# MANAGEMENT ACCOUNTING PRACTICES AND FINANCIAL PERFORMANCE OF PUBLIC SUGAR MANUFACTURING FIRMS IN LAKE REGION ECONOMIC BLOCK, KENYA

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**A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration (Accounting) of Masinde Muliro University of Science and Technology**

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## DECLARATION

This Thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

Signed……. Date……

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## CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance of Masinde Muliro University of Science and Technology of a Thesis entitled, **"***Management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya".*

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## DEDICATION

I dedicate this work to my lovely husband CPA Joel Nyaundi Nyanumba, my children, my parents and my brother Dr. Philip Machuki Nyanumba for their unwavering love and overwhelming generosity.

**ACKNOWLEDGEMENT**

I would like to thank God the Almighty for his grace and mercy throughout this journey. I acknowledge with my deepest thanks my research supervisors Prof Tibbs and Prof. Alala and who tirelessly guided me at each and every step. Finally, I appreciate all of my MBA classmates and friends who accorded me the necessary support whenever needed

May the Almighty God bless you

## ABSTRACT

Sugarcane is one of the industrial crops of Kenya. The sugar industry in Kenya has made a major contribution to the development of the nation. Despite its key importance to the economy, it has continued to perform dismally leading to persistent deficits in production hence government interventions. The primary challenge that Kenya's sugar sector is currently facing is a long-term decline in profitability, which is compromising financial performance. The Kenyan sugar industry continues to be threatened by regional and global factors. The industry is also highly inefficient and is only able to survive as a result of high tariff and non-tariff protection. The cost of sugar production in Kenya exceeds the global average. The overall objective of this study was to investigate the effect of management accounting practices on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. Specific Objectives are to investigate the effect of cost accounting practice, budgetary accounting practice and performance evaluation accounting practice and to identify the moderating effect of firm size on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. The study was guided by accountability theory, Transaction cost theory and contingency theory of management accounting. The study used causal research design .Target population of 143 comprising of accountants, auditors and managers. This study sampled 98 respondents constituting of management accountants, auditors and general managers. Stratified random sampling technique was used. This study used questionnaires for primary data collecting. Secondary data was sought for firm size and financial performance for 2018-2022 financial years from published financial statements through secondary data collection tool. Data analysis was done using descriptive statistics thus frequencies and percentages and inferential statistics thus Pearson correlation and simple linear regression analysis. Data was presented using tables. The study found significant effect (t-statistic=7.324, p-value=0.000< 0.05) of cost accounting management practice on financial performance. Budgetary accounting management practice had a significant effect (t-statistic=7.181, p-value=0.000<0.05) on financial performance as performance evaluation accounting practice had a significant effect (t-statist\ic=6.773, p-value=0.000<0.05) on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. This led to rejection of the null hypothesis. Finally, there was a moderating effect of firm size on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya($p<0.05$) hence rejected the null hypothesis. Public Sugar Manufacturing firms in Lake Region Economic Block should practice standard costing, target costing, activity based costing and life cycle costing measures so as to improve cost accounting management practice. Public Sugar Manufacturing firms in Lake Region Economic Block should design budgetary estimates, implement budgetary planning process, avail budget allocations, expenditures and ensure timely budget approvals so as to improve performance. Public Sugar Manufacturing firms in Lake Region Economic Block should streamline the internal audits and external audits for easier performance evaluation. The study recommends growth of assets for the firm so as to enable a significant influence on performance.

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## ABBREVIATIONS AND ACRONYMES

| | |
|---|---|
| **ABC** | Activity-based Costing |
| **ABCM** | Activities Based Cost Management |
| **AIS** | Accounting Information System |
| **AIG** | American International Group's |
| **AFAK** | Agricultural Food Authority, Kenya |
| **CBK** | Central Bank of Kenya |
| **COMESA** | Common Market for Eastern and Southern Africa |
| **CVP** | Cost-Volume-Profit |
| **GAAP** | Generally Accepted Accounting Principles |
| **GDP** | Gross Domestic Product |
| **IFRS** | International Financial Reporting standards |
| **KSB** | Kenya Sugar Board |
| **LREB** | Lake Region Economic Bloc |
| **MMUST** | Masinde Muliro University of Science and Technology |
| **NACOSTI** | National Commission for Science, Technology and Innovation |
| **NGO** | Non Governmental organization |
| **NSE** | Nairobi Securities Exchange |
| **ROA** | Return on Asset |
| **ROE** | Return on Equity |
| **UK,** | United Kingdom |
| **USA** | United States of America |

## OPERATIONAL DEFINITION OF TERMS

| | |
|---|---|
| **Management accounting practices** | This refers to cost accounting practice, budgeting accounting practice and performance evaluation accounting practice. |
| **Budgeting accounting practice** | This refers to allocation of resources occasioned through budgetary estimates, budgetary planning process, budget allocations and expenditures as well as timely budget approvals. |
| **Cost accounting practices** | This refers to evaluating the apportionment of charges incurred during operation such as standard costing, target costing, activity-based costing and lifecycle costing. |
| **Financial Performance** | Financial performance is a composite of an organization's return on assets occasioned through income and assets. |
| **Firm size** | This refers to composite measures of corporate magnitude based on the firm's total assets. |
| **Performance evaluation accounting practice** | This refers to checking of the systems reports, performance reports, and audits both internal and external to tell the accounting strength for firm performance. |

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the study

Management accounting is a collection of approaches and methodologies that are designed to furnish managers with financial data to facilitate decision-making and ensure the effective management of corporate assets. Consequently, organizations implement management accounting practices, such as budgeting, costing, and performance evaluation (Chenhall & Moers, 2019).

Abdel-Maksoud *et al*. (2022) define management accounting practices as the methods and strategies used by management accountants to supply organizations with relevant information for the optimal utilization and control of resources, ultimately enhancing value for customers and shareholders. This call upon accountability theory where stakeholders take into account their actions.

Ndwiga (2011) states that management accounting techniques provide management solutions for internal management purposes. Nuhu, Baird, and Appuhami (2017) assert that management accounting methods function as internal information systems, specifically designed to furnish a company with relevant information, with the aim of augmenting the firm's overall value. Examples of management accounting procedures include budgeting, variance analysis, breakeven analysis, cost accounting performance review, and others. Sugar industry is loaded with costs that give value for transaction cost theory applicability (Gichaaga, 2022).

According to Berry (2011), the effective use of management accounting procedures, such as budgets, is crucial for the success of any business, regardless of its size,

including small and micro firms. Companies assess their operations by implementing management accounting procedures. These approaches help businesses in the planning, direction, and management of operational expenditures, as well as in achieving profitability. The importance of management accounting techniques in achieving organizational success is recognized (Horngren, 2019).

Multiple studies have found a significant association between the financial success of companies and their use of Management Accounting Practices (Madhuka & Bandara, 2016). Implementing management accounting techniques aids firms in planning, directing, and controlling operational expenditures, as well as achieving profitability. Organizations must adopt effective management accounting procedures to survive in a competitive and constantly evolving environment, marked by rapid technology advancements, globalization, and changing customer demands (Madhuka & Bandara, 2016).

The main areas of focus in traditional management accounting techniques, such as budgeting, costing, and performance evaluation, are financial problems and internal organizational challenges (Ahmad & Zabri, 2019). Management accounting procedures, as stated by academics (Macinati & Anessi-Pessina, 2022), contribute to the reduction of costs and expenses, enhancement of profitability, and guarantee the company's capacity to fulfill its vision and mission statement.

Henri (2006) examined the relationship between management accounting methods and business outcomes. Henri's study contained an implicit assumption regarding the correlation between the utilization of management accounting information for decision-making and the effectiveness of the company.

Bransah (2019) examined the financial performance of manufacturing businesses in Ghana following the implementation of management accounting techniques. A study conducted in Ghana revealed that the management accounting approach most frequently employed by manufacturing organizations was the utilization of information for decision making. The profitability of the organizations evaluated was favorably and significantly linked to strategic analysis, budgeting, performance evaluation, costing, and scale, which were the next most regularly utilized techniques. Previous research has examined a wide range of aspects of management accounting techniques. The research primarily focused on documenting and characterizing real management accounting procedures, utilizing a predominantly descriptive approach (Sunarni, 2019).

According to Uyar (2010), the perceived importance of cost accounting is affected by economic crises, rising costs and competition, and declining profitability. As per the author's perspective, companies continue to highly prioritize traditional management accounting tools, while assigning less importance to more recent methods such as transfer pricing and strategic planning. The study revealed that budgeting, costing, and performance evaluation are the three most important procedures in management accounting.

Around 70% of the global sugar production is used domestically, while the remaining 30% is traded internationally (UNECA, 2013). However, only four countries Brazil, Australia, Cuba, and Thailand account for 65% of global sugar business, with Russia serving as the main importer (Muteshi *et al*., 2017). According to data from the United States Department of Agriculture (2016), Brazil, Thailand, and Australia were the leading countries in terms of exporting agricultural products in 2022–2019. On the other hand, China, the United States, Indonesia, and the European Union (EU) were the top

countries in terms of importing agricultural products. The price of sugar is primarily influenced by the regulations of different international sugar trade regimes rather than market forces such as supply and demand, due to its status as a political commodity (COMESA, 2010). The pricing of sugar is determined by preferential and quota systems established by developed nations, specifically the United States and the European Union. Additionally, international sugar agreements for protection and trade, as well as free trade agreements within regional trading blocs, also impact sugar pricing (UNECA, 2013). According to Comesa (2010), residual free market trading acts, such as obligations made to the World Trade Organization (WTO), can also have an impact on prices.

Multiple studies have examined the significance of financial control in the United States. Insufficient financial management led to the downfall of Enron, an American energy firm (Balakrishnan *et al.*, 2017). The company's downfall was partly caused by the fabrication of their earnings statement. It did not utilize international generally accepted accounting rules (GAAP). Mullford and Comiskey (2019) reported that auditors from PricewaterhouseCoopers identified deficiencies in American International Group's (AIG) financial reporting and control mechanisms. A recent study conducted in the United Kingdom, the United States, Canada, Brazil, India, and China has revealed the positive impact of strategic financial management strategies on the profitability of manufacturing enterprises (Patro & Arpita, 2019).

According to the Fiji Sugar Corporation Annual report of 2019, around 20% of the population in Fiji are employed in occupations directly or indirectly associated with sugar cane or sugar cane products. Based on the data from the Fiji Island Bureau of Statistics (2019), sugar accounted for more than 25% of the overall export revenues in

2018 and provided a contribution of 8% to the GDP. Due to Fiji's strong dependence on professional financial management practices, the sugar industry will remain vital to the country's economy in the foreseeable future. Additionally, it will continue to have a substantial impact on Fiji's rural economy as a whole (Paresh & Biman, 2016).

The sugarcane industry in Brazil has faced significant challenges during the past fifteen years. During the early 2000s, ethanol production, which is a more environmentally friendly alternative to fossil fuels, received substantial investments and experienced considerable technological advancements, resulting in its rapid growth. A period of crisis and surplus production capacity occurred for several years starting in 2008. Over 80 out of 300 sugar mills were closed due to the worldwide economic downturn and the Brazilian government's choice to increase fuel subsidies. Sugarcane production in Brazil has regained profitability in recent years (Wernau, 2019). After successfully navigating this difficult period, Biosev's management is now prioritizing the company's ultimate goal of being the leading global producer of sugarcane. In the last two years, most of Biosev's top executives have joined the company.

The global sugar market is impacted by the national policies of the main exporting and importing countries, which subsequently affect the worldwide supply and demand patterns. Indonesia's sugar industry underwent a significant transformation during the 1930s and 1970s, transitioning from a major sugar exporter to a substantial sugar importer. This shift can be attributed to the inadequacy of Indonesia's sugar strategy during that period. According to Aris Toharisman and Triantari (2022) and ISO (2013), it ranked second in both exports and imports in the 1930s and 2022, respectively.

African governments have been burdened by the impact of financial regulations on the performance of both public and private companies. Specifically, the following listed

businesses, IBPL, OCBC, ANA, Steel Rolling Nigeria Limited, and Nigeria Wire and Cable, were not granted any exemptions. Audit control and budgeting control are prominent Nigerian financial controls that have gained recognition among investors and scholars (Omar & Simon, 2017).

Davis and Cosenza (2022) assert that sugar cane production plays a vital role in both the agricultural sector and the overall economy of Africa. Sugar production is carried out in more than 40 countries throughout Africa, and a considerable proportion of these nations have been classified as highly proficient and economically competitive producers on a worldwide level. However, the trade in sugar is uneven to the point that the nations in the Southern African Development Community (SADC) export 2 million tons more than they consume, while the entire continent of Africa is a net importer of around 2 million tons. The distortion in the data is mostly attributed to the substantial increase in imports, namely refined sugar, into West Africa, particularly Nigeria.

Although the sugarcane sector is crucial, it has faced numerous challenges in recent years that have impeded its expansion. An issue that arises is the stagnant Tariff Rate Quota (TRQ) amount, which has not been modified for a number of years. Moreover, the sugar production in the industry has remained constant at 430,000 tons for the past ten years (fas.usda.gov). The convergence of a stagnant global market price and the surplus of sugar from prominent producers has generated significant strain within the worldwide sugar sector (Munyoro & Tyorera, 2017).

The sugarcane sector in Zimbabwe experienced a state of imminent collapse as a result of the surge in low-cost imports. Nevertheless, in 2022, the problem was resolved by imposing a 10% import duty and a surtax of US$100 per metric ton on all sugar imports

that did not originate from the Southern African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA) countries (www.worldbank.org; 2019). Furthermore, the limited supply of land for sugar cane farming impeded the sector's horizontal expansion, hence making the prices unfavorable for the sector's growth (Munyoro & Tyorera, 2017).

Moreover, the considerable barriers to entry into the sugarcane farming sector worsened the issue, especially for novice growers with ample financial means. The challenging land preparation needs and the necessity for well-established irrigation infrastructure in Chiredzi District, Masvingo province, are crucial for attaining the best possible development of sugarcane. These activities require a substantial level of financial commitment (Munyoro & Tyorera, 2017). Regrettably, the present circumstances for Zimbabwean out-growers, who are small-scale sugarcane producers, are far from ideal. They are encountering challenge in attracting investors because to problems with land ownership and the lack of security associated with offer letters, which cannot be utilized as collateral. The land policy in Zimbabwe following the land reform program remains uncertain, necessitating a substantial level of market confidence to garner support from external sources (Munyoro & Tyorera, 2017).

The industry's policy environment and public sector governance required reforms in order to regain and maintain the benefits of cane production for food security, as Uganda experienced a challenging period of poor grower-miller coordination from 2018 to 2021 and a collapse in 2021 (Mbowa *et al*, 2023).Reforms are necessary to enhance the coordination between sugarcane producers and millers and to explore implementing income stabilization mechanisms for the farmers. Furthermore, extension services

should specifically encourage the cultivation of sugarcane on farms that are 8 acres or larger, ensure that farmers continue to cultivate food crops, and promote the adoption of technology that improve productivity in both sugarcane and food crop production.

According to Alzoubi (2018), management accounting practice is intended to furnish institutions with information that aids in making informed decisions and improving the effectiveness of ongoing operations. The information provided is derived from well-established accountability methods, which enhance the financial performance of a company. Alzoubi (2018) define management accounting as the method used to provide senior management with information regarding the company's performance and efficiency.

Several factors impact the modifications in management accounting processes in certain firms, with the size of the firm being a significant element. According to Mathenge (2022), larger organizations are often believed to have superior management accounting processes in comparison to smaller firms, resulting in greater financial performance. Thus, it can be inferred that the impact of management accounting methods on financial performance in Kenya is insufficient.

The practice of managing budgeting accounting has been examined using several indicators, including budgetary estimations, the process of budgetary planning, budget allocations and expenditures, and the timely approval of budgets. Cost accounting research focuses on standard costing, target costing, activity-based costing, and life cycle costing. The performance evaluation has been assessed by analyzing performance reports and conducting internal and external audits to determine the accounting capabilities of the firm. The study also considers the firm size as both an independent

and moderating component. Past studies have primarily focused on analyzing complete manufacturing organizations and utilizing diverse metrics. In their study, Fwamba (2018) specifically investigated the impact of financial management techniques, rather than management accounting methods, on the financial performance of Sugar Manufacturing Companies in Kenya. Patro and Arpita (2019) focused on the impact of strategic financial management strategies on the profitability of manufacturing enterprises, specifically excluding management accounting practices.

### 1.1.1 Financial Performance of Sugar firms

A company's financial performance can be defined as the degree to which it is able to turn its basic assets into revenue (Mills, 2018). When comparing businesses within the same industry or across sectors, this phrase is useful since it provides a holistic picture of the financial health of a company over a specific time. According to performance measurement theory, workers can boost the company's worth by lowering risk, increasing the magnitude of future cash flows, or collecting those cash flows more quickly. A variety of metrics can be used to assess monetary issues, but it is essential to consider all of them simultaneously. One way to measure financial success is by looking at many indicators. These include ROA, liquidity, asset management, profitability, leverage, and market value ratios.

Kenya's manufacturing industry is predominantly controlled by the subsidiaries of global firms. Manufacturing is an essential component of the economy, contributing 10% to the Gross Domestic Product (GDP), 12.5% to exports, and offering formal employment to 13% of the workforce (CBK, 2013). The primary goal of the manufacturing sector in Vision 2030 is to create job opportunities and promote economic prosperity (Kenya

Association of Manufacturers, 2020). The Kenya Vision 2030 plan acknowledges the manufacturing sector as a vital determinant in attaining a steady annual GDP growth rate of 10 percent. The sector's contribution to GDP has decreased, declining from 9.6 percent in 2021 to 9.2 percent in 2022. Furthermore, the growth rate has deteriorated, declining from 3.4 percent in 2021 to 3.1 percent in 2022, as reported by the Kenya Association of Manufacturers (2020). Furthermore, the industrial organizations in Kenya are currently facing multiple difficulties that greatly contribute to the unsatisfactory financial performance of these companies. Kenya is an attractive destination for investors seeking to engage in the industrial sector. The main problem facing manufacturing enterprises in Kenya is the continuous decrease in profits due to ineffective financial procedures (Fwamba, 2018).

In the last five years cane availability has consistently not matched the factory capacity hence the mills have not been able to meet their cane requirements. At an average factory efficiency level of 80%, cane requirement will be 9.84 Million MT which translates to sugar production of 1.09 Million MT per annum. Currently the area under cane is 191,215 Ha producing 4.75 Million MT of cane against a requirement of 263,959 Ha under cane to produce 9.8 Million MT of cane (assuming a yield of 65 Tons Cane per Hectare (TCH) (AFA 2018). Chemelil Sugar had a decrease in profitability. Chemelil Sugar and Muhoroni Sugar suffered significant losses. The losses incurred by Chemelil Sugar rose from 52,388,455 to 258,434,617 throughout the year of 2020-2021.

Sugarcane plays a crucial role in the global economy, especially in discussions on rural development (World Bank, 2016). Sugarcane accounts for more than 80% of global sugar consumption and holds a significant position in the global commercial agricultural

sector. As per the United Nations (UN, 2017), it encompasses roughly 2% of the total cropland worldwide. The increasing worldwide demand and trade of sugar have greatly emphasized the importance of cultivating sugarcane (UN, 2017, Omondi, 2013). The simultaneous rise in personal sugar intake and the lack of viable alternatives in both household and industrial sectors magnify the strategic importance of growing sugarcane in the worldwide food chain and global economy (McmicHael, 2013). Moreover, the utilization of sugarcane as a multifaceted agricultural resource and primary material for many products, not just restricted to food, has led to an increase in the number of individuals and groups involved, as well as the complexity of their relationships. As a result, the process of growing sugarcane has become an intricate endeavor with significant economic and political ramifications (World Bank, 2016). This indicates the beginning of the requirement for policy and, ultimately, laws for the growth of sugarcane.

Countries involved in sugarcane farming have established rules and treaties, such as the World Trade Organization (WTO) and the Common Market of Eastern and Southern Africa (COMESA) protocol, to govern the production and sale of sugar (Muteshi & Owino, 2017). The policies pertaining to the cultivation and trade of sugarcane mostly concentrate on internal affairs and are tailored to the unique circumstances of individual countries. Nevertheless, the regulations concerning the promotion and sale of sugar have an impact on both local and worldwide scales as a result of the global trade and consumption of sugar (Ligami, 2019). Major global producers including the United States of America (USA), European Union (EU), and Japan protect their sugar industry by implementing high tariffs, non-tariff barriers, and strict import limits (UN, 2017).

According to the Kenya Sugar Board (KSB) in 2013, there are 122 countries, with 28 of

them located in Africa, that engage in sugarcane farming in tropical regions. The sub-Saharan region of Africa is responsible for around 83% of Africa's sugar output and contributes roughly 5% to the worldwide sugar production (UN, 2017). However, there are significant differences between sugarcane farming techniques in Africa and those in industrialized nations, notably in terms of policy and implementation. The primary reason for this is the notable focus on smallholder out-growers in Africa (Muteshi & Owino, 2017). Nevertheless, the cultivation of sugarcane plays a crucial role in the economic and political landscape of southern and eastern Africa (KSB, 2010). Indeed, sugarcane growing in Kenya has sparked political debate (GOK, 2019).

The sugar industry in Kenya significantly influences the socio-economic growth of the country. It offers direct assistance to 200,000 small-scale farmers who account for over 85 percent of the sugarcane processed by sugar corporations. Moreover, an estimated six million Kenyans rely on the sugar sector for their means of subsistence, either through direct employment or indirect economic activities. In addition, the sugar sector employs approximately 12,500 workers in sugar plantations and factories (AFA, 2020). According to the announcement from the Agriculture Food Authority of Kenya, dated 15th May 2019, Kenya has authorized the sale of the government's stake in its five Sugarcane manufacturing enterprises. Approximately 75% of the ownership is expected to be sold through transactions that were finalized during the following 9-12 months. The Privatization Commission was formally dissolved on May 15, 2019. The five companies urgently required financial modernization to endure competition from new sugar producers entering the market and the upcoming elimination of sugar import restrictions by the COMESA trade bloc. This removal was scheduled after the expiration

of a one-year extension granted earlier in 2019.

The main concern affecting manufacturing firms in Kenya is the continuous decrease in profits due to ineffective financial procedures. Around half of the manufacturing firms in The industry continues to face several challenges which include high cost of production, high debt portfolio, acute cane shortage, declining yields, low value addition initiatives, inefficiencies, inadequate research and extension, ageing equipment, obsolete technology, mismanagement of state owned mills, reduced incomes to farmers and weak regulatory framework among others. The main challenge of the sugar industry therefore is how to strategically manage the various components of the value chain in order to make them efficient, competitive resulting in the industry's profitability (AFA Report 2022)

The commission has declared its intention to divest shares in millers Nzoia, South Nyanza, Chemelil, Muhoroni, and Miwani, as stated in an official announcement by the government. Currently, the enterprises Muhoroni and Miwani are both in receivership. Kenya is seeing difficulties in augmenting its production as a consequence of comparatively elevated costs, leading to an annual sugar yield of 600,000 tons. This amount is insufficient compared to the nation's annual sugar consumption, which is 800,000 tonnes. The imbalance is corrected by establishing strict import quotas from COMESA. Mumias Sugar, once a prominent sugar producer, has encountered substantial financial challenges, leading to government intervention on many times. Past efforts towards development of the sugar industry in Kenya concentrated in specific nodes of the value chain. This approach has not succeeded in making the sugar industry vibrant and able to meet the country's requirements. The Government of Kenya has

undertaken to transform the economy in accordance with Kenya's Vision 2030 and her commitments to the Sustainable Development Goals (SDGs). In this regard, the Government is designing and implementing programs for a sustainable sugar industry growth and development. The enactment and implementation of the Crops Act No. 16 (2013) and Agriculture and Food Act No. 13 (AFA, 2013) promoted the need for Sub Sector Policy formulation.

### 1.1.2 Kenya Sugar Industry

Kenya is highly suitable for the cultivation of sugarcane, especially in the low-lying areas surrounding Lake Victoria in the western region and the coastal region in the south-eastern section of the country. The western portion of the country consists of three sub regions where sugarcane is grown: Nyando Sugar Belt, Western Sugar Belt, and South Nyanza Sugar Belt (Kenya Sugar Board, 2010).

The competitiveness of the sugar sector in Kenya is mostly influenced by the extensive state intervention in the sector, rather than the practices of private companies. In 2010, all but one of the 8 sugar firms had varying levels of state control. The firm that has the largest market share and the most efficient production is the one with the lowest level of state ownership, which is 20%, compared to the other companies. The only exception is a new, small mill that is totally privately owned (Kegode, 2021).

The industry's productivity is steadily decreasing due to the growing obsolescence of its production technology. Crushing cane into sugar at the mill level is inefficient because of outdated technology and frequent equipment failures. At the farm level, cane yields are low due to the lack of motivation among smallholder farmers to enhance their output. This is primarily because adopting faster ripening seed varieties would

necessitate increased maintenance, which they are unwilling to undertake. Furthermore, even if they were to produce surplus cane, they would be unable to sell it due to the limited milling capacity.

Kenya is currently facing a reduction in the accessibility of sugarcane as a result of a fall in output (COMESA, 2019). Signs of a decrease in production encompass diminished farm productivity, as seen by a low tonnage, a sugar yield of less than 5 tons per hectare, and a sugar extraction rate below 11%. In contrast, countries with a reputation for high productivity, like Brazil, achieve sugar yields of up to 9.3 tons per hectare and sugar extraction rates between 11% and 13% (Onyango, Kirimi & Baliero, 2018).

Although droughts may have played a role in the decrease in crop yield, a substantial part of the decline can be attributed to other obstacles, such as technological constraints, specifically the cultivation of inferior ratooning varieties and inadequate management practices for ratoon crops (Onyango, Kirimi & Balier, 2022). The decline is partially attributed to insufficient seed technology and excessive dependence on ratoon cropping (GOK, 2019). Moreover, this problem can be ascribed to the continuous cultivation of inferior sugarcane varieties that display feeble resistance to diseases, delayed ripening, and poor sucrose content (Netondo *et al.*, 2020). The selection and cultivation of ecologically inappropriate cultivars lead to decreased agricultural productivity, as indicated by the low sugar recovery rates (COMESA, 2018). Remarkably, even with the advancement of improved strains, there remains a substantial prevalence of low-yielding cultivars with low sugar content in Kenya. Nevertheless, the adoption rate of these enhanced cultivars remains limited (Onyango, Kirimi & Baliero, 2018). In Kenya, there was a lack of adequate transmission and implementation of technology during that period (Netondo *et al.*, 2010).

Furthermore, mills frequently have outstanding debts to farmers, who face uncertainty regarding the timing and likelihood of receiving payment. Consequently, farmers frequently default on the loans provided to them by their out-grower groups. In addition, farmers are typically remunerated based on the weight of the sugarcane they supply to the mills, rather than its sucrose content. This lack of incentive fails to motivate farmers to enhance the quality of the cane they cultivate, thereby diminishing the efficiency of the mills (Ellis, Singh & Ong'olo, 2020). Kegode (2010) highlights that the Kenyan sugar business has been characterized by shortages, inefficiency, inability to compete with imported sugar, consistent financial losses, and political intervention. These factors all have a detrimental impact on the industry's financial performance. Despite significant expenditures from stakeholders, achieving self-sufficiency in sugar has proven to be difficult throughout the years due to the continuous imbalance between consumption and supply (Kegode, 2021).

Lake Region Economic Bloc is one of Kenya's six economic blocs, comprising 14 counties: Bomet, Bungoma, Busia, Homabay, Kakamega, Kericho, Kisii, Kisumu, Migori, Nandi, Nyamira, Siaya, Transnzoia, and Vihiga, all of which are located around Lake Victoria and its surroundings. The four sugar enterprises studied were Nzoia Sugar, Chemilil Sugar, Sony Sugar, and Muhoroni Sugar Company.

## 1.2 Statement of the problem

Despite benefiting from a few favorable regulations, the domestic sugar sector in Kenya is at stand still. Nzoia Sugar Company's debt amounts to Kshs. 37 billion, Muhoroni Sugar Company's debt amounts to Kshs 27 billion, and Chemelil Sugar Company's debt amounts to Kshs 5 billion.These outstanding amounts are owing to suppliers, banks, the

Sugar directorate, farmers, and the Kenyan government in the form of taxes. The area under cane has fluctuating over the last decade, recording a low of 191,251 hectares producing 5,125,821 tonnes of cane in 2017 to all-time high of 223,006 hectares producing 7,659,120 tonnes of cane in 2021. The average cane yield increased from 51 tonnes per hectare in 2019 to a high of 70 tonnes per hectare in 2021 (AFA-SD Year Book of Sugar Statistics, 2021). Could the use of accounting management procedures be the cause of the poor financial performance? According to Transparency International's report in 2016 on the institutional integrity of sugar manufacturing firms in Kenya, it was determined that the sugar industry in Kenya is at risk of collapsing if the current situation, which includes frequent company closures, significant debt, unwise investment practices, and a lack of liquidity, is not addressed. Research has been carried out on accounting management practices, yielding varied outcomes. Omondi (2019) discovered that cost accounting is substantial, but Odindo (2018) found it to be small, highlighting the disparity in the findings. A study conducted by Waihenya (2018) investigated the impact of managerial accounting methods on the financial performance of manufacturing enterprises in the industrial district of Nairobi. However, the study was unable to establish a definitive relationship between managerial accounting practices and financial performance. This study examined the impact of management accounting methods on the financial performance of Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya.

## 1.3. Objective of the Study

### 1.3.1 General Objective

The overall objective of this study was to examine the effect of management accounting practices on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.

### 1.3.2 Specific Objectives

i. To establish the effect of cost accounting practice on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.
ii. To assess the effect of budgeting accounting practice on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.
iii. To examine the effect of performance evaluation practice on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.
iv. To determine the moderating effect of firm size on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.

## 1.4 Hypothesis of the Study

**$H_{01}$:**Cost accounting practice has no significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya

**$H_{02}$:**Budgeting accounting management practice has no significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.

**$H_{03}$:**Performance evaluation accounting practice has no significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.

**$H_{04}$:**Firm size has no significant moderating effect on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.

## 1.5 Significance of the Study

### 1.5.1Academia

This study aims to enhance our understanding of management accounting methods and their impact on the financial performance of manufacturing firms, with a specific focus on sugar firms. The findings of this study will serve as a valuable reference for future research in this field.

### 1.5.2 Policy makers

The government, in collaboration with parliament and other pertinent entities such as the Agriculture Food Authority, may formulate policies aimed at achieving effective costing, budgeting, and performance evaluation in the sector. Similarly, the Kenya Association of Manufacturers might obtain guidance based on the results of the study.

### 1.5.3 Practice

This study may assist sugar companies in addressing the financial challenges they are facing. The findings and recommendations can provide valuable insights and suggestions for taking measures and identifying areas for improvement. Similarly, managers of sugar enterprises may find it convenient to regulate financial matters, thus simplifying their work.

## 1.6 Limitations of the Study

Some respondents did not reply, while others provided inaccurate information because they wished to emphasize certain features while downplaying others based on their personal attitudes. The participants were provided with the assurance that the research was solely for academic purposes. They were also guaranteed confidentiality and anonymity to the greatest extent possible. The research clarified that its objective was to enhance specific concepts within the sugar sector. This was accomplished by presenting correspondence from the MMUST Directorate of Post Graduates and NACOSTI.

Furthermore, the study specifically focused on Public Sugar Manufacturing enterprises located in the Lake Region Economic Block in Kenya. It is important to note that the findings may not be applicable to private Sugar Manufacturing firms in Kenya.

## 1.7 Scope of the Study

The study was conducted within the Lake Region Economic Bloc (LREB). Lake Region Economic Bloc is one of Kenya's six economic blocs, comprising 14 counties: Bomet, Bungoma, Busia, Homabay, Kakamega, Kericho, Kisii, Kisumu, Migori, Nandi,

Nyamira, Siaya, Transnzoia, and Vihiga, all of which are located around Lake Victoria and its surroundings. The four sugar enterprises studied were Nzoia Sugar, Chemilil Sugar, Sony Sugar, and Muhoroni Sugar Company. The study collected data from managers, accountants, and auditors, as well as published financial records from the organizations in question. The study took place throughout the 2023 academic year.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter provides a review of research theories, conceptual review, empirical review, research gap and conceptual framework.

## 2.2 Theoretical Review

This section presents three theories. This is Accountability Theory, Transaction cost theory and contingency theory of management accounting. Accountability assigns the role of taking responsibility for actions in cost management whereas transaction cost theirs checks on budgeting accounting as contingency aligns to evaluation.

### 2.2.1 Accountability Theory

Proponents are Vance, Lowry, and Eggett (2019) who states that accountability theory is the perceived obligation to justify one's actions to another person leads to a sense of responsibility for the decision-making and judgment process. Consequently, the apparent necessity to justify a decision-making process and its result enhances the probability of engaging in thorough and methodical reflection on one's procedural actions. The hypothesis was initially formulated by Tetlock, Lerner (1999), and their colleagues and has been successfully utilized in studies conducted on organizations.

These various impacts demonstrate that accountability is a significant, although intricately intricate, phenomenon. Accountability encompasses several aspects: it involves directing and controlling the behavior of individuals within an organization (Peecher *et al*., 2013), requiring individuals to provide justifications for their processes, outcomes, and decisions to others (Phang & Fargher, 2019), individuals' anticipation of

being held accountable (Hall *et al*., 2017), the need to meet role expectations and demands from various key groups, an individual's inherent sense of responsibility (Pan & Patel, 2020), and the expression of reasons, explanations, and justifications. Therefore, responsibility might have significantly varied interpretations depending on different viewpoints (Bovens, 2010).

Accountability is intrinsically interconnected with formal organizational control. Organizations can enforce accountability on individuals through various means, such as performance evaluations, budgeting practices, and cost accounting practices, to guide and regulate their behavior and decision-making (Perera *et al*., 2020). Nevertheless, accountability appears to be fundamentally interconnected with relationships. Multiple studies in the field of management accounting have presented experimental findings that demonstrate how psychological contracts with significant parties, such as investors, clients, and managers, influence individuals' decision-making. These studies, conducted by Hurley *et al*. (2019) and van Rinsum *et al.* (2018), indicate that accountability is an inherent aspect of social relationships. A recent study conducted by Pan and Patel (2020) has proposed that accountability mechanisms can exist even without official control systems. This implies that individuals' adherence to organizational objectives can stem from their inherent sense of being accountable, rather than relying solely on formal control measures.

Significantly, as elucidated meticulously by Anthony Vance, Paul Benjamin Lowry, and Dennis Eggett (2013), a valuable approach to comprehend accountability is to differentiate between its two predominant applications: as a moral excellence and as an operational device. Accountability is regarded as a virtue that involves a person's desire

to take responsibility. It is considered a desirable characteristic in public officials, government agencies, and corporations. Therefore, accountability is recognized as a good attribute of an institution. Accountability is a system that involves a person being obligated to explain their activities to another party that has the authority to judge those actions and impose punishments. Accountability theory centers on the mechanism of holding individuals responsible for their actions.

At its extremes, accountability can be either externally imposed by organizations and individuals, or internally driven by an individual's innate ability to anticipate future threats and engage in self-reflection, self-control, and self-punishment. However, it is worth noting that in the management accounting literature, the concept of rationalization as a self-regulatory mechanism has typically been distinguished from accountability. This distinction is based on the idea that accountability mechanisms typically involve providing explanations or justifications to others, rather than to oneself (Murphy, 2022). Nevertheless, as previously said, the concept of self is crucial in the functioning of responsibility theory. The internal mechanisms of accountability deserve greater scholarly attention than they have historically received in the accounting literature (Pan & Patel, 2020). In order to fully understand the concept of accountability, it is necessary to make a more detailed theoretical distinction about its various interpretations (Bovens, 2010).

Merchant and Otley (2006) assert that accountability is essential for promoting desired organizational behavior and safeguarding organizational objectives. This assertion is frequently made in management accounting and the public discourse. Actually, according to research in experimental management accounting, people's judgment and decision-making quality are both enhanced when they are informed about accountability

needs in advance (Iskandar *et al.*, 2022). Studies have found that accountability requirements are associated with increased professional skepticism (Kim & Trotman, 2019), less reliance on previous agreements (Phang & Fargher, 2019), and less aggressive reporting behavior (Pan & Patel, 2020). Pan and Patel (2020) have highlighted the significance of individuals' inherent feeling of accountability in reducing aggressive reporting behavior. This suggests that accountability can have various aspects.

The management accounting literature has been criticized for its unduly positive interpretation of accountability. Instead, scholars have emphasized that accountability can lead to excessive conformity and jeopardize the independence of auditors when people know or can infer the opinions and expectations of significant others (Koch et al., 2022; Peytcheva & Gillett, 2011). Accountability has been recognized as a possible source of stress. An ongoing debate in the management accounting literature is around the idea that accountability places significant demands on individuals, both in terms of their emotions and cognitive abilities (Burkert *et al.*, 2011). Previous research in the field of budget-pressure and job strain literature has revealed that accountability can induce stress (Marginson *et al.*, 2022).

Traditionally, accountability has been studied as a concept that can be officially enforced on individuals (Fehrenbacher *et al.*, 2020). However, theoretical research on accountability has emphasized that it goes beyond simply meeting formal requirements for justification. The theory is applicable to the research as it facilitates comprehension of how management accounting methods impact the financial performance of manufacturing organizations. The practice of holding individuals accountable for their

decisions and evaluating the outcomes enhances the likelihood that individuals will engage in thoughtful and analytical reflection on their actions. This is a valuable attribute that may be beneficially applied by the management of a corporation. The expectation of performance evaluation entails that managers are aware that their statements will be subject to external auditing by the government, which will generate audit reports. Any lack of accountability will be met with punishment. The stakeholders' desire to engage in cost appraisal and budget planning contributes to the social presence, which in turn enhances transparency and reduces the occurrence of fraud. This theory serves as the primary framework that directs the study.

### 2.2.2 Transaction cost theory

Proponent was Ronald Coase (1937) originated this theory, which was further developed by Kenneth Arrow (1969). Arrow emphasized that structuring production through market channels incurs costs, shedding light on the nature of the business. These costs are derived from transportation expenses and overall manufacturing costs. By establishing an organization that is responsible for allocating resources, it is possible to prevent some expenses. Kenneth Arrow (1969) posits that transaction cost theory elucidates the operational expenses of the economic system.

Transaction costs act as obstacles to conducting business and hinder its progress. Therefore, addressing issues related to transaction costs and minimizing these expenses will foster a favorable business climate and create optimal conditions for the growth of the business environment (Ketokivi, Mahoney, 2020; Narkuniene, Ulbinaite, 2018).

Evaluating business performance or company performance is an essential responsibility for firm management and can be challenging to accurately assess the overall

performance of the firm (Narkuniene & Ulbinaite, 2018). The total firm performance should consider business decisions, management decisions, the direction of business strategies, and the determination of business improvement plans (Narkuniene & Ulbinaite, 2018). Historically, the assessment of firm performance relied on the analysis of the firm's accounting and financial information disclosed in annual reports or sent to the business tax bureau. Nevertheless, numerous studies have observed and concluded that relying just on a firm's accounting and financial data is inadequate for the purpose of analyzing and assessing firm performance (Narkuniene & Ulbinaite, 2018). Therefore, it is necessary to incorporate the non-financial performance of the company as indicators.

Transaction cost analysis According to theory, the most effective administrative structure is one that achieves fiscal efficiency by minimizing operational expenses (Dugger, 1983). The idea elucidates the necessity for firms to maintain operational costs at the lowest possible level by eliminating any bureaucratic costs that may result from the exchange process (Kyloheiko, 2019; Saeed, Song, & Andersen, 2018). Transaction Cost Analysis is pertinent to this study as it provides a compelling argument for firms to analyze the expenses associated with making a transaction over a specific period of time, in relation to different management accounting standards. These activities encompass budgeting, costing, and performance evaluation. The corporation must evaluate the expenses incurred during resource exchange in comparison to the administrative expenses associated with internal operations. If the bureaucratic cost incurred by a corporation's internal activities is lower than the transactional cost associated with external activities, the firm has the potential for growth because it can carry out its processes more cost-effectively than if they were outsourced to the market.

The primary focus of transaction cost theory is to elucidate the efficiency of financial performance in relation to the transactions carried out (Wieland, 2019). Critics of the transaction cost theory argue that the prescriptions derived from this theory are not only likely to be incorrect, but also pose a potential risk for financial managers due to the underlying assumptions and reasoning on which it is based. Organizations are not just alternatives for facilitating efficient transactions. In situations where markets are unsuccessful, organizations have distinct advantages in controlling certain economic activity using a different approach than that of a market. The Transaction Cost Theory is impractical as it neglects to acknowledge this distinction (Liu, Sun, & Kaiser, 2016). This theory elucidates the cost practices of management accounting. It elaborates on the concept of firm size, emphasizing that the size of a firm has a significant impact on the costs it incurs.

### 2.2.3 Contingency Theory of Management

Authored by Fiedler (1956) contingency theory of management is a theory that focuses on the adaptation of leaders to various conditions. The term "contingent" is used because it implies that a leader's efficacy is contingent upon how well their style aligns with the setting. Shala, Prebreza, and Ramosaj (2021). This technique demonstrates that the leadership style of an individual can vary between different environments. Fred Fiedler, in 1964, is recognized as the individual who extensively developed the theory of contingency. Richard (2010) stated that multiple researchers have made efforts to differentiate the various work conditions that managers may encounter and how these conditions can change over time in relation to managerial techniques.

The contingency theory perspective aims to analyze the connections that exist within

and between the subsystems of an organization, as well as the interaction between the organization and its environment. It strives to identify the specific patterns of relationships or configurations of variables that are present (Dickson & Presley, 2013). The contingency approach places greater focus on the multifaceted nature of organizations and seeks to comprehend how organizations function under different conditions and circumstances. The contingency approach aims to propose organizational designs and administrative activities that are most suitable for specific situations. Effiong and Ejabu (2020) emphasized that the actions performed by managers in practice are determined by a certain set of events or situations. Primarily, this method focuses on emphasizing cause and effect links. If the circumstance variable is present, a manager would likely take the following action: the optimal solution to any problem should be the one that effectively addresses and encompasses all the components involved in the situation at hand (Shuara & Amin, 2022). The type of employees in any firm also have a significant impact within the scope of internal contingency (Shuara & Amin, 2022).

Contingency theory suggests that a leader's unique characteristics significantly influence their ability to succeed in many scenarios (Ohanyelu, 2022; Ohaka & Argwdu, 2022; Olaniyi & Oyedokun, 2019). The idea posits that leaders that adopt a human-oriented (High LPC) approach will produce optimal results in favorable circumstances, while task-oriented leadership (Low LPC) will yield maximum outcomes in bad situations. The approach aims to establish a delicate balance between the significance of an individual's personal preference and the practical circumstances of a situation. James and Van (2010) introduced the concept of structural contingency theory, which states that the

most significant and appropriate organizational structure is determined by the specific factors that influence the organization's contingency. Jooda *et al.* (2022) contended that when the structure aligns with the contingencies, there would be excellent performance. Conversely, when the structure is unsuitable, the contingencies will result in mediocrity or underperformance.

Research has identified that the primary factors influencing outcomes are the dimensions, variety, and level of uncertainty associated with the tasks (Jooda *et al*., 2022). Organizations vary depending on their amounts of contingency variables and other structural characteristics. As an organization grows in size, it tends to adopt a bureaucratic structure characterized by several departments, multiple levels of hierarchy, extensive specialization, high formalization, and low centralization. Hammed (2018) emphasized that as tasks grow more uncertain, the appropriate structure becomes less bureaucratic and more decentralized. This also includes structures that promote alignment among functional divisions.

The Contingency theory of management accounting, as proposed by Otley (2016), serves as a comprehensive framework that forms the basis for the majority of research conducted on management accounting techniques. This idea posits that the control mechanisms that exist to create management accounting procedures must be customized to suit the unique circumstances of the firm. According to Otley (2016), the efficacy of management accounting practices is directly proportional to the level of alignment with its contingencies. In other words, the more closely management accounting practices are tailored to their specific circumstances, the more likely they are to accomplish their desired outcomes. Expanding on these concepts, our main theoretical claim is that a specific group of optimal management accounting practices will optimize the alignment

between the selected control mechanisms and the current organizational circumstances.

Otley (2016) utilized contingency theory to analyze management accounting methods and argued that there is no universally applicable accounting technique that can be uniformly implemented across all organizations. Essentially, every firm will possess its own distinct management accounting processes. The theory examines key influencing aspects that aid management in determining an effective management accounting practice, such as production costs, used systems, and procedures for monitoring performance and budgeting. Luther & Longden (2017) noted that the budgeting process is crucial for effectively managing and reducing expenses in the manufacturing industry. This is pertinent to the study as it elucidates performance evaluation.

## 2.3 Conceptual Review

### 2.3.1 Costing accounting Practice

Costing Practice is the systematic collection, analysis, and reporting of cost information in order to enhance the accuracy of cost forecasting and monitoring. In their respective research, Obange, Onyango, and Siringi (2021) examined the impact of cost aspects, including price, quality, and dependability of inputs, on the financial performance of sugar enterprises. They concluded that all of these variables had an effect on the financial performance of these firms.

Contemporary corporate enterprises employ diverse cost accounting methods to effectively control expenses and optimize profits (King, Premo, & Cas, 2009). Every organization strives to optimize its profit margin by managing and reducing expenses. The cost accounting department can reduce costs by furnishing management with all

essential information.

Standard costing is a financial control approach that allows for more effective analysis of deviations from the budget (Drury, 2022). He additionally asserted that standard costs are predetermined expenses; they are the desired expenditures that should be incurred under optimal operating conditions. Standard costing is a cost control strategy that presents cost data for activities based on the formal level of operation (Larry & Crosphopher, 2009).

A standard cost is a meticulously calculated expense for producing a single unit of output (Horgren, 2022). Drury (2022) states that in the implementation of a standard costing system, managers of responsibility centers, who are responsible for operations, track the standard costs for the actual output within a specified period. The actual cost for the same period is allocated to the responsible center. Hence, the current expenses and the predetermined costs are compared and any discrepancy between them is documented.

Implementing a standard costing system is advantageous for firms seeking to effectively manage and control costs. The primary justifications for implementing a standard costing system are to aid executives in cost management, enhance planning and control, streamline decision-making processes, and simplify product costing (Hansen, 2009).

Target costing is a strategic management technique used to minimize the total cost of a product across its entire life cycle (Jalaee, 2022). Target costing establishes the correlation among cost, price, and profit. According to Helms, Ettkin, Baxter, and Gordon (2005), target costing differs from cost reduction techniques or control outlines, as it is an integral component of a comprehensive strategic profit management system that encompasses value analysis and value engineering. The process commences with

the establishment of a specific and focused selling price for a product. The process involves a comprehensive analysis of all cost components associated with owning the product during its entire life cycle. The items encompassed in this category consist of the initial cost of purchase, ongoing operational expenses, expenditures on operating supplies, and costs associated with repair and maintenance. The primary goal of the target costing system is to minimize the overall cost incurred during the whole life cycle of the product.

An ABC system is a method of cost accounting that utilizes both unit and non-unit based cost drivers to allocate costs to cost objects. This is done by initially tracking costs to activities and subsequently tracking costs from activities to goods (Hasenn, 2009). The rationale for employing ABC is the ability to deliver value to customers at a cost lower than the price customers pay for that value.

Omondi (2019) and Odindo (2018) agreed that the sugar industry's financial performance is adversely impacted by the high costs of production. Transportation expenses, inadequate road infrastructure, and factors such as pricing, quality, and reliability are competitive considerations that impact a company's performance. The cost methodology employed in this study included conventional costing, target costing, activity-based costing, and lifecycle costing.

### 2.3.2 Budgeting accounting Practice

Budgeting practice involves the process of creating a financial plan that includes an estimate of projected expenses. This practice aims to minimize financial costs. Mohamed, Kerosi, and Tirimba (2016) conducted an analysis to assess the impact of

budgeting approaches on organizational performance. The study determined the budgeting practice by examining budgetary forecasts, the budgetary planning process, budget allocations, expenditures, and timely budget approvals. Control is frequently attained by strategically organizing and synchronizing diverse resources, processes, and activities inside a corporation.

According to Drury (2022), budgets are frequently utilized to accomplish these aims. Budgets are strategic blueprints of an organization that outline the allocation and utilization of resources and activities to accomplish the intended objectives. Different functions and periods may need the preparation of various types of budgets, which are typically combined into a single master budget (Scarlet, 2009). Budgets can be developed for various operational domains, including sales, procurement, and manufacturing. Thus, budgets have the potential to play a crucial role in operational planning. The budget period refers to the specific time duration during which the budget is applicable. Usually, organizations establish yearly budgets, but they can also allocate them into monthly intervals according to their individual budgeting requirements (Nobles, Mattison, & Matsumura, 2022). Manufacturing enterprises commonly rely on budgets for the objectives of strategic planning and operational control (Armitage *et al.*, 2016).

Sugar industry was previously thriving, profitable, and well-structured, is currently struggling and on the verge of collapse. This was apparent in the decline and diminishing output of sugarcane, mounting debts, and rising production costs. Additionally, there was a shift in land usage to other purposes, accompanied by a continuous migration of farmers from sugarcane to alternative crops, particularly maize (Onyango, Kirimi & Baliero, 2018).

In addition, a number of public mills are currently in receivership, while others are operating much below their established capacity due to a significant departure of farmers from the subsector (COMESA, 2022). This has greatly amplified the country's sugar shortage, leading to a partial reliance on imports. Consequently, this creates opportunities for the illicit entry of lower-priced sugar from foreign countries. The resulting window is accountable for the occurrence of four market failures and the current problem confronting the domestic industry (GOK, 2019). The reason for this is the cost advantage of imported sugar and the detrimental flaws in policy, which encourage excessive imports, illegal influx, and the dumping of cheaper sugar in the domestic market. This poses a significant threat to the survival of the previously thriving and profitable domestic industry (FECSSK, 2016). The study assessed the budgeting practice by analyzing budgetary predictions, the budgetary planning process, budget allocations, expenditures, and prompt budget approvals.

### 2.3.3 Performance evaluation accounting practice

Performance evaluation is a structured and effective process for assessing an employee's job performance and outcomes in relation to their job duties. In his study, Waihenya (2018) investigated the impact of managerial accounting performance evaluation practices and identified performance reports as crucial indicators.

A company can utilize a variety of metrics to assess its performance, including both financial and non-financial data. The list of performance measures is extensive and comprehensive. Zaman and Yoon (2016) have categorized these metrics into four groups: financial measures, non-financial measures, hybrid or multiple measures, and strategic measures.

The Sugar Industry plays an important role in the socio-economic development of the country. The sugarcane industry provides raw materials for other industries such as bagasse for power co-generation and molasses for a wide range of industrial products including ethanol beverages, confectionery and pharmaceuticals. The industry has potential to provide furfural for resins and use in plastic industry, pulp for paper, particle boards and charcoal briquettes. The sugar subsector supports over eight million Kenyans who draw their livelihoods directly from sugar production and indirectly through linked enterprises in supply of goods, related services and social amenities. The industry is the socio-economic backbone of the sugarcane growing communities supporting about 300,000 out-grower farmers. Unlike leading sugar producing countries where sugar cane production is dominated by highly mechanized and irrigated large scale plantations, Kenyan production is characterized by smallholders with average land holding of 0.7 Ha, low level of mechanization and rain-fed farming (AFA, 2017). The performance evaluation for this study was determined by conducting internal audits, external audits, and analyzing performance reports.

### 2.3.4 Firm Size

The management accounting procedures and financial performance of sugar enterprises are directly influenced by their size. Therefore, this study aims to assess the asset base of sugar firms in order to identify their size (Waihenya, 2018).

This pertains to complete metrics that measure the size of a corporation. The size of a company has a substantial impact on its performance and its function in determining credit risk (Haron, 2022). The size of a firm is a pivotal determinant of its competitive prowess, since it facilitates cost reduction and offers supplementary opportunities for

exploiting advantages. The funding sources preferred by a company, whether it chooses to expand its debt or equity, have an impact on the value of the corporation (Vo & Ellis, 2017).

It is anticipated that larger companies will outperform smaller ones. This is attributed to their capacity to use market dominance and the presence of economies of size and scope. Banks expand in size by attracting a larger customer base, expanding their assets, and offering new loans. As these institutions expand, their performance enhances and their risk decreases (Joleski, 2017). In theory, it is anticipated that larger banks will exhibit superior performance and reduced risks in conducting business.

The logarithm of assets, sometimes referred to as the natural log of assets, plays a crucial role in defining both credit risk and company performance (Shah *et al*, 2016). Large corporations has a higher capacity to manage and reduce risk by requiring borrowers to provide collateral (Shah *et al*., 2016) and by maintaining a strong reputation in the stock market. In addition, the process of obtaining loans may vary (Jaisinghani & Kanjilal, 2017). In contrast to larger organizations, small enterprises typically allocate all of their resources towards growth and employ a more focused and technical development approach (Nason *et al*., 2019).

A larger corporation has the potential to generate greater value for investors. However, Kodongo *et al*. (2019) present contrasting findings, suggesting that smaller organizations possess a greater capacity to define firm value compared to larger firms. Regarding lending, large organizations provide a greater amount of capital to borrowers in comparison to small companies (Jaisinghani & Kanjilal, 2017). Therefore, the approach to determine the most effective capital structure differs from the impact of capital structure on company value, which remains uncertain.

According to Zariawati, Annuar, and Pui-San (2016), larger organizations tend to acquire a greater portion of the market, leading to higher profitability and a more pronounced competitive edge compared to smaller enterprises. Furthermore, larger corporations has greater prospects for engaging in industries that demand substantial capital investments due to their extensive resources. This situation offers them the opportunity to operate in more lucrative settings with reduced competition (Nawaiseh, 2019). According to Muigai (2016), smaller enterprises own a significant amount of liquid assets and are believed to be more financially successful than larger firms in the short term. Similarly, larger companies tend to be more financially successful, particularly those that possess assets that are not easily converted into cash, compared to smaller companies with longer projected time periods (AlTally, 2022).

Larger organizations are more profitable due to their greater diversification compared to smaller firms. Consequently, larger companies incur higher levels of debt as a result of reduced bankruptcy expenses (Azeem & Marsap, 2019). Larger corporations have the ability to reduce the imbalance of information in the market and efficiently get financial resources. Large enterprises have easier access to loans compared to small firms, as long as they maintain good risk profiles, because of their stability (Bongoye, Banafa & Kingi, 2016).

When a company grows to a certain size, ownership and control are separated, and there is a negative correlation between size and performance (World Bank report, 2018). The reason for this is the elevated incidence of fraud, inefficiency in production, losses, and leakages, which result in increased operational expenses (Fraud report to nation, 2016). Large corporations exhibit a tendency to be sluggish in their decision-making process when they detect uncertainty, and they fail to respond promptly to impending

difficulties. Kung'u (2019) proposed that managing huge enterprises is more challenging, resulting in reduced efficiency in management. Small businesses are mostly handled by their owners, resulting in minimal conflict of interest and low operational costs.

Large organizations can benefit from both economies of scale and economies of scope. Size encompasses a range of metrics, which includes deposits. The magnitude of a bank is a crucial determinant that impacts its financial performance. This study will employ total assets of banks as a proxy variable to evaluate the magnitude of banks (Kanno, 2019).According to Wu and Boateng (2020), the adoption of different management accounting approaches can be influenced by factors such as the organizational size.

### 2.3.5 Financial Performance

Financial performance pertains to the whole financial well-being of a corporation over a given period of time (Pandey, 2006). Success in meeting financial goals in relation to intended outputs is what this phrase refers to (Egbunike & Okereteoki, 2018; Mutende et al., 2017). Absolute numbers, such sales and profit, or ratios generated from financial accounts provide an objective way to measure financial success. According to Gilchris (2013), these ratios encompass return on equity (ROE), return on assets (ROA), return on capital (ROC), return on sales (ROS), net profit margin, operating margin, Tobin's q−1, and the natural logarithm of Tobin’s q. For example, when calculating Return on Equity (ROE), the evaluation and efficiency of shareholders in the goods market are considered. Return on assets (ROA), return on investment (ROI), and return on capital (ROC) measure the profitability of a company by considering both the equity capital

contributed by stockholders and the borrowed capital supplied by creditors and investors.

Despite the inclusion of other measures such as accounting profits, productivity, and cash flow, Carreta and Farina (2010) maintain that financial performance remains a relevant indicator to employ since it represents managers' perceptions of financial performance. A number of metrics are used to assess a company's financial success. These include the following: sales, fees, profit or value added, budget, costs or expenditure, and stock market indicators such as share price and autonomy. Accounting ratios such as return on assets (ROA) are additional metrics used to assess monetary performance.

Kegode (2010) emphasizes that the Kenyan sugar business has been afflicted by financial deficits, inadequate financial management, and incapacity to rival foreign sugar. As a consequence, there have been regular financial losses and unpredictable changes in economic circumstances, leading to a negative effect on the financial success of sugar producing companies, specifically their ability to generate profits. This study l used Return on Assets (ROA) and profitability as primary indicators.

According to Carreta and Farina (2010), the utilization of financial performance measures the profits achieved from a certain investment. Firm performance refers to the achievement of success in a company's operations (Liptons, 2016). Measuring performance involves assessing the extent to which projects, investments, and acquisitions are fulfilling the predetermined targets. The study was guided by a methodology that focused on indices of financial performance such as return on assets, return on equity, profitability ratios, and market value ratios.

## 2.4 Empirical Review

### 2.4.1 Costing accounting Practice and Financial Performance of Sugar Manufacturing Firms in Kenya

Gohil (2019) conducted an analysis of the transaction cost and financial performance of the sugar industry in India. The study employed secondary data from 44 private sector sugar mills that were operational in India between the years 2000-01 and 2017-03. The objective of the study was to examine the influence of transformation and transaction costs on the economic and financial performance of the commercial sugar sector in India. Furthermore, it aimed to ascertain the policy ramifications of using the transaction cost method in the future advancement of the sugar industry. Transaction costs had a significant influence on the financial performance.

Mustry, Khushk, Memon, and Saeed (2021) investigated at the Technology Transfer Institute in Tandojam, Pakistan. The manufacturing expenditures of commodities were shown to be much influenced by the transportation costs. The transportation expenditure for the fiscal year 2017-2018 was projected to be 16,076 million rupees, resulting in a detrimental effect on the financial performance of firms. The study found that the primary obstacle faced by the sugar sector was the insufficient rate of sugar extraction, which was subsequently accompanied by concerns regarding land zoning and transportation expenses.

Melek (2017) studied the impact of budget participation on managerial performance and organizational commitment. A study was conducted by the researcher on the 500 leading corporations in Turkey. The results add to the existing body of knowledge in management accounting by shedding light on how organizational commitment and

budget participation impact managers' performance. Participation in the budget process significantly and favorably affects management performance, as shown in their regression research. The study's authors concluded that raising the interaction score between budget participation and organizational commitment was directly associated with better management performance assessments.

Pike, Tayles, and Mansor (2021) conducted a study to examine the perceptions of users regarding activity-based costing and performance in three distinct systems within a prominent information and communication provider in Southeast Asia. Their research revealed that the inputs for development and the perceptions of user performance varied based on the type of system. Embedded systems, in comparison to stand-alone systems, received significantly greater inputs such as strong backing from top management, awards and recognition, the importance of tasks, and improved cohesion within the development team. Nevertheless, users assessed embedded systems to exhibit markedly inferior performance. The findings suggest that the type of system significantly influences the assessment of ABC's performance (Pike *et al*., 2021).

Fridh and Borgenas (2016) examined the adoption of target costing in Swedish industrial firms. Among the 250 companies chosen for the study, 91 of them provided answers to the questionnaire. Through the process of random sampling, a grand total of 277 multiple choice questions were collected as main data. The results revealed that 16.5% of manufacturing companies in Sweden utilize target costs. These firms are typically characterized by their big size, implementation of a differentiation strategy, and presence in highly competitive marketplaces.

Anand, Sahay, and Subhashish (2004) collected data from 53 Chief Financial Officers (CFOs) in Indian companies for their research on cost control measures in India. Their

study set out to document the ways in which cost management strategies have progressed in corporate India. These techniques include budgetary control, standard costing, and the integration of overhead charges. The fifteen-question survey sought to compare traditional costing systems used by companies with activities-based cost management (ABCM) to see whether there was a discernible difference in the managerial motivation to adopt and utilize standard costing as a control tool. According to the research, businesses are able to use their ABC cost systems to get precise profit and cost data, which they then use to examine the supply and value chains.

Salawu, Oyesola, and Tajudeen (2016) conducted a survey to assess the adoption of Activity Based Costing by manufacturing enterprises in Nigeria. The study discovered that the main reason for implementing activity-based costing (ABC) was the insufficiency of current cost methodologies in delivering pertinent cost data. The researchers found a clear and direct relationship between the implementation of ABC (Activity-Based Costing) and many organizational parameters, such as the degree of customization, competitive pressure, business size, and the ratio of overhead costs to total expenditures. Nevertheless, none of the disparities were found to be statistically significant with a significance level of 10%.

Salawu *et al*. (2016) performed a survey to investigate the extent to which manufacturing enterprises in Nigeria have used Activity Based Costing. The analysis suggests that the main reason for implementing activity-based costing (ABC) was the realization that conventional cost methodologies were incapable of providing significant cost information. Traditional methods of allocating indirect expenses were deemed insufficient in terms of improving overall international competitiveness. Moreover, a substantial majority of the players, including 60%, have adopted ABC due to increased

product options, greater competition, and elevated operational expenses. A survey has shown that a substantial section of the manufacturing industry is familiar with and has used ABC. More than 50% of the participants in the survey said that they were acquainted with this methodology.

According to 40% of respondents, the main reason for not adopting ABC is the expensive and intricate nature of its implementation. However, the excessively high expense associated with implementing ABC proved to be a major barrier for small-scale manufacturing businesses in embracing it. This result suggests that bigger firms are more likely to possess a diverse range of products or services, which in turn allows them to take advantage of Activity-Based Costing (ABC). Therefore, the study recommends that firms who have refrained from implementing Activity-Based Costing (ABC) due to its costly implementation should actively consider adopting it. In the long run, the benefits derived from ABC outweigh its expenses. It assists in identifying inefficient items, departments, and operations, and enables the allocation of additional resources to 25 profitable products. In order for the adoption and success of ABC to be achieved, it is crucial for the senior management to offer constant support (Salawu *et al,* 2016).

Kalinda and Chisanga (2022) conducted a study to assess the growth potential and challenges in the subsector of Zambia. The study determined that Zambia is one of the most cost-effective sugar producers in the world through the use of a value chain framework and descriptive data analysis. The sugar industry's ability to expand its economic activities and generate employment opportunities is impeded by substantial transaction costs, including high fuel, energy, transportation, and distribution expenditures. Despite being a low-cost sugar producer, the sector's total performance is

negatively affected by these prices.

Odek, Kegode, and Ochola (2016) investigated how cost management strategies affect the financial performance of the sugar business in Kenya. The study found that Kenya's sugar production costs are presently higher than those of other producers, leading to a significant negative impact on financial performance. In 1996, the cost of Kenya's locally produced sugar was around US$623 per tonne, however in 2019, it increased to US$673 per tonne. By contrast, the mean worldwide cost of sugar during both periods was US$296 and US$276, correspondingly. Austrialia, Brazil, Colombia, Guatemala, Fiji, Malawi, Swaziland, Thailand, Zambia, and Zimbabwe are the countries with the most economical production expenses for sugarcane. Kenya incurs one of the highest expenses for sugar production worldwide, despite the fact that the global price of sugar has constantly stayed lower than Kenya's production cost. It is crucial to implement methods that would enhance the performance of Kenya's sugar millers in order to enhance their competitiveness.

Birgen and Bogonko (2018) investigated the impact of pricing interventions on the financial performance of Mumias Sugar Company. The investigation was guided by the ideas of transaction cost theory. The study adopted a mixed research technique and specifically targeted the individuals working at Mumias Sugar Company, as well as farmers who were previously associated with the now defunct Mumias Outgrowers Company (MOCO) in Mumias town. The respondents comprised the Chief Executive Officer, the managing director, the departmental managers, the supervisors, and the representatives of MOCO, amounting to a total of 236 individuals. A subset of the study population was selected. Questionnaires were employed as instruments for data collection. Research specialists were hired to evaluate the questionnaire items, and their

suggestions and remarks were used to modify the research items. The Cronbach alpha coefficient was used to assess the reliability. A score greater than 0.7 signifies the reliability of the research tools. The data was analyzed using both inferential and descriptive statistics and then presented using tables and figures. The study confirmed a significant correlation between price intervention and the financial performance of Mumias Sugar Company.

The report recommends that the government execute a comprehensive cost-benefit analysis and thorough research prior to providing financial support to the sugar industry to guarantee that the funds are utilized effectively. The government should conduct a comprehensive evaluation of the administration of the Mumias Sugar Company and consider the privatization of sugar milling firms. This will effectively alleviate the concerns of stakeholders, specifically the farmers, who maintain the belief that it is not the suitable solution to the sugar problem in the sugar belt regions.

Gicheru, Waiyaki, and Omiti (2017) conducted a study to assess the degree of technical efficiency in the sugar plants in Kenya and identify the elements that impact this efficiency. The researchers utilized a stochastic production frontier methodology to examine panel data spanning from 1996 to 2019. During the study period, the analysis indicated that the average level of inefficiency for six sugar plants was 20.4 percent. They argued that the limited use of innovative technology hindered the potential for increased production and cost reduction, which could have enhanced performance.

Akombo (2020) analyzed the competitiveness of Kenya's sugar sector using Porter's Diamond model. According to the report, a major challenge for the firm is the accessibility of cane raw material, which must be both dependable and cost-effective.

Approximately 78% of the surveyed firms indicated apprehensions over this matter. The substandard state of road infrastructure has considerably raised the cost of cane, as transportation charges now make up to 35% of the entire expenditures. This has had a detrimental effect on the financial performance of enterprises, making them less competitive. Furthermore, the millers perceive the existing payment system, which is predicated on tonnage, as disadvantageous. This is due to a substantial proportion of the cane supplied having a low sucrose concentration, which is the main desirable component extracted from cane.

Waswa, Mukras, and Oima (2018) conducted a study to examine how competitiveness affects the financial performance of the sugar business in Kenya. The researcher performed a fixed effects regression study on a sample of five sugar firms, covering the period from June 30th, 2019 to 2016. The objective was to examine the impact of competitiveness and management efficiency on the performance of companies in the sugar sector. The results suggest that enterprises with lower production costs per tonne exhibit better performance in comparison to those with higher industry production costs per tonne. Thus, it can be inferred that greater expenses incurred per metric ton are linked to less profitability. Therefore, it is necessary to enact rules that encourage the implementation of initiatives aimed at reducing costs. Moreover, the results indicate the existence of a harmful association between managerial efficacy and organizational performance. The inverse relationship implies that the degree of managerial efficacy in sugar sector firms is insufficient to have a substantial influence on a company's financial prosperity. Based on these findings, the researcher recommends that organizational management should aim to maintain optimal production costs, as elevated costs have an adverse effect on their financial performance.

Waihenya (2018) endeavored to assess the financial performance of manufacturing firms located in Nairobi's industrial area in relation to managerial accounting techniques. A total of 54 participants were chosen for the study using a basic random sampling technique. According to the findings, financial success is influenced by the full budgeting process, which comprises both short-term and long-term budget planning. Mixed costs affected the financial performance of industrial firms, according to the study, which also demonstrated that fixed cost analysis had an effect.

### 2.4.2 Budgeting Practice and Financial Performance of Sugar Manufacturing Firms in Kenya

Qi (2020) conducted research to investigate the impact of the budgeting process on the operational efficiency of Chinese manufacturing enterprises. The main empirical concern of the study was to determine whether the budgeting process had a substantial and beneficial effect on the performance of Chinese manufacturing businesses. The stringent budgeting methodology had a positive effect on the organization's performance. At first, the study showed that adopting a more systematic and well-organized method for budget planning leads to higher sales income. The characteristics of budget objectives have a substantial influence on the financial success of Chinese manufacturing companies. Having clear budget goals leads to greater success in achieving those goals, while setting tough budget goals enhances staff motivation to meet budget requirements. Moreover, the study found that adopting a better organized budgetary control system is linked to higher profitability for a corporation.

Pimpong and Laryea (2016) looked at how planning affects the efficiency of operations at Ghana's non-bank financial institutions. A quantitative research methodology was

employed in the investigation. The first step in gathering information was sending out surveys to non-bank financial firms to gauge their budgeting importance. For the purpose of building the models, the study used a sequential technique. In addition, regression analysis was used to determine the breadth and depth of the correlation between budgeting and business outcomes. Businesses' bottom lines might benefit somewhat from budget synchronization (Pimpong & Laryea, 2016).

Mutune (2022) studied Kenyan cement manufacturing companies to find out how financial planning affected their bottom lines. The study looked into the connection between six cement manufacturing businesses in Kenya using a census technique. The results show that financial planning methods significantly affect the implementation of most company policies. The inability of several cement production companies to achieve their predicted profits was caused by a lack of financial and commercial planning. Study results indicate that financial planning, business planning and financial planning method frequency significantly affect the company's industry success. There are several factors that can affect a company's bottom line, according to Mutune (2022). These include risk management practices, employee turnover, tax planning, backup plans, lead time monitoring, stock level monitoring, preservation of excess stock, minimization of holding costs, setting profit targets periodically, and avoiding stock outs.

Amalokwu and Obiajulum (2008) examined the budgetary and management control systems of Guinness Nigeria plc, utilizing the budget as a means of control. The study utilized a qualitative approach to gather and analyze data, as well as to evaluate the methodology used. A group of 50 people was used as a representative sample. The research findings suggest that budgets can facilitate the creation and upkeep of competitive advantages.

Mohamed, Kerosi, and Tirimba (2016) investigated the influence of budgetary management practices on the performance of the Dara Salaam bank headquarters in Somalia. Businesses employ budgetary control as the main way of internal regulation for the firm, since it offers a comprehensive management platform for the efficient and effective allocation of resources. Their research uncovered that businesses are incapable of meeting their financial obligations without a well-defined budgetary process. This is a result of the lack of financial foresight and the failure to establish procedures to manage risks.

Siyanbola (2013) did a study on how budgetary control affects the performance of Cadbury Nigeria Plc, a manufacturing company in Nigeria. The researcher utilized a descriptive study methodology to gather data from participants through the administration of questionnaires. The gathered data was further examined utilizing the chi-square methodology. According to the results, the researcher proposed that there is a notable correlation and eventually determined that budgetary control directly affects the organization's performance. This study is a case study of a particular company in Nigeria, whereas the present study concentrates on Public Sugar Manufacturing Firms in the lake region economic block of Kenya.

Nair (2020) conducted research to find out how Yemeni SMEs' financial performance was affected by the budgetary process. The study utilized convenience sampling and a quantitative methodology to gather data. The task entailed distributing questionnaires to 200 proprietors of small and medium-sized firms (SMEs) throughout Yemen. Analyzed with SPSS, the data revealed a significant correlation between budgetary monitoring and planning and the financial success of SMEs. The research centered on small and medium-sized enterprises (SMEs) in Yemen. Nevertheless, the results may not be

applicable to the sugar manufacturing companies in Kenya. Hence, it is necessary to conduct a distinct investigation to analyze the influence of budgeting techniques on the performance of Sugar Manufacturing Firms in Kenya.

Mbuthia and Omagwa (2019) investigated the influence of budgetary control on the financial performance of selected commercial banks in Kenya. The study found that planning had the greatest impact on the financial performance of the selected Kenyan banks. The budget, evaluation, and monitoring were implemented in a progressive manner. The study specifically examined Kenyan commercial banks, rather than Public Sugar Manufacturing Firms in the Lake Region economic block of Kenya, which constituted the primary emphasis of this study.

Koech (2019) investigated the influence of budgetary controls on the financial performance of manufacturing companies in Kenya. A study has found that including control measures into the budgetary process has a substantial influence on the cultivation of budgetary and financial skills that are essential for making sound judgments. He identified efficient strategies and ideal timing for monitoring the financial metrics of the organization, facilitating the study of budgets and performance indicators as a method of communication. The study focused on analyzing the financial performance of Public Sugar Manufacturing Firms within the Lake Region Economic Block in Kenya. The conclusions, derived from general observations, cannot be extrapolated to specific factors affecting financial performance.

Mundu (2007) looked into the finance management techniques employed by Kenyan SMEs. A study revealed that 66% of small and medium-sized firms (SMEs) abstained from engaging in the practice of budgeting their income. Moreover, more than 80% of

organizations developed business strategies largely with the aim of obtaining financing. The studies have established that the viability of small and medium-sized enterprises is highly dependent on the implementation of efficient financial management strategies. The study uncovered an adverse association between budgeting methodologies and financial prosperity. The study specifically examined Small and Medium Enterprises (SMEs) in the Lake Region economic block in Kenya that operate in a different sector than Public Sugar Manufacturing Firms. Hence, the conclusions may not be relevant to the latter.

Ototo (2009) investigated the impact of the budgeting process on financial management in commercial banks in Kenya. The researcher utilized a census survey methodology, specifically focusing on 45 central offices of commercial banks in Kenya. The study suggested that the strategic deployment of funds is essential for maximizing resource usage. The recommendation also proposes creating the budget in a way that removes any vagueness and allows all users to have a precise comprehension. The research findings suggest that the use of budgeting methods enhances the efficiency of financial management. Operational budgets have various functions, such as forecasting future results, managing costs, promoting interdepartmental communication, and motivating workers to attain better performance. The study specifically examined commercial banks in the banking business, which differentiates its findings from those of Public Sugar Manufacturing Firms in the lake region economic block of Kenya, which were the primary subject of this study.

Apunda and Ndede (2020) looked at how commercial parastatals in Kenya fared financially after using management accounting techniques. The 119 commercial parastatals in Kenya were the focus of the descriptive survey research methodology.

Descriptive approaches were employed for the analysis of the data, which included quantitative and qualitative components. The research used inferential statistics to look at how various management accounting methods correlated with bottom-line results. This study used SPSS, or the Statistical Package for the Social Sciences, to conduct a multiple linear regression analysis. Commercial enterprises functioning under government parastatals can greatly benefit from a well-executed budgeting procedure, according to the findings. The report recommends that the management of the parastatals should incorporate budgeting into all financial operations of the business. Budgeting is a critical determinant of the financial performance of commercial parastatals, since it governs the allocation and utilization of assets to generate income.

Kimunguyi, Memba, and Njeru (2019) investigated the influence of the budgetary process on the financial performance of Non-Governmental Organizations in the Health Sector in Kenya. The study employed the notion of priority-based budgeting and concentrated on 16,844 organizations. The 270 organizations that made up the sample were chosen using a stratified random selection method. The findings showed that healthcare-focused NGOs in Kenya improved their financial performance after implementing effective budget management strategies.

Simidi, Ojera, and Odhiambo (2018) compared sugar production companies in Western Kenya to see how budgetary control affected their financial performance. The study design utilized was a descriptive survey. Butali and Nzoia Sugar Company provided a statistically valid sample of individuals. Analyses of both descriptive statistics and inferential statistics were performed. The survey results suggest that the processes of budget planning, budget implementation, budget variance analysis, and budget evaluation all directly and positively influence financial performance.

Onduso (2013) conducted a study that examined how budget planning affects the financial performance of manufacturing firms in Nairobi County. This study aimed to assess the influence of budget on financial performance. The researchers employed a cross-sectional research methodology, specifically targeting a population of 18 manufacturing companies situated in the county of Nairobi. The study demonstrated a strong association between budget and financial performance, as indicated by the return on assets.

Gichaaga (2022) looked examined how manufacturing enterprises in Nairobi, Kenya's financial performance were affected by management accounting approaches. A total of 455 businesses were analyzed in the study using a descriptive survey methodology. Stratified random selection was used to select 46 companies from this group. The study's findings validated the importance of budgeting as a critical management accounting approach for evaluating the financial performance of companies.

### 2.4.3 Performance Evaluation accounting Practice and Financial Performance of Sugar Manufacturing Firms in Kenya

According to Huggins, Izushi, and Thomposon (2013), regional competitiveness is contingent upon the existence of conditions that enable firms to compete in their respective markets and the capture of the value generated by these firms by the region in which they operate. Their paper, which sought to conceptualize the fundamental principles of regional performance competitiveness from both a theoretical and empirical perspective, made this conclusion. The paper investigates prospective areas for future theoretical and empirical research, underscoring the importance of institutions, resilience, and well-being in understanding the long-term performance and development

of 50 regions in relation to their competitiveness. The general consensus is that the discovery is consistent with endogenous regional development strategies that emphasize factors such as education, human capital, and input and output costs.

Fwamba (2018) examined the extent to which the financial management practices of Kenyan sugar manufacturing companies affected their financial performance. The Modigliani and Miller Capital Structure Model, the Liquidity Preference model, and the agency theory were all used to inform this work. This study used a descriptive research approach to survey all twelve selected manufacturing enterprises in Kenya's sugar production industry. From a pool of 800 manufacturing organizations, 109 employees from each of the 12 sugar manufacturing companies were interviewed using a proportional random sampling method. The main way that data was collected was by use of questionnaires. A response rate of 93.6% was achieved by collecting a total of 102 questionnaires. The financial success of sugar enterprises is significantly influenced by performance evaluation, as indicated by the research.

A market factor analysis is necessary to assist the sugar industry in Kenya and other countries that are members of trade blocs, as the sugar industry and sugar products in general are significant contributors to Kenya's economy, as per a study conducted by Obange, Onyango, and Siringi (2021). Kenya's domestic consumption surpasses its production, resulting in a sugar deficit of approximately 200,000 metric tons annually. Kenya imports sugar from low-cost sugar-producing countries in the COMESA region to compensate for this deficit. The entity with the highest level of productivity, whether it be a company, industry, or nation, has the potential to be the most competitive. The financial performance of sugar manufacturing firms was statistically significantly improved by the performance evaluation. Gichaaga (2022) investigated the influence of

management accounting on the profitability of Kenyan manufacturing organizations. A descriptive survey methodology was implemented in this investigation. The target population of this research was the 455 industrial enterprises in Kenya. The sample size was determined using the stratified random sampling approach, as the population from various manufacturing enterprises was heterogeneous, suggesting that simple random sampling would not be representative. Consequently, Nairobi's 46 manufacturing enterprises were included in the survey. The participants provided the study with firsthand data. The data that was obtained consisted of both quantitative and qualitative components. Qualitative data is information that is not quantified through numerical measurements, but rather described through the use of language. Numerical measurements that are represented numerically are referred to as quantitative data. The Statistical Package for Social Sciences (SPSS) was employed to conduct the analysis, which allowed the researcher to present the data in the form of tables and figures. The research reveals that manufacturing organizations in Kenya employ performance evaluation as their primary management accounting practice.

Aruomoaghe and Agbo (2013) conducted a study to determine the usefulness of variance analysis as a cost/benefit strategy for evaluating performance. The findings indicate that employing variance analysis for performance evaluation offers both advantages and disadvantages for the firm as a whole. Managers should use caution when utilizing variance analysis to ensure they do not stray from making accurate decisions.

In their work, Dandago and Adah (2013) conducted a literature review to determine the significance of variance analysis in managerial cost control in Nigeria. The findings

indicate that controlling costs is an ongoing activity carried out by management. Therefore, when reviewing discrepancies, it is important to focus on the areas of greatest concern in order to keep management informed of any changes in the company. Matema (2016) conducted a study to determine the association between organizational performance and the variance analysis budget control technique. Variance analysis and organizational performance were found to have a substantial negative connection, based on data collected from 27 respondents using a descriptive approach.

Waihenya (2018) did a study on the impact of Managerial Accounting Practices on the Financial Performance of Manufacturing Firms in Industrial Area Nairobi, Kenya. The target population for this study comprised 183 firms, with involvement from top, medium, or low level management workers. The process of simple random sampling ensured that the selected sample was a true representation of the entire population. This method of selection was unbiased, which was crucial for making accurate conclusions based on the study's findings. The sample encompassed 30% of the manufacturing enterprises included in the sampling frame. The study distributed a total of 54 questionnaires, of which 42 were completed and returned, resulting in a response rate of 78%. The primary method of data collecting involved administering a questionnaire, which was chosen for its efficiency and convenience given the available resources and time limitations. The study found that the organization used performance review as a management accounting practice, resulting in a notable impact.

### 2.4.4 Firm Size, Management Accounting Practice and Financial Performance of Sugar Manufacturing Firms in Kenya

Georgiev (2022) conducted a study on the application of firm size in the field of management accounting. The research results indicate that firm scale is a critical factor in all aspects of management accounting in the hotel industry in Bulgaria. This underscores the significance of the scale of the firm in the production of data regarding hotel management.

In Indonesia, Chabachib, Yudha, and Udin (2020) conducted a research project that investigated the influence of business scale as a moderating variable. The results suggested that a decrease in pre-tax earnings is a consequence of increased girth, which has a detrimental effect. Furthermore, the current investigation will incorporate business scale as a moderator variable in all of its research conducted in Kenya. This assisted in addressing the dearth of regional knowledge regarding the diverse economic conditions and legislation.

Kijkasiwat and Phuensane (2020) looked at SMEs across 29 Eastern European and Central Asian nations to see how business size affected the correlation between innovation and success. Using a descriptive design, the research was conducted. Data was collected through the use of questionnaires. Results indicated that the size of the organization had an effect on the correlation between innovation and performance. Decision-makers are significantly affected by the results of this investigation. They underscore the significance of taking into account the firm's scale and funding sources when attempting to implement innovations to enhance the firm's performance.

Ali, Mukulu, Kihoro, and Nzulwa (2016) looked into how different sized firms

influenced the correlation between functional integration and performance. This inquiry made use of a descriptive survey approach. The 176 manufacturing enterprises located in and around Nairobi were surveyed using a partially structured questionnaire. The study found that company size had no mediating role in the correlation between functional integration and firm performance. This implies that functional integration is a strategic skill that is accessible to small, medium, and large manufacturing enterprises in Kenya, irrespective of their size. Abbasi and Malik (2019) investigated the impact of firm size on the financial performance of developing enterprises in Pakistan in their research. This information is based on the 2022 financial statements of fifty non-financial companies traded on the Karachi Stock Exchange. According to the results of the regression study, the correlation between financial performance and firm expansion is moderated by the firm's size.

Omondi and Muturi (2013) sought to investigate the correlation between the performance of listed companies at the Nairobi Securities Exchange in Kenya and the scale of their firms. The study employed total assets as a metric for firm scale and return on assets as a metric for company success. The secondary data was sourced from the listed corporations at NSE, with the exception of the insurance firm and banks, which were not included in the sample data. The study employed a multiple regression model to ascertain the influence of business size on return on assets (ROA). The results of the analysis indicated that the return on assets of the companies analyzed in the NSE was statistically significantly positively influenced by the size of the firm.

Ater, Sifunjo, Kisaka, Iraya, and Mwangi (2017) examined non-financial enterprises that were listed on the Nairobi Securities Exchange (NSE) to investigate the role of firm size in influencing the relationship between capital structure and firm value. A subset of 36

non-financial firms that are listed on the NSE was selected as the target audience. The study utilized a stepwise multiple regression analysis to investigate the hypothesized components. The findings of the 49 study indicate that the size of a company has a significant influence on how changes in capital structure affect efficiency and optimality. This implies that the size of a company is a crucial factor that firm management should take into account when making adjustments throughout periods of expansion.

The study conducted by Mule, Mukras, and Nzioka (2019) examined the impact of business size on the profitability and market value of companies listed in Kenya. This study employed data from currently operating companies listed on the Nairobi Stock Exchange (NSE) during the years 2010 and 2022 for the purpose of analysis. The results indicated a significant and favorable correlation between the magnitude of a company and its profitability. Moreover, the size of the company does not exert a statistically significant impact on its market value.

Prior studies suggest that differences in the size of companies could result in contrasting market valuations (Dang *et al*., 2019). Vo and Ellis (2017) found a positive association between firm size and value, suggesting that larger firms generally have higher value. A larger firm has the capacity to provide higher value for investors. Contrary to this, Kodongo et al. (2019) propose that smaller businesses have a higher ability to determine the worth of their company compared to larger firms.

In addition, Muigai (2016) looked into how the listing industry and firm size affected the correlation between capital structure and financial difficulties in businesses. A quantitative research design was employed in the study. Using audited financial records and annual reports covering the years 2004–2013, the study used secondary data that

covered the whole decade. The study discovered that the magnitude of a corporation and the industry in which it is listed significantly influence the relationship between capital structure and financial adversity.

Jaisinghani and Kanjilal (2017) conducted a focused study on the non-linear relationship between business size, capital structure, and firm performance in India. They use company size as a threshold variable in their model. Their research suggests that the success of a firm is influenced by its capital structure, with the size of the company playing a significant role. Firms that have total assets beyond a particular threshold of 148 million rupees demonstrate a higher degree of total debt in comparison to smaller firms with total assets below this threshold. Small firms undergoing investment development frequently encounter challenges in obtaining more money and managing the substantial capital expenses, leading to a diminished degree of profitability. Companies that have a significant amount of debt often demonstrate better performance.

Previous studies have yielded significant theoretical and empirical evidence about the influence of company size on decisions related to capital structure. Multiple studies continuously demonstrate that the size of a firm has the greatest impact on establishing its capital structure (Dakua, 2018). The size of a company is a crucial factor in determining its capital structure, since it indicates the organization's ability to survive and adapt (Deesomsak *et al*., 2004).

Tapang, Uklala, Bassey, Ezuwore-Obodoekwe, Onyeanu, Ozoji, and Obo (2021) investigated non-financial companies listed on the Nigerian stock exchange and how the relationship between CSR costs and financial success changed depending on the size of the organization. Data was culled from secondary sources and analyzed using content analysis methodology. Ordinary least squares was used to examine the data that was

collected. Based on the findings, it appears that the correlation between CSR spending and the bottom line for non-financial companies listed in Nigeria is significantly affected by company size. As a result of increasing investment, the study found that major enterprises are becoming more competitive.

Onsongo (2019) examined the potential influence of firm size on the relationship between performance and operational risk in companies listed on the NSE. Data was collected from 14 manufacturing companies over a period of 5 years, namely from 2013 to 2017. Panel regression was utilized to analyze the data acquired by a data gathering equipment. The financial performance was evaluated using the Return on Assets (ROA) metric. The cost-to-income ratio was employed as a substitute for measuring operational risk, while the total assets of the company were utilized to characterize its size. During the preliminary phase of investigation, it was observed that operational risk had no influence on financial performance. Nevertheless, after considering the firm's size, it was shown that operational risk had a noteworthy and favorable impact on performance. The magnitude of a company's size significantly influences its financial performance.

In her study, Dorothy (2017) investigated the impact of company size on the financial performance of manufacturing organizations. The study especially analyzed micro factors and the overall performance of the firms. 180 enterprises were chosen as a representative sample from the overall population of firms operating in Nairobi. Financial data was gathered from audited financial reports spanning a decade, specifically from 2006 to 2019. Descriptive statistics were employed to analyze the obtained secondary data. The variables under investigation were micro factors that were affected by operational procedures, production capacity, and managerial tactics. The return on equity (ROE) was used as a metric to assess the financial performance of

manufacturing companies. The study's findings revealed that the size of firms had a substantial impact on moderating the association between micro factors and their performance.

Munga and Muriithi (2017) conducted a study on the influence of firm scale on the financial distress of firms and their capital structure for non-financial registered companies at NSE. The researchers gathered secondary data from 40 organizations spanning a decade, specifically examining the years 2019 to 2006, including both. The proxies employed to assess the moderator were the aggregate assets, which serve as an indicator of the firm's magnitude. The total debt was used to assess the capital structure. The level of financial difficulty was evaluated using the Altnams Z-score. The collected data was examined using a fixed effect model, utilizing Feasible Generalized Least Squares and Panel data regression. Long-term debts had a positive and substantial impact on financial distress for firms in Kenya, while short-term debts had the reverse effect. Firm size has a significant impact on the relationship between capital structure and firm financial distress.

Jaisinghani and Kanjilal (2017) found that when comparing stock performance to company performance, the market reacts differently to small-profitable firms with high levels of long-term debt compared to large-profitable firms with the same level of debt. A small-liquid firm possesses a greater amount of long-term debt in comparison to a big-liquid corporation, which has a larger long-term debt. Based on previous research, we suggest that the impact of management approaches on financial success depends on the size of a company.

Nyaundi, Ondiek, and Tibbs (2017) investigated the impact of company size on the correlation between financial reporting and share price for companies listed on the Nairobi Securities Exchange. The study investigated the correlation between the size of a corporation and its financial reporting, treating them as independent variables, and the share price as the dependent variable. Contact was made with the financial managers of all sixty-four firms that are listed. Nevertheless, as anticipated, a portion of the companies did not respond, leading to a just fifty organizations offering substantial data. The study's findings revealed that both the magnitude of a firm and its financial reporting significantly influenced the share price.

Corvino, Caputo, Pironti, Doni, and Martini (2019) did a study to investigate the impact of firm size on performance and the value of its interpersonal connections. The study's findings indicate that business size has a moderating effect on relational capital, and there are specific indicators suggesting that it also affects firm performance. The study employed data sets from France, Germany, Italy, and the UK, all of which are developed economies with sophisticated financial systems. The forthcoming study will be conducted in Kenya, a nation undergoing the process of growth.

Nodeh, Anuar, Ramakrishnan, and Raftnia (2016) conducted a study in Malaysia to investigate the impact of various factors pertaining to a bank's board structure, including its size and independence, on the bank's financial performance. Additionally, they examined the impact of the bank's size on this correlation. The study's findings indicate a direct relationship between the composition of the board and the achievement of the business. Furthermore, it has been found that the relationship between board structure and financial success is positively influenced by the size of the firm. This study

addresses a theoretical need in the existing body of knowledge by investigating the impact of credit risk stress testing on performance, a distinct notion from board structure.

Researchers Ayuba, Bambale, Ibrahim, and Sulaiman (2019) in Nigeria found that a company's size has a major impact on its value. The research was conducted in the insurance sector, whereas the present study will be conducted in the banking sector to solve the knowledge gap in the business.

Radipere and Dhliwayo (2022) conducted a study in the small business sector of South Africa. The study's findings revealed that there was no statistically significant difference between the mean values of business size and the firm's performance. The previous study was conducted in the small enterprise sector, whereas the future study will be conducted in the financial sector in order to fill the current vacuum in industry knowledge.

Ali, Yassin, and AbuRaya (2020) found that a firm's FP is influenced by a number of firm characteristics, including firm size. The study was conducted in Egypt. The forthcoming study was conducted in Kenya to rectify the disparities in geographical data, taking into account the divergent financial circumstances of Egypt and Kenya.

Tanui and Serebemuom (2021) examined how firm size affects the connection between diversification and financial performance. The researchers discovered that size had a significant and negative moderating impact. Data was gathered from all the companies listed on the Nairobi Securities Exchange (NSE) in Kenya. The current probe exclusively focused on commercial banks.

Shibutse, Kalunda, and Achoki (2019) conducted a study in Kenya and discovered that the scale of a firm has a substantial and favorably influencing effect on family planning

(FP). The previous study mostly concentrated on deposit-taking savings and credit cooperatives. The present study addressed the lack of information in the industrial sector by conducting a focused investigation on commercial banks.

Muhindi and Ngaba (2018) conducted a study in Kenya that demonstrated that large banks with a diverse loan portfolio, substantial capital, extensive branch networks, substantial client deposits, and a high return on assets (ROA) exhibit a positive ROA, in contrast to smaller banks that lack these attributes. In this study, firm size will be used as both a moderating variable and an independent variable. Unlike the prior analysis, the forthcoming study incorporated datasets spanning from 2016 to 2020, representing a more contemporary timeframe.

Onounga (2020) discovered a positive correlation between the two variables, indicating that it would be beneficial for the Kenyan Government to implement policies that promote the growth of commercial banks' assets, namely in terms of size and capital. This method is believed to have the ability to increase the profitability of the financial sector.

According to a study by Mule, Mukras, and Nzioka (2019), there is a strong and positive link between the size of a business and its success, especially when it comes to return on equity. Therefore, when the size of a firm increases by one unit, there is a proportional increase in the return on equity of the firms. Conversely, other scholars argue that scale can have either negligible or harmful effects on profitability.

Gul, Irshad, and Zaman (2018) examined the impact of bank size as an internal factor and observed that larger banks tend to have a higher return on assets (ROA). The findings suggest a direct correlation between the magnitude of a financial institution and

its level of profitability. Furthermore, in their respective research on the factors affecting bank profitability in the European Union and Pakistan, Javaid, Anwar, Zaman, and Gafoor (2018) have found a negative correlation between the size of banks and their profitability. Thus, the size of a bank is determined by computing the natural logarithm of its total assets in order to account for the non-linear correlation. Njoroge (2016) looked into the factors influencing Kenyan commercial banks' profitability and found that, as a performance indicator, the bank's size has a statistically negligible yet negative link with profitability. In a study conducted by Macharia (2016), it was discovered that the size of a commercial bank in Kenya has a notable influence on the correlation between the activities of the Central Bank of Kenya (CBK) and the bank's overall performance.

Isa and Thye (2016) examined the application of management accounting principles in Malaysian manufacturing firms. In addition, they analyzed the relationship between the organization's size, overhead expenses, and the use of sophisticated management accounting techniques. The size of manufacturing companies in Malaysia has a significant influence on their performance. Wu and Boateng (2020) found that the choice of management accounting methods can be influenced by factors such as the size of the firm. The recognition of an organization's size has been found to positively influence both corporate growth and the entire economy.

The role of business sizes is inadequately realized, specifically in relation to management accounting systems and financial performance (Bastl, Grubic, Templar, Harrison & Fan, 2020). This study investigates the influence of business size on inter-organizational focus and financial performance.

## 2.5 Research Gap

**Table 2. 1: Research Gap**

| Author & Year | Title | Methodology | Findings | Gap |
|---|---|---|---|---|
| Salawu, Oyesola &Tajudeen (2016) | A survey of Activity Based Costing adoption among Manufacturing Companies in Nigeria. | Descriptive research design Nigeria firms Target population was 60 Used primary data | The researchers found a positive association between the adoption of ABC and company performance | The current study was on three management practices cost, budget and performance evaluation and not just Activity Based Costing adoption |
| Odek, Kegode, and Ochola (2016) | Effect of cost management practice on financial performance of Kenyan sugar | Descriptive research design Ordinary least squares regression method Primary data | The study found that Sugar production cost in Kenya is one of the highest and the world price of sugar has always been below Kenyan cost of production which significantly affects financial performance of sugar firms | The current study was on public sugar firms and on three management practices cost, budget and performance evaluation and not only cost practice. |

| | | | | |
|---|---|---|---|---|
| Waihenya (2018) | The effects of managerial accounting practices on financial performance of manufacturing firms in industrial area, Nairobi | Descriptive research<br>Area; Nairobi<br>Sample size;<br>Sampling; purposive<br>54 respondents<br>Descriptive survey design | The results showed that the whole budgetary process including short and long term budget plans have an effect on financial performance | The current study was on entire public sugar firms in lake region economic block on three management practices cost, budget and performance evaluation and not only cost practice. |
| Qi (2020) | Impact of the budgeting process on performance in manufacturing firms in China | Descriptive cross sectional research design<br>Area of study; Uganda<br>Multiple regression model | There was a positive effect of the formal budgeting process on firm performance | A moderating variable; firm size was introduced in the current study as well as other management accounting practices |
| Wu and Boateng (2020) | Management accounting practices, firm size and performance of manufacturing firms | Explanatory research design and a mixed research approach with both primary and secondary sources of data. More specifically, the study adopted a multiple linear | Firm size has a positive significant influence on the growth of an organization and the economy in general. | The current study utilized sugar firms and not manufacturing firms in general |

regression model.

## 2.6 Conceptual framework

A conceptual framework provides an overview of the interconnections between variables under consideration, as discussed by Mugenda and Mugenda (2013). The discussion focuses on the measurement and operationalization of the independent, dependent, and moderating variables. The study incorporates financial performance as an independent variable, which is quantified by Return on Assets.

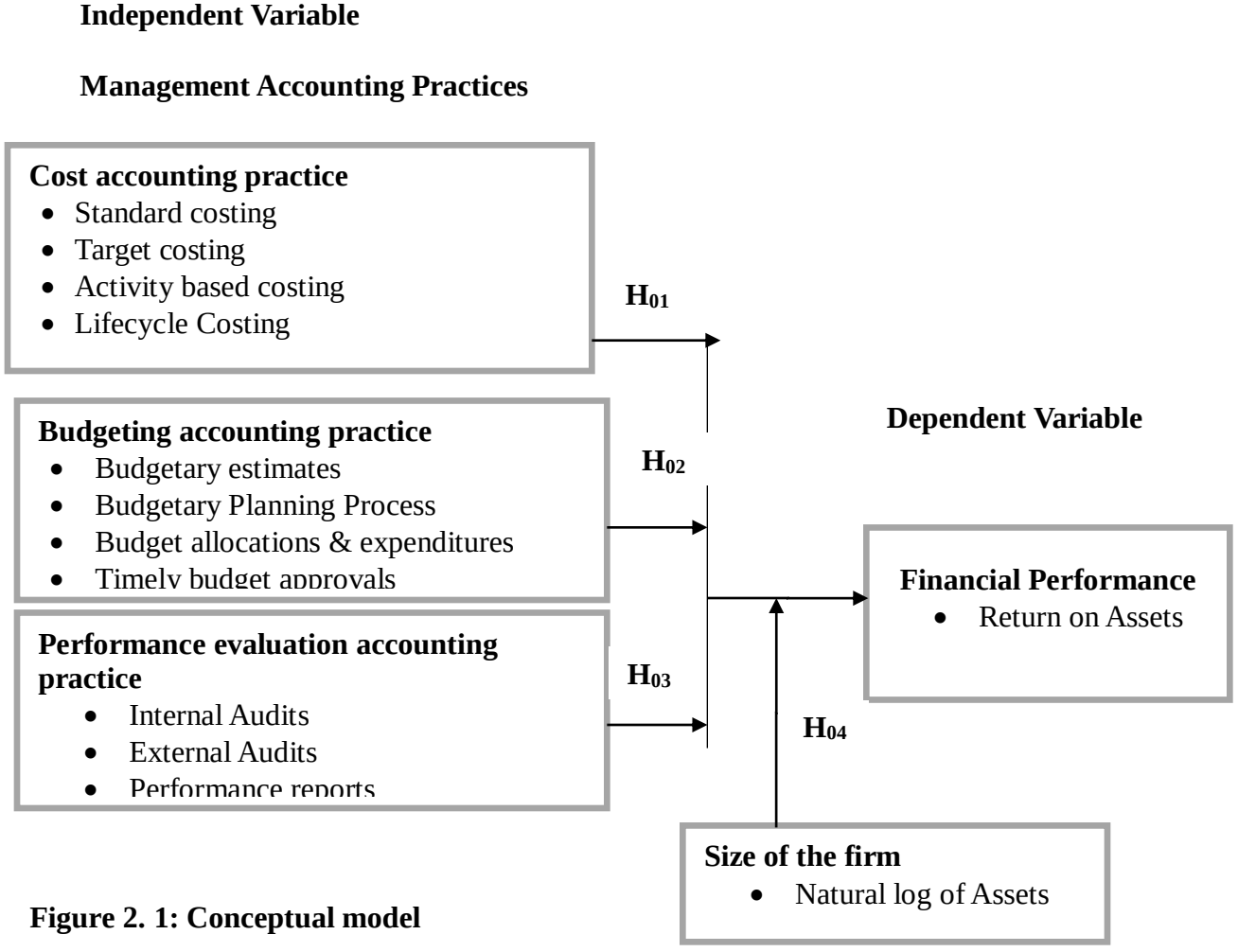


**Figure 2. 1: Conceptual model**

Source: Adapted from Waihenya (2018)

The conceptual framework comprised of independent variables and a dependent variable. The independent variables were the factors that influenced the change in other variables, and the researcher had the ability to manipulate them. The variables consisted of cost accounting techniques, budgeting practices, and performance evaluation practices. The moderating variable was the firm's size. The measurement of cost accounting procedures includes standard costing, target costing, activity-based costing, and lifecycle costing. The budgeting accounting practice was assessed through the use of budgetary forecasts, the budgetary planning process, budget allocations and expenditures, and timely budget approvals. The assessment of performance in accounting practice was conducted through internal audits, external audits, and performance reports. The size of the firm was determined by the natural logarithm of its assets, while the financial performance was assessed using the return on assets.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter provides a study area, research design used, a target population, sample size, sampling technique, data collection instrument, data collection procedures, data analysis, diagnostic tests and ethical consideration.

## 3.2 Study Area

The research was conducted within the Lake Region Economic Bloc (LREB). The Lake Region Economic Bloc is one of the six economic blocs established in Kenya. It is comprised of 14 counties, namely Bomet, Bungoma, Busia, Homabay, Kakamega, Kericho, Kisii, Kisumu, Migori, Nandi, Nyamira, Siaya, Transnzoia, and Vihiga. These counties are located around Lake Victoria and its surrounding areas. The region has made significant investments in cultivating sugarcane as its primary cash crop, but it has encountered operational challenges.

## 3.3 Research Design

The study employed a casual research strategy to elucidate the link between factors. The study examined the causal relationship between management accounting methods and the financial performance of a public sugar corporation in the Lake Region economic bloc. Cooper and Schindler (2017) state that causal design is useful for evaluating the cause and effect relationship between variables.

### 3.4 Target population

A population refers to a specifically defined group of individuals or things that are being considered for statistical analysis (Collins & Hussey, 2019). The sample consisted of 28 managers, 85 management accountants, and 30 auditors. The target population was determined to be 143 based on the AFA Employee Report of 2022.

**Table 3. 1: Target population distribution**

| **Sugar companies** | **Managers** | **Management Accountants** | **Auditors** |
|---|---|---|---|
| Nzoia Sugar Company | 8 | 21 | 8 |
| Chemilil Sugar Company | 7 | 26 | 9 |
| Sony Sugar Company | 8 | 23 | 6 |
| Muhoroni Sugar Company | 5 | 15 | 7 |
| N=143 | 28 | 85 | 30 |

Source: Sugar Companies Employee Report, (2023)

### 3.5 Sample size and sampling procedure

Kothari (2004) defines a sample as the smallest unit within a population that is selected to meet the research objectives, taking into account the availability of the complete group and the resources needed to study the entire group. It is highly beneficial in the majority of statistical research to aid in achieving the research objectives. This study employed a stratified but random sampling strategy to obtain the sample. The researchers employed purposive sampling to specifically choose accountants, auditors,

and managers from the four sugar corporations. The process of sample determination, as described by Yamane Taro in 1967, was utilized to achieve the desired sample goals.

Where;

*N*- Constitutes the target population

*n*- Constitutes the sample figure,

*e*-Error Term, e= 5% significance

When constituted it generated the following;

$$n = \frac{N}{1 + N\,(e)^2}$$

$$n = \frac{143}{1 + 143\,(0.05)^2}$$

$$= 98$$

### 3.6 Sampling Techniques

The stratified simple random sampling technique was implemented in the investigation. Managers, accountants, and auditors comprised the strata.

**Table 3. 2: Sampling frame for Respondents**

| Sugar company | Target Managers | Sample Managers | Target Mgt Accountants | Sample Mgt Accountants | Target Auditors | Sample Auditors | Total Target | Total sample |
|---|---|---|---|---|---|---|---|---|
| Nzoia | **8** | **3** | **21** | 19 | **8** | 4 | 36 | 26 |
| Chemilil | **7** | **2** | **26** | 23 | **9** | 4 | 42 | 30 |
| Sony | **8** | **3** | **23** | 20 | **6** | 2 | 38 | 26 |
| Muhoroni | **5** | **2** | **15** | 13 | **7** | 3 | 27 | 18 |
| **Total** | **28** | 10 | **85** | 75 | **30** | 13 | **143** | **98** |

Source: Sugar Companies Employee Report, (2023)

The study sampled 10 managers, 75 management accountants and 13 auditors. This was done by stratified simple random sampling.

### 3.7 Data collection Instrument

Data was collected using self-administered questionnaires. The study employed a closed-ended questionnaire. The questionnaire comprised of two sections: part A, which focused on background information, and part B, which addressed managerial accounting methods. The researchers employed a Likert scale. The utilization of closed-ended questions facilitated the process of gathering data and remained within the defined boundaries of the study, as determined by the constructs employed. The movements inside the study area were effectively controlled by employing a questionnaire drop and pick method (Kothari, 2004). The study sought secondary data on Return on Assets (ROA) from the financial statements of the different enterprises for the period between 2018 and 2022. The details may be found in Appendix III.

### 3.8 Pilot study

This study conducted a pilot test to determine the validity and reliability of the items used to collect the necessary data for the research. The purpose of the study was to conduct a preliminary assessment of the data collection instrument's validity and reliability. The purpose of the test was to assess the significance of research topics, hypotheses, and testing procedures, as well as the methods used to gather data, sample selection, and recruitment tactics for a significant experiment. The piloting was conducted with a corporation that was not involved in the project, specifically the Ramisi Sugar Company in Kwale. Kothari (2022) suggests that a pilot test should be conducted with a sample size of at least ten percent of the target population. In this example, the pilot test would involve 17 personnel from Ramisi Sugar firm, including managers, management accountants, and auditors. Ramisi is a publicly-owned sugar company, hence it shares comparable features with other sugar enterprises that are being targeted. The pilot resolved discrepancies in the instrument generation.

### 3.9 Reliability and Validity

Mugenda and Mugenda (2013) investigated reliability to assess the accuracy of the results obtained during data collecting. The study utilized a criterion of Cronbach's Alpha (α) that exceeded 0.7.

Validity pertains to the precision in the creation of a questionnaire for this particular scenario (Neuman, 2019). The study employed content validity by consulting specialists, including a senior accounts manager in the sugar sector and study supervisors, to discuss the questionnaire.

### 3.10 Data Analysis

Researchers used descriptive and inferential statistics to examine the study's data. Frequencies and percentages were used in descriptive statistics. Inferential statistics entailed the implementation of Pearson moment correlation, straightforward linear regression, multiple regression, and hierarchical regression analysis. The significance level for the regression analysis was set at 5%. The data was shown in tables, and the subsequent regression models were implemented:

Model 1 $Y= \beta_0+\beta_{CP}X_{CP} + \varepsilon$

Model 2 $Y= \beta_0+\beta_{BP}X_{BP} + \varepsilon$

Model 3 $Y= \beta_0+\beta_{PEP}X_{PEP} + \varepsilon$

Model 4 $Y= \beta_0+ \beta_{CP}X_{CP}+ \beta_{BP}X_{BP} + \beta_{PEP}X_{PEP}+ \varepsilon$

Model 5. $Y= \beta_0+ \beta_{CP}X_{CPFS} + \beta_{BP}X_{BPFS} + \beta_{PEP}X_{PEPFS}+\varepsilon$

Where;

Y = Dependent Variable (Financial Performance)

X= Aggregate effect of management accounting practices

Independent variables, which include:

$X_{CP}$ is Cost accounting management practice

$X_{BP}$ is Budget accounting management practice

$X_{PEP}$ is Performance Evaluation accounting management practice

$X_{CPFS}$ is Cost accounting to Firm size

$X_{BPFS}$ is Budget accounting to Firm size

$X_{PEPFS}$ is Performance Evaluation to Firm size

$\beta_0$ = the constant

FS = Moderator (Firm size)

ε = Error term

### 3.10.1 Diagnostic Test

The analysis encompassed tests for normalcy, multicollinearity, heteroscedasticity, and linearity. Multi-collinearity refers to a situation where there is a high correlation (r= 0.9 and above) between two or more predictor variables. This can be problematic in statistical analysis (Neuman, 2019).

#### 3.10.1.1 Normality Test

The study employed statistical tests to evaluate the extent to which the data deviated from normality, as proposed by Hair et al. (2010). The researcher conducted the Shapiro-Wilk test and the Kolmogorov-Smirnov test to examine normality. Both tests yielded results above the 0.05 significance level, indicating that the data followed a normal distribution.

#### 3.10.1.2 Multi Collinearity test

The study utilized Pearson Correlation and linearity test to conduct a Multi Collinearity test. A correlation coefficient (r) of 0.9 or higher shows the presence of multicollinearity. Additionally, the normality of the variance inflation factor and tolerance values was established (Neuman, 2019).

#### 3.10.1.3 Heteroscedasticity Test

When there is heteroscedasticity, there are differences in the dependent variable's variability or spread across a large number of data points (Xu, Xiong, Huang & Yao,

2022). To assess this, the Levene statistic was used. The null hypothesis is rejected if the p-value is smaller than 0.05. A p-value greater than 0.05 indicates acceptance of the null hypothesis.

### 3.10.2 Linearity Test

The linearity test is one of the most crucial concepts in regression analysis. It checks to see if the relationships between the independent factors and the dependent variables are linear. Identifying deviations from linearity is essential for guaranteeing the accuracy and dependability of regression analysis. When the linearity assumption is not satisfied, the model may generate parameter estimates that are skewed, resulting in erroneous interpretations and conclusions (Kothari, 2022). This study conducted a thorough examination of all predictor variables to determine whether they exhibited a significant association with the dependent variable. This analysis was carried out utilizing Pearson correlation analysis and scatter plots.

## 3.11 Ethical Considerations

The study acknowledge all utilized sources. The investigator proceeded to provide participants with precise and comprehensive information while ensuring the anonymity of the acquired data, which involved excluding participants' identities from the data collection equipment. The stated goal of the study was only focused on intellectual pursuits. The participants were presented with a letter granting permission for this study from MMUST and NACOSTI. Participation was voluntary and not coerced.

# CHAPTER FOUR

# DATA ANALYSIS AND DISCUSSION

## 4.1 Overview

This chapter presented results on the effect of management accounting practices on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.

## 4.2 Response Rate

**Table 4. 1: Response Rate**

| Response | Frequency | Percent |
|---|---|---|
| Response | 94 | 95.74 |
| Non response | 4 | 4.26 |
| Total | 98 | 100.0 |

**Source: (Researcher, 2024)**

A total of 98 questionnaires were distributed, and 94 of them were returned. The response rate was 95.74%. According to Mugenda and Mugenda (2018), a response rate of 70% is deemed satisfactory for a research.

## 4.3 Reliability Tests

Reliability was sought in order to assess response correctness during data collection, as indicated in table 4.2.

**Table 4. 2: Reliability test**

| Variable | Cronbach alpha |
|---|---|
| Cost accounting practice | .807 |
| Budget accounting practice | .778 |
| Performance Evaluation accounting practice | .818 |
| **Overall** | **.801** |

**Source: Researcher, (2024)**

Cronbach's Alpha >0.7 attests to the validity of the information obtained from the data supplied. The performance evaluation accounting technique yielded 0.818>0.7, the cost accounting practice yielded 0.807>0.7, and the budget accounting approach produced 0.778>0.7. This validated the data's reliability; the reliability score overall was 0.801.

### 4.4 Demographic Characteristics of the Respondents

The investigation established the respondents' professional qualifications and work experience in general.

#### 4.4.1Working experience

Respondents confirmed there working experience in the sugar industry.

**Table 4. 3: Working experience**

| | Frequency | Percent |
|---|---|---|
| 0-5 years | 6 | 6.4 |
| 6-10- years | 81 | 86.2 |
| 11-15 years | 7 | 7.4 |
| Total | 94 | 100.0 |

**Source: Researcher, (2024)**

The majority of respondents, 81 (86.2%), had served for 6-10 years, while 7 (7.4%) had served for 11-15 years and 6 (6.4%) had served for less than 0-5 years. This information is presented in table 4.3. This demonstrated that the workers possessed sufficient experience to identify management accounting practices in public sugar manufacturing firms in the Lake Region Economic Block of Kenya.

### 4.4.2 Designation of Respondents

Table 4.4 displays the designation of the respondents in public sugar manufacturing firms in the Lake Region Economic Block of Kenya.

**Table 4. 4: Professional orientation**

| | **Frequency** | **Percent** |
|---|---|---|
| Managers | 8 | 8.6 |
| Auditors | 24 | 25.5 |
| Management accountant | 62 | 66.0 |
| **Total** | **94** | **100.0** |

**Source: Researcher, (2024)**

Table 4.4 showed that managers were 8(8.6%), auditors were 24(25.5%) as Management accountant were 62(66%).

## 4.5 Descriptive Analysis

The opinions of respondents were solicited regarding the practice of cost accounting, budget accounting, and performance evaluation accounting. Consequently, frequencies and percentages were furnished.

### 4.5.1 Cost Accounting Practice and Financial Performance

The researcher aimed to determine the impact of cost accounting practices on the financial performance of Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya. The data analysis employed a Likert Scale with five levels, where a score of one (1) represented the lowest positive response and a score of five (5) indicated the highest favorable response. The scale was defined as follows: 1 - Strongly Disagree (SD), 2 - Disagree (D), 3 - Neutral (N), 4 – Agree (A), 5 - Strongly Agree (SA). The findings obtained from the Likert Scale were presented in table 4.5.

**Table 4. 5: Likert Scale on Cost Accounting Practice**

| Description | N | SD (%) | D (%) | N (%) | A (%) | SA (%) |
|---|---|---|---|---|---|---|
| My sugar firm provides standard costing measures. | 94 | 0(0.0) | 11(11.7) | 35(37.2) | 30(31.9) | 18(19.1) |
| My sugar firm provides target costing measures | 94 | 0(0.0) | 5(5.3) | 46(48.9) | 33(35.1) | 10(10.6) |
| My sugar firm provides activity based costing measures | 94 | 0(0.0) | 19(20.2) | 24(25.5) | 29(30.9) | 22(23.4) |
| My sugar firm provides Lifecycle Costing measures | 94 | 1(1.1) | 10(10.6) | 35(37.2) | 30(31.9) | 18(19.1) |
| My sugar firm provides cost breakdown records for efficiency purposes | 94 | 0(0.0) | 19(20.2) | 24(25.5) | 29(30.9) | 22(23.4) |

**Source: Researcher, (2024)**

The data from table 4.5 revealed that 11 individuals (11.7%) disagreed, while 35 individuals (37.2%) were neutral on the sugar firm's implementation of standard costing methods. Additionally, 30 individuals (31.9%) agreed, and 18 individuals (19.1%) highly agreed with the use of these measures. When asked if the sugar firm implements target costing procedures, 5 individuals (5.3%) disagreed, while 46 individuals (48.9%) were unsure. On the other hand, 33 individuals (35.1%) agreed, and 10 individuals (10.6%) highly agreed. The findings indicated that 19 individuals (20.2%) disagreed, while 24 individuals (25.5%) were uncertain about whether the sugar company implements activity-based costing procedures. On the other hand, 29 individuals (30.9%) agreed, and 22 individuals (23.4%) highly agreed. Finally, 1 individual (1.1%) expressed extreme disagreement, 10 individuals (10.6%) disagreed, and 35 individuals (37.2%) remained neutral. Both 30 (31.9%) and 18 (19.1%) agreed equally. The investigation additionally confirmed that the sugar company gives cost breakdown statistics for the objective of enhancing efficiency.

### 4.5.2 Budget Accounting Practice and Financial performance

The researcher aimed to determine the impact of budget accounting practices on the financial performance of Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya. The data analysis employed a Likert Scale with five levels, where a score of one (1) represented the lowest positive response and a score of five (5) indicated the highest favorable response. The scale was defined as follows: 1 - Strongly Disagree (SD), 2 - Disagree (D), 3 - Neutral (N), 4 – Agree (A), 5 - Strongly Agree (SA). The findings obtained from the Likert Scale were presented in table 4.6.

**Table 4. 6: Likert Scale on Budget accounting practice**

| Description | N | SD (%) | D (%) | N (%) | A (%) | SA (%) |
|---|---|---|---|---|---|---|
| My sugar firm provides budgetary estimates. | 94 | 2(2.1) | 14(14.9) | 36(38.3) | 23(24.5) | 19(20.2) |
| My sugar firm provides Budgetary Planning Process | 94 | 19(20.2) | 0(0) | 24(25.5) | 29(30.9) | 22(23.4) |
| My sugar firm provides Budget allocations and expenditures | 94 | 5(5.3) | 0(0) | 46(48.9) | 33(35.1) | 10(10.6) |
| My sugar firm provides timely budget approvals | 94 | 2(2.1) | 14(14.9) | 36(38.3) | 23(24.5) | 19(20.2) |
| My sugar firm provides budgetary records to the public | 94 | 5(5.3) | 0(0) | 46(48.9) | 33(35.1) | 10(10.6) |

**Source: Researcher, (2024)**

The results presented in table 4.6 indicate that 2 (2.1%) of the respondents severely opposed, 14 (14.9%) disagreed, 36 (38.3%) were indifferent on the sugar firm's provision of budgetary estimates. On the other hand, 23 (24.5%) agreed and 19 (20.2%) highly agreed. Regarding the provision of budgetary planning procedure by the sugar corporation, 19 individuals (20.2%) strongly disagreed, 24 individuals (25.5%) were indifferent, 29 individuals (30.9%) agreed, and 22 individuals (23.4%) strongly agreed. Moreover, about the provision of budget allocations and expenditures by the sugar firm. Out of the total respondents, 5 individuals (5.3%) strongly agreed, 46 individuals (48.9%) were neutral, 33 individuals (35.1%) agreed, and 10 individuals (10.6%) strongly agreed. Regarding the prompt budget approvals granted by the sugar firm, 2.1% severely opposed, 14.9% objected, 38.3% were indifferent, while 24.5% agreed and

20.2% highly agreed. In addition, sugar companies disclosed their financial data to the public.

### 4.5.3 Performance evaluation accounting practice and financial performance

The study aimed to determine the impact of Performance evaluation accounting management practice on the financial performance of Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya. The data analysis employed a Likert Scale with five levels, where a score of one (1) represented the lowest positive response and a score of five (5) indicated the highest favorable response. The scale was defined as follows: 1 - Strongly Disagree (SD), 2 - Disagree (D), 3 - Neutral (N), 4 – Agree (A), 5 - Strongly Agree (SA). The findings obtained from the Likert Scale were presented in table 4.7.

**Table 4. 7: Likert Scale on Performance evaluation accounting management practice**

| Description | N | SD (%) | D (%) | N (%) | A (%) | SA (%) |
|---|---|---|---|---|---|---|
| My sugar firm provides internal audits | 94 | 0(0) | 27(28.7) | 24(25.5) | 29(30.9) | 14(14.9) |
| My sugar firm provides external audits | 94 | 0(0) | 18(19.1) | 30(31.9) | 35(37.2) | 11(11.7) |
| My sugar firm provides performance reports | 94 | 0(0) | 5(5.3) | 46(48.9) | 33(35.1) | 10(10.6) |
| My sugar firm provides financial statements | 94 | 0(0) | 25(26.6) | 26(27.7) | 29(30.9) | 14(14.9) |
| My sugar firm reviews accounting records periodically | 94 | 0(0) | 18(19.1) | 30(31.9) | 35(37.2) | 11(11.7) |

**Source: Researcher, (2024)**

The results presented in table 4.7 indicate that 27 individuals (28.7%) strongly disagreed and 24 individuals (25.5%) were neutral about the provision of internal audits by the sugar firm. Additionally, 29 individuals (30.9%) agreed and 14 individuals (14.9%) strongly agreed. Regarding the provision of external audits by the sugar firm. Out of the total respondents, 18 (19.1%) expressed disagreement, 30 (31.9%) remained neutral, while 35 (37.2%) agreed and 10 (10.6%) highly agreed. When determining if the sugar company offers performance reports, 5 individuals (5.3%) expressed disagreement, while 46 individuals (48.9%) remained neutral. On the other hand, 33 individuals (35.1%) agreed, and 10 individuals (10.6%) highly agreed. Regarding the provision of financial statements by the sugar firm, 25 individuals (26.6%) disagreed, while 26 individuals (27.7%) agreed. Additionally, the survey found that sugar companies often examined their accounting records.

### 4.6 Diagnostic Tests

**Table 4. 8: Normality Test**

| | **Kolmogorov-Smirnov[a]** | | **Shapiro-Wilk** | |
|---|---|---|---|---|
| | **Statistic** | **Sig.** | **Statistic** | **Sig.** |
| Cost accounting management practice | .162 | .178 | .952 | .406 |
| Budget accounting management practice | .207 | .324 | .912 | .268 |
| Performance Evaluation accounting management practice | .171 | .128 | .951 | .382 |

**Source: Researcher, (2023)**

The results of the Kolmogorov-Smirnov (KS) and Shapiro-Wilk (SW) tests verified that the residuals were normally distributed (significance level >.05), as shown in table 4.8. Consequently, the statistical tests for normalcy yielded substantial results, leading to the utilization of a parametric test. The Kolmogorov-Smirnov (KS) test results presented in Table 4.8 reveal that the data gathered on cost accounting practice ($p = 0.178 > 0.05$), budget accounting practice ($p = 0.324 > 0.05$), and Performance Evaluation accounting practice ($p = 0.128 > 0.05$) follow a normal distribution. Therefore, we affirm the null hypothesis. However, the results from the SW analysis indicated that the data gathered on cost accounting management practice ($p = 0.406 > 0.05$), budget accounting management practice ($p = 0.068 > 0.05$), and performance evaluation accounting management practice ($p = 0.382 > 0.05$) had a normal distribution. Therefore, we conclude that the null hypothesis is accepted since the data follows a normal distribution and exhibits normality. Consequently, the tests for normalcy yielded significant results, indicating the need to employ parametric testing for analysis.

### 4.6.2 Heteroscedasticity Test

The Levene statistic was used in the study to test the idea that the dependent variable's variance stayed the same across all levels of confounding factors. Table 4.9 showed the results.

**Table 4. 9: Test for Homogeneity**

| | Levene Statistic | Sig. |
|---|---|---|
| Cost accounting management practice | 2.219 | .107 |
| Budget accounting management practice | 2.139 | .122 |
| Performance Evaluation accounting management practice | 1.921 | .201 |

**Source: Field Data, (2024)**

A p-value below 0.05 is considered statistically significant based on the Levene statistics. In these circumstances, the null hypothesis is rejected. Conversely, the null hypothesis is deemed valid when the p-value is greater than 0.05. The significance of the results in Table 4.9, indicating a p-value more than 0.05, should be highlighted. Based on these findings, we may infer that the variance of the dependent variable remains consistent across all levels of the explanatory factors. This conclusion is drawn from the fact that all significant values (p-values) were more than 0.05, leading us to reject the null hypothesis. This demonstrates that the variances are uniform.

### 4.6.3 Linearity Test

Linearity testing is employed as a diagnostic tool to ascertain whether the connection between the independent and dependent variables adheres to the assumption of linearity.

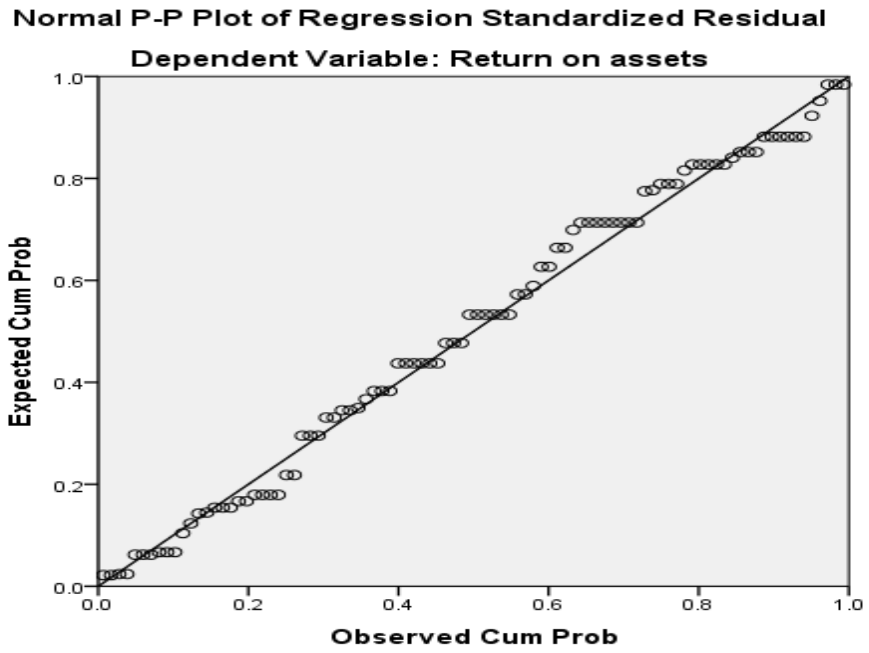


**Figure 4. 1: Linearity Test**

Based on Figure 4.1, the normal P-P plot indicated that management accounting practices, specifically cost accounting practice, budget accounting practice, and performance evaluation accounting practice, had a linear relationship with financial performance. However, there was a significant deviation from normality as observed from the approximation to the line of fit. Therefore, the data exhibited a normal distribution and thus was suitable for conducting parametric tests, such as linear regression.

### 4.6.4 Multicollinearity Test

**Table 4. 10: Tests for Multicollinearity**

| Model | Collinearity Statistics | |
|---|---|---|
| | **Tolerance** | **VIF** |
| (Constant) | | |
| Cost accounting practice | .701 | 1.427 |
| Budget accounting practice | .691 | 1.447 |
| Performance Evaluation accounting practice | .680 | 1.471 |

Dependent variable: Financial performance

**Source: Researcher, (2024)**

The tolerance and Variance Inflation Factor (VIF) values were utilized to assess the presence of multi-collinearity. The presence of a tolerance value less than 1 and a VIF value less than 10 suggests the absence of multicollinearity. The VIF values for cost accounting practice, budget accounting practice, and performance evaluation accounting practice are 1.427, 1.447, and 1.471, respectively. The tolerance value for cost accounting practice was 0.701, which is less than 1. Similarly, the tolerance value for budget accounting practice was 0.691, again less than 1. Lastly, the tolerance value for performance evaluation accounting practice was 0.680, still less than 1. This indicated the absence of multicollinearity.

### 4.6.5 Correlation analysis

**Table 4. 11: Pearson Correlation**

| | | Cost accounting management practice | Budgeting accounting management practice | Performance evaluation accounting management practice | Firm size | ROA |
|---|---|---|---|---|---|---|
| Cost accounting practice | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| | N | 94 | | | | |
| Budgeting accounting practice | Pearson Correlation | .452** | 1 | | | |
| | Sig. (2-tailed) | .000 | | | | |
| | N | 94 | 94 | | | |
| Performance evaluation accounting practice | Pearson Correlation | .710** | .452** | 1 | | |
| | Sig. (2-tailed) | .000 | .000 | | | |
| | N | 94 | 94 | 94 | | |
| Firm size | Pearson Correlation | .711** | .453** | 1 | | |
| | Sig. (2-tailed) | .000 | .000 | | | |
| | N | 94 | 94 | 94 | 94 | |
| ROA | Pearson Correlation | .607** | .599** | .577** | .579** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | |
| | N | 94 | 94 | 94 | 94 | 94 |

**Source: (Researcher, 2024)**

The results above show that, at a significance level of 0.05, the practice of cost accounting was a strong predictor of financial performance ($r = 0.607$, p-value = $0.000 < 0.05$). Therefore, implementing cost accounting management practices directly results in improved financial performance. A robust and statistically significant correlation was shown between the use of budgeting accounting practices and achieving financial

success. The Pearson correlation coefficient (r) was 0.599, and the p-value was 0.000, indicating a significant association at a significance level of 0.05. This implies that increasing the allocation of funds towards accounting practices results in improved financial performance. The results confirmed that, with a significance threshold of 0.05, the implementation of performance evaluation in accounting significantly predicted financial success ($r = 0.577$, p-value $= 0.000 < 0.05$) as firm size had($r = 0.579$, p-value $= 0.000 < 0.05$). The implementation of performance evaluation accounting practices directly correlates with an improvement in financial performance. This affirms that management accounting practices significantly affects performance of sugar firms as agreed further by Waihenya's (2018) wile evaluating of the effects of managerial accounting methods on the financial performance of manufacturing enterprises in the industrial district of Nairobi.

### 4.7 Regression Analysis

The study aimed to determine the impact of management accounting methods on the financial performance of Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya. An analysis of simple linear regression was undertaken for the practices of cost accounting management, budgeting accounting management, and performance assessment accounting management. Subsequently, both multiple regression and hierarchical regression analyses were performed.

#### 4.7.1 Cost Accounting Practice and Financial Performance

The study aimed to determine the impact of cost accounting management practices on financial performance. This analysis was conducted using a basic linear regression test.

**Table 4. 12: Simple Linear Regression for Cost Accounting Practice**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .607[a] | .368 | .361 | .91607 | .368 | 53.634 | 1 | 92 | .000 |

a. Predictors: (Constant), Cost accounting practice

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 45.008 | 1 | 45.008 | 53.634 | .000[b] |
| | Residual | 77.204 | 92 | .839 | | |
| | Total | 122.213 | 93 | | | |

a. Dependent Variable: Return on assets

b. Predictors: (Constant), Cost accounting practice

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .217 | .443 | | .490 | .625 |
| | Cost accounting practice | .926 | .126 | .607 | 7.324 | .000 |

a. Dependent Variable: Return on assets

**Source: Researcher, (2024)**

Table 4.12 indicates that the management accounting practice is responsible for 36.8% of the variance in financial performance, as the R-square value of 0.368 suggests. Conducted at a significance level of 0.05, the ANOVA test revealed that the cost accounting technique greatly influenced the financial performance of public sugar companies in the Lake area economic block. This was demonstrated by a significance

value of 0.000, which was less than the selected significance level (p=0.000 0.05). A t-statistic of 7.324 and a p-value of 0.000, which is less than the significance level of 0.05, show therefore the significant influence of cost accounting on the financial performance of public sugar companies in the Lake area economic block. The null hypothesis was thereby disproved. Public sugar companies in the Lake region economic block showed a 0.926 increase in financial performance by using cost accounting techniques. The equation of the regression model reflects this as: The equation is Y = 0.217 + 0.926X.CP Gohil (2019) looked at the financial performance and cost accounting methods of the Indian sugar industry. The results exposed that the financial performance of the sector was clearly influenced by cost accounting. Target costing has been found by Fridh and Borgenas (2016) as very vital for Swedish manufacturing companies. It aligns with the findings of Salawu, Oyesola, and Tajudeen (2016), who conducted a survey on the adoption of activity-based costing among manufacturing companies in Nigeria. However, there is disagreement with Waihenya's (2018) evaluation of the effects of managerial accounting methods on the financial performance of manufacturing enterprises in the industrial district of Nairobi. Waihenya reported that the practice of cost accounting had no meaningful impact. The distinction is in the varying extent of manufacturing companies in the industrial sector, rather than in sugar companies.

### 4.7.2 Budgeting Accounting Practice and Financial Performance

The study aimed to determine the impact of budgeting accounting practices on the financial performance of public sugar firms in the Lake Region economic block. This was accomplished with a basic linear regression analysis.

**Table 4. 13: Simple Linear Regression for Budgeting Accounting Management Practice**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .599[a] | .359 | .352 | .92262 | .359 | 51.571 | 1 | 92 | .000 |

a. Predictors: (Constant), Budgeting accounting practice

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 43.899 | 1 | 43.899 | 51.571 | .000[b] |
| | Residual | 78.313 | 92 | .851 | | |
| | Total | 122.213 | 93 | | | |

a. Dependent Variable: Return on assets

b. Predictors: (Constant), Budgeting accounting practice

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.046 | .487 | | -.095 | .925 |
| | Budgeting accounting practice | .989 | .138 | .599 | 7.181 | .000 |

a. Dependent Variable: Return on assets

**Source: Researcher, (2024)**

The data shown in table 4.12 shows that the R-square value was 0.359, indicating that 35.9% of the variability in financial performance can be explained by the use of budgeting accounting. Budgeting accounting played a vital role in predicting the financial performance of public sugar enterprises in the Lake region economic block. This is corroborated by the fact that the p-value was 0.000, which is less than the predetermined significance level of 0.05 ($p=0.000<0.05$). The study findings revealed

that the adoption of budgeting accounting technique had a significant influence on the financial performance of public sugar enterprises in the Lake region economic block. This was corroborated by a highly significant t-statistic of 7.181 and a p-value of 0.000, which falls below the recognized threshold of 0.05.

This led to the rejection of the null hypothesis. Public sugar companies in the Lake region economic block have better financial results when their accounting and budgeting practices are well-managed. Financial performance rises by 0.989 percentage points for every one percentage point improvement in budgeting, accounting, and management practice.

The regression model equation is $Y = -0.046 + 0.989XBP$.

The study's conclusions are in line with those of Amalokwu and Obiajulum (2018), who looked at management and budgetary control practices in Nigeria, and Mohamed, Kerosi, and Tirimba (2016), who looked at the Dara Salaam Bank headquarters in Somalia and how different budgetary control techniques affected organizational performance. The results of this study run counter to those of Apunda and Ndede (2020), which looked at how commercial parastatals in Kenya fared financially after using management accounting techniques. The difference could be explained by the different factors and the different scope of the investigation.

### 4.7.3 Performance evaluation accounting practice and Financial Performance

The study aimed to determine the impact of performance evaluation accounting management practices on the financial performance of public sugar enterprises in the Lake Region economic block. This was accomplished with simple linear regression analysis.

**Table 4. 14: Simple Linear Regression for Performance evaluation accounting management practice**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .577[a] | .333 | .325 | .94149 | .333 | 45.876 | 1 | 92 | .000 |

a. Predictors: (Constant), Performance evaluation practice

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 40.664 | 1 | 40.664 | 45.876 | .000[b] |
| | Residual | 81.548 | 92 | .886 | | |
| | Total | 122.213 | 93 | | | |

a. Dependent Variable: Return on assets

b. Predictors: (Constant), Performance evaluation practice

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.046 | .515 | | -.089 | .929 |
| | Performance evaluation practice | .983 | .145 | .577 | 6.773 | .000 |

a. Dependent Variable: Return on assets

**Source: Researcher, (2024)**

The results in table 4.13 indicated that the R-square value was 0.333, suggesting that 33.3% of the variation in financial performance may be attributed to the practice of performance assessment accounting. The technique of performance assessment accounting was crucial in forecasting the financial performance of public sugar enterprises in the Lake Region economic block ($p=0.000 < 0.05$).The financial

performance of public sugar firms in the Lake Region economic block was strongly influenced by the practice of performance assessment accounting. This is evidenced by a t-statistic of 6.773 and a p-value of 0.000, which is less than the significance level of 0.05. The null hypothesis was disproven. Thus, we may deduce that the implementation of performance evaluation accounting management practices has a direct impact on financial performance. The financial performance of public sugar businesses in the Lake Region economic block increased by 0.983 for every unit increase in performance evaluation accounting management practice. This relationship is represented by the regression model equation:

$Y\text{-}.046+0.983X_{PEP}$

The study supports the findings of Fwamba (2018), who concluded that performance evaluation practices have a significant impact on the financial performance of Sugar Manufacturing Companies in Kenya. Additionally, I concur with the findings of Obange, Onyango, and Siringi (2021) that highlight the substantial impact of performance evaluation management practices on the sugar business. The findings contradict the study conducted by Gichaaga (2022) on the effects of management accounting procedures on the financial performance of manufacturing enterprises in Kenya. Gichaaga concluded that the practice of performance evaluation management was not important. The discrepancy is ascribed to the contrasting nature of manufacturing enterprises in Kenya and public sugar corporations.

### 4.7.4 Multiple Regression

The purpose of the study was to ascertain the overall effect of management accounting techniques on the financial performance of companies engaged in public sugar

manufacturing in Kenya's Lake Region Economic Block. The study was performed using multiple linear regression tests.

**Table 4. 15: Multiple Regression**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .627[a] | .393 | .372 | .90816 | .393 | 19.394 | 3 | 90 | .000 |

a. Predictors: (Constant), Performance evaluation practice, Cost accounting t practice, Budgeting accounting practice

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 47.985 | 3 | 15.995 | 19.394 | .000[b] |
| | Residual | 74.228 | 90 | .825 | | |
| | Total | 122.213 | 93 | | | |

a. Dependent Variable: Return on assets

b. Predictors: (Constant), Performance evaluation practice, Cost accounting practice and Budgeting accounting practice

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -2.883 | .379 | | -7.606 | .000 |
| | Cost accounting practice | .994 | .108 | .496 | 9.192 | .000 |
| | Budgeting accounting practice | .797 | .094 | .456 | 8.453 | .000 |
| | Performance evaluation practice | .993 | .107 | .495 | 9.191 | .000 |

a. Dependent Variable: Return on assets

**Source: Researcher, (2024)**

The study aimed to determine the impact of management accounting methods on the financial performance of Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya. Each variable underwent a simple linear regression test before being included in the multiple regression analysis. The results of the hypothesis test were presented. At a significance level of 0.05, the ANOVA test showed that the independent variables - Cost accounting practice, budgeting accounting practice, and Performance evaluation accounting practice - were predictors of financial performance among Public Sugar Manufacturing firms in the Lake Region Economic Block, Kenya. The study found that the practice of cost accounting was a strong indicator of financial performance in Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya ($p=0.000<0.05$). The practice of budgeting accounting was found to be a strong indicator of financial performance in Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya ($p=0.000<0.05$).

When the practice of cost accounting increased by one unit, the financial performance of Public Sugar Manufacturing firms in the Lake Region Economic Block, Kenya, increased by 0.994. Similarly, a one-unit increase in budgeting accounting practice resulted in a 0.797 increase in financial performance, while a one-unit increase in performance evaluation accounting practice led to a 0.993 increase in financial performance. The study demonstrated that in order to achieve financial success in Public Sugar Manufacturing firms in the Lake Region Economic Block, Kenya, the practices of cost accounting, budgeting accounting, and performance evaluation accounting were shown to be highly valuable. This is reflected in the regression model equation: $Y = -2.883+0.994X_{CP}+0.797\ X_{BP}+0.993\ X_{PEP}$. The study's conclusions are in line with those

of Amalokwu and Obiajulum (2018), who looked at management accounting practices in Nigeria.

### 4.7.5 Hierarchical Regression Analysis

The influence of company size moderation, management accounting practices, and financial performance of Public Sugar Manufacturing enterprises in the Lake Region Economic Block, Kenya, was investigated using a hierarchical regression analysis. The findings are displayed in the table provided below. The researcher observed and recorded the fluctuations in R-squared, F-value, and p-value throughout each stage.

Table 4.15 provides a summary of the pertinent findings.

**Table 4. 16: Model Summary for Moderating Variable of Firm size**

| Model | $R^2$ | R Square change | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .393[a] | | .358 | .49466 |
| 2 | .683[b] | .290 | .455 | .62510 |
| 3 | .798[c] | .115 | .625 | .51837 |

**Source: Field Data (2024)**

1. Predictors: (Constant), Cost accounting practice, Budgeting accounting practice, Performance evaluation practice
2. Predictors: (Constant), Cost accounting practice, Budgeting accounting practice, Performance evaluation practice* firm size

3. Predictors: (Constant), Cost accounting practice*firm size, Budgeting accounting practice*firm size, Performance evaluation practice *firm size, interaction effect

Table 4.16 presents the findings of a hierarchical regression analysis that examines the influence of firm size on the connection between management accounting methods and financial performance. The change in R-squared from model 1 to model 2 was 0.29, indicating an increase. Similarly, the change in R-squared from model 2 to model 3 was an increase of 0.115. In the first model, management accounting practices explain 39.3% of the variation in management accounting practices. In the second model, when firm size is taken into consideration, management accounting practices and firm size together explain 68.3% of the variation in financial performance. In the third model of management accounting practices and interactions, the word accounted for explained 79.8% of the variance in financial performance. This agrees with Mohamed, Kerosi, and Tirimba (2016), who looked at the Dara Salaam Bank headquarters in Somalia and how different budgetary control techniques affected organizational performance.

**Table 4. 17: ANOVA Table for Hierarchical Regression**

| **ANOVA[a]** | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 30.079 | 1 | 30.079 | 77.830 | .000[b] |
| | Residual | 34.396 | 93 | .386 | | |
| | Total | 64.475 | 94 | | | |
| 2 | Regression | 30.089 | 2 | 15.044 | 38.501 | .000[c] |
| | Residual | 34.386 | 92 | .391 | | |
| | Total | 64.475 | 94 | | | |
| 3 | Regression | 41.097 | 3 | 13.699 | 50.981 | .000[d] |
| | Residual | 23.378 | 91 | .269 | | |
| | Total | 64.475 | 94 | | | |

1. Predictors: (Constant), Cost accounting practice, Budgeting accounting practice, Performance evaluation practice
2. Predictors: (Constant), Cost accounting practice, Budgeting accounting practice, Performance evaluation practice* firm size
3. Predictors: (Constant), Cost accounting practice*firm size, Budgeting accounting practice*firm size, Performance evaluation practice *firm size, interaction effect

**Source: Field Data (2024)**

Regression coefficients and their statistical significance are shifted when the moderating influence of firm size is taken into account. When the regression model added firm size, the regression coefficients for the financial performance components became larger and more statistically significant. The significance level for all three modes was less than 0.05 (0.000<0.05). These findings indicate that the size of a firm had a statistically significant impact on how management accounting methods and financial performance are related. The findings confirmed that the size of a firm had a substantial impact on the association between management accounting procedures and financial success. The results of this study affirms to those of Apunda and Ndede (2020), who looked at how commercial parastatals in Kenya fared financially after using management accounting techniques.

**Table 4. 18: Regression Coefficients for Moderating Variable of Firm size**

| Coefficients | | | | | |
|---|---|---|---|---|---|
| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | B | Std. Error | Beta | | |
| **Constant** | .769 | .174 | | 4.422 | .000 |
| 1.Management accounting practices | 1.152 | .180 | .515 | 6.401 | .000 |
| 2.Management accounting practices* Firm size | 1.051 | .477 | .039 | 2.203 | .006 |
| 3. Cost accounting practice*firm size | 1.486 | .471 | .371 | 3.155 | .003 |
| Budgeting accounting practice*firm size | 1.382 | .187 | .617 | 7.383 | .000 |
| Performance evaluation practice *firm size | .551 | . 271 | .371 | 2.032 | .005 |
| Interaction Effect | .034 | .061 | .205 | .577 | .169 |

1. Predictors: (Constant), Cost accounting practice, Budgeting accounting practice, Performance evaluation practice
2. Predictors: (Constant), Cost accounting practice, Budgeting accounting practice, Performance evaluation practice* firm size
3. Predictors: (Constant), Cost accounting management practice*firm size, Budgeting accounting practice*firm size, Performance evaluation practice *firm size, interaction effect

**Source: Field Data (2024)**

The coefficient finding for the moderating influence of firm size on the connection between management accounting methods and financial performance is positive, as shown in table 4.18. Model 2, following moderation, and the interaction term of model 3, demonstrated that all constructs of management accounting procedures exhibited significant and strong predictive power ($P<0.05$), with t values equal to or more than 1.96. The model equation, as provided below, accurately represented these findings.

Financial performance=$0.769+1.486X_{CPFS}+1.382_{BPFS}+0.551_{PEPFS}$

Where Service delivery (**Dependent Variable**)

$_{CP}$ is the Cost accounting practice (**Independent Variable**)

$_{BP}$ is the Budgeting accounting practice (**Independent Variable**)

$_{PEP}$ is the Performance evaluation practice (**Independent Variable**)

$_{FS}$ is the Firm size (**Moderating Variable**)

This suggests that the size of a firm has a substantial impact on how management accounting methods influence financial performance. Wu and Boateng (2020) contend that the size of an organization has a direct impact on its practices and ultimately affects its effectiveness. This study contradicts the findings of Thye (2016) regarding the correlation between company size, overhead expenses, and the adoption of advanced management accounting methods. The scale of manufacturing enterprises in Malaysia exerted a notable impact on performance.

**Table 4. 19: Hypothesis Results**

| Hypothesis | Findings | Decision and basis |
|---|---|---|
| **$HO_1$:** Costing accounting practice has no significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya | Costing accounting practice has a significant positive effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. | Reject 0.000<0.05 |
| **$HO_2$:** Budgeting accounting management practice has no significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. | Budgeting accounting management practice has a significant positive effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. | Reject 0.000<0.05 |
| **$HO_3$:** Performance evaluation accounting management practice has no significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. | Performance evaluation accounting management practice has a significant positive effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya | Reject 0.000<0.05 |
| **$HO_4$:** Firm size has no moderating significant effect on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya | Firm size has a significant positive moderating effect on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. | Reject 0.000<0.05 |

**Source: Field Data (2024)**

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This Chapter presented a summary of the study findings, conclusions, recommendations and suggestions for further research study.

## 5.2 Summary of the Findings

This study aimed to determine the impact of management accounting methods on the financial performance of Public Sugar Manufacturing businesses in the Lake Region Economic Block, Kenya. In order to achieve this, the study identified four objectives: to examine the impact of cost accounting management practices on the financial performance of Public Sugar Manufacturing firms in the Lake Region Economic Block, Kenya; to assess the influence of budget accounting management practices on the financial performance of Public Sugar Manufacturing firms in the Lake Region Economic Block, Kenya; to evaluate the effect of performance evaluation accounting practices on the financial performance of Public Sugar Manufacturing firms in the Lake Region Economic Block, Kenya; to determine the moderating effect of firm size on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in the Lake Region Economic Block, Kenya.

### 5.2.1 Cost accounting practice

According to the first objective, the practice of cost accounting management has an influence on the financial performance of public sugar manufacturing firms in lake

region economic block, as confirmed by respondents who stated that sugar firms implemented standard costing measures and target costing measures. The study revealed that the implementation of cost accounting management practices had a substantial impact on the financial performance of practice of cost accounting management has an influence on the financial performance of public sugar manufacturing firms in lake region economic block, Kenya. The statistical analysis showed a strong relationship between cost accounting management practices and financial performance, with an R2 value of 0.368, a t-statistic of 7.324, and a p-value of 0.000, which is less than the significance level of 0.05. We therefore reject the hypothesis.

### 5.2.2 Budgeting accounting practice

In regard to the second objective, budgeting accounting management practice basically budgetary estimates and budgetary planning procedures were agreed on by respondents to be of significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya. Budget accounting management practice had a significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya ($R^2$ 0.359; t-statistic=7.181, p-value=0.000<0.05).We therefore reject the hypothesis.

### 5.2.3 Performance evaluation practice

Based on the third objective, performance evaluation practice was practiced through internal audits, external audits. Furthermore, performance reports had a direct effect on financial performance of sugar firms as agreed by respondents. The study found out that performance evaluation practice had a significant effect on financial performance of

Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya ($R^2$ 0.333; t-statistic=6.773, p-value=0.000<0.05).We therefore reject the hypothesis.

### 5.2.4 Firm size moderation

Finally, the fourth objective study findings confirmed that there was a significant moderating effect of firm size on the relationship between management accounting practices and financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya ($R^2$ 0.393; p-value=0.000<0.05). The size of the firm therefore had a positive significant effect on management accounting practices and financial performance. We therefore reject the null hypothesis.

## 5.3 Conclusion

Management accounting practices that is cost accounting practice, budget accounting practice and performance evaluation practice had a significant effect on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya leading to reject the null hypothesis. This implied that a unit increase in Management accounting practices led to change in financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya.

## 5.4 Recommendation

The study recommends the following.

Public Sugar Manufacturing firms in Lake Region Economic Block should practice standard costing, target costing, activity-based costing and lifecycle costing measures so as to improve cost accounting practice.

Public Sugar Manufacturing firms in Lake Region Economic Block should design budgetary estimates, implement budgetary planning process, avail budget allocations, expenditures and ensure timely budget approvals so as to improve performance

Public Sugar Manufacturing firms in Lake Region Economic Block should streamline the internal audits and external audits for easier performance evaluation.

The study recommends growth of assets for the firm so as to enable a significant influence on performance.

### 5.5 Implications of the Study

Management accounting practices on basis of its accounting basis examined through cost, budgeting and performance evaluation determines financial performance of sugar firms in Kenya. This further implies that transaction cost theory and accountability theory would determine management accounting practices functionality and its through accountability that financial goals become a reality.

### 5.6 Suggestion for Further Research

The study recommends use of other management accounting practices not used in the current study; this may include strategic management accounting and Variance Analysis. Further studies can use other moderators such as age of the firm. It is suggested that other studies can be conducted on private sugar companies in Kenya.

## REFERENCES


Abbasi, A., & Malik, Q. A. (2019). Firms' Size Moderating Financial Performance in Growing Firms: An Empirical Evidence from Pakistan. *International Journal of Economics and Financial Issues, 5(2), 334-339.*

Ackert, L. F., Church, B. K., Venkataraman, S., & Zhang, P. (2019). The joint impact of accountability and transparency on managers' reporting choices and owners' reaction to those choices. *Journal of Accounting & Public Policy, 38(2), 130- 145*

Ackert, L. F., Church, B. K., Venkataraman, S., & Zhang, P. (2019). The joint impact of accountability and transparency on managers' reporting choices and owners' reaction to those choices. *Journal of Accounting & Public Policy, 38(2), 130- 145.*

Ahmad, K. (2022). The adoption of management accounting practices in Malaysian small and medium-sized enterprises. *Asian Social Science, 10(2), 236-249.*

Ahmad, K., & Zabri, M.S. (2019). Factors explaining the use of management accounting practices in Malaysian medium-sized firms. *Journal of Small Business and Enterprise Development, 22(4), 762-781*

Akombo, A. O. (2020). Analyzing Kenyan's Sugar Industry Competitiveness through Porter's Diamond Model. (*Master in Business Administarion (MBA)),* Nairobi, Unpublished.

Ali, S. A., Yassin, M., & Aburaya, R. (2020). The impact of firm characteristics on corporate financial performance in emerging markets: evidence from Egypt. *International Journal of Customer Relationship Marketing and Management (IJCRMM)*, *11*(4), 70-89.

Ali, M. J., Mukulu, E., Kihoro, J. M., & Nzulwa, J. D. (2016). Moderating Effect of Firm Size on the Relationship between Functional Integration and Firm Performance.

*International Journal of Academic Research in Business and Social Sciences, 6(9), 38-57.*

Almeida, Isis, 2016 "Brazil's Sugar Industry Gets a Break as Profits Return for Mills" Bloomberg.*: http://www.bloomberg.com/news/articles/2016-02-02/brazil-s-sugar-industry-gets-a-break-as-profitsreturn-for-mills.*

Alzoubi, N. Y. (2018). The extent use of contemporary management accounting practices and its effect on operational performance of industrial corporations in Jordan. *Asian J. of Finance & Accounting, 10(1), 367-389*

Amalokwu, S. & Obiajulum, A. (2008). The Effect of Budgets on Financial Performance of Manufacturing Companies in Nairobi County. *Sourced from in-athesis-present-a-paper-titled-Budgetary-and/ (Accessed 12/08/2018).*

Anthony Vance, Paul Benjamin Lowry, and Dennis Eggett (2013). "Using accountability to reduce access policy violations in information systems," *Journal of Management Information Systems (JMIS), vol. 29(4), pp. 263–289*

Anthony Vance, Paul Benjamin Lowry, and Dennis Eggett (2019). "A new approach to the problem of access policy violations: Increasing perceptions of accountability through the user interface," *MIS Quarterly (MISQ), vol. 39(2), pp. 345–366.*

Apunda, M. A. & Ndede, F. W. S. (2020). The effect of adoption of management accounting practices on financial performance of commercial parastatals in Kenya. *International Academic Journal of Economics and Finance, 3(6), 119-130*

Aris Toharisman and Triantari (2022) Rise and fall of Indonesian sugar industry, *International Sugar Journal, vol. 116, no. 1389, p.666-670*

Aruomoaghe, J., & Agbo, S. (2013). Application of variance analysis for performance evaluation: A cost/benefit approach. *Research Journal of Finance and Accounting ISSN, 2222-1697*

Ater, D. K., Kisaka, S. E., Iraya, C., & Mwangi, M. (2017). The Mediating Effect of Firm Growth on the Relationship between Capital Structures and Value of Nonfinancial Firms listed at the Nairobi Securities Exchange (NSE). *Journal of finance, 37(5), 1141-1150*

Ayuba, H., Bambale, A. J. A., Ibrahim, M. A., & Sulaiman, S. A. (2019). Effects of Financial Performance, Capital Structure and Firm Size on Firms' Value of Insurance Companies in Nigeria. *Journal of Finance, Accounting & Management*, *10*(1).

Bagley, P. L. (2022). Negative affect: A consequence of multiple accountabilities in auditing. Auditing*: A Journal of Practice and Theory, 29(2), 141-157.*

Balakrishnan R., Pan F. (2017). On the association between current period budget target achievability and the properties of non financial measures. *Journal of Management Accounting Research*, 29, 47-62.

Bergner, J. M., Peffer, S. A., & Ramsay, R. J. (2016). Concession, contention, and accountability in auditor-client negotiations. *Behavioral Research in Accounting, 28(1), 15-25*

Berry, A.J., Coad, A.F., Harris, E.P., (2011), "*Emerging themes in management control: a review of recent literature*", The British Accounting Review, Vol. 41 No. 1, pp. 2-20.

Birgen, Y. & Bogonko, J. B. (2018). Effect of price interventions on financial performance of Mumias Sugar Company. *International Academic Journal of Economics and Finance, 3(2), 292-308*

Bovens, M. (2010). Two concepts of accountability: Accountability as a virtue and as a mechanism. *West European Politics, 33(5), 946-967.*

Bransah, W. (2019). Analyzing the effects of management accounting practices on financial performance of manufacturing companies in Ghana, using management accounting practices, *Finance and Management Engineering Journal of Africa, 1(7), 70-96*

Burkert, M., Fischer, F. M., & Schäffer, U. (2011). Application of the controllability principle and managerial performance: The role of role perceptions. *Management Accounting Research, 22(3), 143-159.*

Carreta, A., Farina, V., (2010), Assessing effectiveness and compliance of banking boards, *Journal of financial Regulation and compliance, 18, (4) 356-369.*

Chabachib, M., Yudha, A., & Udin, U. (2020). The role of firm size on bank liquidity and performance: A comparative study of domestic and foreign banks in Indonesia. *International Journal of Economics and Management Systems*,

Chenhall, R. H., & Moers, F. (2019). The role of innovation in the evolution of management accounting and its integration into management control. *Accounting, organizations and society, 47, 1-13.*

Cheruiyot, K.J. (2017). Determinants of Technical Efficiency in Kenyan Manufacturing Sector. *African Development Review, 29(1), 45-46.*

Cohen, T. R., Panter, A. T., & Turan, N. (2022). Guilt proneness and moral character. Current Directions in Psychological Science: *A Journal of the American Psychological Society, 21(5), 355-359.*

COMESA (2010). Medium Term Strategic Plan, 2011-2019: *Towards an integrated and Competitive common market.*

COMESA (2018). COMESA Countries maintain high sugar production. *E-comesa newsletter issue H582, 3rd may 2018.*

Cooper, D. R., & Schindler, P.S. (2011). *Business research methods.* New York. McGraw Hill.

Cooper, J. & Schindler, P. (2011). An Attempt to Study Intellectual deterioration by Premorbid and Psychotic testing, *Journal of Consulting Psychology***,** 14(95-98).

Corvino, A., Caputo, F., Pironti, M., Doni, F., & Martini, S. B. (2019). The moderating effect of firm size on relational capital and firm performance: evidence from Europe. *Journal of Intellectual Capital*

Creswell, J. (2003). *Research Design*: Qualitative, Quantitative and Mixed Method Analysis. SAGE Publications (4ed).

Dakua, S. (2018). Effect of determinants on financial leverage in the Indian steel industry. *A study on capital structure. International Journal of Finance and Economics, 24(1), 427-436. https://doi.org/https://doi.org/10.1002/ijfe.1671*

Dandago, K. I., & Adah, A. (2013). The Relevance of Variance Analysis in Managerial Cost Control. *Journal of Finance and Investment Analysis, 2(1), 61-67*

Davis, D. & Cosenza, R. M., (2022). ), Control, size, growth and financial performance in the firm, *Journal of Financial and Quantitative Analysis, 7, 1309 – 20*

Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: Evidence from the Asia Pacific region vol. *Journal of Multinational Financial Management*, 14(4–5),387–*405.*

Dickson, D. & Presley, S. M. (2013). Some Specification Test for Panel Data Monte Carlo Evidence and Application to Employment Equation. *Review of Economic Studies, 58(2): 77-97*

Drury, C. (2022). *Management and Cost Accounting (8thed)*. Cheriton House, North Way, Andover, Hampshire, SP BE, United Kingdom.

Dubb, (2017)'Interrogating the Logic of Accumulation in the Sugar Sector of Southern Africa', *Journal of Southern African Studies*, 43, 3 , pp. 471–99, this issue.

Dugger, W. M. (1983). The transaction cost analysis of Oliver E. Williamson: a new synthesis?. *Journal of Economic Issues, 17(1), 95-114*.

Effiong, A. & Ejabu, K. (2020). Liquidity Risk Management and Profitability of Manufacturing Firms. *International Journal of Recent Technology and Engineering,9(1): 580-589*

Egbunike, C.F., & Okerekeoti, C.U. (2018). Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria. *Asian Journal of Accounting Research, 3(2), 142-168.*

Fehrenbacher, D. D., Kaplan, S. E., & Moulang, C. (2020). The role of accountability in reducing the impact of affective reactions on capital budgeting decisions. *Management Accounting Research, 47, 100650.*

Fwamba, S, R (2018) *Influence of Financial Management Practice on Financial Performance of Sugar Manufacturing Companies in Kenya.* Thesis Jomo Kenyatta University

Fiedler, F.E. (1964) A Contingency Model of Leadership Effectiveness. *In: Berkowitz, L., Ed., Advances in Experimental Social Psychology, Academic Press, New York, 149-190. https://doi.org/10.1016/S0065-2601(08)60051-9*

Gichaaga, M, P (2022) *Effects of management accounting practices on financial performance of manufacturing companies in Kenya.*

Gicheru, S., Wayaki, N., & Omiti, J. (2017). Technical Efficiency of Kenya's Sugar Firms: An Agenda for Enhancing Competitiveness. Kenya: *The Kenya Institute for Public Policy Research and Analysis (KIPPRA)*

Gilchris, M. (2013). Influence of bank specific and macroeconomic factors on the profitability of 25 commercial banks in Pakistan during the time period 2007-2011. *American Journal of Business and Finance, 3(2), 117-127.*

Gohil, D. (2019). Comparative Analysis of Cost-Vis-ŭ-vis Financial Performance of Sugar Industry of India. *Indian Journal of Accounting xxxv(1).*

Gohil, D. (2019). Comparative Analysis of Cost-Vis-ŭ-vis Financial Performance of Sugar Industry of India. *Indian Journal of Accounting xxxv(1).*

Government of Kenya (2019). Sugar Industry Strategic Plan (2010-2022]. *Government Printer Nairobi Kenya*

Gul, S., Irshad, F., & Zaman, K. (2018). Factors affecting bank profitability in Pakistan. The Romanian Economic Journal, 14, 61-87.

Hall, A. T., Frink, D. D., & Buckley, M. R. (2017). An accountability account: A review and synthesis of the theoretical and empirical research on felt accountability. *Journal of Organizational Behavior, 38(2), 204-224.*

Hammed, B. A. (2018). For Good and Evil: The Impact of Taxes on the Course of Civilization. Madison Publishers.

Horngren,C. Datar, S., & Rajan,M. (2022). *Cost Accounting*: A managerial Emphasis (14th Ed.). Pearson Education, Inc., New Jersey: Pearson /Prentice Hall.

Huggins, R., Izushi, H., & Thomposon, P. (2013). Regional Competitiveness: Theories and Methodologies for Empirical Analysis. *The Business and Economics Research,*

*6(2), 155- 172. International Journal of Education and Research Vol. 6 No. 6 June 2018 57*

Hansen, S.C., Van der Stede, W.A. (2009). Multiple facts of budgeting: an exploratory analysis. *Management Accounting Research, 15,415-439*

Hurley, P. J., Mayhew, B. W., & Obermire, K. M. (2019). Realigning auditors' accountability: *Experimental evidence. Accounting Review, 94(3), 233-250*

Iskandar, T. M., Sari, R. N., Mohd-Sanusi, Z., & Anugerah, R. (2022). Enhancing auditors' performance: The importance of motivational factors and the mediation effect of effort. Managerial Auditing Journal, 27(5), 462-476.

ISO (2013) *Sugar Year Book 2013, International Sugar Organization*, London – United Kingdom

Jaisinghani, D., & Kanjilal, K. (2017). Non-linear dynamics of size, capital structure, and profitability: Empirical evidence from Indian manufacturing sector. *Asia Pacific Management Review*, 22(3), 159–165.

James, J. & Van, L. (2010) The Effectiveness of Tax Incentives in Accounting Investment Panel Data Evidence From CFA France Zone. *International Journal of Tax and Public Finance, 17(4): 4-21*

Javaid, S., Anwar, J., Zaman, K. & Ghafoor, A. (2018). Determinants of Bank Profitability in Pakistan: Internal Factor Analysis. *Journal of YaÏar University, 6(23), pp. 3794–3804.*

Jooda, D. T., Ladokun, I. O., Ayo-Oyebiyi, G. T. & Ijiwole, A. A. (2022). Mediating Effect of Impulsive Buying on the Relationship between Financial Behavior, Materialism, and Savings Decision of Generation Z.American *Journal of Research in Business and Social Sciences, 2(1): 1-11. https://doi.org/10.58314/890789*

Kalinda, T., & Chisanga, B. (2022). Sugar Value Chain in Zambia: An Assessment of the Growth Opportunities and Challenges. *Asian Journal of Agricultural Sciences, 6(1), 6-15.*

Kamau, .C.N. (2022), Effect of internal controls on the financial performance of manufacturing firms in Kenya. *Unpublished thesis report, University of Nairobi.*

Kamilah, J. M. (2022). A survey of operational budgeting challenges in the insurance industry in Kenya. *Unpublished MBA Thesis, University of Nairobi*

Kegode , P. (2010). *Economic Governance Reform in the Sugar Sub-sector:* Center for Governance and Development.

Ketokivi,M., & Mahoney, J.T. (2020). *Transction cost economics as a theory of supply chain efficiency, production and operations management, 29,1011-103k*

Kenya Association of Manufacturers. (2016). *Annual Report 2016. Sourced from http://www.kam.co.ke/Docs/KAM-Annual-Report-2016.pdf (Accessed 1/8/2018)..*

Kenya Sugar Board (2010). *Kenya sugar board, Kenya sugar industry strategic plan 2010 – 2022: Enhancing industry competitiveness*.

Kenya Sugar Board [KSB] (2022). The Kenya Sugar Industry Value Chain Analysis: *Analysis of the production and marketing costs of sugarcane and sugar related products.http:www.kenyasugar.co.ke/index.php?option=comk2andview=itemandid=61andItemid=184andIang=en*

Kijkasiwat, P., & Phuensane, P. (2020). Innovation and firm performance: The moderating and mediating roles of firm size and small and medium enterprise finance. *Journal of Risk and Financial Management, 13(5), 97-105*

Kim, S., & Trotman, K. T. (2019). The comparative effect of process and outcome accountability in enhancing professional scepticism. *Accounting & Finance, 55(4), 1015-1040.*

Kimunguyi, S., Memba, F., & Njeru, A. (2019). Effect of corporate governance on financial performance of NGOs in heath sector in Kenya. *International Journal of Economics, Commerce & Management, III, 12, 390-407.*

Kinyua, J. K. A. (2016). Effect of Internal Control Systems on Profitability of Companies Quoted in the Nairobi Securities Exchange *(Doctoral dissertation, Jomo Kenyatta University of Agriculture and Technology).*

Kiusya, M (2022) Analysis of financial control practices on performance of manufacturing firms in kisumu county, kenya. *Thesis maseno university*

Koch, C., Weber, M., & Wüstemann, J. (2022). Can auditors be independent? Experimental evidence on the effects of client type. *European Accounting Review, 21(4), 797-823.*

Koech, G.M. (2019). The effect of budgetary controls on financial performance of manufacturing companies in Kenya. *Retrieved from http://hdl.handle.net/11295/94608*

Kodongo, O., Mokoaleli-Mokoteli, T., & Maina, L. N. (2019). Capital structure, profitability, and firm value: Panel evidence of listed firms in Kenya. *African Finance Journal*, 17(1), 1–20.

Kothari, C. R. (2004). Research methodology: *Methods and techniques (2nd Edition)*: New Delhi, India: New Age International (P) Limited.

Kpedor G. (2016) *Budgeting, budgetary control and performance evaluation*: A case study of all Terrain Service Group (ATS).

Larry,M., & Christopher,J. (2009). *Managerial and Cost Accounting.* London, United kingdom

Ligami C. (2019) EAC states pulls out of Regional Power pool for New, *Larger EAPP, the East African, 26, September 2019.*

Liu, Sun, & Kaiser, 2016. Management accounting use and financial performance in public agricultural sector. *Financial Analysts Journal, 63(2):56–68.*

Lerner, J. S., and Tetlock, P. E. 1999. "Accounting for the Effects of Accountability," *Psychological Bulletin (125:2), pp. 255-275*

Macinati, M.S., & Anessi-Pessina, E. (2022). Management accounting use and financial performance in public health-care organizations: *Evidence from the Italian National Health Service. Health Policy, 117(1), 98-111*

Madhuka, H.B.N., & Bandara. R. (2016). *Impact of Management Accounting Practices on Financial Performance of Listed Manufacturing Companies in Sri Lanka.*

Mala, R., Chand, P., & Patel, C. (2018). Influence of experience and accountability on information use and judgments of accountants. *Journal of International Accounting Research, 17(3), 135-151.*

Marginson, D., McAulay, L., Roush, M., & van Zijl, T. (2022). Examining a positive psychological role for performance measures. *Management Accounting Research, 25(1), 63-75.*

Matema, C. P. (2016). *Variance analysis: a solution to financial performance in a non-governmental setting, a case of World Vision.*

Messier, W. F., Quick, L. A., & Vandervelde, S. D. (2022). The influence of process accountability and accounting standard type on auditor usage of a status quo heuristic. *Accounting, Organizations and Society, 39(1), 59-74*

Murphy, P. R. (2022). Attitude, Machiavellianism and the rationalization of misreporting. *Accounting, Organizations and Society, 37(4), 242-259.*

Mathenge, G.D. (2022). Ethical Dimensions in Responsible Professionalism and Accounting Procedures in Kenya: A Critical Analysis of Theory and Practice, *Research Journal of Finance and Accounting, 3(2), 58-69.*

Mbowa S., Guloba M., Mwesigye F., Nakazi F., Mather D., Bryan E. Ogwang A. and Atwine B. (2023). "*Revisiting policy and institutional arrangements affecting sugarcane out-growers and millers in Uganda" produced for the 10th National Forum on Agricultural and Food Security, 2023*

Mbuthia, V. W., & Omagwa, J. (2019). Effect of Budgetary Control on Financial Performance of Selected Commercial Banks in Kenya. *Journal of Economics and Finance 10(3), 34–42. https://doi.org/10.9790/5933-1003053442.*

Mugenda, O.M. and Mugenda, A.G. (2016) *Research Methods, Quantitative and Qualitative Approaches*. ACT, Nairobi.

Muhindi, K. A., & Ngaba, D. (2018). Effect of firm size on financial performance on banks: Case of commercial banks in Kenya. *International Academic Journal of Economics and Finance, 3*(1), 175-190.

Muigai, R. G. (2016). *Effect of capital structure on financial distress of non-financial companies listed in Nairobi Securities Exchange (Doctoral dissertation, COHRED, Finance, JKUAT).*

Mule, K.R., Mukras, M.S. & Nzioka, O. M., (2019). Corporate size, profitability and market value: an econometric panel analysis of listed firms in Kenya. *European Scientific Journal. ISSN 1857- 7431*

Mulford, C. W., and E. E. Comiskey. 2019. The financial numbers game: detecting creative accounting practices. *New York: John Wiley & Sons.*

Mohamed, Evans Kerosi, O. Tirimba. (2016). The effectiveness of budgetary control techniques on organizational performance at Darasalaam Bank Headquarters in Hargeisa Somaliland. *IOSR Journal of Economics and Finance 7 (1), 62-69, 2016.*

Mundu, S. N. (1997). Selected Financial Management Practices by Small Enterprises in Kenya: *The Case of K.I.E Kenya Industries Estates Wanes.*

Mutende, E.A., Mwangi, M., Njihia, J.M. & Ochieng, D.E. (2017). The moderating role of firm characteristics on the relationship between free cash flows and financial performance of firms listed at the Nairobi securities exchange. *Journal of Finance and Investment Analysis, 6(4), 1-3*

Mutune, M. P. (2022). The relationship between financial planning and financial performance of cement manufacturing firms in Kenya. (MBA), *University of Nairobi, Nairobi.*

Mwangi, P.G. (2022). Effects of management accounting practices on financial performance of manufacturing companies in Kenya, Unpublished Msc. *Finance dissertation, University of Nairobi*

Munyoro, G. and Dube, F. (2017). The Significance Of Indigenous Banks To Economic Development In Zimbabwe: A Case Study Of Harare Metropolitan: ISSN 2224-5758 (Paper) ISSN 2224-896X: Vol.7, March, No.3, 2017: *Information and Knowledge Management: www.iiste.org.*

Munyoro, G. and Chirimba, F., T. (2017). "The Contribution of Microfinance to the Development of Rural Farming in Zimbabwe: The Case of Domboshava Rural Farmers: *IMPACT: International Journal of Research in Business Management*

Nair, S. (2020). The Budgetary Process and its Effects on Financial Performance: *A Study of Small and Medium-Sized Enterprises in Yemen. (September).*

Narayan P, B. Kumar, N (2016). "Economic Impact of Tourism on Fiji's Economy: Empirical Evidence from the Computable General Equilibrium Model." *Tourism Economics* 10 (4): 419–33.

Narkunienė, J., & Ulbinaitė, A. (2018). Comparative analysis of company performance evaluation methods. *Entrepreneurship and Sustainability Issues, 6(1), 125-138*

Netondo G Wasma F Maina L. Naisiko J. Masayi N and Ngaira J. (2010). AgroBiodiversity endangered by Sugarcane Farming in Mumias and African *Journal of Environmental Science and Technology Vol. 4 (7), pp 437-445. Retrieved from http://www.academicjournals.org/Ajest*

Ngumi, D. K., & Njogo, M. M. (2017). Effect of budgeting practices on the financial performance of insurance companies in Kenya. *International Journal of Economics, 2(3), 14-30.*

Nguyen, K. (2021). *Way forward for the sugar sub-sector in Kenya. Nairobi: AFA*

NdwigA, N.M. (2011). The Role of Management Accounting In Creating and Sustaining Competitive Advantage. A Case Study of Equity Bank, Kenya. *Master of Commerce in accounting dissertation. University of South Africa. Pretoria*

Nuhu, N.A., Baird, K. and Bala Appuhamilage, A. (2017), "The adoption and success of contemporary management accounting practices in the public sector", *Asian Review of Accounting*, Vol. 25 No. 1, pp. 106-126. https://doi.org/10.1108/ARA-02-2016-0017

Nyaundi J, Ondiek B. A,, and Tibbs C, (2017) Moderating Effect of Firm Size on Financial Reporting and Share Price of Manufacturing Firms Listed at Nairobi Securities Exchange. *Journal of Finance,,*V*ol.5 Nov/Dec 2017*

Odek, O., Kegonde, P., & Ochola, S2016). *The challenges and way forward for the sugar subsector in Kenya*, Fredrich Ebert Stiftung.

Odindo, J. (2018). *Sugar industry on the deathbed, is Government willing to revive it*?, Sunday Standard.

Ohanyelu, C. N. (2022). Family Background as an Indicator of Students' Academic Achievement in Science Subjects among High School Students in Nigeria. *American Journal of Arts and Educational Administration Research, 1(1): 1-10.*

Ohaka, A. & Argwdu, F. (2022) Tax Incentives for Industry Synergy in Nigeria: *A Pragmatic Proprietary System Advocacy; African, Research Review, 6(3): 42-58*

Olaniyi, M. & Oyedokun, D. (2019). Impact of Taxation on Government Capital Expenditure in Nigeria Journal. *Journal of Management and Social Science, 8(2): 674*

Omar, B., & Simon, J. (2017). Corporate aggregate disclosure practices in Jordan. *Advances in Accounting, 27(1), 166-186.*

Omondi, M. & Muturi, W. (2013) Firm size and Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya, *Research journal of accounting and finance 4 (15), 99- 104*

Omondi, G. (2019). *Kenya's Sugar Production Costs set to remain high*, Business, Business Daily.

Omondi, (2013): Analysis of consumer demand for sugar in Kenya (1981-2010): *Unpublished Thesis on development series. HB 0415-287685. Third Edition, U.S.A.*

Onduso, E. O. (2013). The effect of budgets on financial performance of manufacturing companies in Nairobi County *(Doctoral dissertation, University of Nairobi)*

Onyango K N, .Kirimi. T & Baliero. S (2018): Policy options for revitalizing the ailing sugar industry in Kenya. *Tegemeo institute of agriculture policy and development. Policy brief No 30.*

Onwuka, I. A. (2019). Regulatory measures by the government of Kenya in reducing transfer pricing manipulation by Multinational Corporation. *Unpublished MBA Thesis, University of Nairobi.*

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

Ototo G, (2009), a survey of budget implementation process in Kenyan commercial Banks. *Unpublished. MBA project, School of Business, University of Nairobi.*

Oyesola; A., & Tajudeen J. (2016). Activity Based Costing Adoption Among Manufacturing Companies in Nigeria. *Journal of Modern Accounting & Auditing.8 (1).39-40.*

Oztekin, O. (2019). Capital structure decisions around the world: Which factors are reliably important? *Journal of Financial and Quantitative Analysis, 50(3), 301–323. https://doi.org/https://doi.org/10.1017/S0022109014000660*

Pan, P., & Patel, C. (2020). Formal accountability, perceived accountability and aggressive reporting judgements. *Accounting and Business Research, 52(1), 67- 93*

Pandey, J.M. (2006). Financial Management, Vikas Publishing Company, New Delhi

Peecher, M. E., Solomon, I., & Trotman, K. T. (2013). An accountability framework for financial statement auditors and related research questions. *Accounting, Organizations and Society, 38(8), 596-620.*

Perera, D., Chand, P., & Mala, R. (2020). Confirmation bias in accounting judgments: The case for International Financial Reporting Standards for small and medium-sized enterprises. *Accounting and Finance, 60(4), 4093-4119*.

Peytcheva, M., & Gillett, P. R. (2011). How partners' views influence auditor judgment. Auditing: *A Journal of Practice and Theory, 30(4), 285-301*.

Phang, S.-Y., & Fargher, N. L. (2019). Auditors' evaluation of subsequent events: The effects of prior commitment and type of accountability. Auditing: A Journal of Practice and Theory, 38(3), 167-182.

Pike, R. H., Tayles, M. E. & Mansor, N. A. (2021). Activity-based costing user satisfaction and type of system: A research note. *The British Accounting Review, 43(1), 65-72.*

Pimpong, S., & Laryea, H. (2016). Budgeting and Its Impact on Financial Performance: The Case of Non-Bank Financial Institutions in Ghana. *International Journal of Academic Research and Reflection, 4(5), 12-22.*

Qi, Y. (2020). The impact of the budgeting process on performance in small and mediumsized firms in China. *Unpublished Doctorate, University of Twente, China.*

Richard, J. M. (2010). History of managerial thought: A brief overview. *Elsevier (Accessed 26 August, 2023)*

Rikhardsson, P., & Yigitbasioglu, O. (2018). Business intelligence & analytics in management accounting research: Status and future focus. *International Journal of Accounting Information Systems, 29, 37-58.*

Shala, B. , Prebreza, A. and Ramosaj, B. (2021) *The Contingency Theory of Management as a Factor of Acknowledging the Leaders-Managers of Our Time Study Case*

Simidi, W, Ojera, P & Odhiambo, A (2018) Effect of Budgetary Control on Financial Performance: A Comparative Study of Sugar Manufacturing Companies in

Western Kenya. *IOSR Journal of Economics and Finance (IOSR-JEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925.Volume 12, Issue 5 Ser. VIII (Sep. – Oct. 2021), PP 58-68 www.iosrjournals.org*

Siyanbola (2013).The Impact of Budgeting and Budgetary Control on the Performance of Manufacturing Company in Nigeria. *Journal of Business Management & Social Sciences Research (JBM&SSR) ISSN No: 2319-5614 Volume 2, No.12, December 2013.*

Solomon S (2016). "*Sugarcane Production and Development of Sugar Industry in India", Sugar Tech*

Sulaiman, M., Nik Ahmad, N. N. & Alwi, N. (2017). Management Accounting Practices in Selected Asian Countries: *A review of the literature. Managerial Auditing Journal, 19(4), 493-508*

Sunarni, C. W. (2019)," Management Accounting Practices at Hospitality Business in Yogyakarta, Indonesia", *Review of Integrative Business and Economics Research, 4(1), 380-396.*

Tanui, P. J., & Serebemuom, B. M. (2021). Corporate diversification and financial performance of listed firms in Kenya: does firm size matter?. *Journal of Advanced Research in Economics and Administrative Sciences*, *2*(2), 65-77

Tapang, A. T., Uklala, A. P., Bassey, B. E., Ezuwore-Obodoekwe, C. N., Onyeanu, E. O., Ozoji, A. P., & Obo, E. B. (2021). Mediating Effect of Firm Size on Corporate Social Responsibility Cost and Financial Performance of Listed Nonfinancial Companies in Nigeria. *Academy of Accounting and Financial Studies Journal, 25(3), 1-15.*

Tombe, M % Trevor, J (2023). *Finances of the Nation: From Bonds to Banknotes Central.*

Banking and Public Finances in Canada (2023). *Canadian Tax Journal/Revue fiscale canadienne, Vol. 71, No. 3, 2023, p. 825-852, Available at SSRN: https://ssrn.com/abstract=4636727*

United Nations; (2017). *Kenya Sugar Annual Report. Global Agriculture Information Network Report.*

Uyar, A. (2010). Cost and management accounting practices: a survey of manufacturing companies. *Eurasian Journal of Business and Economics, 3(6), 113-125.*

Waihenya, C. (2018). Effects of Managerial Accounting Practices On Financial Performance: A Case of Manufacturing Firms in Industrial Area. *Thesis United states university Africa*

Wekesa, C Waswa, M , Mukras, S & Oima, D (2018) Effect of Competitiveness on Financial Performance of the Sugar Industry in Kenya. *International Journal of Education and Research Vol. 6 No. 6 June 2018*

Wernau, Julie, 2019, "Brazil's Sugar Cane: *An Emerging Debacle" Wall Street Journal, 27 September: http://www. wsj.com/articles/brazils-sugar-cane-an-emerging-debacle-1443392188.*

Williamson, O. E. (2016). The transaction cost economics project: Origins, evolution, utilization. In C. Menard & E. Bertrand (Eds.),*The Elgarcompanion to Ronald H. Coase (pp. 34–42). Cheltenham:*

World bank (2016) *Sugar. Global Implications". International Food and Agribusiness Management Review*

Wu, J, Boateng, A., & Drury, C. (2007). An analysis of the adoption, perceived benefits, and expected future emphasis of western management accounting practices in Chinese SOEs and JVs. *The International Journal of Accounting, 42(2), 171-185.*

Wu, N. M. & Boateng, V. O. (2020). Management accounting practices in Kenya: *A survey. Journal of Management, 6(9), 67-90.*

# APPENDICES

## APPENDIX I: INTRODUCTION LETTER

**Dear respondent,**

I am Colletah Kerubo Okenyoru, a Student at Masinde Muliro University of Science and Technology conducting a study on "*The effect of management accounting practices on financial performance of Public Sugar manufacturing firms in Lake Region Economic Block, Kenya*".

*I request your participation so as to help achieve the above stated subject. I will be glad for your time to see it a success*

Colletah Kerubo Okenyoru

## APPENDIX II: QUESTIONNAIRE FOR MANAGERS, ACCOUNTANTS, AUDITORS

### PART A: GENERAL INFORMATION

1. What is your professional orientation?

Management Accountant  Auditor

Manager  Any other (specify)…….

2. Working experience

0-5 year  6-10- years  11-15 years  above 16 years

### PART B: COST ACCOUNTING PRACTICE

Kindly provide agreement level on Cost accounting management practice**;**

5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly Disagree

| **a)** | **Cost accounting practice** | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 1 | My sugar firm provides standard costing measures | | | | | |
| 2 | My sugar firm provides target costing measures | | | | | |
| 3 | My sugar firm provides activity based costing measures. | | | | | |
| 4 | My sugar firm provides Lifecycle Costing measures | | | | | |
| 5 | My sugar firm reviews accounting records periodically | | | | | |

**BUDGETING ACCOUNTING PRACTICE**

Kindly provide agreement level on Budgeting accounting management practice;

5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly Disagree

| **b)** | **Budgeting accounting practice** | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 1 | My sugar firm provides budgetary estimates | | | | | |
| 2 | My sugar firm provides Budgetary Planning Process | | | | | |
| 3 | My sugar firm provides Budget allocations and expenditures | | | | | |
| 4 | My sugar firm provides timely budget approvals | | | | | |
| 5 | My sugar firm provides cost breakdown records for efficiency purposes | | | | | |

**PERFORMANCE EVALUATION PRACTICE**

Kindly provide agreement level on Performance Evaluation accounting practice;

5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly Disagree

| **c)** | **Performance Evaluation accounting practice** | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 1 | My sugar firm provides Internal Audits | | | | | |
| 2 | My sugar firm provides External Audits | | | | | |
| 3 | My sugar firm provides Performance reports | | | | | |
| 4 | My sugar firm provides financial statements | | | | | |
| 5 | My sugar firm provides budgetary records to the public | | | | | |

**Thank you for participating**

## APPENDIX III: SECONDARY DATA COLLECTION SCHEDULE FOR FIRM SIZE AND FINANCIAL PERFORMANCE

| ITEM | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Total assets | | | | | |
| Total Income | | | | | |

## APPENDIX IV: RAW DATA

| ITEM | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Ksh | "Millions" | "Millions" | "Millions" | "Millions" | "Millions" |
| Total assets | 3,991,778 | 4,649,995 | 5,473,715 | 5,172,171 | 5,686,745 |
| Total Income | 880,380 | 947,647 | 1,064,807 | 982,735 | 994,614 |
| ROA | 0.22 | 0.204 | 0.195 | 0.19 | 0.175 |

# APPENDIX V: NACOSTI RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **547019**

Date of Issue: **11/September/2023**

## RESEARCH LICENSE

**This is to Certify that Ms.. Kerubo Okenyoru Colleta of Masinde Muliro University of Science and Technology, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Homabay, Kakamega, Kisumu, Migori, Siaya, Transnzoia on the topic: Effect of management accounting practices on financial performance of Public Sugar Manufacturing firms in Lake Region Economic Block, Kenya for the period ending : 11/September/2024.**

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