation into the effectiveness of cost and management accounting practices in a manufacturing company. A case of National Pharmaceuticals”**

 The main objective of this study was to scrutinize the effectiveness of cost management accounting practices. As shown by the 65% positive response rate, the researcher deduced that cost driver analysis is a technique which helps in minimizing costs. A large number of respondents supported the view that downsizing is an effective cost control tool. This technique of downsizing was backed up by the general manager’s act of retrenching some workers to minimize costs. However, many respondents were against the idea that budgetary control can effectively aid in cost minimization. At National Pharmaceuticals there is a cost management department although there is no committee. Also, the researcher concluded that the cost control techniques implemented were not effective due to the fact that there is resistance to change to modified cost accounting techniques.

**Aduvaga (2020): “Effect of strategic management accounting techniques on investment decisions among manufacturing firms in Kenya”**

 Effect of strategic management accounting procedures on investment decisions among manufacturing companies in Kenya being the main aim, the researcher deduced that target costing has a great impact on investment decision. The researcher used the regression analysis which highlighted that there is a positive correlation between target costing and investment decision. This implies that if manufacturing firms continuously make use of target costing this will positively and greatly improve the quality of investment decisions a company can make. This research revealed that the balance scorecard has major impact on investment decisions of manufacturing companies. Implementation of balance scorecard in investment decisions enables stakeholders to get a clear insight of the company’s strategic goals. Also, the researcher concluded that just-in-time production does not have an impact on manufacturing firms’ investment decisions.

**Ermias Bogale (2013): “Advanced Management Accounting Techniques (AMATs) in Manufacturing Firms in Ethiopia”**

In Ethiopian manufacturing companies, Emias Bogale (2013) conducted a stuy on advanced management accounting methods. In that study, 71 manufacturing businesses completed questionnaires, of which 43 were usable and made up 57% of the entire sample size. Accountants, administrative, cost and budget division leaders, and finance heads were among the responders who provided usable responses from businesses that employ advanced management accounting approaches. The study’s goals were to evaluate the usage of advanced management accounting techniques in Ethiopia and see whether it correlates with factors such as product diversity, manufacturing process complexity, overhead percentage, perceived completion, adoption of new technologies, and company size.

The study found a correlation between the use of advanced management accounting systems and perceived completion, so when a corporation employs one approach, it also employs other strategies of perceived rivalry, such as product price and product quality. Technology advancement and the application of sophisticated management accounting approaches are strongly correlated. This finding suggested that businesses use more sophisticated management accounting procedures along with more advanced technologies.

Also, when a company’s overhead percentage is larger, it employs more sophisticated management accounting techniques than it does when its overhead share is lower, demonstrating a positive correlation between the two. When using advanced management accounting approaches, there is almost no relationship between the complexity of the production process for batches, although there are some moderate good relationships with the complexity of the production process for line and continuous.

Additionally, the results showed a positive link between the amount of product diversity and the application of sophisticated management accounting procedures: however, the significance level for this relationship is not as high. It was reviewed that there is a positive connection between the business size and sophisticated management accounting procedures by measuring the firm size in terms of current capital and yearly sales.

## 2.6 Research gap

As evidenced by a number of prior research and surveys conducted as part of empirical evidence, a gap regarding the impact of management accounting procedures on financial performance was not addressed and the researcher has taken up the duty of examining the impact on financial performance. The goal of the current study is to examine these issues by first reviewing the theoretical aspects of the topic before moving to the practical application by employing questionnaires and interviews in various manufacturing firms. Which tools do the businesses use to make decisions? The incorporation and use of management accounting methods by firm results in a number of advantages and characteristics that help these businesses to achieve their aims and goals. In order to accomplish the study’s objectives, the researcher organized questionnaires as well as interviews for fieldwork in the following chapter.

## 2.7 Summary

In this section, the analyst managed to examine the areas of management accounting that are crucial to management and also assessed the advantages of such strategies. This chapter examined earlier study on the topic as it was highlighted in the empirical study as well as the works of many different authors to develop the theoretical framework. The investigation and analysis of research techniques employed will be covered in the next chapter.

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# CHAPTER III

# RESEARCH METHODOLODY

## 3.0 Introduction

The aim of this chapter is to contribute a summary of the study methodology. It mainly focuses on the methods used to gather the data. The research population, research design, data gathering techniques and tools, research sample, analytic strategy and data presentation are all covered in this chapter. Also, this chapter will conclude with a quick overview of the chapter and the rationale of the research methods utilized to perform the research.

## 3.1 Research design

Saunders et al. (2012) stated that a research design is generally an approach for addressing a research issue. It is a methodical approach to performing a scientific investigation that includes a variety of components, strategies, and approaches to collect data and analyze it. The researcher therefore applied descriptive design in this research. Descriptive research is a theory-based design which does not only focus on the why part but is also interested in addressing the how, what, when and where parts (Bouchrika, 2020). Before scrutinizing the underlying sources of the study problem, descriptive research instructs the researcher to firstly comprehend it thus descriptive research gives the investigator the chance to grasp the issue at hand. According to Bouchrika (2020), descriptive research aims to build on the foundation laid by exploration by adding details, bridging knowledge gaps, or broadening it. One of the distinctive features of descriptive research which differentiate it from other forms of research methods is that it seeks to collect as much data and information as feasible.

## 3.2 Target population

Generally, population is a collection of people, things or factors from which one can deduce a sample from for research or measurement purposes. According to Harper (2006) target population generally is a collection of individuals or objects about which we desire to learn more. In this research, the target population is manufacturing firms in Msasa Industrial Area.

## 3.3. Sampling

### 3.3.1 Sampling and sample size

Sampling is a procedure of pointing out who will be contacted from a population. Igwenagu (2016) asserted that sampling is focused with the election of a subset of people out of a specified population to approximate characteristics of the whole population. This means that it’s an approach whereby we do experiments and deduce conclusions about the whole population without studying the whole population.

From an industrial area with over 100 companies, the sample size is 60 companies whereby there is one respondent from each firm who is either the finance manager or management accountant. Those are chosen for better reliable information as they have a strong background concerning management accounting techniques.

###  3.3.2 Sampling techniques

In this research, stratified and random sampling techniques which are under probability sampling will be used. Probability sampling increases the chances that the findings will accurately represent the entire population thus it guarantees that everyone has a chance of being chosen.

#### 3.3.2.1 Stratified Sampling

When doing a stratified sampling, scholars divide a population into strata, which are uniform subpopulations. Every individual in the population being considered should be a member of a single strata. Then each strata is sampled using a different probability sampling method, like cluster and simple random sampling, thus allowing the researcher to approximate statistical measures for every subpopulation (Thomas, 2022). This technique enables the researcher to put companies in strata based on the product they manufacture like food processing, wood products and many others.

#### 3.3.2.2 Random Sampling

McCombes (2022) stated that every person in the population has an identical opportunity of being chosen in a basic random sampling. Because random sampling reduces error, researchers can more precisely examine the data they collect. This is allowed since the sample occurs within the boundaries of the established sampling process (Gaille, 2017). This method will be used by the researcher to choose samples from the strata.

## 3.4 Data collection methods

The procedures that the researcher employed to acquire data were covered by this subtopic. Both primary and secondary sources of data were employed in this research to compile the needed data.

### 3.4.1 Primary data

Kabir (2016) described primary data as data that has not yet been published and this denotes that this type of information is more dependable, objective and genuine. Primary data has more validity than secondary data in the view of the fact that it has not been amended or modifies by anyone. One can conduct a research using primary data only since its reliable and free from bias but a research conducted based on secondary data alone is prone to have biases and is least reliable since there are high chances that the data may have been distorted by other individuals.

However, the process of getting this type of data is very expensive and time consuming since it should be of high standard thus it should be accurate, collected in the desired format and making sure that the obtained data is not cooked up data. Sources of primary data are limited and usually it is as a result of shortage of population and shortage of support.

### 3.4.2 Secondary data

MacDonald & Headlam (2008) defined secondary data as existing information and there are high chances that in the quantitative context, statistical data may be manipulated. What differentiate secondary data from primary data is that this type of information is not collected directly and the user can only provide new perceptions from interpreting and presenting the data but otherwise he or she cannot control the collected data. This further explains that information obtained by a researcher for his or her own use can also be used by another individual for a different purpose. This type of data is very essential for contributing to the analysis and commentary throughout a research report. Secondary data is less costly to obtain since much of the background would have been covered and this type of data is easy and possible to retrieve.

However secondary data usually becomes obsolete with time and data collected by another individual may be less reliable and accurate to use in another research. This signifies that there will be need to alter the collected information for use. Also the data acquired from one area may not be suitable to use in another area due to different environmental factors. Important sources of secondary data include governments, educational institutions, and trade associations.

## 3.5 Research instruments

These are techniques which the investigator made use of in data collection. For the given topic, the researcher chose the best apparatus for data collection after checking the reliability and validity of these instruments. The researcher decided to use two different types of research tools in order to support triangulation. Triangulation is generally a way of assessing the outcome of the same study by using various tools of collecting data.

### 3.5.1 Questionnaires

Igwenagu (2016) described a questionnaire as a technique of research which can generate qualitative and quantitative data in relation to how they are structured and analyzed. The researcher used a questionnaire with close-ended questions because it helped to collect a large amount of specified information. All the individuals in the selected sample were given the questionnaires. A well-made questionnaire must be as short as possible, be asked in a logical order and it must not be offensive or personal.

#### 3.5.1.1 Advantages of a Questionnaire

* Large quantities of data were obtained briefly and at minimum cost.
* Unlike other methods of research, data collected using questionnaires was easy to analyze both scientifically and objectively.
* The questionnaires enabled collection of more accurate data which enabled greater comparability of responses.
* Self-administered questionnaires helped in getting specific and adequate information which provided much depth of the research information.

#### 3.5.1.2 Disadvantages of Questionnaires

* Some individuals were not willing to participate.
* It was difficult to possibly tell how truthful a respondent was.

### 3.5.2 Interviews

An interview is a qualitative research approach that is typically used to elicit the interviewee’s point of view and attitudes toward the issues (MacDonald and Headlam, 2008). Interviews can be done in many ways thus individually, face-to-face interviews as well as face-to-face group interviews. Also, interviews can be done over the telephone or by using other electronic communication devices. This form of data collected method enables the researcher to conduct face to face interactions with respondents and where the researcher was unable to reach, she made use of Google Meet to contact respondents. The researcher conducted semi-structured interviews which are beneficial in contributing reliable and comparable qualitative data.

#### 3.5.2.1 Merits of Interviews

* The interviewee provided detailed information as well as extra information which can aid to the research.
* The researcher designed the questions according to the research objectives in order to obtain rich, full stories and the information needed for this project.

#### 3.5.2.2 Demerits of Interviews

* The procedure of planning and searching for interviewees was time consuming.
* Some respondents were unable to disclose more information fearing that it might be used against them or their company.
* Information was true and accurate or not.

## 3.6 Validity

According to Robson (2011), the level to which a research tool measures what it is designed to measure is analyzed in terms of validity. It determines how true results are. In qualitative research, various tools are used to check how accurate the research results are. The researcher ensured validity by using triangulation. Validity is obtained when the research instruments used manage to collect all the needed information to fulfill the objectives of the study. Kimberlin and Winterstein (2008) however indicated that for a tool to ensure validity, it has to be reliable, but it is possible for a tool to be reliable without being valid.

## 3.7 Reliability

Blumberg et al (2005) defined reliability as a metric that provides compatible results with equivalent values. It shows the level to which a tool is free from error and provides congruent measurement across the different items in the instruments. Kimberlin and Winterstein (2008) explained that reliability is an important technique in assessing how stable measures administered at various times to the same respondents are. The more reliable a tool is indicates how more accurate the results are thus better reliability upsurge the probability of making correct decisions in a research. The researcher ensured that the information collected was reliable by choosing respondents with strong background of accounting to answer the interviews and questionnaires. Although validity is necessary, it does not guarantee the validity of the research. This means that reliability and validity should be interdependent if one wants to achieve the best results from a research.

## 3.8 Data presentation and analysis

After data collection, the data was cleansed, sorted and given a numerical code. Descriptive statistics, which contain frequencies, mean and standard deviation were helpful in quickly spotting trends. The researcher used Statistical Package for the Social Sciences (SPSS) to analyze the quantitative data that was collected. The responses were placed on a five Likert scale ranging from 1 (very lesser extent) to 5 (very greater extent).

A regression model was utilized to regulate the extent and course of the impact of management accounting techniques as the independent variable on the financial performance of manufacturing firms in Msasa Industrial Area as the dependent variable. All the research objectives were analyzed using SPSS. This was completed by counting up responses, recording rates of variations accordingly and also showing and interpreting the data in accordance with the analysis targets and hypotheses through utilization of SPSS.

## 3.9 Summary

This section managed to cover the research methodology used in doing the research. Detailed data concerning the target population, the research design, the sample size and sampling tools, data collection tools, the validity as well as the reliability of these tools was provided in this chapter. Descriptive as well as inferential statistical method were used in examining the data collected using SPSS. Data presentation and analysis will be covered in detail in the next chapter.

# CHAPTER IV

# DATA PRESENTATION, ANALYSIS AND DISCUSSION

## Introduction

This chapter’s goal is to present the findings from the study. The collected qualitative and quantitative data was displayed, explained and examined using version 24 of the Scientific Package for Social Sciences (SPSS). Tables were used to interpret the analyzed data.

## 4.1Response Rate and Demographical Factors

### 4.1.0 Response Rate

The researcher issued out a total of 40 questionnaires to finance managers and 35 were filled out thus a response rate of 87.5% and 20 interviews were scheduled with management accountants and 15 were successful thereby giving a 75% response rate as indicated in table 4.1 below.

Table 4.1: Response Rate



### 4.1.1 Respondent’s length of service

The researcher looked up on how long the respondents had been employed by Msasa Industrial companies. As indicated in figure 4.2, respondents working at the manufacturing firm for 0-5 years covered 57.1% of the total respondents, 6-10 years covered 28.6% of the total respondents and only 14.3% of the total respondents worked for 11-15 years at manufacturing firms. There was no respondent who worked at the manufacturing firm for more than 16 years. Table 4.3 below shows the respondents’ length of service.

Table 4.2: Respondent's length of service



Source: Primary Data

### 4.1.2 Respondents’ Company Specialization

The research asked the respondents to describe the business activities of their organization. Outcomes are shown in Table 4.3 below.

Table 4.3: Respondent's company specialization

Source: Primary data

From the findings shown above in Fig 4.3, 48.6% of the respondents revealed that their firms specialize in food processing, followed by 14.3% representing pharmaceutical and medical equipment and also 14.3% revealed that their company deals in leather products, then 8.6% shows those specializing in textiles and 8.6% of the respondents said that their companies deals in plastic and rubber equipment and 5.7% in wood products. This suggests that all the targeted manufacturing firms participated in the research, with the majority of replies coming from businesses engaged in food processing.

### 4.1.3 Number of Employees in the Respondents Firm

A summary of the findings is illustrated by the Table 4.4 below.

Table 4.4: Current number of employees

Source: Primary data

From the above findings 5.7% of the respondents indicated that their companies have 151-200 employees, 11.4% have 101-150 employees, 17.1% have above 200 employees, 22.9% have below 50 employees and finally 42.9% indicated that their firms have 50-100 employees.

### 4.1.4 Measures of financial performance

The respondents were asked to ascertain the extent to which they used profitability and liquidity to measure financial performance. The results are shown in the Table 4.5 below.

Table 4.5: Measures of financial performance

Source: Primary data

The results above show that profitability has a mean of 5.00 and standard deviation of 0.000. This means that all sampled manufacturing firms in Msasa Industrial Area use profitability to a very greater extent to measure financial performance. The results also showed that liquidity has a mean of 4.86 and a standard deviation of 0.355. This also means that many manufacturing firms in Msasa Industrial Area use liquidity to a very greater extent to measure financial performance.

## 4.2 Use of management accounting techniques in respondent’s company

The respondents were required to indicate the extent to which they used the given management accounting techniques in their companies. Table 4.6 below shows the responses deduced. The responses are spread around the mean therefore there is variance (among responses).

Table 4.6: Usage of management accounting techniques



Source: Primary data

**Costing system**

Activity- based costing

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using activity-based costing to a very greater extent which is shown by a mean of 4.57 and a standard deviation of 0.739 shows that there is little difference in data provided by the respondents. Gichaaga's study (2014) also found the same results that 80.4% of the firms regularly use Activity-based costing. However, the results of the study by Jariya et al. (2021) showed that activity-based costing is one of the least adopted techniques by the listed manufacturing firms in Sri Lanka.

Target costing

From the table above, it is shown that many manufacturing firms in Msasa Industrial Area are using target costing to a lesser extent which is shown by a mean of 2.26 and a standard deviation of 0.817 shows that there is little difference in data provided by the respondents. However, from the research of Junidi (2019) target costing was the second mostly used management accounting technique by Jordanian manufacturing firms. These findings are similar to the findings of Gichaaga (2014) which said 79.8% of the firms frequently use target costing.

Marginal costing

From the table above, it is revealed that many manufacturing firms in Msasa Industrial Area are using marginal costing to a greater extent which is shown by a mean of 4.20 and a standard deviation of 1.106 shows that responses are spread around the mean therefore there is a variance among responses.

Absorption costing

From the table above, it is shown that many manufacturing firms in Msasa Industrial Area are using absorption costing to a lesser extent which is shown by a mean of 2.20 and a standard deviation of 0.797 shows that there is little difference in data provided by the respondents.

Standard costing

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using standard costing to a very greater extent which is shown by a mean of 4.57 and a standard deviation of 0.502 shows that there is a slight difference in data provided by the respondents. These findings were supported by Dahal (2022) who identified that standard costing was being utilized more frequently (77.13%) and to a higher extent.

Funds flow analysis

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using funds flow analysis to a greater extent which is shown by a mean of 4.29 and a standard deviation of 1.045 shows that there is difference in data provided by the respondents.

Break-even analysis

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using break-even analysis to a greater extent which is shown by a mean of 4.23 and a standard deviation of 1.262 shows that responses are spread around the mean therefore there is a variance among responses. These findings were supported by Dahal (2022) who identified that breakeven analysis was being utilized more frequently (55.60%) and to a higher extent.

Throughput accounting

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using throughput accounting to a greater extent which is shown by a mean of 4.77 and a standard deviation of 2.030 shows that responses are widely spread around the mean therefore there is a variance among responses. Kadhim (2020) supported by indicating that use of throughput accounting helps in reducing bottle necks at the firm thereby increasing financial performance.

Just-in-time

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using just-in-time technique to a greater extent which is shown by a mean of 4.57 and a standard deviation of 0.778 shows that there is difference in data provided by the respondents. However, the results of the study by Jariya et al. (2021) showed that just in time technique is one of the least adopted techniques by the listed manufacturing firms in Sri Lanka.

Total quality management

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using total quality management technique to a greater extent which is shown by a mean of 3.66 and a standard deviation of 1.748 shows that responses are spread around the mean therefore there is a variance among responses. This findings of Jinidi (2019) who mentioned that total quality management is the management accounting method that Jordanian manufacturing firms use the most. However, Ganda (2017) indicated that Total quality management is one of the least known techniques.

Budgeting for planning

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using budgeting for planning to a very greater extent which is shown by a mean of 4.69 and a standard deviation of 0.758 shows that there is little difference in data provided by the respondents. These findings supported the findings of Gichaaga (2014) which indicated that 82.2% of the firms regularly apply budgeting for planning.

Budgeting for controlling costs

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using budgeting for controlling costs to a greater extent which is shown by a mean of 4.54 and a standard deviation of 0.980 shows that responses are spread around the mean therefore there is a variance among responses. . These findings were supported by Dahal (2022) who identified that budgetary control was being utilized more frequently (67.70%) and to a greater extent.

Capital budgeting for investment decisions

From the table above, it is deduced that many manufacturing firms in Msasa Industrial Area are using capital budgeting for investment decisions to a very greater extent which is shown by a mean of 4.71 and a standard deviation of 0.458 shows that there is a slight difference in data provided by the respondents. Gichaaga (2014) also supported this findings saying that 86.8% of the firms frequently use assessment of major capital investments on the basis of the payback period or accounting rate of return. However, according to the research by Niar (2019) Indonesian manufacturing firms’ financial performance is unaffected by investment decisions. The research is somehow similar with the study by Chandra et al. (2019) on manufacturing companies in Indonesia which came to the conclusion that decisions about investments had no impact on the firm’s financial performance.

## 4.3 Effect of management accounting techniques on financial performance

 The researcher performed an analysis using multiple regression so as to find out the impact of management accounting techniques (independent variables) on the dependent variable which is the financial performance of manufacturing companies in Msasa Industrial Area.

Table 4.7: Model Summary



1. Predictors: (Constant), BUDGETING, JIT, TQM, FINANCIAL\_STATEMENT\_ANALYSIS
2. Dependent Variable: FINANCIAL\_PERFORMANCE

Source: SPSS

According to table 4.7 findings thus R value of 0.948 it shows that management accounting methods significantly impacted the financial performance of manufacturing companies in the Msasa Industrial Area. Additionally, table 4.7 above shows that the R2 value is 0.898. This figure shows that 89.8% of the variance in the dependent variable can be described by the four independent factors. This indicates that the financial performance of manufacturing firms in the Msasa Industrial Area is significantly influenced by these independent variables. Table 4.8 below displays the ANOVA findings that use the F statistic to describe how the model fits.

Table 4.8: Analysis of variance (ANOVA)



|  |
| --- |
|  a. Dependent Variable: Financial performance |
| 1. Predictors: (Constant), Budgeting, Just In Time, Total Quality Management, Financial Statement Analysis
 |

According to the findings presented in table 4.8, the F statistic was 2.337. The F statistic was significant at 5% level of confidence. In this instance, all predictors thus, the financial statement analysis, budgeting, just in time, total quality management explain variations in financial performance, demonstrating the significance of the overall model. Table 4.9 displays the model variable coefficient results, independent variables, t-values ad significance levels for each independent variable (p-value).

Table 4.9: Coefficients

a. Dependent Variable: FINANCIAL\_PERFORMANCE

According to the results, total quality management, financial statement analysis, just in time and budgeting constant financial performance will all result in a value of 0.664. According to the findings, financial performance will rise by 0.731 for every unit increase in practicing total quality management. Additionally, the researcher found that a unit increase in just in time will result in an increase in financial performance of 0.642. A unit increase in financial statement analysis was shown to result in an increase in financial performance by a factor of 0.600, and a unit increase in budgeting was found to result in an increase in financial performance by a factor of 0.554. This means that the alternative hypothesis was accepted. This is supported by the study done by Ahmad (2017) which revealed that there is a strong and favorable correlation between budgeting and financial performance. Gichaaga (2014)'s study, which stated that a unit increase in a management accounting practice leads to a considerable percentage increase in financial performance validated these conclusions.

## 4.4 Challenges being faced when implementing management accounting techniques

The study required respondents to identify the extent to which their companies were facing the given challenges manufacturing firms are facing when implementing management accounting techniques. The results are shown in the Table 4.10 below.

Table 4.10: Challenges when implementing management accounting techniques

Source: Primary data

From the results shown in the table, many respondents indicated that management accounting techniques are costly to implement to a very greater extent which is shown by a mean of 4.57 and standard deviation of 0.502 shows that responses are spread around the mean therefore there is a variance among responses. Also, manufacturing firms have inadequate resources to finance the implementation of management accounting techniques to a very greater extent which is indicated by a mean of 4.71 and a standard deviation of 0.458 shows that there is a slight difference in data provided by the respondents. Many respondents indicated that it is time consuming to implement management accounting techniques because of the mean of 4.54 and a standard deviation of 0.980 shows that there is a slight difference in data provided by the respondents. A mean of 4.14 indicated that manufacturing firms are facing lack of reliable suppliers when implementing Justin time technique to a greater extent.

A standard deviation of 0.458 on loss of sales when implementing total quality management shows that there is little difference in data provided by the respondents which said that this challenge is not really being faced by manufacturing firms because of the mean of 0.471.

However a mean of 1.71 indicates that management do not understand why it is required to implement management accounting techniques to a lesser extent and a standard deviation of 0.458 shows that there is little difference in data provided by the respondents. Also absence of new technology is a challenge being face to a very lesser extent by manufacturing firms when implementing management accounting techniques and this is shown by a mean of 2.20 and a standard deviation of 0.797 shows that there is a slight difference in data provided by the respondents. A mean of 2.29 shows that management accounting techniques requires a lot of attention when implementing management accounting techniques to a greater extent and the standard deviation above 0.789 indicates that responses are spread around the mean therefore there is a variance among responses.

## 4.5 Benefits of applying management accounting techniques

Respondents were requested to specify the extent to which manufacturing firms are obtaining the given benefits from applying management accounting techniques. Summary of the responses is show in the Table 4.11 below.

Table 4.11: Benefits of using management accounting techniques



Source: Primary Data

From the results obtained, it can be deduced that application of management accounting techniques enhance decision making to a greater extent which is shown by a mean of 4.23 and a standard deviation of 1.262 shows that responses are spread around the mean therefore there is a variance among responses. These findings were supported by Gichaaga (2014) who showed that Management accounting contributes data from its environment to managers to assist in decision-making.

Implementation of just in time reduces inventory holding costs to a greater extent which is shown by a mean of 4.74. However, implementation of just in time assists in inventory purchasing with a matching amount of production quantity to a lesser extent which is indicated by a mean of 2.20.

Total quality management is the best way to enhance product quality to a greater extent which is shown by a mean of 4.71. Use of budgeting helps in reducing production costs to a very greater extent which is shown by a mean of 4.54. Also, capital budgeting helps in making investment decisions to a greater extent which is shown by a mean 4.57.

## 4.6 Interview questions analysis

The questions asked in the interviews were designed for the management accountants of the manufacturing firms in Msasa Industrial Area. The following are the results obtained during the survey of the research.

**Question 1: Which management accounting techniques are being applied by manufacturing companies and to what extent?**

This question obtained a positive response from the respondents as they highlighted that the entities were applying various management accounting techniques in their operations and most of them are being used for budgeting function and cost minimization function. There were variations in the responses given by respondents but above 80% of all the respondents highlighted that they are using activity-based costing, standard costing, marginal costing and just in time to a greater extent during their production process. Budgets are being used to a greater extent for controlling costs as well as capital budgeting for investment decisions.

**Question 2: Do management accounting techniques have an impact on financial performance?**

Many respondents indicated that their firms mostly use profitability and liquidity to measure financial performance. Various interviewed management accountants reflected that use of management accounting techniques for costing systems such as activity-based costing and standard costing help in reducing costs of production thereby increasing the profitability of the entity effectively. From the responses given, thorough funds flow analysis have been identified that it assist in liquidity problems being faced by companies since it clearly shows the sources of funds and how the funds should be distributed among the business operations. However, the application of management accounting techniques is not entirely addressing the issue of liquidity problems effectively. However, Saungweme (2017) indicated that the techniques being used by the entities are not entirely addressing the issue of profitability effectively.

**Question 3: Which challenges are manufacturing firms facing when implementing management accounting techniques?**

The management accounting techniques were said to be effective according to many respondents but most of them indicated that although they improve the financial performance they are really costly to implement thus there are inadequate resources for proper implementation of management accounting techniques and due to this challenge many manufacturing firms are struggling to implement other management accounting techniques. Some respondents identified that implementation of just in time technique comes with a challenge of being unable to secure reliable suppliers. Other interviewees reported that although management understand the need to implement management accounting techniques, some management accounting techniques are very complex thus they need special skill and a lot of attention when implementing them. However, Saungweme (2017) indicated that many managers at the entity do not have much knowledge about cost and management accounting.

**Question 4: What benefits are manufacturing firms obtaining from implementing management accounting techniques?**

The interviewees emphasized the significance of applying management accounting to the firm’s operations because it supports the production function in cost minimization, cost benefit analysis, the flow of financial information within the firm, product or service quality and the decision making process. This was backed up by Drury (2008) who focused on the importance of planning, control and assessment as well as cost and management accounting as performance indicators. He also concluded that cost and management accounting has an impact on the firm’s decision making process.

## 4.7 Chapter summary

Results and findings from the research questionnaires and interviews were highlighted in this chapter. This chapter also assessed the demographic information provided by respondents as well as the information relating to the study’s goals. In this chapter, regression analysis was used to analyze and interpret all the data that had been gathered and tables were used to present the analyzed data. Chapter 5 discusses these findings and draw pertinent conclusions and suggestions regarding the impact of management accounting techniques on financial performance of manufacturing firms in Msasa Industrial Area.

# CHAPTER V

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

##

## 5.0 Introduction

The research’s goal was to determine how management accounting practices affected financial performance of manufacturing companies in Msasa Industrial Area. This chapter summarizes the research results, discusses the results in relation to the hypothesis, deduce conclusions, and offer suggestions. This will be structured as per the precise study questions. Additionally, it lists the limitations and the potential areas for further study.

## 5.1 Summary of findings

### 5.1.1 Management accounting techniques being used

The results showed that costing systems were being used to a greater extent. This included activity- based costing (ABC), standard costing and marginal costing with standard costing being ranked highest with a mean of 4.59. The results also showed that the budgeting techniques were often applied in the manufacturing firms. This comprised of budgeting for planning, budgeting for controlling costs and capital budgeting for investment decisions. The results from the descriptive statistics, made it clear to the researcher that total quality management and just in time were ranked as some of the highest and mostly used techniques. Throughput accounting, funds flow analysis and break-even analysis were also established to be highly used in the manufacturing firms. However, target costing and absorption costing were being applied to a lesser extent.

### 5.1.2 Impact of management accounting techniques on financial performance

The study found that budgets are being used to decide priorities by distributing scarce resources to the tasks that are most crucial to the business. Additionally, it was determined that budgets provide a framework for efficient cost and revenue management, which guarantees superior financial success. The majority of the respondents identified that activity based costing (ABC) assist in ascertaining inefficient products, departments, and tasks and helps to apportion more resources on profitable products.

The researcher discovered that the constant financial performance of total quality management, just in time, financial statement analysis, and budgeting will be 66.4% based on the results of the regression analysis. The findings shows that an increase in total quality management will boost financial performance by 73.1%. The research also showed that a unit increase in just in time will result in 64.2% increase in financial performance. The study discovered that a unit increase in budgeting will result in an increase in financial performance by a percentage of 55.4% and that a unit increase in financial statement analysis will boost financial performance by 60%. Therefore this means that the alternative hypothesis was accepted.

### 5.1.3 Challenges being faced when implementing management accounting techniques

Although management understand the need to implement management accounting techniques, the researcher found that many manufacturing firms are being limited to implement management accounting techniques because of inadequate resources to implement them. Also, it was deduced that implementation of management accounting techniques requires a lot of special skill, time and attention to properly implement them. Implementation of the just in time technique is being affected by lack of reliable suppliers.

### 5.1.4 Benefits of applying management accounting techniques

The research established that use of management accounting techniques enhance decision making. The use of budgeting helps firms to reduce costs incurred by the firm thereby increasing profitability. Capital budgeting helps manufacturing firms in making quality investment decisions. Also, the use of total quality management is one of the best ways of enhancing product quality and the use of just in time and throughput accounting helps manufacturing firms in reduction of inventory holding costs.

## 5.2 Conclusion

The study concludes that many manufacturing firms are using costing techniques in their production processes specifically activity based costing, marginal costing and standard costing to a greater extent. Use of just in time technique and budgeting have helped the firms in cost reduction. Manufacturing firms are also using the total quality management technique to enhance product quality. Also, financial statement analysis helps management in making sound decisions pertaining the operations of the firm.

Although applying management accounting methods enhance decision making and lead to cost reduction, these management accounting techniques are very costly to implement and require a lot of knowledge, skill, time and attention to properly implement them.

## Recommendations

* A cost reduction and cost control board needs to be formed to monitor the expenditures and spending of the whole firm.
* Management must keep on reviewing and updating their cost and management accounting system as needed.
* Firms should regularly host training sessions and seminars on management accounting practices for their staff to increase their expertise.
* Products must be priced with a smaller markup in businesses that charge a larger percentage. The products will become significantly more affordable to many customers thereby boosting sales.
* The effect of activity based costing on the financial performance of manufacturing firms in the Msasa Industrial Area needs to be made more widely known. Businesses should keep using the activity based costing approach to identify ineffective items, sections and activities in order to focus more resources on things that are profitable.
* Management companies need to ensure that there is adequate budget involvement and budget management if they want to be in charge of the firm’s financial performance. Planning the budget should also be a top priority. The budgets should also include specific goals and objectives that outline what the business hope to accomplish.
* Approved budgets should always be distributed to all departments in order to promote cooperation. Similar to this, it is important to communicate budget target deviations so that everyone is aware of them. By so doing, it will make it easier to take additional control measures. The corrective measures adopted when deviations are reported must also be shared by managers with employees. This will guarantee enhanced learning.

## Areas of further research

The research relied heavily on primary data, the accuracy and reliability of which were limited by characteristics like attitude. As a result, the researcher advises doing a parallel investigation applying only secondary data to see whether the results will be similar with the results of this study.

The time frame of this research was five years (2018-2022). The researcher advises conducting a similar study over a longer length of time in order to decide whether the findings will be consistent with those of this study.

As the study concentrated on manufacturing firms only, the researcher suggests conducting a comparable research on other sectors, either locally or worldwide, to determine whether they view management accounting techniques as vital and how frequently they are employed.

* 1. **Summary**

All of the major research findings and their suggestions were compiled in this last chapter. This served as the foundation from which decisions were deduced and recommendations were made with this chapter concentrating on the chapter summary, key research results, study conclusions, recommendations and suggested areas for additional research.

## REFERENCES

Abdel-Kader, M., & Luther, R. (2006). Management accounting practices in the British food and drinks industry.  *British Food Journal, 108(5),* 336-357.

Abdullah, N.H.N., 2020. Assessing strategic management accounting practices in public interest companies in Malaysia. *Indonesian Journal of Economics, Social, and Humanities*, *2*(1), pp.13-25.

Aduvaga, E.V., 2020. *Effect of Strategic Management Accounting Techniques on Investment Decisions Among Manufacturing Firms in Kenya* (Doctoral dissertation, University of Nairobi).

Ahmad, K., 2014. The adoption of management accounting practices in Malaysian small and medium-sized enterprises. *Asian Social Science*, *10*(2), p.236.

Asyraf, T.M., Nadaraja, D., Shamri, A. and Sivabalan, R., 2019. Is Malaysia experiencing premature deindustrialisation. *BNM Quarterly Bulletin*, pp.19-25.

Baiman, S., 1990. Agency research in managerial accounting: A second look. *Accounting, Organizations and Society*, *15*(4), pp.341-371.

Birnberg, J. & Snodgrass, C. 1988. Culture and control: a field study. *Accounting. Organizations and Society,* 13(5), 447-464.

Blumberg, E.J., Hovell, M.F., Kelley, N.J., Vera, A.Y., Sipan, C.L. and Berg, J.P., 2005. Self-report INH adherence measures were reliable and valid in Latino adolescents with latent tuberculosis infection. *Journal of clinical epidemiology*, *58*(6), pp.645-648.

Bogale, E., 2013. Advanced management accounting techniques in manufacturing firms in Ethiopia. *Research Journal of Finance and Accounting*, *4*(16), pp.9-17.

Burns. (2013). *Management accounting*. New York, United States: McGraw.

Caplan, D., 2006. Management accounting concepts and techniques.

Chenhall, R.H. and Langfield-Smith, K., 1998. Adoption and benefits of management accounting practices: an Australian study. *Management accounting research*, *9*(1), pp.1-19.

Chinelo Igwenagu 2016. Fundamentals of research methodology and data collection. Enugu State University of Science and Technology.

Christensen, H.K. and Montgomery, C.A., 1981. Corporate economic performance: Diversification strategy versus market structure. *Strategic Management Journal*, *2*(4), pp.327-343.

Consolata, W., 2019. Effects of Managerial Accounting Practices on Financial Performance: A Case of Manufacturing Firms in Industrial Area, Nairobi. *An Unpublished Research Project Submitted to Accounting Department, Nnamdi Azikiwe University, Awka*.

Dahal, R.K., 2022. ACCOuNTING PRACTICES AND ORGANIzATIONAL PERFORMANCE.

Drury, C., 2008. Management and cost accounting 7th edition. *South-Western centre learning*.

Emmanuel, C., D Otley and K. Merchant (1990). *Accounting for Management Control,* Second Edition. Chapman & Hall.

Ferguson, E.L., Darmon, N., Fahmida, U., Fitriyanti, S., Harper, T.B. and Premachandra, I.M., 2006. Design of optimal food-based complementary feeding recommendations and identification of key “problem nutrients” using goal programming. *The Journal of nutrition*, *136*(9), pp.2399-2404.

Ganda, L., 2017. *The impact of management accounting techniques in decision making and performance measurement in a manufacturing firm: a case study of Rockshell Manufacturing Pvt Ltd* (Doctoral dissertation, BUSE).

Gichaaga, P.M., 2014. *Effects of management accounting practices on financial performance of stuartmanufacturing companies in Kenya* (Doctoral dissertation, University of Nairobi).

Giridharan, B. and Robson, A., 2011. Identifying gaps in academic writing of ESL students. In *Enhancing Learning: Teaching and learning conference 2011 proceedings*. Enhancing Learning: Teaching and Learning Conference 2011, Curtin University Sarawak.

Graham, J.R. and Harvey, C.R., 2001. The theory and practice of corporate finance: Evidence from the field. *Journal of financial economics*, *60*(2-3), pp.187-243.

Hacking, I. and Hacking, T., 1990. *The taming of chance* (No. 17). Cambridge University Press.

Hoskin, K.W. and Macve, R.H., 1988. The genesis of accountability: the West Point connections. *Accounting, Organizations and Society*, *13*(1), pp.37-73.

Igwenagu, C., 2016. *Fundamentals of research methodology and data collection*. LAP Lambert Academic Publishing.

Imed Bouchrika (2020). Types of Research Design: Perspective and Methodological Approaches.

Innes, J. and F. Mitchell (1995). A Survey of Activity Based Costing in the UK’s large companies. *Management Accounting Research.* 1, pp. 3-19.

Isoraite, M., 2008. The balanced scorecard method: From theory to practice. *Intelektine ekonomika*, (1).

Ittner, C. & Larcker, D. (2001). Assessing empirical research in managerial accounting: A value-based management perspective. *Journal of Accounting and Economics,* *32,* 349-410.

Jariya, A.M.I. and Haleem, A., 2021. MANAGEMENT ACCOUNTING PRACTICES'ADOPTION AMONG LISTED MANUFACTURING COMPANIES IN SRI LANKA. *Academy of Entrepreneurship Journal*, *27*(6), pp.1-15.

Junaidi, S., Sulastri, S., Isnurhadi, I. and Adam, M., 2019. Liquidity, asset quality, and efficiency to sustainable growth rate for banking at Indonesia Stock Exchange. *Jurnal Keuangan dan Perbankan*, *23*(2), pp.308-319.

Kabir, S.M.S., 2016. Basic guidelines for research. *An introductory approach for all disciplines*, *4*(2), pp.168-180.

Kadhim, H.K., Najm, K.J. and Kadhim, H.N., 2020. Using Throughput Accounting for cost management and performance assessment: constraint theory approach. *TEM Journal*, *9*(2), p.763.

Khandelwal, U. and Singh, T.P., 2022. Attitude towards green manufacturing by Indian manufacturing SMEs: a factor analysis approach. *World Review of Entrepreneurship, Management and Sustainable Development*, *18*(4), pp.444-460.

Kimberlin,C. L., and Winterstein, A. G. 2008. Validity and Reliability of Measurement Instruments Used in Research. *American Journal of Health-System Pharmacists,* 65(1), 2276-2284.

Kimmel, P.D., Weygandt, J.J. and Kieso, D.E., 2020. *Financial accounting: tools for business decision-making*. John Wiley & Sons.

Knight, V., McKissick, B.R. and Saunders, A., 2013. A review of technology-based interventions to teach academic skills to students with autism spectrum disorder. *Journal of autism and developmental disorders*, *43*(11), pp.2628-2648.

Larry M. Walther; Christopher J. Skousen. Managerial and Cost Accounting, 2009.

Li, W.S., 2018. Competitor Analysis and Accounting Model: Competitor Analysis. In *Strategic Management Accounting* (pp. 99-123). Springer, Singapore.

Lichtenstein, G.R., Loftus, E.V., Isaacs, K.L., Regueiro, M.D., Gerson, L.B. and Sands, B.E., 2018. ACG clinical guideline: management of Crohn's disease in adults. *Official journal of the American College of Gastroenterology| ACG*, *113*(4), pp.481-517.

Logose, A.M., 2017. The impact of managerial accounting practices on financial performance in small and medium enterprises in Uganda: a case of Britania allied industries Nakawa division.

Lovely Professional University. Cost and Management Accounting DMGT202.

Marr, B., 2021. *Extended Reality in Practice: 100+ Amazing Ways Virtual, Augmented and Mixed Reality Are Changing Business and Society*. John Wiley & Sons.

MEHTA, B., 2021. INITIATIVES OF CORPORATE SOCIAL RESPONSIBILITY AND THE INFLUENCE ON FIRM SHARE PRICE PERFORMANCE. *Advance Journal of Management, Accounting and Finance*, *6*(6), pp.1-22.

Murambiwa, S., 2014. An investigation into the effectiveness of cost and management accounting practices in a manufacturing company: a case of National Pharmaceuticals.

Nandakumar, P., Datar, S.M. and Akella, R., 1993. Models for measuring and accounting for cost of conformance quality. *Management Science*, *39*(1), pp.1-16.

Osterhaus, D.M., Leberg, S.S., Pierce, C.L., Stewart, T.W. and McCombs, A., 2022. Comparison of sampling methods for small oxbow wetland fish communities. *Plos one*, *17*(11), p.e0277698.

Prakhar Mishra 2021. Understanding Sampling Methods (Visuals and Code).

R.R. Lakhe & R. P. Mohanty 1993. Total Quality Management concepts, evolution and acceptability in developing economies.

Rewan Kumar Dahal. MANAGEMENT ACCOUNTING PRACTICES AND ORGANIZATIONAL PERFOMANCE; 2022.

Robert S. Kaplan (2010). Conceptual Foundations of the Balanced Scorecard.

Robson, C. 2011. *Real World Research: A Resource for Users of Social Research Methods in Applied Settings,* (2nd Ed.). Sussex, A. John Wiley and Sons Ltd.

Roodhooft, F. and Warlop, L., 1999. On the role of sunk costs and asset specificity in outsourcing decisions: a research note. *Accounting, Organizations and Society*, *24*(4), pp.363-369.

Sahaf, M.A., 2018. *Management Accounting: Principles & Practice*. Vikas Publishing House.

Saunders, M., et al. (2009). Research Methods for Business Studies. (5th ed.). London UK: Pearson Education.

Shamsi. S. Bawaneh (2018). MANAGEMENT ACCOUNTING PRACTICES: A CASE STUDY OF JORDANIAN MANUFACTURING COMPANIES. Department of Accounting, King Talal School for Business and Technology Princess Sumaya University for Technology, Jordan.

Shrivastava, R.L., Mohanty, R.P. and Lakhe, R.R., 2006. Linkages between total quality management and organisational performance: an empirical study for Indian industry. *Production planning & control*, *17*(1), pp.13-30.

Shumirai Murambiwa 2014. An investigation into the effectiveness of cost and management accounting practices in a manufacturing company. A case of National Pharmaceuticals.

Stuart MacDonald & Nicola Headlam (2008), CLES. Research Methods Handbook.

Thanigaivelan, P. and Vidya, M., 2022. A Study on Factors Influencing the Financial Performance Analysis Selected Private Sector Banks in India. *International Journal of Engineering and Management Research*, *12*.

The Institute of Company Secretaries of India. Cost And Management Accounting Module 1 Paper 2, 2017.

The Institute of Cost Accountants pf India. COST ACCOUNTING INTERMEDIATE: PAPER-8. CMA Bhawan, 12, Sudder Street, Kolkata- 700 016.

Thomas, J., Moosavian, S.K., Cutright, T., Pugh, C. and Soucek, M.D., 2022. Method Development for Separation and Analysis of Tire and Road Wear Particles from Roadside Soil Samples. *Environmental Science & Technology*, *56*(17), pp.11910-11921.

Tiessen, P. and Waterhouse, J.H., 1983. Towards a descriptive theory of management accounting. *Accounting, Organizations and Society*, *8*(2-3), pp.251-267.

Wang, H., Hu, L., Liu, X., Yin, S., Lu, R., Zhang, S., Zhou, W. and Gao, H., 2017. Deep eutectic solvent-based ultrasound-assisted dispersive liquid-liquid microextraction coupled with high-performance liquid chromatography for the determination of ultraviolet filters in water samples. *Journal of Chromatography A*, *1516*, pp.1-8.

Waweru, N.M., 2010. The origin and evolution of management accounting: a review of the theoretical framework. *Problems and perspectives in management*, (8, Iss. 3 (contin.)), pp.165-182.

##

## APPENDIX I

**QUESTIONNAIRE**

**THE IMPACT OF MANAGEMENT ACCOUNTING TECHNIQUES ON FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS: CASE STUDY OF MSASA INDUSTRIAL AREA.**

I am an undergraduate student pursuing a Bachelor of Accountancy Honours Degree at Bindura University of Science Education. I am conducting research on how management accounting techniques affect the financial performance of manufacturing companies.

Your participation in this research would be greatly appreciated, and I sincerely ask for your assistance. I will be appreciative of your thoughtful suggestions and willing assistance. Your responses will be treated with utmost confidentiality.

**Instructions**

* Your name must not be written on the questionnaire
* Please tick in the relevant box for your response where:

1= Very lesser extent 2= lesser extent 3=Neutral 4= Great extent 5= Very great extent

**SECTION A: GENERAL INFORMATION**

1. **For how long have you been working at the organization?**

 0-5 years 6-10 years

11-15 years 16 – 20 years

 Over 20 years

1. **What does your company specializes in?**

Food processing Beverages processing

Paper manufacturing Wood products

Pharmaceutical and medical equipment Leather products

Chemicals production Textiles

Plastics and rubber

1. **Number of employees**

Below 50 50-100

100-150 150-200

Above 200

1. **To what extent do you use the following key indicators to measure Financial Performance?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |
| Profitability  |  |  |  |  |  |
| Liquidity  |  |  |  |  |  |

**SECTION B:**

**PART A: THE EXTENT TO WHICH MANAGEMENT ACCOUNTING TECHNIQUES ARE BEING USED BY MANUFACTURING FIRMS IN MSASA INDUSTRIAL AREA.**

1. RQ1: To what extent does your company use the following management accounting techniques?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |
| **COSTING SYSTEM** |  |  |  |  |  |
| Activity-based costing (ABC) |  |  |  |  |  |
| Target costing |  |  |  |  |  |
| Marginal costing |  |  |  |  |  |
| Absorption costing |  |  |  |  |  |
| Standard costing |  |  |  |  |  |
| **FINANCIAL STATEMENT ANALYSIS** |  |  |  |  |  |
| Funds flow analysis |  |  |  |  |  |
| Break-Even Analysis |  |  |  |  |  |
| Throughput Accounting |  |  |  |  |  |
| **JUST IN TIME TECHNIQUE** |  |  |  |  |  |
| **TOTAL QUALITY MANAGEMENT** |  |  |  |  |  |
| **BUDGETING** |  |  |  |  |  |
| Budgeting for planning |  |  |  |  |  |
| Budgeting for controlling costs |  |  |  |  |  |
| Capital budgeting for investment decision (e. g Net Present Value) |  |  |  |  |  |

**PART B: FIND OUT IF MANAGEMENT ACCOUNTING TECHNIQUES HAVE AN IMPACT ON FINANCIAL PERFORMANCE.**

1. RQ2: How does management accounting techniques affect financial performance?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** |
| Financial Statements Analysis enhance decision making |  |  |  |  |  |
| Financial Statements Analysis helps in assessing risk |  |  |  |  |  |
| **JUST IN TIME TECHNIQUE** |  |  |  |  |  |
| The JIT reduce inventory holding costs |  |  |  |  |  |
| The JIT system has assisted in stock purchasing with matching amount of production quantity. |  |  |  |  |  |
| Total Quality Management is the best way to enhance product quality. |  |  |  |  |  |
| Total Quality Management is best way to increase revenue due to increased product quality |  |  |  |  |  |
| **BUDGETING** |  |  |  |  |  |
| Budgeting helps in reducing production costs |  |  |  |  |  |
| Capital budgeting helps in making investment decisions |  |  |  |  |  |

**PART C: CHALLENGES WHICH MANUFACTURING FIRMS ARE FACING WHEN IMPLEMENTING MANAGEMENT ACCOUNTING TECHNIQUES?**

1. RQ3: To what extent does your firm face the following challenges when implementing management accounting techniques?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** |
| Costly to implement |  |  |  |  |  |
| Management do not understand why it is required to implement management accounting techniques. |  |  |  |  |  |
| Inadequate resources to finance the implementation of management accounting techniques. |  |  |  |  |  |
| They are very complex thus there is need for special skill to implement them.  |  |  |  |  |  |
| Absence of new technology adoption |  |  |  |  |  |
| Time consuming to implement |  |  |  |  |  |
| Requires a lot of attention when implementing |  |  |  |  |  |
| Loss of sales when implementing TQM |  |  |  |  |  |
| Lack of reliable suppliers when implementing JIT |  |  |  |  |  |

|  |
| --- |
|  |

**PART D: BENEFITS OF APPLYING MANAGEMENT ACCOUNTING TECHNIQUES IN MANUFACTURING FIRMS**

1. RQ4: To what extent do you agree with the following statements on the benefits of applying management accounting techniques?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** |
| Results in a sustainable competitive advantage |  |  |  |  |  |
| Helps in ascertaining key factors that affect performance and risky areas that require enhancements |  |  |  |  |  |
| Financial statement analysis enables firms to raise funds in larger amounts and at an economic cost of capital |  |  |  |  |  |
| Leads to increased return on investment of the firm. |  |  |  |  |  |
| Helps organizations to plan, direct and control operating costs to attain profitability |  |  |  |  |  |
| Helps in reduction of resource waste in business processes. |  |  |  |  |  |
| Eliminates tasks that do not add value to customers and the organization. |  |  |  |  |  |
| Improved forecasting. |  |  |  |  |  |
| Improved product quality |  |  |  |  |  |

## APPENDIX II

**INTERVIEW GUIDE**

1. Question 1: Which management accounting techniques are being used by manufacturing firms and to what extent?
2. Question 2: Do management accounting techniques have an impact on financial performance?
3. Question 3: Which challenges are manufacturing firms facing when implementing management accounting techniques?
4. Question 4: What benefits are manufacturing firms obtaining from implementing management accounting techniques?