BUDGETING PRACTICES AND FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS IN KENYA

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Budgeting Practices and Financial Performance of Manufacturing Firms in Kenya

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

I dedicate this thesis to God Almighty for the guidance, strength, power of mind, protection, skills and for giving me a healthy life. He has been the source of my strength throughout this program and on his wings only have I soared. I also wholeheartedly dedicate this work to my lovely wife; Tivence who has not only encouraged me but supported me all the way. To my son Samuel who have been affected in every way possible by this quest. To my mentor, friends, workmates, and classmates who shared their word of advice and encouragement this far. My love for you all can never be quantified. God bless you all.

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ABBREVIATIONS AND ACRONYMS

CMA	Capital Market Authority
KAM	Kenya Association of Manufacturers
KNBS	Kenya National Bureau of Statistics
OECD	Organization for Economic Co-operation and Development
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
SPSS	Statistical Package for Social Sciences

DEFINITION OF OPERATIONAL TERMS

Budget Communication	Budget communication involves sharing and clarifying an organization's budgetary goals, plans, and constraints to align stakeholders with strategic objectives and resource allocation (Libby & Lindsay, 2010).
Budget Evaluation	Budget evaluation is "the process of comparing actual performance with budgeted performance to analyze variances assess accountability, and guide corrective actions" Drury (2018)**.**
Budget Monitoring and Control	An arrangement that uses budgeting and reporting to strategize and control the function of an enterprise to ahieve set goals (Madlela & Kapepiso, 2020).
Budget Planning	Budget planning is defined as "the process of preparing detailed financial plans for the future, designed to ensure that resources are used efficiently and objectives are achieved ", Drury (2018).
Budgeting Practices	Budgeting practices refers to the systematic methods, procedures, and guidelines that organizations or individuals follow when planning, allocating, and controlling financial resources based on real-world data and observed behaviors (Covaleski et al., 2003).
Digital Budgeting	Digital budgeting is an application of information systems that "integrates digital platforms to streamline financial planning, allowing for real-

	time tracking, collaboration, and adjustments." Rainer and Ciesielski (2011).
Financial performance	According to Brigham and Houston (2019) is "the outcome of financial decision-making, reflected in profitability, liquidity, and solvency, as well as the company's ability to meet its financial obligations."
Financial Planning	Is the task of determining how a business will afford to achieve its strategic goals and objectives (Awino, Muturia & Oeba, 2011).
Firm Size	Refers to how large or small is a firm (Rwakakamba, 2011). A firm is considered to be small if it employs fewer than 250 persons and which have an annual turnover not exceeding 50 million euros, and/or an annual balance sheet total not exceeding 43 million euros.

ABSTRACT

The objective of this study was to establish the effect of budgeting practices and financial performance of manufacturing firms in Kenya. The following specific objectives were addressed by this study: to establish the effect of budget planning on financial performance of manufacturing firms in Kenya, to examine the effect of budget monitoring & control on financial performance of manufacturing firms in Kenya, to determine the effect of budget evaluation on financial performance of manufacturing firms in Kenya, to evaluate the effect of budget communication on financial performance of manufacturing firms in Kenya, and to assess the firm size as a moderating factor on the financial performance of manufacturing firms in Kenya. This study was anchored on four theories, namely; Incremental Budgeting Theory, Goal Setting Theory, Agency Theory, Resource-Based Theory, and Theory of the Growth of the Firm. Most researches have concentrated mainly on single budgetary control on the financial performance of manufacturing firms. It is on this premise that there existed a knowledge gap on the collective budgeting practices by manufacturing industry, hence the need for this study. This study utilized a mixed research design. The study used primary data and secondary data collection sheet. The study target population were 741 manufacturing firms operating in Kenya. The unit of observation were finance managers, accountants, and supervisors from the supervisory level management. Questionnaires were administered as the main tool of data collection. Secondary data was administered from the financial reports in the books of sampled manufacturing. To check the validity and reliability of the questionnaires, a pilot study was carried out. Descriptive statistical methods were applied to describe application of budgeting practices in the sampled manufacturing firms. Inferential statistical techniques such as correlation analysis and regression analysis were applied to test the hypotheses of association and differences. The collected data was processed using the statistical package for social science (SPSS). The study findings revealed that budget planning, budget monitoring & control, budget evaluation, and budget communication, have significant positive effect on the financial performance of manufacturing firms in Kenya. Furthermore, the firm size significantly moderates the relationship between budgeting practices and financial performance of manufacturing firms, with R-Squared value increasing after including the interaction terms. The budgeting practices 'null hypotheses were all rejected implying a significant effect on financial performance. This study recommends that by setting spending limits and monitoring actual expenditure against budget, firms can prevent overspending and ensure resources are used efficiently. The study suggests the need for further research on other external economic factors besides the budgeting practices that affect the financial performance of manufacturing firms and other companies.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

This study examines budgeting practices and their relationship to financial performance among manufacturing firms in Kenya. Madlela and Kapepiso (2020) define budgeting practices as the preparation and use of budgeting and reporting systems to strategize and control the functions of an enterprise in order to achieve set goals. In the present competitive environment, characterized by dwindling profitability among manufacturing firms, budgetary control plays a significant role in reducing costs and channeling resources toward their optimal use (Madlela & Kapepiso, 2020**).**

The careful stewardship of an entity's resources by its entrusted managers is essential for sustainability. Since no organization possesses all the resources it may require, it is crucial to prioritize financial planning. Neglecting to effectively plan and manage financial resources can jeopardize an enterprise's survival, leading to shortages or mismatches when resources are most needed **(**Mohammed et al., 2021**).** Similarly, Olaniyan and Efuntade (2020b) argue that budgeting and budgetary control serve as essential management and internal control mechanisms, playing a critical role in the planning and control processes that underpin effective management in every organization.

In reviewing the outcome of budgeting practices on manufacturing firms, goal-setting model and resource dependency theory have been proposed as the two primary philosophical tradition. The goal-setting theory propounded by Locke and Latham (2006) underscores the robust connection between goals, commitment and performance to motivate and guide individuals towards realizing goals. Advocates of this proposition opine that specific and challenging goals with appropriate feedback strategies contribute to higher task performance. However, academic note that persistent use of goal-setting theory has the potential to provoke unethical behavior which could hurt organizational performance. The theory therefore, advocates a

budgeting control system that offers a feedback mechanism that indicates progress towards predetermined budgeting goals and employee motivation to set goals. This process generates an effective and efficient cost-saving budgeting mechanism that supports organization's performance.

Resource dependency theory, conversely posit managers play a pivotal part in providing or securing essential resources to an organization through their linkages to the outside environment. Proponents argue that managements bring four benefits to the organization; information in the form of advice and guidance; access to channels of information between the firm and environmental contingencies; preferential access to resources, and legitimacy. The value the theory's study lies in its ability to offer clear understanding on the part that managers play in providing or securing essential resources to an organization through their linkages to the outside environment. It has also been insinuated that the arrangement of resources improves organizational operations, company performance and its very survival.

1.1.1 Global Perspective of Budgeting Practices and Financial Performance

Empirical evidence from both developed and developing economies demonstrates that budgeting practices play a significant, though context-dependent, role in shaping organizational performance. In South Asia, Nair Manoharan (2017) found a strong positive relationship between budgetary control systems and organizational success among selected Indian companies, underscoring the importance of structured budgeting in enhancing performance. Similarly, Chaudhary and Chaudhary (2018), in a study of Nepal Oil Corporation, established that effective budgeting practices significantly improved financial performance. Their findings further highlighted that strong managerial capability, strategic resource allocation, and efficient investment decisions amplify the positive effects of budgeting on financial outcomes.

In the Middle East, Mohammed et al. (2021) examined the impact of budgeting practices on the financial performance of Oman Telecommunication Company and reported a positive association between budgetary control and firm performance. The study revealed a preference for responsibility accounting, revenue budgeting, and

variance analysis, indicating that the use of advanced control techniques strengthens financial performance in capital-intensive industries.

Evidence from Europe presents a more nuanced perspective. In the Czech Republic, Dokulil et al. (2020) found that budgeting practices are influenced not only by firm size and economic fundamentals but also by ownership structure and the level of foreign capital participation. Their findings suggest that many Czech firms continue to use budgets primarily as formal control instruments rather than as managerial tools for performance evaluation and motivation. These conclusions are consistent with Kielanowicz et al. (2023), whose survey of Polish and Lithuanian firms revealed similar patterns in operational budgeting practices, emphasizing limited use of budgets for strategic performance management.

In North America, Libby and Lindsay (2010) examined budgeting in the context of increasingly volatile and unpredictable business environments in the United States and Canada. While acknowledging criticisms that traditional budgets quickly become obsolete due to changing prices, margins, and customer preferences, their findings caution against broad generalizations. Although budgeting may be limited in facilitating rapid adaptation, firms often mitigate these weaknesses by revising targets, supplementing budgets with flexible planning mechanisms, and sourcing resources outside formal budget processes.

Studies from Asia further reinforce the relevance of budgeting in emerging economies. Yang (2010) found that formal budgeting processes positively influenced the financial performance of small and medium-sized enterprises in China, a conclusion supported by later findings from Jeganathan et al. (2021). In Poland, Everien and Claude (2020) examined budgetary control mechanisms in public institutions, focusing on planning, coordination, oversight, communication, and evaluation. Using return on assets as a performance indicator, the study revealed a significant positive relationship between budgetary control and organizational performance.

Overall, the international evidence indicates that budgeting practices generally enhance organizational performance, particularly when integrated with effective planning, monitoring, evaluation, and communication mechanisms. However, the effectiveness of budgeting is highly contingent on organizational context, managerial capability, ownership structure, and environmental uncertainty. These mixed findings underscore the need for context-specific empirical investigation, particularly in developing economies, to better understand how comprehensive budgeting practices influence financial performance.

1.1.2 Regional Perspective of Budgeting Practices and Financial Performance

Empirical evidence from Africa consistently demonstrates a strong positive relationship between budgeting practices and organizational performance across both public and non-profit sectors. In Cameroon, Chimy and Forzeh (2021) examined the link between budgeting practices and the performance of local government councils in the North West region using correlation and multiple regression analysis. Their findings revealed that key budgetary control variables had a statistically significant positive effect on council performance. Similarly, in Nigeria, IMO and Des-Wosu (2018) investigated government-owned companies in Rivers State and established a strong positive relationship between budgetary control and financial performance using Pearson correlation analysis.

Further evidence from Nigeria is provided by Olaniyan and Efuntade (2020b), who assessed the impact of budgeting and budget control systems on the financial performance of tertiary institutions over a 15-year period (2004–2019). The study examined budgeting planning, monitoring, participation, and evaluation, and found that these budgeting variables were significantly and positively related to financial performance, as measured by asset turnover ratios. These findings reinforce the role of structured budgeting systems in enhancing institutional efficiency and accountability.

In East and Southern Africa, mixed results emerge depending on institutional context. In Tanzania, Mkasiwa (2020) explored budgetary practices at Umoja University using qualitative methods informed by Bourdieu’s theory. The study

revealed that decentralized budgeting was often undermined by cynicism and disingenuous practices among resource recipients, limiting its effectiveness despite its intended participatory nature. Conversely, in Namibia, Madlela and Kapepiso (2020) found that budgetary control practices positively influenced the performance of non-profit organizations. Using a qualitative case study approach, the study highlighted the importance of effective budgeting in improving organizational outcomes.

Similarly, Mohamed et al. (2015), in a study of Dara-Salaam Bank in Somaliland, demonstrated that budgetary control techniques such as responsibility accounting, variance analysis, and zero-based budgeting significantly improved budget management and organizational productivity. Collectively, these studies suggest that while effective budgeting and budgetary controls generally enhance performance, their impact depends on institutional discipline, governance structures, and the sincerity of implementation practices.

1.1.3 Local Perspective of Budgeting Practices and Manufacturing Firms in Kenya

Keng'Ara and Makina, (2021) conducted research to examine how budgeting practices affect the performance of marine state agencies in Kenya. The study sought to examine the impact of budgeting processes on organizational performance, focusing specifically on non-commercial marine agencies in Kenya. A multiple regression model was utilized to analyze the data and establish the relationships between the variables. The findings indicated a significant positive relationship between budgeting control, budgeting evaluation, and organizational performance. A related study by (Kimunguyi et al., 2015) investigated the effect of budgetary processes on the financial performance of non-governmental organizations (NGOs) in Kenya's health sector. Using multiple regression analysis, the study found that the variables had a statistically significant impact. The research was investigated through multiple regression analysis. The study revealed the outcome on the variables to be statistically significant. These results align with (Mohamed et al., 2015), who asserted that effective budgeting enhances organizational performance by promoting

the efficient use of available resources. Conversely, Abdallah S. (2018) conducted research on the influence of budgeting processes on the financial performance of Kwale County Government in Kenya. This study employed a descriptive research design and a census survey, with data analysis carried out using SPSS version 21. However, these findings differ from those of Mutungi (2017) , who concluded that county governments face challenges in budget implementation, such as failing to adhere to the budgetary timelines outlined in the Public Finance Management Act of 2017.

1.1.4 Manufacturing Firms in Kenya

As per the Association of Kenya Manufacturers (KAM, 2022), there are 741 manufacturing firms registered with KAM. The reason to base this research on manufacturing firms is that today, doubts are widespread in Kenya's business environment. Most products categorized as consumer goods are not on offer at all (KNBS, 2022). The consumer goods sector is the main portion of the manufacturing sector in Kenya. According to Kenya consumer goods research (2022) however, what we see in Kenya are processors who do very little with regard to value addition. In developed economies manufacturing systems are comparatively elaborate, effective and pretty robust. The Kenyan manufacturing industry however, is still under developed on most facade (Economic Survey, 2021).

According to Adede et al. (2022) Kenya's manufacturing companies has been gyrating around liquidity challenges, flawed budgeting practices (Budget planning, and monitoring and control) and not able to contend with imported goods, recurrent losses and have had an adverse bearing on the company's financial performance. The devastating outcome of underperformance amongst manufacturing companies in Kenya has been highlighted in the recent past few decades. To bolster this point, many companies are under insolvency, tasked with financial restructuring or closed down their operations as evidenced by closure of Cadbury East Africa (KAM, 2016). Others that have been struggling include; ARM Cement (2018), Midland Energy (2017), Deacons East Africa (2017) among others (Economic Survey statistical bulletin, 2010- 2018). Succeeding investigative reports carried out by government

agencies have credited this problem to poor management. Experts and members of the public have respectively shunned these explanations on account of political convenience and absence of scholarly piece supporting this statement. To finance and accounting researchers, the discussion is made more complex by the puzzling empirical link between budgeting practices and financial performance indicators of companies. In light of this ambiguity, an investigation into the impact of budgeting practices on the financial performance of manufacturing firms in Kenya is warranted.

1.2 Statement of the Problem

Manufacturing firms are central to economic growth through employment creation, value addition, and industrial development. Despite this importance, manufacturing enterprises globally and in Kenya continue to experience persistent liquidity constraints and declining financial performance, posing a threat to their survival and continuity. Empirical evidence from the U.S. Bureau of Labor Statistics (2017) indicates that nearly 70% of small and medium-sized enterprises fail within their first three years of operation, with weak budgeting and financial planning practices identified as major contributors. Specifically, deficiencies in budget planning, monitoring, and control undermine effective resource allocation, despite budgets being a core organizational planning tool Foster (2017).

In sub-Saharan Africa, manufacturing firms face compounded challenges arising from limited budgeting expertise, weak planning structures, and inadequate managerial oversight Onduso (2013). Studies further show that spending plans and budgetary control systems the foundation of financial discipline, remain structurally weak, resulting in inefficient financial outcomes (Urban & Naidoo, 2020; Frimpong et al., 2020). These weaknesses persist even in the presence of increased access to credit, suggesting that financing alone does not guarantee improved performance without effective budgeting practices.

Statistical evidence from Kenyan listed manufacturing firms illustrates this contradiction. East African Breweries Limited recorded a steady decline in return on investment (ROI) from 12.8% in 2018 to 7% in 2022, while Carbacid Limited exhibited fluctuating ROI, falling from 10.7% in 2018 to 7.6% in 2020, before

marginal recovery in 2022. Unga Limited displayed pronounced instability, with ROI ranging from –0.07% in 2018 to –0.8% in 2022 (NSE, 2023). Notably, these firms operate formal budgeting systems, yet their financial performance over the 2018–2022 period either deteriorated or fluctuated significantly, raising concerns regarding the effectiveness rather than the existence of budgeting practices.

Empirical studies examining the relationship between budgeting practices and financial performance report mixed and inconclusive findings. While some studies find a positive and significant relationship (Rutto & Oluoch, 2017), Kamau et al (2017), others document negative or insignificant effects Milani (2011), Basuki (2015) Abuga and Muturi (2019), Waikenda, (2020). These inconsistencies suggest unresolved methodological and contextual issues, particularly the omission of critical budgeting dimensions.

Most prior studies have adopted a narrow conceptualization of budgeting, focusing predominantly on budgetary control while neglecting other integral components of the budgeting cycle, including budget planning, budget evaluation, and budget communication Akeem (2014), Chaudhary and Chaudhary (2018). Moreover, much of the evidence originates from developed and Asian emerging economies, limiting generalizability to Kenya. This gap is especially salient given the 2018–2022 period, characterized by economic volatility and post-pandemic recovery pressures.

Consequently, there remains insufficient empirical evidence on how budget planning, budget monitoring and control, budget evaluation, and budget communication influence the financial performance of manufacturing firms in Kenya. This study seeks to address this gap by providing robust, context-specific empirical evidence to inform managerial decision-making and policy formulation.

1.3 Objective of the Study

To carry out the study, the objectives were categorized into general objective and specific objectives.

1.3.1 General Objective

The study seeks to establish the effect of budgeting practices on financial performance of manufacturing firms in Kenya.

1.3.2 Specific Objectives

To fulfil this objective, the study was guided by the following specific objectives;

1. To establish the effect of budget planning on financial performance of manufacturing firms in Kenya.
2. To examine the effect of budget monitoring and control on financial performance of manufacturing firms in Kenya.
3. To determine the effect of budget evaluation on financial performance of manufacturing firms in Kenya.
4. To evaluate the effect of budget communication on financial performance of manufacturing firms in Kenya.
5. To assess the moderating effect of firm size on the relationship between budgeting practices and financial performance of manufacturing firms in Kenya.

1.4 Research Hypotheses

Based on the specific objectives, the study tested the following null hypotheses;

H_{01}: Budget planning has no significant effect on financial performance of manufacturing firms, in Kenya.

H_{02}: Budget monitoring and control has no significant effect on financial performance of manufacturing firms, in Kenya.

H_{03}: Budget evaluation has no significant effect on financial performance of manufacturing firms, in Kenya.

H_{04}: Budget communication has no significant effect on financial performance of manufacturing firms, in Kenya.

H_{05}: Firm size has no significant moderating effect on the relationship between budgeting practices and financial performance of manufacturing firms, in Kenya.

1.5 Justification of the Study

Return on Investment (ROI) is an appropriate measure of financial performance because it directly reflects how effectively budgeting practices translate planned investments into financial returns. Since budgeting guides investment decisions, resource allocation, and expenditure control, ROI closely aligns with the study's objective of assessing the financial impact of budgeting practices.

Manufacturing firms are capital-intensive, and a significant portion of their budgets is allocated to machinery, technology, and production capacity. ROI explicitly links these capital expenditures to returns generated, making it more sensitive to the effectiveness of budgeting than indicators such as ROA or ROS, which focus more on overall asset use or operating margins.

Additionally, ROI enables comparability across firms of varying sizes, which is important given the study's scope and the moderating role of firm size. Unlike EPS, which is affected by capital structure and accounting policies, ROI captures managerial efficiency in utilizing budgeted investments, making it a more suitable indicator of financial performance in this study.

1.6 Significance of the Study

Strengthen budgeting strategies to enhance the financial performance of manufacturing firms in Kenya.The study's outcome to help solidify scholarly contributions towards developing a model for financial improvement among related firms serving diverse interests. Furthermore, it is crucial for stakeholders to be continuously informed and to understand institutional weaknesses to effectively design responsive policies. The recommendations of this scholarly work are essential for both industry participants and external parties as follows;

Government bodies such as the Kenya Manufacturers Association (KAM) and Vision 2030 will value the financial performance trends of manufacturing firms, enabling them to implement appropriate measures to enhance the companies' performance.

Lenders, including financial institutions, may develop optimal financial products for manufacturing firms, considering that the industry needs time loans for capital investment.

To individual investors, both current and perspective, can make informed and prudent investment decisions in manufacturing companies. Additionally, researchers and scholars may further investigate the causal relationship between gearing and profitability in manufacturing firms.

1.7 Scope of the Study

The study explored how budgeting practices influence the financial performance of manufacturing firms in Kenya. It focused on various aspects of budgeting, including budget planning, budget monitoring and control, budget evaluation, and budget communication. Financial performance was measured using the return on investment (ROI) metric. The analysis included all registered manufacturing firms with the Kenya Association of manufacturers (KAM) in Kenya that were operational as of December 31, 2022. According to KAM records, the target population comprised 741 firms. The study covered various geographical regions including Nairobi, Kiambu, Mombasa and Kisumu. Data collection took place from June 2023 to December 2023, utilizing both primary and secondary data. Additionally, the manufacturing industry remains the largest source of employment opportunities, accounting for about 25% of the total employment. The sector supports the advancement of African economies by boosting economic growth rates, diversifying production, reducing imports, and expanding economic infrastructure. (Rotich, 2017). Prior studies, for instance by Schubert and Kirsten (2021), Njeru (2015), Mbogo and Macharia (2021) and Nyambutora and Omwenga (2023), have mostly concentrated on issues of Small and Medium Enterprises.

1.8 Limitations of the Study and Mitigation Measures

This study was confined to manufacturing firms in Kenya, which limits the generalizability of the findings to other sectors such as services, agriculture, or construction where budgeting practices and financial dynamics may differ. To mitigate this limitation, the study drew its sample from a wide range of manufacturing sub-sectors and firm sizes to enhance internal validity and sectoral representation. Future studies may extend the scope to multiple sectors to improve external validity.

Although firms across the country were targeted, regional variations in economic conditions and budgeting environments may not have been fully captured, potentially influencing the observed financial performance outcomes. This limitation was mitigated by including firms from different regions of Kenya, ensuring reasonable geographical dispersion and reducing location-specific bias.

The study relied on self-reported primary data collected through questionnaires administered to finance managers, accountants, and supervisors, which is susceptible to response and social desirability biases. To minimize this risk, respondents were assured of confidentiality and anonymity, and the questionnaire items were carefully structured using clear, neutral wording. In addition, responses were triangulated with secondary financial data to enhance data credibility.

The cross-sectional research design, with data collected at a single point in time, limited the ability to establish causal relationships or observe changes in budgeting practices and financial performance over time. To mitigate this constraint, the study employed robust statistical techniques and relied on established theoretical frameworks to strengthen inference. Future research could adopt longitudinal designs to capture trends and causal dynamics more effectively.

Furthermore, the analysis incorporated secondary financial data covering the period 2018–2022, which may not fully reflect current financial realities, especially given external shocks such as the COVID-19 pandemic and broader economic fluctuations.

This limitation was mitigated by analyzing multi-year data to smooth short-term volatility and contextualizing the findings within prevailing economic conditions.

While firm size was examined as a moderating variable, other potentially influential factors such as technological adoption, organizational culture, and macroeconomic conditions were not included. To address this limitation, the study acknowledged these omitted variables and controlled for key firm characteristics where possible. Future studies are encouraged to incorporate additional moderating or control variables to enhance the comprehensiveness and explanatory power of the findings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provided an assessment of the main budgeting practices theories that informed the study and offers an understanding of how budgetary decisions affects the financial status of firms. The chapter also provided a framework of financial performance prediction models. Additionally, the chapter outlined a theoretical connection between budgeting practices and financial performance. The chapter also examined the empirical literature that explored the connection between the study variables and concluded by critiquing the current literature and identified the gap(s) appropriate for the study.

2.2 Theoretical Review

A model is a systematic generalized explanation of a phenomena that offers a guide to research Thomas (1997). Therefore, as put by Smyth (2004), one should be familiar with theories applicable to his area of research. This research is underpinned by budgeting practices theories that make available the basis of the study variables choice. In particular, the incremental budgeting theory, goal-setting theory, agency theory, resource dependency theory, and theory of the growth of the firm, are reviewed since all of them support the dependent and predictor variables as shown in the conceptual framework. This section outlines the key theoretical approaches that shed light on the relationship between budgeting practices and financial performance.

2.2.1 Incremental Budgeting Theory

Incremental Budgeting Theory, as advanced by Lindblom (1959) and Wildavsky (1964), provides a relevant theoretical foundation for examining budgeting practices and financial performance in Kenyan manufacturing firms. The theory posits that organizations base current budgets on prior-year allocations, making marginal adjustments rather than undertaking comprehensive reviews. Within the empirical

model, this incremental logic directly informs budget planning, where firms rely on historical expenditure patterns to guide resource allocation decisions. Consequently, the effectiveness of budget planning under incrementalism depends on the quality of prior budgets and the firm's ability to incorporate realistic adjustments, thereby justifying its hypothesized influence on financial performance.

Incremental budgeting also shapes budget monitoring and control, as performance is assessed against established baselines derived from previous budgets. This alignment facilitates routine variance analysis and corrective action, supporting the hypothesis that effective monitoring and control positively influence financial performance. However, the theory also implies that weak monitoring systems may allow inefficiencies to persist, reinforcing the need to empirically test this relationship.

With respect to budget evaluation, incremental budgeting limits the depth of post-budget assessment, as evaluation often focuses on deviations from marginal changes rather than fundamental efficiency or strategic alignment. This theoretical weakness underpins the inclusion of budget evaluation in the model, as systematic evaluation mechanisms are necessary to counteract the tendency of incrementalism to perpetuate historical inefficiencies. Accordingly, the model hypothesizes a significant relationship between budget evaluation and financial performance.

Finally, budget communication plays a critical moderating role within an incremental budgeting framework. Since incremental adjustments are easier to interpret and implement, effective communication ensures that budget changes are clearly understood across departments, enhancing compliance and coordination during execution. The theory therefore supports the hypothesis that effective budget communication strengthens the link between budgeting practices and financial performance in manufacturing firms.

Overall, Incremental Budgeting Theory explains the persistence of traditional budgeting practices in Kenyan manufacturing firms while simultaneously justifying the empirical model's focus on budget planning, monitoring and control, evaluation, and communication as critical mechanisms through which incremental budgeting affects financial performance. The hypotheses derived from the model thus

empirically test whether strengthening these budgeting practices can mitigate the inherent limitations of incrementalism and improve firm performance.

2.2.2 Goal-Setting Theory

Goal-Setting Theory, as advanced by Locke (1975) and further refined by Locke and Latham (2013), provides a strong behavioral foundation for explaining how budgeting practices influence financial performance in manufacturing firms. The theory posits that specific, challenging, and well-communicated goals enhance motivation, commitment, and performance when supported by effective feedback mechanisms. Within the empirical model, this directly underpins budget planning, as clearly defined budget targets translate organizational objectives into measurable financial goals, thereby justifying the hypothesized positive relationship between budget planning and financial performance.

The theory further aligns with budget monitoring and control, which functions as a feedback mechanism by tracking actual performance against budgeted targets. Consistent with Latham (2013), timely feedback enables managers and employees to identify deviations and take corrective action, strengthening accountability and operational efficiency. This theoretical linkage supports the hypothesis that effective budget monitoring and control significantly improves financial performance in manufacturing firms.

In relation to budget evaluation, Goal-Setting Theory emphasizes performance appraisal against predefined goals. Systematic evaluation allows firms to assess the extent to which budget objectives have been achieved and to adjust future targets accordingly. This reinforces learning, goal refinement, and continuous improvement, thereby providing theoretical justification for examining budget evaluation as a determinant of financial performance.

Finally, budget communication is central to goal acceptance and commitment, which are core elements of Goal-Setting Theory. Poorly communicated budget goals weaken employee understanding and ownership, undermining performance outcomes, as evidenced in prior studies Simpson (2013), Smith (2006). Effective

communication therefore strengthens alignment between individual effort and organizational financial objectives, supporting its inclusion in the empirical model.

Overall, Goal-Setting Theory complements the empirical model by explaining how budget planning, monitoring and control, evaluation, and communication operate as goal-oriented mechanisms that translate managerial intentions into improved financial performance. The hypotheses derived from the model empirically test whether these budgeting practices enhance goal clarity, commitment, and feedback, thereby improving performance outcomes in manufacturing firms.

2.2.3 Agency Theory

Agency Theory, as articulated by Jensen and Meckling (1976), provides a strong theoretical lens for explaining how budgeting practices influence financial performance through the management of principal agent relationships in manufacturing firms. The theory emphasizes conflicts arising from goal divergence, information asymmetry, and differing risk preferences between principals and agents. Within the empirical model, these challenges justify the inclusion of budgeting practices as governance mechanisms for aligning interests and improving performance.

In relation to budget planning, Agency Theory suggests that participatory and well-structured planning reduces information asymmetry by incorporating agents' operational knowledge while allowing principals to set clear performance expectations. This alignment supports the hypothesis that effective budget planning positively influences financial performance by minimizing opportunistic behavior such as budgetary slack. The theory is most directly aligned with budget communication, which serves as a critical mechanism for reducing information asymmetry and clarifying expectations between principals and agents. Clear communication of budget targets, assumptions, and incentive structures enhances transparency and accountability, thereby supporting the hypothesis that effective budget communication significantly improves financial performance.

With respect to budget monitoring and control, Agency Theory emphasizes oversight and verification to curb moral hazard. Regular reporting, variance analysis, and audits enable principals to assess agents' actions and enforce accountability, providing theoretical support for the hypothesized positive relationship between monitoring and control and financial performance. Regarding budget evaluation, Agency Theory underscores performance assessment and incentive alignment. Evaluating outcomes against budget targets enables principals to link rewards or sanctions to results, discouraging inefficiency and reinforcing goal alignment. This justifies the inclusion of budget evaluation in the empirical model as a determinant of financial performance.

Critically, while Agency Theory highlights the effectiveness of budgeting as a control and communication tool, excessive controls may increase compliance costs and reduce managerial initiative. This suggests that the impact of budgeting practices on performance is contingent on balanced implementation, a premise empirically tested through the study's hypotheses.

Overall, Agency Theory strengthens the empirical model by explaining how budget planning, monitoring and control, evaluation, and communication function as mechanisms for mitigating agency problems and enhancing financial performance in manufacturing firms.

2.2.4 Resource-Based Theory

Resource-based theory (RBT), also known as the resource-based view (RBV), has its proponents in various influential scholars and has experienced substantial development over the years. This theory was initially introduced by Birger Wernerfelt in his 1984 paper, "A Resource- Based View of the Firm", is often credited with laying the groundwork for RBT. He argued that firms should look at their internal resources to comprehend how they can attain a competitive edge. In 1991, Jay Barney further developed the theory, identifying specific criteria that resources must meet to provide a competitive advantage: they must be valuable, rare, inimitable, and non-substitutable.

Edith Penrose in her 1959 book, The Theory of the Growth of the Firm, emphasized the internal resources of firms and their role in growth, laying a conceptual foundation for later RBT development. The initial ideas were formed by examining how firms could use internal resources to gain an edge over competitors. This period emphasized understanding resources' strategic value. The theory was formalized with Barney's VRIN framework, providing a clear criterion for evaluating resources' potential to contribute to competitive advantage. Over time, RBT has been integrated with other strategic management theories, such as dynamic capabilities theory, which addresses how firms adapt their resources over time to maintain competitive advantage in changing environments.

The theory has been subjected to empirical testing and has received both support and criticism. Critics often point out that it can be difficult to apply RBT in practice due to challenges in identifying and measuring intangible resources. Small firms often have limited resources compared to larger firms. However, RBT highlights that unique and specialized resources can still provide a competitive advantage. For instance, niche knowledge or innovative capabilities can allow small firms to compete effectively. Small firms can be more agile in deploying their resources, allowing them to quickly adapt to market changes and exploit emerging opportunities. Large firms typically have a wider array of resources and can benefit from economies of scale. RBT suggests that leveraging this diverse resource base effectively can sustain their market position. Large firms can integrate various resources (e.g., combining technological capabilities with extensive distribution networks) to create complex and difficult-to-imitate competitive advantages.

In conclusion, resource-based theory provides a robust framework for understanding the strategic importance of a firm's internal resources. Its proponents have laid the groundwork for its development, making it a pivotal concept in strategic management. The theory's application varies with firm size, offering insights into how different organizations can leverage their unique resources for sustained competitive advantage. This theory therefore, supports the moderating variable, firm size.

2.2.5 The Theory of the Growth of the Firm

Penrose's Theory of the Growth of the Firm (1959) complements the Resource-Based Theory (RBT) by explaining firm growth as an outcome of how organizations internally deploy and recombine underutilized and evolving resources over time. Central to Penrose's argument is the role of managerial capabilities, learning, and administrative coordination, which simultaneously enable and constrain firm expansion. Growth, therefore, is not merely a function of resource availability but of the firm's ability to organize, plan, and control those resources effectively.

Within the empirical model of this study, budget planning serves as a critical managerial mechanism that aligns financial resources with emerging growth opportunities, consistent with Penrose's emphasis on internal planning and managerial judgment. Budget monitoring and control, on the other hand, facilitate administrative coordination by ensuring that expanding operations remain within managerial and financial capacity limits. Weak or poorly designed budgeting systems may overstretch managerial attention, reduce coordination efficiency, and ultimately undermine growth-related financial performance, a concern explicitly highlighted in Penrose's growth constraints framework.

Firm size plays a pivotal moderating role in this relationship. Drawing from RBT, larger manufacturing firms typically possess broader resource endowments, more specialized managerial expertise, and economies of scale that enable the institutionalization of formal and sophisticated budgeting systems Barney (1991), Wernerfelt (1984). These capabilities enhance the effectiveness of budgeting practices and amplify their impact on financial performance. Conversely, smaller firms, while resource-constrained, may rely on flexibility, experiential learning, and tacit knowledge to adapt budgeting practices in a more informal yet responsive manner. This aligns with Penrose's assertion that managerial learning and resource recombination are central to firm growth, particularly in smaller or younger firms.

Furthermore, budget communication and budget evaluation reflect Penrose's emphasis on administrative coordination and organizational learning. Effective budget communication enhances cross-functional integration, allowing financial

information to flow across departments and supporting coherent decision-making during periods of growth. Systematic budget evaluation promotes learning from past financial outcomes, enabling firms to refine strategies, reallocate resources, and sustain profitable growth over time. These processes resonate with later extensions of Penrose's theory, which view learning and coordination as dynamic processes shaping firm evolution Kor & Mahoney (2004), Lockett et al., (2009).

From a dynamic capabilities perspective, budgeting practices can be conceptualized as organizational routines that transform internal resources into superior financial performance across firms of different sizes Teece et al., (1997). By integrating Penrose's growth logic with RBT, the study empirically tests whether budgeting practices function as dynamic capabilities that support sustained performance under varying firm-size conditions.

Critically, while RBT has been challenged for difficulties in operationalizing intangible resources, and Penrose's theory has been critiqued for limited short-run predictive precision, their integration strengthens the empirical framework. Together, they provide a robust explanation linking resource endowments, managerial coordination, firm size, and financial performance. This theoretical synthesis justifies the inclusion of firm size as a moderating variable and supports the study's hypotheses on the performance effects of budgeting practices in manufacturing firms.

2.3 Conceptual Framework

A conceptual framework consists of broadly defined and systematically organized concepts that serve to provide focus, a rationale, and a tool for integrating and interpreting information Cooper and Schindler (2010). It is a visual model that describes the relationship between two sets of variables: dependent and independent. The conceptual framework depicted in figure 2.1 is a schematic diagram illustrating the connection between these variables. Dependent variable in the research is the financial performance. The independent variable is the budgeting practices. Budgeting practices is represented by four constructs which include; budget planning, budget monitoring and control, budget evaluation and budget communication. The moderating variable is firm size. In this research, dependent

variable (financial performance) is operationalized through return on investment. Conversely, the budget planning is measured by resource allocation, financial control & accountability, performance evaluation, cost efficiency, improves decision making and revenue forecasting. Budget monitoring and control is measured by cost control, improved financial performance, financial accountability and decision-making, and budget evaluation is measured by financial performance, financial efficiency, forecast financial needs, monitor and control expenses and support strategic decision. And budget communication is measured by transparency, stakeholder engagement, clarity and accessibility and timeliness. Firm size is measured by natural log of total assets.

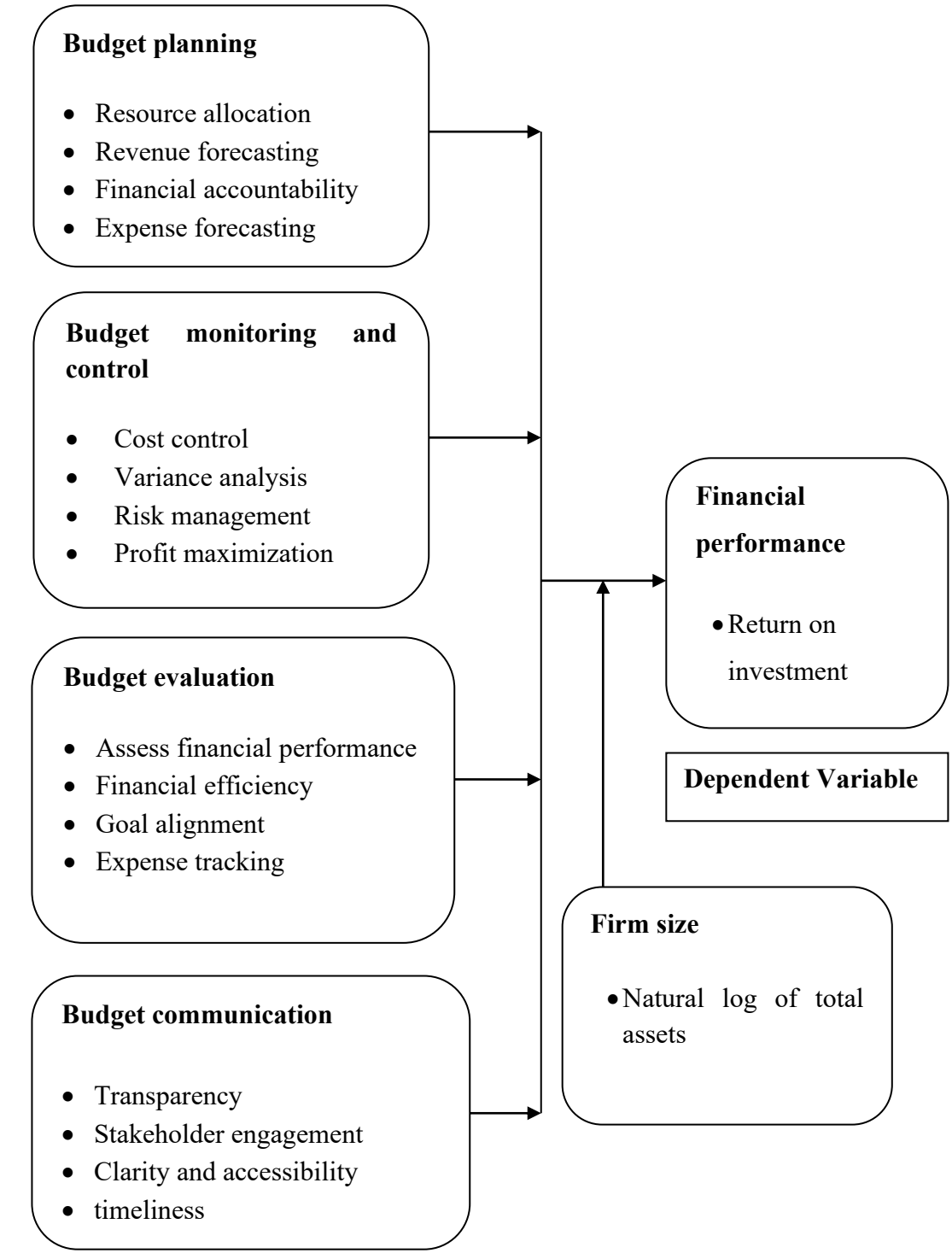

Figure 2.1: Conceptual Framework

2.4 Empirical Review of Related Literature

2.4.1 Budget Planning and Financial Performance

Budgeting is essential for maintaining a business's efficient operations and provides an effective way to manage the organization's limited financial resources Shawe (2023). A budget serves as a financial blueprint for future activities, involving detailed projections of anticipated expenses and revenues Nguyen (2024). Most businesses rely on operational and capital budgeting to allocate their financial resources effectively. Budgets may be balanced, in surplus, or in deficit, depending on the feasibility of projected values. Since financial and time constraints often challenge both individuals and organizations, the efficient management and use of resources are vital for successful business operations Nguyen, (2024). While planning is fundamental to achieving optimal performance, budgeting remains a key tool for corporate managers to support strategic plans and oversee resource allocation. Essentially, a budget outlines an organization's goals and provides a roadmap for top management to acquire and allocate resources to achieve these objectives. Successful budget planning entails establishing specific, measurable objectives for the organization and crafting financial strategies to accomplish them. It requires forecasting future events and aligning business operations with the organization's predefined objectives Brasit (2021). Budget planning plays a vital role in resource allocation, financial control and accountability, cost efficiency, improves decision making, and numerous financial aspects within an organization. It facilitates management of cash flows, enabling accounting managers to control costs, evaluate performance, and anticipate future financial needs.

Additionally, it promotes communication and collaboration among departments and aids in identifying and mitigating potential risks. Integrating budget planning into financial management processes allows accounting managers to optimize resource use and support the organization's overall success. Manufacturing firms use budgeting as a management tool to assess their performance. Budgets also serve to translate companies' medium-term strategic plans into actionable terms. According to Wangari and Luther (2022), the primary purpose of budgeting is to maximize

shareholder value by planning the optimal use of resources, continuously evaluating performance, and making timely adjustments as needed. Most firms review their performance against the budget monthly, allowing them to detect and address any deviations from planned performance promptly.

Agbenyo et al. (2018) carried out research on the effect of budget planning on the financial performance of publicly listed manufacturing firms in Ghana emphasized the critical role of budgeting in improving financial outcomes. The findings revealed a strong positive correlation between effective budget planning and enhanced financial performance. The study concluded that key processes such as planning, monitoring and control, coordination, and evaluation play a significant role in driving positive financial results for manufacturing firms. However, the research was limited to listed manufacturing companies in Ghana and considered budget planning as the only variable, whereas the present study will be conducted in a Kenyan context, incorporating additional financial planning variables. Adembesa & Ombaba (2020) examined the impact of budget planning practices on the performance of manufacturing firms in Uasin Gishu County, Kenya. Their findings revealed that more formalized budget planning results in higher sales revenue, while formalized budgetary control contributes to greater profit growth. The study also noted that formal budget planning and formal budgetary control have different effects on financial performance, with formal budget planning having a stronger influence on sales growth, whereas formal budgetary control has a more significant impact on profit growth. However, how applicable these findings are to manufacturing firms in Kenya, remains unexplored.

According to Foster (2017)) performed their research on 402 medium and large companies in the United States, conducted over a five-year period from 1981 to 1985, examined whether budget practices, including planning, varied significantly between financially successful firms and others. The research found that using budgets for planning and coordination had a positive influence on financial performance. The author asserted that planning enables managers to devise suitable strategies when dealing with uncertainty, making it both valuable and essential for business performance.

These findings align with those by Abongo (2017), Nair Manoharan(2017); Nwanyanwu and Nkiru (2018) who identified a positive and significant association between budgeting planning and businesses' performance. The conclusion was that planning was part of the two primary management accounting facets that enhanced decision-making. This points to the dominant role of planning and the impact of planning on an organizations' achievement.

Libby and Lindsay (2010) examined North American firms to appraise existing literature on budgeting practices, assess prevailing criticisms of budgeting, and identify emerging trends in budgeting related to strategy and planning. The study covered a five-year period (2004–2008) and evaluated budget planning through goal clarity and goal difficulty, while financial performance was measured using return on assets (ROA). The findings revealed a positive relationship between budgeting practices and financial performance, with most participants reporting continued use of budgets for planning purposes. These findings are consistent with those of Suave et al. (2016), who reported that 83% of firms in their sample used budgets for control purposes, with similar outcomes observed in both Canadian and U.S. firms. However, these results contrast with Ahmad and Salleh (2009), who found that the budgeting process and its relationship with performance in small and medium enterprises (SMEs) remain inconclusive.

Mulani et al. (2015) examined the impact of budgeting on the performance of SMEs in India over the period 2006–2010 and found that only 12.5% of SMEs registered as private or public limited companies used budgets for long-term investment planning. The study observed that most SMEs made minimal investments in fixed assets after their establishment and that those engaging in capital budgeting often failed to prepare technically sound budgets. Similarly, Maduekwe et al. (2016) investigated budget usage among SMEs in the Cape Metropolis, South Africa, over a five-year period (2009–2013). Their study explored the types of budgets employed and the extent of their utilization and found that most SMEs used budgets such as sales, purchase, and cash budgets, with fixed budgets being the most common. Key challenges identified included a lack of qualified personnel and inadequate top management support.

These findings are consistent with studies by Matsoso et al. (2021), Frimpong et al. (2020), and Chaudhary and Chaudhary (2018), which established that budget setting, budget administration, and the overall budgeting process significantly influence firm performance. However, Mulani et al. (2015) reported mixed results, arguing that the effects of budget planning and budget monitoring and control on performance vary across firms depending on the extent of budget utilization. In their study, firm performance was measured using sales growth and return on investment (ROI). Although a positive relationship between budgeting processes and overall performance was established, the impact of budgetary planning on sales growth was weak and, in some cases, negatively affected revenue.

Silva and Jayamaha (2012) conducted an empirical study to examine whether the budgetary process in Sri Lanka's apparel industry significantly influenced firm performance. The budgeting process was operationalized through planning, coordination, control, communication, and evaluation, while performance was measured using return on investment (ROI). The study established a significant positive relationship between the budgetary process and firm performance. However, these findings contradict those of Nwanyanwu and Nkiru (2018), who found no significant association between budget planning and ROI. Similarly, Nwosu et al. (2020), in a study on budgeting and production performance in Nigeria, reported that although firms with formal budgeting and control systems achieved higher sales growth, no significant relationship existed between budget planning or control and ROI.

Onduso (2013) examined the influence of budgeting on the financial performance of manufacturing firms in Nairobi over the period 2005–2011, using return on assets (ROA) as the performance indicator. The study employed both primary and secondary data, which were analyzed using statistical software. Regression analysis revealed a statistically significant positive relationship between budgeting practices and financial performance. These findings are consistent with those of Pimpong and Laryea (2016) and Mutai (2015), who similarly reported strong positive associations between budgeting and firm performance in firms operating in Ghana and Kenya,

respectively. However, the results contrast with Sistiyan et al. (2019), who found a negative relationship between budgeting practices and organizational performance.

Oladipo et al. (2020) investigated the role of budgetary control systems on the financial performance of tertiary institutions in Nigeria between 2014 and 2019. The study used a purposive sample of 50 respondents and collected data through questionnaires and interviews. The findings revealed a negative relationship between budgetary control principles and financial management outcomes. These findings align with Abdi and Mutswenje (2023), who also reported a significant negative association between budgetary planning and control, albeit with limited empirical detail. Overall, the literature reflects mixed evidence on the budgeting–performance nexus. While some studies highlight dissatisfaction with traditional budgeting due to limited strategic focus, many organizations continue to rely on budgets as essential managerial tools, underscoring their continued relevance in organizational decision-making.

2.4.2 Budget Monitoring and Control, and Financial Performance

Budgetary control is a system that helps organizations manage costs by setting and adhering to budgets. It involves comparing actual performance against the budgeted figures to identify and address any deviations. This process includes analysing the causes of these differences and implementing recommendations to minimize gaps between planned and actual outcomes. Key objectives of budgetary control include improved financial performance, profit maximization, decision making, promote transparency and financial accountability AL Mahroqi (2021), budgetary control is closely tied to the responsibilities of decision-makers, who must align the budget's targets with the company’s growth objectives. By monitoring budgetary goals against actual achievements, the organization can ensure its activities are on track, making budgetary control a critical financial and administrative function Gunawan et al., (2023). According to Etale and Idumesaro, (2019) that explained the internal control system of the organization is the one that manages the financial side of the business , and budgetary controls fall within the space of this system. The management of the organization works to control its efforts and budget to achieve its financial and

organizational goals, as it assesses its budget to use it effectively to achieve the goals through controlling the management of resources and reducing costs, but it is not possible to achieve the goals set within the plans of the organization unless the budgetary control is properly implemented. Budgetary control is linked to the development of planning, and via planning, the work team develops solutions to the expected financial problems, which helps reduce costs and achieve the goals of the organization.

According to Prasad et al., (2023) budgetary control is a cornerstone of financial management for businesses, widely utilized by CEOs globally for planning, monitoring, and managing financial resources. It plays a critical role in establishing regulations and aligning strategies. By adopting comprehensive budgetary control methods, organizations can allocate funds effectively, monitor expenditures, and maintain financial oversight. Serving as a tool for informed decision-making, it helps mitigate financial risks, optimize resource use, and ensure organizational stability and financial well-being.

Grossi and Argento, (2022) emphasize that the budget control process helps companies address inefficiencies, particularly in managing costs and finances. Beyond defining resources and expenses, budgeting plays a critical role in overseeing an organization's financial operations. It involves setting goals, imposing resource limitations, monitoring progress, assessing performance, and managing risks, all of which support the effective allocation and use of resources. This enables organizations to maintain operational stability and control costs efficiently. According to Pebrianti and Aziza, (2019) , accounting controls are essential for maintaining accurate financial records and minimizing the risk of errors. Most organizations utilize budget control as a key mechanism to enforce internal controls. As Mohamed et al., (2015) point out, this approach provides a robust management framework that ensures resources are allocated efficiently and effectively. The processes of budgeting and budget control are indispensable for overseeing and managing organizational finances. Budgeting supports goal-setting, resource allocation, and performance evaluation while fostering transparency in expenditures. Together, these processes establish benchmarks for comparing actual performance

with plans, identifying inefficiencies, and ensuring accountability. The integration of budgeting and budget control is crucial for promoting efficiency and ensuring the financial sustainability of an organization.

In Kenya, Shitanda Nyongesa et al., (2016) research has explored the connection between budgetary control and financial performance has been explored in various organizational settings. A study focusing on public higher education institutions in Western Kenya employed a descriptive survey and regression analysis, revealing a positive correlation between budgetary control practices and institutional performance. Similarly, Keng'Ara & Makina (2021) examined the impact of budgetary control on the performance of the East African Portland Cement Company. Another investigation by Adongo & Jagongo (2013) explored the relationship between budgetary control and the financial performance of state-owned enterprises in Kenya. Their research aimed to identify key elements of budgetary control within these organizations, analyze the influence of human factors in budgeting, evaluate the implementation of budgetary control in public institutions, and highlight the challenges encountered. Using a descriptive survey design, data were collected from managers in selected state corporations. From a total of 138 corporations, 14 were chosen, and purposive sampling was applied to select 42 participants, including corporate services managers, finance managers, and budget officers. Data was collected through a questionnaire, which was validated through expert review and confirmed reliable using a test-retest method, identified a strong positive correlation between budgetary control and the financial performance of state corporations. It revealed that key aspects of budgetary control could effectively predict organizational financial success. Additionally, human factors such as managerial dedication, employee motivation, training, skills, and attitudes were found to significantly influence the budget control process. Budgetary controls played a critical role in financial performance by guiding the setting of financial goals, fund distribution, and investment strategies. The study recommended enhancing awareness among management and staff regarding the value of budgetary controls, minimizing political interference in budgeting, and leveraging budgets to boost management efficiency (Adongo & Jagongo, 2013) .

In Nigeria, Kool, (2015) research examined the impact of budgetary control on organizational performance and efficiency, emphasizing the strong interconnection between budgets and performance. It concluded that effective budgeting and budgetary control are essential for organizations to meet their goals and improve performance by maximizing the efficient allocation and management of resources. Mbuthia & Omagwa, (2019) investigating the influence of budgetary control on the financial performance of selected commercial banks in Kenya revealed a significant and positive impact. However, this research was centred on commercial banks rather than manufacturing firms. Similarly, another study examining the relationship between budgetary control and firm performance, focusing on the East African Portland Cement Company Limited, identified a strong positive correlation of 54.4% between budgetary control and financial performance, as indicated by profit before tax.

However, this study was limited to a sample of 45 participants from a single manufacturing company. According to Alireza and Nair (2021) a budgetary control system is essential for every business, regardless of its size small, medium, or large. It serves as a tool for forecasting, assigning departmental responsibilities, and optimizing resource utilization. This system enables managers to enhance their skills and experience, ultimately improving organizational efficiency. As a result, it contributes to higher productivity, profitability, and return on investment. Budgetary control also allows senior managers to ensure spending limits are appropriate and provides corporate leaders with the ability to track revenue and expense levels in operational activities. Moreover, it facilitates the coordination of organizational activities. By implementing budgetary control measures, employees can be guided to achieve set targets, and performance can be evaluated by comparing actual results with budgeted figures, enabling timely corrective actions for the future.

2.4.3 Budget Evaluation and Financial Performance

According to Selim et al. (2022) budget evaluation involves comparing actual expenditures to previously projected ones. This process is crucial for gaining a comprehensive understanding of an organization’s spending, revenue, and public

needs. It plays a vital role in verifying whether the budget aligns with established policies. If discrepancies arise such as the budget not aligning with policy goals or actual spending exceeding projections adjustments, either minor or significant, may be required. Additionally, the budget serves as a key tool for identifying gaps between allocated funds and actual expenditures, aiding in performance measurement Ho, (2018). In this way, budgeting acts as a benchmark for assessing the effectiveness of an organizations or government's management. Budgets play a crucial role in organizations as they help manage costs effectively. Practical budgeting, in particular, ensures that over- or under-budgeting is minimized by providing accurate financial estimates Auerbach & Gale,(2020), For instance, a manufacturing budget for a product allows accountants to calculate its cost by outlining expenses such as labour, materials, transportation, and other miscellaneous costs. By adding these together along with the desired profit margin, the total product cost can be determined.

Over the years, budgeting has been prioritized in organizations, especially in manufacturing firms, due to its growing importance Auerbach & Gale,(2020), For example, during crises like the COVID-19 pandemic, many manufacturing companies faced financial challenges, such as disruptions in raw material supply, forcing them to operate with limited resources. Budgeting became even more essential during this period, enabling organizations to plan and allocate their constrained funds effectively. Additionally, budgeting helped reduce internal disputes, as it provided transparency about the company's financial struggles during the pandemic. This transparency allowed employees to better understand the challenges and work collaboratively toward improving organizational performance (Auerbach & Gale, 2020).

Evaluation involves analysing a project's outcomes and results in relation to its intended goals and objectives Radelet (2022). According to the IMF (2017), evaluation is essential for fostering learning from past experiences and enhancing accountability. The Board has consistently highlighted the significance of a strong monitoring and evaluation (M&E) system to guide strategic planning, prioritize and allocate resources, and design and implement capacity development (CD) projects

that effectively address the needs of the Fund's membership (IMF, 2018b). Additionally, a well-functioning M&E system can help build trust with recipient authorities and gain support from donors. Budget evaluation demonstrate the strongest correlation with performance, highlighting potential risks for organizations lacking in these areas Olando, (2021).

Budget evaluation serve as a preventative mechanism against fund misappropriation. According to Panyako and Miroga (2024) consistent and thorough follow-ups are essential to ensure accountability in budget estimates, ensure financial efficiency, forecast financial needs and financial reporting. Due to its importance, this topic has garnered significant research interest, though existing studies remain insufficient and inconclusive. For example, Wang and Niu, (2020) examined the relationship between budget monitoring and evaluation and the performance of local governments in China. The findings suggested that inadequate budget monitoring and evaluation in county governments could negatively impact institutional performance. However, their study did not establish a connection between budget monitoring and evaluation and financial performance. In contrast, Tsonkov (2023) concluded that monitoring and evaluation were critical success factors for local governments in Bulgaria. Similarly, Maeenuddin et al.,(2024) investigated the impact of monitoring and evaluation on financial sustainability in Pakistan, identifying the former as the predictor variable and the latter as the dependent variable. Their findings, however, revealed no significant influence of monitoring and evaluation on financial sustainability.

Zhao, (2022) investigated how technological innovation affects evaluation practices in organizations in Singapore. Through paired-sample analysis of pre- and post-performance audits, the study demonstrated a notable improvement in financial performance for organizations that strategically adopted budget monitoring and evaluation practices. However, the research did not examine local or county governments. In contrast, Jacqueline, (2024) focused on the influence of monitoring and evaluation on financial management within local governments in Rwanda. The study employed a descriptive research design and found that monitoring and evaluation played a crucial role in enhancing financial management within local

institutions. Nyagah and Njoka (2022) investigated the impact of public participation on the financial performance of Embu County's government. Data for their research was collected using a self-administered, semi-structured questionnaire.

The findings showed that public participation justified the need for monitoring and evaluation practices but did not establish a relationship between budget monitoring and evaluation and financial performance. Similarly, Njiru and Thoronjo (2023) investigated the budgeting process in Kenyan nongovernmental organizations. Guided by the resource-based theory, the study used simple random sampling to select participants and collected data through a semi-structured questionnaire, with regression analysis employed for data analysis. The research identified weaknesses in the budgeting process due to insufficient monitoring and evaluation, emphasizing its importance but failing to link it directly to financial performance.

Chepkorir et al., (2021) employed a correlation survey research design to explore the connection between budgetary evaluation and financial outcomes. The results indicated that budgeting significantly influenced the financial performance of Kericho County's government. The budgetary evaluation process involves several key stages: establishing performance targets or standards for the various departments within the organization, engaging relevant stakeholders in the budgetary policy process to facilitate effective target setting, and fostering appreciation and ownership of the established targets. This approach enhances commitment to achieving performance outcomes by the end of the budget period. The study employed a correlational survey research design, whereas the proposed research takes a descriptive approach, marking a methodological distinction. (Wandera & Sang, 2017) explored the sustainability of NGOs through their budgeting processes using a descriptive research design.

Their findings highlighted that the evaluation aspect of budgeting plays a critical role in achieving desired financial performance. Actively involving stakeholders in the budgeting process is essential for prudent resource management. In many cases, the effectiveness of an organization’s management is reflected in how frequently stakeholders are engaged in budgetary discussions. While the study emphasized the

impact of budgetary evaluation on financial sustainability, the proposed study focuses specifically on financial performance, creating a conceptual gap between the two.

Chelangat (2018) explored the role of financial budgeting evaluation in promoting the sustainable performance of NGO governance, using a descriptive research design. Their study emphasized that incorporating monitoring and evaluation in budgeting is crucial for achieving financial performance. However, many NGOs have yet to fully adopt this practice. Effective implementation requires adherence to regulations in utilizing available resources. While the study examined financial monitoring and evaluation in relation to the sustainability aspect of budgeting, the proposed study focuses on budgeting practices and financial performance in manufacturing firms, a conceptual gap exists between the two areas. Karanja & Yusuf, (2018) studied how budgetary monitoring and evaluation influence the financial performance of NGOs using a descriptive survey research design. Their findings revealed that monitoring and evaluation improve the inclusivity of the budgeting process by tracking adjustments, managing expenditures, and ensuring efficient process execution. It serves as an indicator of whether plans are on track or require adjustments, facilitating budget refinement and improvement. However, the study did not determine the overall effect of budgetary monitoring and evaluation on financial performance, leading to an analytical gap.

2.4.4 Budget Communication and Financial Performance

Budget communication plays a critical role in translating financial plans into actionable organizational outcomes and has been increasingly recognized as a key determinant of financial performance. Through effective budget communication, managers streamline resource allocation, clarify priorities, and align departmental objectives with overall organizational goals Abiji et al., (2024). While budgeting is often viewed as a technical financial exercise, its communicative and motivational dimensions are equally vital for achieving performance outcomes.

Budget communication refers to the process of effectively conveying financial plans, targets, constraints, and assumptions to all relevant stakeholders within an organization Albuali, (2021). Effective communication ensures transparency, enhances stakeholder engagement, improves clarity and accessibility of budget information, and supports informed decision-making Nguyen, (2024). Core attributes of effective budget communication include clarity, consistency, timeliness, feedback mechanisms, and the strategic use of technology.

Timeliness of budget communication is particularly crucial for financial performance. Timely dissemination of budget information enables managers to compare actual results with budgeted targets on a continuous basis, allowing deviations to be identified and corrected promptly Ayuketang Nso, (2020). Delays in communicating budget revisions or execution reports have been associated with unplanned expenditures and cost overruns, as observed in Mexico prior to budget transparency reforms (OECD, 2019). Conversely, timely budget feedback enhances cost control, responsiveness, and fiscal discipline.

Budget communication also operates through vertical and horizontal channels. Vertical budget communication, which flows between top management and lower-level managers, clarifies expectations, performance targets, and accountability structures. Informing departmental managers of approved budgets, funding sources, and subsequent adjustments fosters ownership and commitment to budget execution Ayuketang Nso, (2020). Horizontal budget communication, on the other hand, facilitates coordination across departments, reduces resource conflicts, and enhances collaborative decision-making. Effective horizontal communication is especially important in complex organizations where interdependencies between units affect cost efficiency and operational performance (Abiji et al., 2024).

The growing role of digital communication tools has further strengthened the effectiveness of budget communication. Digital platforms such as dashboards, enterprise resource planning (ERP) systems, and real-time reporting tools enhance accessibility, accuracy, and speed of budget information dissemination. OECD evidence shows that countries adopting digital budget platforms such as South

Korea's Open Fiscal Data initiative and France's interactive budget dashboards have improved transparency, reduced forecasting errors, and strengthened accountability (OECD, 2021; Durkiewicz & Janowski, 2021). Similar benefits have been observed in organizations that employ digital reporting systems to monitor budget execution and performance metrics.

Empirical evidence consistently links effective budget communication to improved financial outcomes. Participatory budgeting initiatives in Brazil and Poland enhanced budget execution, reduced fiscal imbalances, and aligned expenditures with stakeholder priorities (World Bank, 2008; Governance, 2021). In Kenya, the adoption of annual budget review reports has strengthened accountability and reduced fund misappropriation Oguso Ochien'g, (2019). At the organizational level, responsibility-centered budgeting and performance-based budgeting frameworks demonstrate that clearly communicated budget responsibilities and performance metrics improve financial accountability and efficiency.

Professional bodies such as ACCA emphasize tailoring budget presentations to stakeholder needs and promoting two-way communication to build trust and buy-in Kangas et al., (2015). Similarly, the IMF and World Bank highlight transparent budget communication, feedback mechanisms, and performance-oriented frameworks such as MTEF and PBB as critical to enhancing credibility, fiscal discipline, and financial performance (World Bank, 2023).

Overall, effective budget communication characterized by timeliness, strong vertical and horizontal information flows, and the strategic use of digital tools fosters transparency, coordination, and accountability. Organizations that communicate budgets clearly and promptly are better positioned to optimize resource utilization, minimize inefficiencies, and achieve superior financial performance. This provides strong empirical support for the hypothesized positive relationship between budget communication and financial performance in the study's empirical model.

2.4.5 Firm Size and Financial Performance

The reviewed empirical literature on firm size and financial performance presents inconsistent and context-dependent findings, largely attributable to methodological differences, sample characteristics, measurement choices, and institutional settings. While theory suggests that larger firms benefit from economies of scale, superior resource access, and enhanced market power, empirical evidence does not uniformly support a linear size–performance relationship.

From a methodological perspective, a major limitation across several studies is the overreliance on single accounting-based performance indicators, such as (ROA, ROE, EBIT, or EBITDA Abeyrathna & Priyadarshana, 2019; John & Adebayo, 2013; Odalo et al., 2016). Although these measures capture internal operating efficiency, they may not adequately reflect how effectively firms convert invested capital into returns. This limitation justifies the use of Return on Investment (ROI) in the current study, as ROI directly links profits to total investment and provides a more comprehensive measure of capital efficiency, particularly relevant for capital-intensive manufacturing firms.

Sample size and representativeness further explain divergent findings. Several studies relied on small or narrowly defined samples, such as Abeyrathna and Priyadarshana (2019), who examined only 20 firms in Sri Lanka, or John and Adebayo (2013), whose Nigerian study focused on a limited number of beverage firms. Such samples reduce statistical power and restrict generalizability. In contrast, studies employing larger panel datasets and advanced econometric techniques—such as Aydın Unal et al. (2017) using system GMM—offer stronger inference but are predominantly based in non-African or developed-market contexts, limiting their applicability to Kenyan manufacturing firms.

Contextual and institutional differences significantly influence the size–performance relationship. Evidence from developed economies, including the United States Becker-Blaise et al., (2010), often reports a negative or diminishing size effect, attributed to bureaucratic inefficiencies and coordination costs in large firms. Conversely, studies in developing and emerging economies such as Turkey (Aydın

Unal et al., 2017; Ghana Musah et al., 2019; Nigeria John & Adebayo, 2013; Kenya Odalo et al., 2016) more frequently identify a positive relationship, reflecting the advantages of scale, improved access to capital, and stronger market positioning. These contextual differences underscore the need for country-specific analysis using performance measures that reflect investment efficiency, such as ROI.

Another notable limitation in the literature is the treatment of firm size primarily as an independent variable, with limited attention to its moderating role. This approach overlooks how firm size may condition the effectiveness of internal management practices. Mutunga and Owino (2017) partially address this gap by examining firm size as a moderator in Kenya's manufacturing sector, suggesting that size influences how managerial and financial practices translate into performance outcomes.

Furthermore, several studies applied static estimation techniques, such as pooled OLS or simple regression models, which are vulnerable to indigeneity and omitted variable bias. These methodological weaknesses limit causal interpretation of the size–performance relationship. While dynamic models offer improved robustness, their limited use in African manufacturing contexts highlights an empirical gap.

Triangulating findings across countries and industries suggests that firm size does not exert a uniform direct effect on financial performance. Instead, its impact depends on industry characteristics, institutional environments, managerial capabilities, and how effectively resources are deployed. In emerging economies like Kenya, firm size may enhance financial performance by enabling firms to mobilize capital, invest in formal budgeting systems, and improve operational coordination. However, inefficiencies may arise if growth is not supported by strong managerial and financial controls.

In summary, the mixed evidence in the literature supports the need for a context-specific and methodologically refined approach. Accordingly, the current study examines firm size as a moderating variable in the relationship between budgeting practices and financial performance, using Return on Investment (ROI) as the performance indicator. This approach addresses prior methodological limitations and contributes more relevant evidence on capital efficiency within Kenya's manufacturing sector.

2.4.6 Financial Performance

A company's financial performance serves as a key indicator of its overall financial health over time. It reflects the firm's ability to meet its financial goals and objectives through aspects such as revenue generation, cost control, liquidity, solvency, profitability, and operational efficiency Katana et al. (2022). Profitability metrics like Return on Investment (ROI) are particularly useful for evaluating financial success. Various factors contribute to assessing financial performance, including the firm's ability to manage debt, meet short-term financial needs, and minimize costs Kayani et al., (2023). ROA, calculated as net profit divided by total assets, measures how effectively a company utilizes its assets to generate earnings. A higher ROA indicates stronger financial performance and can attract investors to purchase shares, supporting the growth and sustainability of listed manufacturing companies (Mutitu Kiruga et al., 2024).

The company's financial performance has been extensively analyzed by various researchers and scholars. It is considered a critical objective pursued by managers to ensure the company's long-term sustainability. Cappelli and Conyon, (2018) emphasized the importance of performance appraisals, noting that they can be time-consuming and sometimes unpopular among managers. Hammam Roni, (2018) highlighted that financial performance is reflected through the company's profitability over a specific period, with profitability serving as a key metric for stakeholders to evaluate success. In Malaysia, Alarussi, (2019), pointed out that profitability is essential for sustaining both short-term and long-term operations. However, the use of profitability measures to assess performance may vary based on a company's characteristics. This aligns with findings by Ichsan et al., (2021), who studied factors affecting the financial performance of manufacturing companies in Indonesia stock exchange. According to Wamiori et al., (2016), financial performance refers to the evaluation of a firm's policies and operations in monetary terms. It highlights the company's financial strengths and weaknesses by analysing the relationships between items on the financial position and income statement.

Additionally, the term serves as a broad indicator of a firm's overall financial health over a specific period. It can be used to compare firms within the same industry or assess performance across different industries or sectors.

There are various ways to assess a firm's performance, but these measures should be considered collectively. Metrics such as revenue from operations, operating income, cash flow, and total unit sales are commonly used Njeru, (2012). Sunaryo, (2020) suggest that financial performance can be evaluated through return on investment (ROI), competitive position, market share growth, overall profitability, sales volume growth, and improvements in cash flow and profit. Effective performance assessment involves both financial and non-financial indicators. Financial metrics, such as profit, revenue, ROI, return on equity (ROE), and earnings per share (EPS), offer the benefit of being objective, straightforward, and easy to interpret Omar (2017). However, they also present challenges, including limited availability, reliance on historical data, potential manipulation, and incomplete insights. On the other hand, non-financial indicators include factors like employee count, revenue growth, market share, customer satisfaction, and employee satisfaction, though they tend to be more subjective Ondoro, (2017) . Due to the limitations of both financial and non-financial metrics, a hybrid approach that combines both types have become the preferred standard for evaluating firm performance.

The independent variables consist of both subjective and objective measures. While subjective measures provide valuable insights into the business environment, they have certain limitations. Subjective evaluations reflect the firm's perceptions, which may be influenced by individual differences in optimism or pessimism Omar (2017). Additionally, responses may be shaped by the firm's past experience and performance Omar (2017). Therefore, it is essential to incorporate objective measures to accurately assess how the independent variables impact the dependent variable. Quantitative indicators of firm performance include profitability metrics such as gross margin, net margin (e.g., return on sales), return on equity (ROE), economic value added (EVA), and return on capital employed (ROCE). Other performance indicators involve cash flow metrics, such as free cash flow relative to sales, and growth metrics, such as historical revenue growth. Ideally, forward-

looking indicators like projected profitability, expected cash flows, and anticipated growth should also be utilized for a more comprehensive evaluation of a firm's performance Mwaniki (2018).

Empirical research on firm performance in Kenya and comparable emerging economies demonstrates a strong reliance on accounting-based financial metrics to evaluate managerial effectiveness, particularly within the manufacturing sector. Studies focusing on Kenyan firms consistently employ indicators such as ROA, ROE, ROS, and sales growth to capture profitability, asset utilization, and operational efficiency (Ahmed & Mwangi, 2022; Wanjiru, 2021). These measures are valued for their accessibility and direct linkage to audited financial statements, enabling comparability across firms within the same regulatory and reporting environment. Evidence from Kenyan manufacturing and financial sector studies further indicates that profitability and efficient resource utilization are critical determinants of firm growth, competitiveness, and sustainability (Ayoyi, 2021; Kasozi, 2018).

However, the Kenyan manufacturing sector is characterized by capital-intensive production processes, heterogeneous asset structures, and wide variation in firm age and technology adoption. In this context, the extensive use of ROA and related asset-based ratios presents notable methodological limitations. Asset values reported by Kenyan manufacturers are largely based on historical costs and are significantly affected by depreciation policies, revaluation practices, and inflationary pressures, which may distort inter-firm and inter-temporal performance comparisons. Additionally, manufacturing firms frequently employ mixed financing structures involving equity, long-term debt, and retained earnings, further complicating the interpretation of asset-based returns as pure indicators of managerial efficiency (Diaz & Pandey, 2019).

Synthesizing evidence from Kenyan manufacturing studies and broader emerging-market literature suggests that return on investment (ROI**)** offers a more appropriate and context-sensitive measure of financial performance. Unlike ROA, ROI directly evaluates the efficiency with which total invested capital is transformed into returns,

thereby minimizing distortions arising from asset valuation practices and accounting treatments. Prior Kenyan empirical findings linking profitability to firm growth, economies of scale, and improved operational capacity Razaq & Akinlo (2017), Kasozi (2018) further support the use of ROI, as it captures the effectiveness of strategic investment decisions that underpin expansion and long-term competitiveness in manufacturing.

Consequently, informed by sector-specific empirical evidence and methodological critiques of conventional accounting ratios, this study adopts ROI as the primary measure of financial performance for Kenyan manufacturing firms**.** ROI provides a robust and theoretically grounded indicator that aligns managerial decision-making, capital allocation, and performance outcomes, making it particularly suitable for examining the financial implications of budgeting practices within Kenya's manufacturing sector.

2.5 Critique of Existing Literature

The literature review suggests that most previous empirical studies have examined the impact of budget control on firms using various financial performance indicators. Commonly used measures include profitability, firm value, earnings per share (EPS), and profit margin. However, these indicators offer only a limited view of a firm's overall financial health and quality. Ibrahim & Mustapha (2019) emphasized that while financial performance reflects short-term aspects such as profitability, it requires a broader and more comprehensive evaluation to determine a firm's financial sustainability. Similarly, Wambua (2019) highlighted that assessing financial performance extends beyond merely analysing profitability.

The literature review reveals that even when similar financial performance indicators are used, studies have yielded conflicting results. Some show a negative impact, others indicate a positive relationship, while some report no significant effect. This lack of consensus suggests that the influence of budgeting practices on financial performance remains inconclusive. Additionally, most studies have focused on the coordination aspect of budgeting control, with budget implementation often used as a proxy. While this approach helps assess performance, it overlooks key elements such

as revenue forecasting and operating expenses, limiting the comprehensiveness of past research. As a result, previous findings may not fully capture the impact of budget control. This study aims to fill this gap by separately analyzing the effects of budget planning and budget evaluation on financial performance.

2.6 Research Gaps

The reviewed literature reveals several unresolved gaps in the study of budgeting practices and financial performance, particularly within developing and emerging economies. First, most prior empirical studies have examined budgeting practices using isolated financial performance indicators, such as profitability, firm value, or stock returns Huang & Song (2006). While these measures offer useful insights, reliance on single indicators provides a partial and potentially misleading assessment of firm performance. As Huang and Song (2006) note, a firm may report accounting profits yet experience liquidity constraints or inefficient capital deployment, thereby weakening the validity of profitability as a standalone indicator of organizational performance.

Second, empirical findings on the relationship between budgeting practices especially budgetary control and financial performance remain highly inconsistent. Several studies report a negative relationship Milani (2011), Basuki (2015), Suave et al., (2016), Abuga & Muturi (2019), suggesting that rigid budget controls may constrain managerial flexibility and innovation. Conversely, other studies find a positive association Rutto & Oluoch (2017) Kamau et al., (2017), Karimi & Makokha, (2021), arguing that effective budget control enhances cost discipline and performance outcomes. Still, Waikenda (2020) reports no statistically significant effect, further underscoring the lack of consensus in the literature. These contradictory findings indicate that the effectiveness of budgeting practices is likely context-specific, shaped by sectoral characteristics, managerial capability, and institutional environments factors that remain underexplored in Kenyan manufacturing firms.

Third, the literature demonstrates a conceptual and measurement gap in how budgeting practices are operationalized. Many studies rely on cash flow as a proxy for budgetary control, which captures only one dimension of financial discipline. This approach neglects critical budgeting components such as budget evaluation, monitoring, and feedback mechanisms Hancock (2009), Foster, (2017). Consequently, the multidimensional nature of budgeting systems is often oversimplified, limiting understanding of how specific budgeting practices independently and jointly influence financial performance.

Finally, despite the strategic importance of the manufacturing sector to Kenya's industrialization agenda, sector-specific empirical evidence remains limited. Much of the existing research aggregates firms across sectors or focuses on financial institutions, thereby constraining the applicability of findings to manufacturing firms characterized by capital intensity, production volatility, and complex cost structures.

In response to these gaps, the present study adopts a disaggregated approach to budgeting practices, examining budget evaluation, budget monitoring and control, and participative budgeting as distinct constructs. It further employs return on investment (ROI) as a comprehensive measure of financial performance, enabling a more nuanced assessment of how budgeting practices influence the efficiency of invested capital in Kenyan manufacturing firms.

2.7 Summary of Literature

This chapter has reviewed the theoretical and empirical foundations underpinning budgeting practices and financial performance, drawing on incremental budgeting theory, goal-setting theory, stewardship theory, liability management theory, and resource dependency theory. These theories collectively explain the rationale for budgeting, managerial accountability, and resource allocation decisions within organizations. The conceptual framework developed in this chapter illustrates the hypothesized relationships between budgeting practices and financial performance, providing a basis for empirical testing.

Identifying research gaps is critical to advancing scholarly knowledge and enhancing policy relevance. By highlighting conceptual, methodological, and contextual limitations in existing studies, this research responds directly to unresolved debates and avoids replicating prior work without theoretical or empirical advancement. Addressing these gaps enables the study to contribute original insights into how budgeting practices operate within the specific institutional and operational realities of Kenyan manufacturing firms.

Emerging trends in the budgeting literature further justify the focus of this study. Recent scholarship emphasizes participative budgeting, continuous monitoring, and performance-oriented evaluation systems as alternatives to rigid, traditional budgeting models. There is also growing recognition of the need to align budgeting practices with strategic investment efficiency, rather than short-term profit measures. Within the Kenyan manufacturing sector facing rising production costs, technological change, and competitive pressures these trends underscore the importance of examining how integrated budgeting practices influence financial performance measured through ROI.

Accordingly, this study positions itself at the intersection of theory, empirical inconsistency, and emerging managerial practices, contributing sector-specific evidence that informs both academic discourse and managerial decision-making in Kenya’s manufacturing industry.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section focuses on the strategies used to organize the research process for data collection and analysis, aimed at addressing the study's objectives. It discusses the research design, target population, sampling methods, research instruments, and data analysis techniques. Dawson (2010) defines research methodology as the underlying philosophy or guiding principles of research. Similarly, Kombo and Tromp (2009) and Zikmund et al. (2010) explain that research methodology involves outlining the methods used to conduct the study.

3.2 Research Philosophy and Paradigm

Research philosophy provides the epistemological, ontological, and methodological foundations that shape how knowledge is generated, interpreted, and validated within a study Saunders, Lewis, & Thornhill (2019). It informs the researcher's assumptions about the nature of reality (ontology), the nature of knowledge (epistemology), and the appropriate means of inquiry (methodology). A research paradigm, therefore, represents a coherent system of beliefs and practices that guides the entire research process, linking research objectives, questions, methods, and interpretation of findings Cohen, Manion, and Morrison, (2018).

This study is anchored in the pragmatic research paradigm, which is particularly appropriate for research that seeks to examine complex organizational phenomena such as budgeting practices and firm financial performance. Pragmatism rejects the philosophical dualism between positivism and interpretivism and instead emphasizes the primacy of the research problem and the usefulness of knowledge in addressing real-world issues Dewey (1938), Morgan (2007). From a pragmatic standpoint, truth is not viewed as absolute but as that which works in practice, allowing the researcher to draw on multiple philosophical assumptions and methodological approaches as dictated by the research objectives (Creswell & Plano Clark, 2018).

Consistent with this position, the study integrates positivist/post-positivist and interpretive philosophical orientations. The post-positivist stance underpins the quantitative component of the research by assuming that budgeting practices and financial performance relationships can be objectively measured, modeled, and tested using statistical techniques. This aligns with the study's aim of examining causal and correlational relationships between budgeting planning, monitoring and control, evaluation, communication, and financial performance indicators such as return on investment (ROI). Post-positivism further acknowledges that empirical observations are fallible and probabilistic, necessitating rigorous measurement, hypothesis testing, and robustness checks (Phillips & Burbules, 2000).

In contrast, the interpretive paradigm informs the qualitative component of the study by recognizing that budgeting practices are socially constructed and embedded within organizational contexts. Managerial perceptions, experiences, and interpretations influence how budgets are designed, communicated, and utilized in decision-making processes. An interpretive approach therefore enables deeper understanding of the institutional, behavioral, and contextual factors that cannot be fully captured through quantitative measures alone Bryman (2016). This is particularly relevant in developing-country contexts, such as Kenya, where organizational practices may be shaped by informal norms, resource constraints, and managerial discretion.

The adoption of a mixed-methods approach, justified within the pragmatic paradigm, enhances the study's explanatory power through methodological triangulation. Quantitative analysis provides generalizable evidence on the strength and direction of relationships among variables, while qualitative insights offer contextual explanations for observed statistical patterns (Tashakkori & Teddlie, 2010). By integrating these approaches, the study mitigates the limitations inherent in single-method designs and produces findings that are both empirically robust and contextually meaningful.

Overall, the pragmatic paradigm offers a philosophically coherent and methodologically flexible framework that aligns with the study's objectives, research questions, and analytical strategy. It allows the researcher to move beyond paradigm rigidity and generate actionable knowledge that contributes to theory, policy, and managerial practice in budgeting and financial performance research.

3.3 Research Design

Research design refers to the overall plan that guides data collection and analysis in a manner that ensures relevance to the research objectives while maintaining efficiency Kerlinger and Lee (2011). It provides a structured framework for gathering, measuring, and analysing data. This study adopted a mixed research design, as proposed by Creswell (2003), which integrates both quantitative and qualitative approaches within a single study to provide a more comprehensive understanding of the research problem. The mixed-methods approach capitalizes on the strengths of each method while mitigating their individual limitations.

Specifically, the study employed a cross-sectional research design, where data were collected at a single point in time from the target population. This design enabled the researcher to examine the relationships among variables within the same timeframe. In addition, a descriptive research design was used to analyze the cause-and-effect relationship between the dependent variable (financial performance) and the independent variables. This methodological approach is consistent with previous empirical studies, such as Charli et al. (2022), which relied on quantitative survey methods to investigate financial performance. Adopting a similar research design enhanced the comparability and credibility of the study findings.

3.4 Target Population

A target population comprises all units that meet predefined characteristics relevant to a study's objectives and hypotheses (Mugenda & Mugenda, 2003). While an exact number for Kenyan Manufacturing firms is not readily available, data shows over 1,000 firms operate in the sector, State Department for Investment Promotion (2022).

The target population for this study consisted of all manufacturing firms registered with the Kenya Association of Manufacturers (KAM) and operational as at 31 December 2022, as documented in the KAM Membership Directory and Sectoral Classification Register (2022). According to this official register, KAM listed 741 active manufacturing firms, distributed across twelve manufacturing subsectors (Table 3.1).

The choice of KAM-registered manufacturing firms is theoretically and empirically justified, as the study's hypotheses examine the effect of budget planning, budget monitoring and control, budget evaluation, and budget communication on financial performance. Manufacturing firms typically operate under structured budgeting systems, capital-intensive production processes, and formal financial controls, making them appropriate units of analysis for testing the proposed hypotheses. Firms in the financial services sector were excluded because their budgeting and performance dynamics are heavily shaped by regulatory capital, liquidity, and prudential requirements, which differ fundamentally from non-financial manufacturing firms.

The unit of observation comprised Chief Finance Officers, finance managers, and senior accountants, as these officers are directly responsible for budget formulation, implementation, monitoring, and reporting. CFOs are involved in high-level budget approval and financial strategy, whereas accountants are closely engaged with day-to-day budget control, variance analysis, and financial reporting, allowing the study to capture multiple dimensions of budgeting practices. Collecting data from different finance roles enhances data triangulation, reduces single-respondent bias, and improves the reliability and validity of the findings by cross-verifying information across hierarchical levels. Their positions enable them to provide reliable data on budgeting practices and firm financial performance, ensuring consistency between the target population, study variables, and hypotheses.

Table 3.1: Target Population

Category of Manufacturer	Target Population.
Building, Mining & Construction	29
Chemicals & Allied Sector	79
Energy, Electrical & Electronics	45
Food & Beverages Sector	187
Leather & Footwear Sector	9
Metal and Allied Sector	83
Motor Veh. Assembly & Accessories	51
Paper & Board Sector	74
Pharmaceutical & Med. Equip. Sector	24
Plastics & Rubber Sector	77
Textile & Rubber Sector	64
Timber, Wood & Furniture Sector	19
Total	**741**

Source: Kenya Association of Manufacturers (KAM 2022)

3.5 Sampling Frame

A sampling frame refers to a list of elements from which a sample is selected Cooper & Schindler (2011). It contains the items or units from which the sample is drawn (Kothari, 2004). For this study, the sampling frame consisted of the names of firms listed in KAM's 2022 directory. The study focused exclusively on manufacturing firms operating in Kenya. These firms were categorized into the following sectors: Building, Mining, and Construction; Chemical and Allied; Energy, Electrical, and Electronics; Food and Beverages; Leather and Footwear; Metal and Allied; Motor Vehicle Assemblers and Accessories; Paper and Board; Pharmaceutical and Medical Equipment; Plastic and Rubber; Textile and Apparel; and Timber, Wood, and Furniture.

Table 3.2: Stratified Sampling Frame of Manufacturing Firms in Kenya (KAM, 2022)

Stratum	Manufacturing Sector (KAM Classification)	Justification for Stratification
1	Building, Mining, and Construction	Capital-intensive sector with distinct budgeting and cost control structures
2	Chemical and Allied Industries	High regulatory and compliance-driven budgeting requirements
3	Energy, Electrical, and Electronics	Technology-driven sector with complex investment and planning cycles
4	Food and Beverages	High-volume production with significant working capital and inventory budgeting
5	Leather and Footwear	Labour-intensive sector with seasonal budgeting patterns
6	Metal and Allied Industries	Heavy manufacturing with long-term capital budgeting needs
7	Motor Vehicle Assemblers and Accessories	Large-scale assembly operations with sophisticated budget monitoring systems
8	Paper and Board Manufacturing	Input-cost sensitive sector requiring strict budgetary control
9	Pharmaceutical and Medical Equipment	Highly regulated sector with stringent financial planning and reporting standards
10	Plastic and Rubber Industries	Cost-sensitive production with strong emphasis on variance analysis
11	Textile and Apparel	Export-oriented sector with fluctuating demand and budgeting uncertainty
12	Timber, Wood, and Furniture	Resource-dependent sector with project-based budgeting practices

Source: Kenya Association of Manufacturers (KAM) Directory, 2022.

3.6 Sample and Sampling Techniques

Kilungu (2015) outlined the steps for selecting a sample, which include: defining the population, identifying the sampling frame, choosing a sampling method, determining the sample size, selecting sample units, and collecting data from the chosen units. Sampling is crucial in research because surveying the entire population is often impractical Saunders, Lewis, & Thornhill (2009). This study focused on

manufacturing firms in Kenya. A multistage sampling technique was used to determine the sample size. Multistage sampling involves dividing the population into clusters Nafiu (2012). In this case, the population was divided into two clusters: Nairobi and Mombasa. In line with the stratified sampling technique, the manufacturing firms were first grouped into twelve homogeneous strata based on the Kenya Association of Manufacturers (KAM) sector classification. Stratification ensured that each manufacturing sub-sector was adequately represented in the sample, thereby minimizing sampling bias and enhancing the precision and generalizability of the study findings. A proportionate sample was then drawn from each stratum, ensuring that variations in budgeting practices and financial performance across different manufacturing sectors were systematically captured. Purposive sampling involves intentionally choosing specific units based on particular criteria Guthega (2019).

In addition, proportional allocation was applied to ensure that each manufacturing sector (stratum) was adequately represented in the sample Saunders et al., (2009). Using this approach, departmental managers were selected from manufacturing firms listed in the Kenya Association of Manufacturers (KAM) 2022 directory.

The sample size for the study was determined using the formula developed by Taro Yamane (1967), which is appropriate for finite populations.

The Taro Yamane formula is given as;

n N/ 1+ N(E) 2

Where:

n = The sample size

N= the finite population

E = Status of significance

1 = unite (a constant value)

n = 741/

1 + 741/ (0.05)2

1+ 741 (0.0025)

1 + 1.8525 = 2. 8525

741/ 2.8525 = 259.7 ≈ 259

Using the above formula, a study sample of 259 companies was derived as laid on Table 3.3

The study used sample size determination formula by Taro Yamane (1967) to calculate the sample size. The sample size is shown in table 3.3

Table 3.3: Sample Size

Category of Manufacturer	**Target Pop.**	**Percentage**	**Sample Size**
Building, Mining & Construction	29	4	11
Chemicals & Allied Sector	79	11	29
Energy, Electrical & Electronics	45	6	16
Food & Beverages Sector	187	25	64
Leather & Footwear Sector	9	1	3
Metal and Allied Sector	83	11	29
Motor Veh. Assembly & Accessories	51	7	19
Paper & Board Sector	74	10	25
Pharmaceutical & Med. Equip. Sector	24	3	8
Plastics & Rubber Sector	77	10	25
Textile & Rubber Sector	64	9	22
Timber, Wood & Furniture Sector	19	3	8
Total	741	100	259

Source: Kenya Association of Manufactures (KAM, 2022)

3.7 Data Collection Methods

This study employed both primary and secondary data collection methods in order to comprehensively examine the relationship between budgeting practices and financial performance among manufacturing firms in Kenya.

3.7.1 Primary Data Collection Method

Primary data was collected using a self-administered, semi-structured questionnaire (Appendix I). The questionnaire comprised closed-ended items and a customized five-point Likert scale designed to measure the study variables based on responses from departmental heads within the sampled manufacturing firms. Respondents were asked to indicate their level of agreement with each statement on a scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The structured questionnaire was selected because it provides standardized questions, enhances reliability, and allows for efficient data collection from a relatively large sample at a lower cost. The instrument was aligned with the study objectives and aimed at capturing information on organizational budgeting practices and related managerial characteristics.

The questionnaire was divided into four sections. The first section captured demographic information, while the second focused on respondent characteristics, including manufacturing experience and departmental role. The remaining sections addressed the independent variables of the study. A five-point scale ranging from 1 (very low) to 5 (very high) was used to assess the extent to which each budgeting practice influenced financial performance.

3.7.2 Secondary Data Collection Method

Secondary data was collected to measure the dependent variable, financial performance, using return on investment (ROI) as the key indicator (Appendix III). According to Cooper and Schindler (2014), secondary data refers to data that has already been collected and documented for purposes other than the current study.

The secondary data covered a five-year period from 2018 to 2022 and was sourced from audited financial statements of the sampled manufacturing firms. Specifically, data was obtained from statements of comprehensive income and statements of financial position. Where available, supplementary financial information was accessed from firms' official websites and published annual reports.

3.8 Data Collection Procedures

The data collection process was carried out in two distinct phases corresponding to primary and secondary data.

For primary data, the questionnaires were distributed to respondents using the drop-and-pick method. Each questionnaire was accompanied by a cover letter explaining the purpose of the study, assuring respondents of confidentiality, and requesting their voluntary participation. The questionnaires targeted departmental heads drawn from manufacturing firms operating in Kenya. Telephone interviews were not used due to high associated costs, while postal surveys were considered unsuitable because of the unreliability of postal services in Kenya, which could adversely affect response rates.

For secondary data, the researcher used a secondary data collection sheet (Appendix III) to systematically extract relevant financial information from the firms' audited annual reports covering the period 2018–2022. Key financial figures were recorded from the statements of comprehensive income and financial position to facilitate the computation of return on investment (ROI). In cases where financial reports were not publicly available, the researcher made physical visits to the respective firms' offices to obtain the required data upon authorization. To complement the annual reports, additional information was obtained from quarterly business journals, in-house magazines, and relevant company publications to enhance data completeness and accuracy.

3.9 Pilot Test

A pilot study is a preliminary investigation undertaken to refine research instruments, assess data collection procedures, and enhance the methodological rigor of the main study rather than to test research hypotheses Sarwar et al., (2023). Consistent with best practice, the pilot study in this research was designed to evaluate the clarity, validity, reliability, and feasibility of the structured questionnaire prior to full-scale data collection.

The pilot was conducted among 24 manufacturing firms located in Kiambu County, selected because of their proximity and similarity in operational characteristics to firms in the main study, while remaining excluded from the final sample to avoid contamination and response bias Nyabwanga et al., (2014). From each firm, one senior finance officer (Chief Finance Officer, Finance manager, or Senior accountant) participated, yielding 24 pilot respondents. These respondents were deemed appropriate as they are directly responsible for budgeting processes and financial reporting.

Reliability analysis was performed using Cronbach's alpha coefficient to assess the internal consistency of the questionnaire constructs, namely budget planning, budget monitoring and control, budget evaluation, budget communication, and financial performance (Cronbach, 1951). Constructs with alpha coefficients below the acceptable threshold of 0.70 were subjected to further scrutiny. Items exhibiting low item–total correlations or redundancy were either reworded, merged, or eliminated to improve scale reliability and content clarity. Feedback from pilot respondents regarding ambiguity, wording, and length of the questionnaire further informed instrument refinement.

The pilot sample represented approximately 10% of the intended study sample, which is consistent with methodological recommendations that 5%–10% of the target sample is adequate for piloting survey instruments Sarwar et al., (2023). The pilot study therefore ensured that the final questionnaire was methodologically sound, reliable, and contextually appropriate, thereby strengthening the quality and credibility of data collected in the main study.

3.9.1 Reliability Test

The reliability test undertaken in this study was intended to establish the consistency and dependability of the data collection instrument, specifically the questionnaire used to measure budgeting practices and firm size. Reliability is a critical requirement in empirical research because it assures that the findings are stable, reproducible, and not the result of random measurement error. As noted by Johnson and Harris (2002) and De Vaus (2002), reliable data should yield consistent results when similar measurement procedures are applied under comparable conditions.

Given the nature of the study and the use of structured questionnaire items to capture latent constructs such as budget planning, budget monitoring and control, budget evaluation, and budget communication, the internal consistency method was the most appropriate reliability assessment technique. Other methods, such as test–retest reliability, were unsuitable because they require administering the same instrument to the same respondents at different points in time, which was impractical within the study design and timeline. Split-half reliability was also less appropriate, as it may be sensitive to how items are divided.

Internal consistency reliability examines the extent to which items intended to measure the same construct are correlated with one another. In this study, Cronbach's alpha was employed as the indicator of internal consistency, consistent with best practice in social science research. Cronbach's alpha measures the average inter-item correlation and provides an overall estimate of the reliability of each construct. The use of SPSS ensured accurate and standardized computation of the reliability coefficients.

The results of the reliability analysis indicated that all constructs recorded Cronbach's alpha values above the recommended threshold of 0.7. According to De Vaus (2014), alpha values closer to 1.0 signify stronger internal consistency, while values below 0.7 suggest potential measurement problems. The findings are further supported by Kurpius and Stafford (2011) and Okelo (2015), who argue that an alpha coefficient of 0.7 or higher is acceptable and satisfactory for research in the social sciences.

Specifically, the constructs of budget planning, budget monitoring and control, budget evaluation, budget communication, and firm size all achieved acceptable alpha values, demonstrating that the questionnaire items within each construct were coherent and measured the same underlying concept. This confirms that the instrument was reliable and suitable for collecting consistent data across respondents.

In conclusion, the reliability test provided empirical evidence that the questionnaire used in the study possessed adequate internal consistency. The satisfactory Cronbach's alpha values across all variables indicate that the measurement scales were stable and dependable, thereby justifying their use in subsequent statistical analyses and hypothesis testing.

Table 3.4: Cronbach Alpha for Reliability Assessments

Variables	Cronbach Alpha	No. of Items	Comment
Budget Planning	0.832	9	Valid
Budget Monitoring	0.841	9	Valid
Budget Evaluation	0.834	9	Valid
Budget Communication	0.846	9	Valid
Overall Cronbach Alpha for 36 items		36	Valid

3.9.2 Validity Test

Validity is a fundamental requirement in research as it determines the extent to which a data collection instrument measures what it is intended to measure. As observed by Kilungu (2015), a valid research tool ensures that conclusions drawn from the data are accurate, meaningful, and aligned with the study objectives. Without adequate validity, even reliable data may lead to misleading interpretations and incorrect inferences.

There are three commonly recognized approaches to assessing the validity of a research instrument: content validity, criterion validity, and construct validity. Criterion validity focuses on the extent to which an instrument correlates with an external standard, while construct validity examines how well an instrument measures theoretical constructs and aligns with established theories. However, given the nature of this study and the use of structured questionnaire items to measure budgeting practices, content validity was considered the most appropriate approach.

Content validity refers to the degree to which an instrument adequately captures all relevant dimensions of the concept under investigation Mugenda & Mugenda (2009). In this study, content validity was established through an extensive and systematic review of empirical and theoretical literature on budgeting practices and firm characteristics. This process enabled the researcher to identify key dimensions and indicators of constructs such as budget planning, budget monitoring and control, and budget evaluation. Questionnaire items were then developed to comprehensively reflect these dimensions, ensuring that no critical aspects of the constructs were omitted.

Further enhancement of content validity was achieved through expert review. The questionnaire was evaluated by three senior officials from the Kenya Association of Manufacturers and three managers drawn from manufacturing firms. These experts possess substantial practical and industry-specific knowledge, making them well placed to assess the relevance, clarity, and adequacy of the questionnaire items. Their feedback focused on issues such as wording clarity, relevance to the manufacturing context, completeness of the constructs, and potential ambiguities. Based on their recommendations, necessary revisions were made to refine the instrument, improve item clarity, and enhance alignment with the study objectives.

Validity is often expressed as a coefficient ranging from 0 to +1.00, where values closer to 1.00 indicate strong evidence that the instrument effectively measures the intended construct Kurpius & Stafford (2011). Although content validity is primarily qualitative in nature, the rigorous processes of literature grounding and expert

evaluation adopted in this study provide strong assurance that the instrument adequately represented the full domain of the constructs under investigation.

In conclusion, the validity test confirmed that the questionnaire possessed satisfactory content validity. The combination of a comprehensive literature review and expert evaluation ensured that the instrument accurately and adequately measured the key budgeting practices and firm characteristics relevant to the study. Consequently, the data collected using this instrument were deemed appropriate and credible for subsequent analysis and interpretation.

3.10 Data Analysis and Presentation

Data analysis involves applying logical reasoning to interpret collected data, identify consistent patterns, and summarize key findings from the investigation Soren (2023) . In this study, the analysis of patterns within the data was aligned with the research aims, objectives, and measurement criteria. The gathered data was quantified, coded, and subjected to statistical methods. The analysis techniques used included descriptive statistics, correlation analysis, and multiple regression.

3.10.1 Qualitative Analysis

Data analysis involves applying logical reasoning to interpret collected data, identify patterns, and review key findings from the investigation (Soren, 2023) . In this study, the analysis of patterns among the selected variables was guided by the research aims, objectives, and measurement criteria. The data was quantified, coded, and analyzed using statistical techniques, including descriptive statistics, correlation analysis, and multiple regression.

Qualitative research provided deeper insights into the research problem by exploring causal relationships among the variables. Data collection involved semi-structured interviews using an interviewer-administered questionnaire. The qualitative data was first edited, and the response rate was calculated. Descriptive statistics such as mean, standard deviation, and frequency distribution were used to analyze and summarize the survey data by examining the distribution of responses and relationships between

variables. These statistics identified central tendencies and described key characteristics of the data, which were presented in tables Kothari (2012).

The study also employed Analysis of Variance (ANOVA-F test) to assess the effect of the independent variable on the dependent variable, guiding the acceptance or rejection of the research hypothesis. ANOVA was selected based on the assumption that the population was normally distributed, had equal variances, and included independent samples. The decision to accept or reject the hypothesis was determined by p-values.

3.10.2 Model Specification

Multiple regression analysis enables researchers to determine whether a relationship exists between multiple independent variables and a dependent variable Tranmer et al.,(2020) . The research problem addressed in this study was to investigate whether budgeting practices are associated with the financial performance of manufacturing firms. To analyse this, the study used multiple regression analysis to assess the combined impact of budget planning (BP), budget monitoring and control (BMC), budget evaluation (BE), and budget communication (BC) on the financial performance of manufacturing firms (Y). The multiple regression model used in the study, excluding the moderating variable, was expressed as follows:

$$y = \beta_O + \beta_1 BP + \beta_2 BMC + \beta_3 BE + \beta_4 BC + \varepsilon$$

Where;

Y = Financial Performance = Return on Investment (ROI)

β = beta, the coefficient of each independent variable

X_1 = BP (Resource allocation, revenue forecasting, financial accountability, and expense forecasting)

X_2 = BMC (Cost control, revenue control, variance analysis, risk management, and profit maximization)

X_3 = BE (Assess financial performance, financial efficiency, goal alignment, and expense tracking)

X_4 = BC (Transparency, stakeholder engagement, clarity and accessibility, and timeliness)

X_5 = Firm Size (FS)

ε = Error term that denotes the unexplained practices affecting financial performance

With the moderating effect (Firm Size), the model translates as follows;

$$y = \beta_o + \beta_1 BP + \beta_2 BMC + \beta_3 BE + \beta_4 BC + \beta_5 BP * FS + \beta_6 BMC * FS + \beta_7 BE * FS + \beta_8 BC * FS + \varepsilon$$

Where;

y = Financial Performance = ROI

β = beta, the coefficient of the independent variable and moderating variable

FS = Firm Size

X_1 = BP (Resource allocation, revenue forecasting, financial accountability, and expense forecasting)

X_2 = BMC (Cost control, revenue control, variance analysis, risk management, and profit maximization)

X_3 = BE (Assess financial performance, financial efficiency, goal alignment, and expense tracking)

X_4 = BC (Transparency, stakeholder engagement, clarity and accessibility, and timeliness)

Ɛ = Error term that denotes other unexplained moderating factors affecting financial performance

The questionnaire generated both quantitative and qualitative data through its design structure:

1. Quantitative data

Obtained from closed-ended questions measured using a five-point Likert scale.

Responses were numerically coded (e.g., 1 = strongly disagree to 5 = strongly agree).

These numerical scores enabled statistical analysis, including multiple linear regression and paired samples t-tests.

2. Qualitative data

Obtained from a limited number of open-ended questions included in the semi-structured questionnaire.

These questions allowed respondents to provide explanatory comments, opinions, or contextual insights regarding budgeting practices and financial performance.

Qualitative responses were analyzed thematically and used only to complement and explain quantitative findings**,** not for statistical testing.

This mixed-data approach is consistent with the use of a semi-structured questionnaire and strengthens interpretation without compromising the quantitative nature of the main analysis.

The data collected through the questionnaires comprised both quantitative and qualitative information. Quantitative data was obtained from closed-ended questions measured on a five-point Likert scale, where responses were numerically coded to facilitate statistical analysis. These data were analyzed using multiple linear regression to identify the most critical and statistically significant financial practices influencing the financial performance of manufacturing firms. According to Tranmer

et al. (2020), multiple linear regression is particularly appropriate when examining the relationship between one dependent variable and more than two explanatory variables.

Qualitative data was generated from a small number of open-ended questions included in the semi-structured questionnaire, which allowed respondents to provide additional explanations and contextual insights regarding budgeting practices. These qualitative responses were analyzed thematically and were used to support and interpret the quantitative results.

In addition, paired samples t-tests were employed to determine whether changes in the independent variables were statistically significant within the same group of firms, as suggested by Tranmer et al. (2020). All statistical analyses were conducted using the Statistical Package for Social Sciences (SPSS) version 22, which also facilitated the presentation of findings in tables and figures Rahman & Muktadir (2021).

3.10.3 Hypotheses Testing

ANOVA test was conducted to test the significance of the relationships between the variables based on which the set hypotheses were accepted or rejected. The decision to accept the research hypothesis was based on the ρ- values. The ANOVA test was chosen as the study presumed that the population being tested was normally distributed, had equal variances and the samples were independent of each other. All hypotheses were tested at the 95 percent confidence level (level of significance, alpha = 0.05).

Table 3.5: Hypothesis Testing

Hypothesis Statement	Hypothesis Testing	Model and Anticipated Results
$H_0$1: Budget planning has no significant effect on financial performance of manufacturing firms in Kenya.	1. ANOVA-To test the overall robust of multiple regression 2. Pearson correlation to test partial correlation between the variables	$Y= ß_0 + ß_1 X_1 + Ɛ$ to reject $H_0$1 when P value is < 0.05 otherwise fail to reject $H_0$1 when P value is > 0.05 $Y= ß_0 + ß_1 X_1 + Ɛ$, where, $ß_0$= constant, $ß_1$, = correlation co-efficient; X1= Budgeting planning, Ɛ= error term
$H_0$2: Budget monitoring & control has no significant effect on financial performance of manufacturing firms in Kenya	1. ANOVA – To test the overall robust of multiple regression. 2. Pearson correlation to test the partial correlation $ß_2$, between the variables	$Y= ß_0 + ß_2X_2 + Ɛ$ to reject $H_0$2 when P value is < 0.05 otherwise fail to reject $H_0$2 when P value is > 0.05 $Y= ß_0 + ß_2x_2 + Ɛ$, where, $ß_0$= constant $ß_2$, = correlation co-efficient; x_2 = Participative budgeting, Ɛ = error term
$H_0$3: Budget evaluation has, no significant effect on financial performance of manufacturing firms in Kenya	1. ANOVA- To test the overall robust of multiple regression. 2. Pearson correlation to test, the partial correlation between, the variables	$Y= ß_0 + ß_3 X_3 + Ɛ$ to, reject $H_0$3 when P value is < 0.05 otherwise, fail to reject $H_0$3 when P value, is > 0.05 $Y= ß_0 + ß_3 X_3 + Ɛ$, where, $ß_0$ = constant, $ß_3$ = correlation co-efficient; X_3 = Budgetary control, Ɛ = error term
$H_0$4: Budget communication has, no significant effect on, financial performance of, manufacturing firms in Kenya	1. ANOVA- To test the overall, robust of multiple regression. 2. Pearson correlation to test the partial correlation between the variables.	$Y= ß_0 + ß_4 X_4 + Ɛ$ to, reject $H_0$4 when P value is < 0.05 otherwise, fail to reject $H_0$4 when P value is, > 0.05 $Y= ß_0 + ß_4 X_4 + Ɛ$, where, $ß_0$ = constant, $ß_4$ = correlation co-efficient; X_4 = Monitoring & control, Ɛ = error term
$H_0$5: Firm size has no significant effect on financial performance of $H_0$5 when P value manufacturing firms in Kenya	1. ANOVA-To test the overall robust of multiple regression. 2. Pearson correlation to test the partial correlation between the variables	$Y= ß_0 + ß_5 X_5 + Ɛ$ to reject $H_0$5 when P value is < 0.05 otherwise fail to reject is > 0.05 $Y= ß_0 + ß_5 + X_5 + Ɛ$, where, $ß_0$ = constant, $ß_5$ = correlation co-efficient; X_5 = firm size, Ɛ= error term

3.11 Variable Definition and Measurement

This study comprised one dependent variable and four independent variables. The variables were operationalized and measured as follows.

3.11.1 Independent Variables

The independent variables of the study were budget planning, budget monitoring and control, budget evaluation, and budget communication. These variables were measured using items adapted from prior empirical studies and captured through closed-ended questions in the questionnaire.

Each independent variable was measured using multiple statements rated on a five-point Likert scale, where 1 = strongly disagree and 5 = strongly agree. Composite indices for each variable were computed by averaging the scores of the respective items, with higher values indicating stronger adoption of the budgeting practice.

Budget Planning: Measured through items assessing the extent of revenue forecasting, financial accountability, expense forecasting, and resource allocation processes within the firm.

Budget Monitoring and Control: Assessed using cost control, budget variance analysis, risk management, and profit maximization.

Budget Evaluation: Measured through items as financial efficiency, performance assessment, goal alignment, and expense tracking.

Budget Communication: Assessed by evaluating the clarity, timeliness, and effectiveness of budget-related information shared across departments.

3.11.2 Dependent Variable

The dependent variable was financial performance, measured using Return on Investment (ROI). ROI was computed from secondary data obtained from the audited financial statements of manufacturing firms over a five-year period (2018–

2022). ROI was calculated as the ratio of net profit to total investment, reflecting the firm's ability to generate returns from its invested capital.

ROI was selected as it provides a comprehensive measure of profitability and enables comparison across firms of different sizes.

3.11.3 Measurement Scale Summary

All independent variables were measured using interval-level data derived from Likert-scale responses, while the dependent variable (ROI) was measured on a ratio scale. This combination of measurement scales was appropriate for subsequent inferential analysis, including multiple linear regression.

3.12 Model Diagnostic Tests

Before conducting inferential statistical analysis, it was necessary to test whether the data met the underlying assumptions of parametric techniques, particularly multiple linear regression. Model diagnostic tests were therefore conducted to assess sample adequacy, multicollinearity, homogeneity of variances, autocorrelation, normality, and overall model significance. These tests ensured the validity, reliability, and robustness of the estimated regression results.

3.12.1 KMO and Bartlett's Tests of Sampling Adequacy

The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted to assess the suitability of the data for factor-based analysis and scale construction.

The KMO statistic evaluates the proportion of variance among variables that might be common variance. It ranges from 0 to 1, with values equal to or above 0.50 indicating that the sample is adequate for factor analysis. Low KMO values imply that correlations among variables are too diffuse, making factor extraction inappropriate.

Bartlett's test of sphericity examines whether the correlation matrix is significantly different from an identity matrix. A significant result ($p < 0.05$) indicates sufficient correlations among variables to justify factor analysis Abdallah (2017). If Bartlett's test is not significant, it implies weak correlations, and factor analysis would yield unreliable results.

3.12.2 Multicollinearity and Homogeneity of Variances

Multicollinearity Test

Multicollinearity occurs when independent variables are highly correlated, which can inflate standard errors, distort coefficient estimates, and weaken the statistical significance of predictors. This study tested multicollinearity using Variance Inflation Factor (VIF) and tolerance values.

A VIF value exceeding 10 or a tolerance value below 0.10 indicates severe multicollinearity Ng'ang'a (2017). In this study, tolerance values ranged between 0.40 and 0.70, corresponding to VIF values between 1 and 2, indicating that multicollinearity was not a concern. Failure to address multicollinearity would make it difficult to isolate the individual effect of each budgeting practice on financial performance.

Homogeneity of Variances (Levene's Test)

The assumption of homogeneity of variances requires that the variance of the dependent variable be equal across different groups of the independent variables. This was tested using Levene's test, which evaluates the null hypothesis that group variances are equal Mathuki et al., (2019).

A significant Levene statistic ($p \leq 0.05$) indicates violation of this assumption, leading to biased standard errors and unreliable hypothesis tests. In this study, Levene's test was not significant at $\alpha = 0.05$, confirming that the assumption of homoscedasticity was satisfied.

3.12.3 Autocorrelation Test

Autocorrelation refers to the correlation of error terms across observations, which violates the assumption of independence and leads to inefficient regression estimates. The Durbin–Watson (DW) test was employed to detect autocorrelation in the residuals.

The DW statistic ranges from 0 to 4, where values around 2 indicate no autocorrelation. Values below 1.5 suggest positive autocorrelation, while values above 2.5 suggest negative autocorrelation (Garson, 2012). In this study, DW values ranged between 1.81 and 2.21, confirming the independence of residuals. Violation of this assumption would result in underestimated standard errors and misleading significance tests.

3.12.4 Test of Model Significance

The Analysis of Variance (ANOVA) test was conducted to evaluate the overall significance of the regression model. The ANOVA F-test examines whether the independent variables jointly explain a statistically significant proportion of variation in the dependent variable.

The F-statistic compares the model mean square with the error mean square. A p-value less than 0.05 indicates that the model is statistically significant and that the predictors collectively influence financial performance. If this assumption is violated, the regression model would lack explanatory power and be unsuitable for inference.

In addition, Pearson Product–Moment Correlation analysis was used to assess the strength and direction of the relationship between the dependent and independent variables. Correlation coefficients close to ±1 indicate strong relationships, while values near 0 suggest weak associations.

3.12.5 Measurement instruments for research variables.

Table 3.6: Measurement Instruments for Research Variables

NO	Variable Name	Sources	Nature of Variable	Variable indicators & measurement	Data collection method	Type of scale	Types of analysis	Level of analysis
1	Return on Investment	Amah, Micheal and Ihendinihu (2016)	dependent	Profit earned from the investment after deducting all associated costs, Net profit = Total revenue – Total costs	Questionnaire & secondary data collection sheet	Ordinal for primary data Nominal for secondary data	Quantitative	Frequencies Descriptive analysis inferential analysis
2	Budget Planning	Nguyen, (2024)	Independent	Resource allocation, revenue forecasting, financial accountability &expense forecasting	Questionnaire for primary data	Ordinal for primary data	qualitative	Frequencies Descriptive analysis, inferential analysis
3	Budget Monitoring & Control	Al Mahroqi, (2021)	Independent	Cost control, revenue control, variance analysis, risk management, & profit maximization	Questionnaire for primary data	Ordinal for primary data	Qualitative	Frequencies Descriptive analysis, inferential analysis
4	Budget Evaluation	Selim et al., (2022)	Independent	Assess financial performance, financial efficiency, goal alignment, and expense tracking	Questionnaire for primary data	Ordinal for primary data	Qualitative	Frequencies Descriptive analysis, inferential analysis
5	Budget Communication	Nguyen, (2024)	Independent	Transparency, stakeholder engagement, clarity and accessibility, timeliness	Questionnaire for primary data	Ordinal for primary data	Qualitative	Frequencies Descriptive analysis, inferential analysis

3.12.6 Normality Test (Shapiro–Wilk Test)

The Shapiro–Wilk (S–W) test was used to assess whether the data followed a normal distribution, a key assumption for parametric statistical analysis. The null hypothesis states that the data are normally distributed.

At a significance level of $\alpha = 0.05$, the null hypothesis is rejected if the p-value is less than 0.05 and not rejected if the p-value exceeds 0.05 (Garson, 2012). In this study, the p-values for all variables were greater than 0.05, indicating that the data were normally distributed.

Violation of the normality assumption would affect the reliability of hypothesis tests and confidence intervals. Since normality was satisfied, parametric inferential techniques, including multiple regression analysis, were appropriately applied.

3.13 Ethical Considerations

Ethical considerations refer to the principles and standards that guide the responsible conduct of research, particularly with respect to the rights, dignity, and confidentiality of participants.

Prior to data collection, the researcher obtained a research permit from the National Commission for Science, Technology and Innovation (NACOSTI), as required by law in Kenya, together with a letter of introduction and approval from the university. This authorization permitted the researcher to access manufacturing firms and collect data for academic purposes.

The study did not involve clinical procedures, vulnerable populations, or sensitive personal data, and therefore did not require approval from an institutional ethics review committee. However, ethical principles were strictly observed throughout the research process.

Participation in the study was voluntary, and informed consent was obtained from all respondents. Participants were assured that their responses would be treated with strict confidentiality and used solely for academic purposes. No personal identifiers were collected, and anonymity was maintained during data analysis and reporting. Respondents were also informed of their right to withdraw from the study at any stage without any negative consequences.

Key Clarification

NACOSTI approval is a research permit/license required to legally conduct research in Kenya.

Ethical approval is granted by an Institutional Ethics Review Committee (IERC/IRB) and focuses on protecting participants' rights, safety, and confidentiality.

For non-clinical, non-invasive social science research (such as surveys involving organizational managers), many Kenyan universities do not require separate ethical committee approval. In such cases, NACOSTI authorization together with a university recommendation letter is considered sufficient.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis, presentation, and interpretation of the study findings based on data collected from manufacturing firms in Kenya. The purpose of the analysis was to examine the relationship between budgeting practices namely; budget planning, budget monitoring and control, budget evaluation, and budget communication and the financial performance of manufacturing firms, as well as to assess the moderating effect of firm size on this relationship.

The chapter begins with a presentation of the response rate, followed by descriptive statistics of the respondents, firm characteristics, and the study variables. Diagnostic and assumption tests are then conducted to establish the suitability of the data for inferential analysis. This is followed by correlation analysis to examine the direction and strength of relationships among the study variables. Subsequently, regression analysis is undertaken to test the direct effects of budgeting practices on financial performance. Finally, hierarchical multiple regression analysis is used to test the moderating effect of firm size. The chapter concludes with a summary of the key findings.

4.2 Response Rate

The total population of manufacturing firms in Kenya was 741, from which a sample of 259 firms was selected. All 259 questionnaires were distributed to the respondents, but 118 were not returned, resulting in 141 usable questionnaires. This represents a 56% response rate. This rate is considered adequate, aligning with the typical range of 50-75% for hand-delivered questionnaires Saunders et al., (2009). It is also consistent with previous studies involving manufacturing firms. For instance, Ogolla (2017) reported a response rate of 87.7% in his research on the impact of working capital management on profitability in Kenyan manufacturing firms.

Similarly, Abdullahi et al. (2015) recorded a 60% response rate in their study on credit risk management practices among pharmaceutical manufacturers in Kenya.

Table 4.1: Response Rate

Response Rate	Frequency	Percentage
Returned	141	56
Unreturned	118	44
Total	259	100

4.3 Pilot Test Results

4.3.1 Validity Test Results

Validity refers to the extent to which research instruments accurately measure the constructs they are intended to assess. In this study, validity testing was undertaken to ensure that the questionnaire appropriately captured budgeting practices (budget planning, budget monitoring and control, budget evaluation, and budget communication)., firm size, and financial performance of manufacturing firms

Content Validity

Content validity of the questionnaire was assessed through expert evaluation to determine the relevance, clarity, and representativeness of the items in measuring budgeting practices and financial performance. Experts reviewed the instrument and rated each item for relevance. The Content Validity Index (CVI) was computed, yielding a value of 0.82, which exceeds the recommended threshold of 0.70, indicating that the instrument had adequate content validity. Minor revisions were made to improve clarity and alignment with study objectives.

Construct Validity

Construct validity was assessed using exploratory factor analysis. All items loaded onto their respective constructs with factor loadings above 0.50, confirming that the instrument adequately measured the intended variables.

4.3.2 Reliability of Research Instruments

Reliability refers to the consistency and stability of a measurement instrument in producing similar results under consistent conditions. In this study, reliability testing was conducted to ensure that the questionnaire items measuring budgeting practices and financial performance produced dependable and internally consistent results.

Reliability was assessed using Cronbach's alpha coefficient, which measures internal consistency among items representing each construct. A Cronbach's alpha value of 0.70 and above was considered acceptable for reliability. The computed alpha coefficients for all study variables exceeded this threshold, indicating satisfactory internal consistency of the measurement scales.

The high reliability coefficients confirmed that the questionnaire items consistently measured budgeting practices and financial performance constructs. This enhanced the credibility of subsequent descriptive, correlation, and regression analyses conducted in the study. These results confirm that the constructs measured were reliable, ensuring the data was suitable for further analysis.

Table 4.2: Cronbach Alpha for Reliability Assessments

Variables	Cronbach Alpha	No. of Items	Comment
Budget Planning	0.832	9	Valid
Budget Monitoring	0.841	9	Valid
Budget Evaluation	0.834	9	Valid
Budget Communication	0.846	9	Valid
Overall Cronbach Alpha for 36 items		36	Valid

Interpretation

The reliability analysis results indicate that all constructs achieved Cronbach's alpha values above the recommended threshold of 0.70 (Cronbach, 1951), suggesting satisfactory internal consistency. Budget monitoring and control recorded the highest reliability ($\alpha = 0.85$), while financial performance had the lowest ($\alpha = 0.76$), though still within acceptable limits.

4.4. Determination of Key Variable Indicators

4.4.1 Budget Planning KMO Measures and Factor Analysis

Budget planning is an important factor in the performance of enterprises as it improves decision-making, increases efficiency and productivity, better financial management, and enhances performance measurement Abongo (2017), Nair Manoharan (2017) and Nwanyanwu & Nkiru (2018). KMO test measures sample adequacy and it ranges between 0 and 1. KMO test measures are shown in Table 4.3

Table 4.3: Budget Planning Measures KMO and Bartlett's Test

Kaiser-Meyer-Olkin	Measure of Sampling
Adequacy.	.841
Approx. Chi-Square	841.936
Bartlett's Test of	
df	36
Sphericity	
Sig.	.000

A value close to 1 indicates that patterns of correlations are compact and hence the Factor Analysis is reliable and appropriate for the study. KMO measures on budget planning had 0.841 which represented great acceptability of the use of factor analysis and sufficient intercorrelations. Bartlett's test of Sphericity is significant (chi-square=841.936, $p<0.000$). Bartlett's test checks if the observed correlation matrix diverges significantly from the identity matrix.

The total variance explained in the budget planning constructs was explained in Table 4.3 above. The analysis of variance identified the Eigen values are the elements that describe the degree of change in each variable in relationship to the total overall variables. In the analysis of variance, other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and after the rotation. The nine measures of budget planning were subjected to factor analysis and the results show that there was one important factor driving budget planning use in manufacturing firms which accumulated to 58.782% of the total variance. These factors had the greatest effect on budget planning and hence the financial performance of manufacturing firms. This is because it had Eigen values of more than 1.0.

Table 4.4: Total Variance Explained for Budget Planning Measures

Component	**Initial Eigen Values**			**Extraction Sum of Squared Loadings**		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1.	5.878	58.782	58.782	5.878	58.782	58.782
2	.942	9.420	68.202			
3	.896	8.969	77.171			
4	.814	8.143	85.314			
5	.575	5.758	91.073			
6	.344	3.449	94.521			
7	.260	2.600	97.121			
8	.176	1.765	98.886			
9	.100	1.114	100.000			

Extraction Method: Principal Component Analysis

A Principal Component Analysis with varimax rotation was performed on nine budgeting planning measures in order to examine the dimensionality of budgeting planning and financial performance and also to find out if all the variables were significant to financial performance. The other objective was to group the common factors and to retain a small number of factors which had the highest effect Samuelsson (2018). Table 4.4 depicts the component factor loadings for budget

planning drivers of financial performance. From the component matrix all the budget planning measures were grouped into one factor.

The factor had budget planning as align funds with organizational policies and goals, budget planning help maintain financial discipline, allows management to hold departments accountable for their spending, sets benchmarks and financial targets, identifies ways to reduce unnecessary expenses, firm's departments prepare budget plans prior to the budget year, and budgeting drives management planning. This factor was named Budget Planning. The explanation is that most of the budget planning influence on manufacturing firms' financial performance was explained by these seven factors.

Table 4.5: Component Matrix for Budget Planning Measures

Opinion Statement	**Component 1**
1 Budget planning align funds with organizational policies and goals	.789
2 Budget planning help maintain financial discipline	.839
3 Budget planning allows management to hold departments accountable for their spending	.880
4 Budget planning sets benchmarks and financial targets	.770
5 Budget planning identifies ways to reduce unnecessary expenses	.915
6 Budget planning ensures that the budget aligns with the firm's short-term and long-term goals	.875
7 Budget planning provides a clear financial framework for decision-makers	.779

Extraction Method: Principal Component Analysis.

a. 1 Component extracted

The agreed respondent's indications on the financial performance of manufacturing linked with budget planning were consistent with the studies of (Foster, 2017) who established that manufacturing firms that have better budget planning have good financial performance. This finding agrees with those of Pimpong, and Laryea, (2016) and Koech, (2015) who established that manufacturing firms that have long-term and short-term budgeting plans improve financial performance.

4.4.2 KMO Test and Budget Monitoring & Control Factor Results

To find out the factors that were driving budget monitoring and control in manufacturing firms, KMO and Bartlett's tests were performed. KMO measures sampling adequacy which explains the extent to which indicators of a construct belong to each other. KMO test measures sample adequacy and it ranges between 0 and 1. A value close to 1 indicates that patterns of correlations are compact and hence the Factor Analysis is reliable and appropriate for the study. KMO measures on budget monitoring and control had 0.861 which represented great acceptability of the use of factor analysis and sufficient intercorrelations. Bartlett's test of Sphericity is significant (chi-square=521.049, p<0.000). Table 4.6 shows the results of factor analysis for budget monitoring and control.

Table 4.6: KMO and Bartlett's Test for Budget Monitoring & Control

Kaiser- Meyer- Olkin	**Measure of Sampling**	
	adequacy	.861
Bartlett's Test of Sphericity	Approx. Chi-Square	521.049
	df	36
	Sig.	.000

Bartlett's test checks if the observed correlation matrix diverges significantly from the identity matrix. The total variance explained in the budget monitoring and control constructs was explained in Table 4.7

Table 4.7: Total Variance Explained for Budget Monitoring & Control Measures

Component	Initial Eigen Values			Extraction of squared Loadings			Rotation of squared Loadings		
	Total	% of Variance	cumulative %	Total	% of variance	cumulative %	Total	% of variance	cumulative %
1	6.230	62.306	62.306	6.230	62.306	62.306	6.028	60.281	60.281
2	1.713	17.135	79.441	1.713	17.135	79.441	1.916	19.160	79.441
3	.877	9.745	89.186						
4	.372	4.132	93.318						
5	.271	3.012	96.330						
6	.158	1.755	98.085						
7	.097	1.081	99.166						
8	.048	.533	99.699						
9	.027	.301	100.000						

Extraction method: Principal Component Analysis.

The analysis of variance identified the Eigen values are the elements that describe the degree of change in each variable in relationship to the total overall variables. In the analysis of variance, other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and after the rotation. The nine measures of budget monitoring and control were subjected to factor analysis and the results show that there were two critical factors driving budget monitoring and control use in manufacturing firms which accumulated to 79.44% of the total variance. Factor I had the highest variance of 62.306% while factor two had 17.135%. These two factors had the greatest effect on budget monitoring and control and hence the financial performance of manufacturing firms. This is because they all had Eigen values of more than 1.0. Table 4.8 depicts

the rotated component factor loadings budget monitoring and control drivers of financial performance.

Table 4.8: Rotated Component Matrix for Budget Monitoring & Control Measures

Opinion Statement	Factor loadings
1 Budget monitoring and control ensures expenses are kept within budget limits	.928
2 Through effective control of revenues and expenses, budgetary control supports profit targets	.916
3 Budget monitoring and control track spending to hold departments accountable for their financial decisions	.935
4 Budget monitoring and control demonstrate to stakeholders that funds are used responsibly and for intended purpose	.973
5 Budget monitoring and control ensure that spending aligns with the Organizations' revenue and cash flow	.965
6 Budget monitoring and control prevent financial inefficiencies and unnecessary expenses	.935
7 Budget monitoring and control provide timely data to guide leadership in reallocating resources	.886

Extraction Methods: Principal Component Analysis.

a. Component extracted.

The analysis of variance identified the Eigen values which is the variance of each factor or component in comparison with the total variance of all the items in the construct. In the analysis of variance, other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and after the rotation.

Principal component analysis with a Varimax rotation was used to factor the nine items related to budget monitoring and control, and financial performance. The correlation matrices among the items revealed several correlations over 3 which meant that all responses were suitable for factorization. From the Variance matrix, two variables had Eigen values of more than 1.0 which meant that these were the budget monitoring and control variables that had the highest influence on the manufacturing firm's performance. Component one had the highest variance of 6.23

which accounted for 62.306 % of the variance. Component 2 had the second highest variance of 1.713 contributing 17.13% of the variance. The cumulative results showed that two important factors were driving the use of budget monitoring and control in manufacturing firms which accumulated to 79.441% of the total variance in this construct. The other three factors also explained the variance at less than 20% which meant that some variance had been explained by latent variables. The researcher deleted all the variables that did not relate to either factor 1 or 2 to continue working out for further relationships.

From the rotation matrix, all the budget monitoring and control measures were grouped into one factor. Factor had seven variables which included the budget monitoring and control ensures expenses are kept within budget limits, effective control of revenues and expenses supports profit targets, tract spending to hold departments and teams accountable, demonstrates to stakeholders that funds are used responsibly, ensure that spending aligns with the organizations 'revenue and cash flow, prevent financial inefficiencies and unnecessary expenses, and provide timely data to guide leadership in reallocating resources. The explanation is that most of the budget monitoring and control influence on manufacturing firm's financial performance was explained by this one factor. The agreed respondents' indications on financial performance of manufacturing linked with expenses are kept within budget limits was consistent with the studies of Silva et al (2022) who found a strong correlation between better information and corporate performance the mediating roles of job satisfaction, commitment and organizational trust.

4.4.3 Budget Evaluation Factor Results

Budget evaluation, as described by Selim et al., (2022), involves analyzing actual expenditures in comparison to projected ones. This process is essential for gaining a thorough understanding of an organization's spending patterns, revenue streams, and public needs. It also helps confirm whether the budget aligns with predefined policies. When discrepancies occur such as a misalignment with policy goals or actual spending surpassing projections adjustments, either minor or substantial, may be necessary. Furthermore, the budget is a valuable tool for identifying differences

between allocated funds and actual expenses, which aids in performance evaluation Ho (2018). In this capacity, budgeting acts as a standard for assessing the efficiency of organizational or governmental management. Budgets are crucial in helping organizations effectively control costs. Accurate budgeting, specifically, minimizes over- or under-budgeting by providing precise financial forecasts Auerbach & Gale (2020), for example, a manufacturing budget for a product allows accountants to calculate its total cost by including expenses such as labor, materials, transportation, and other miscellaneous items. By summing these costs and adding the desired profit margin, the overall product cost can be determined.

To find out the factors that were driving budget evaluation in manufacturing firms, KMO and Bartlett's tests were performed. KMO measures sampling adequacy which explains the extent to which indicators of a construct belong to each other. The results of the factor analysis are shown in Table 4.9

Table 4.9: Budget Evaluation Measures KMO and Bartlett's Test

Kaiser-Meyer-Olkin	**Measure of Sampling**	
Adequacy	.772	
Approx. Chi Square	377.728	
Bartlett's Test of Sphericity	df	36
	Sig.	.000

KMO test measures sample adequacy and it ranges between 0 and 1. A value close to 1 indicates that patterns of correlations are compact and hence the Factor Analysis is reliable and appropriate for the study. KMO measures on budget evaluation had 0.772 which represented great acceptability of the use of factor analysis and sufficient intercorrelations.

Bartlett's test of Sphericity is significant (chi-square=377.728, $p<0.000$). Bartlett's test checks if the observed correlation matrix diverges significantly from the identity matrix. The total variance explained in the budget evaluation constructs is explained in Table 4.10

Table 4.10: Total Variance Explained for Budget Evaluation Measures

Component	Initial Eigen Values			Extraction Sum of Squared Loadings			Rotation Sum of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.981	49.812	49.812	4.981	49.812	49.812	4.968	49.685	49.685
2	2.112	21.124	70.937	2.112	21.124	70.937	2.125	21.252	70.937
3	.980	10.890	81.827						
4	.682	7.580	89.407						
5	.489	5.434	94.841						
6	.247	2.749	97.590						
7	.115	1.279	98.870						
8	.066	.736	99.606						
9	.035	.394	100.000						

Extraction Method: Varimax Rotation

The analysis of variance identified the Eigen values are the elements that describe the degree of change in each variable in relationship to the total overall variables. In the analysis of variance other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and after the rotation. The nine measures of budget evaluation were subjected to factor analysis and the results show that there were two important factors driving budget evaluation use in manufacturing firms which accumulated to 70.937% of the total variance.

The loading factor had the highest variance of 49.812%. This is because they all had Eigen values of more than 1.0. The analysis of variance identified the Eigen values which is the variance of each factor or component in comparison with the total variance of all the items in the construct. From the Variance matrix, two variables had Eigen values of more than 1.0 which meant that these were the budget evaluation variable that had the highest influence on the manufacturing firm's performance.

The cumulative results showed that three important factors were driving the use of budget evaluation in manufacturing firms which accumulated to 70.937% of the total variance in this construct. Further relationships as shown in the rotated component matrix in Table 4.11.

Table 4.11: Rotated Component Matrix for Budget Evaluation Measures

Opinion Statement	Factor loadings
1 Evaluate how well the company is managing its resources compared to the budget	.894
2 Check if resources are being used efficiently to meet the company's' objectives	.947
3 Track and control spending within approved limits to prevent budget overruns	.758
4 Use the evaluation data to guide future financial planning and strategy	.692
5 Highlight areas where costs can be reduced without sacrificing quality or productivity	.932
6 Hold departments and managers accountable for their budget management	.946
7 Confirm that spending aligns with the company's strategic goals	.613
8 Ensuring funds are directed towards high priority projects and initiatives	.892
9 Project future financial requirements based on past performance allowing the company to prepare for upcoming periods	.922

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization.

From the rotation matrix in Table 4.18, all the budget evaluation measures were grouped into one factor. The component had budget evaluation; are evaluate how well the company is managing its resources compared to the budget, check if resources are being used efficiently to meet the company's objectives, track and control spending within approved limits to prevent budget overruns, use the evaluation data to guide future financial planning and strategy, highlight areas where costs can be reduced without compromising quality or productivity. The explanation is that most of the budget evaluation influence on manufacturing firm's financial performance was explained by the one factor. The average means of the construct was analyzed and had an average mean of 2.989. Budget evaluation is mostly engaged in by companies that have been making a string of losses, was henceforth excluded from further analysis because it seemed to have low mean and therefore much of its influence could be explained by the other factors.

The agreed respondents' indications on financial performance of manufacturing linked with budget evaluation was consistent with the studies of Abuga (2019) on budgetary control initiated includes revenue control, expenditure control, and wage control, which improved the financial performance.

4.4.4 Budget Communication Factor Results

Managers can enhance resource allocation and align organizational goals by employing this method to convey priorities and promote shared objectives Abiji et al., (2024). Often underestimated, the motivational and communicative dimensions are just as important as financial investments for a company's success. Budgets serve to clearly define goals, maintain consistency, and enable managers to concentrate on critical priorities while allocating resources efficiently. Nguyen (2024) highlights that an effective budget communication process ensures transparency, fosters stakeholder participation, provides clarity and accessibility, adheres to timelines, and leverages technological tools.

To find out the factors that were driving budget communication in manufacturing firms, KMO and Bartlett's tests were taken. KMO measures sampling adequacy which explains the extent to which indicators of a construct belong to each other. Table 4.12 shows the results of the KMO test for budget communication.

Table 4.12: KMO and Bartlett's Test for Budget Communication Measures

Kaiser-Meyer-Olkin	**Measure of Sampling Adequacy**	**.831**
Bartlett's Test of Sphericity	Approx. Chi-Square	595.992
	df	36
	Sig.	.000

KMO test measures sample adequacy and it ranges between 0 and 1. A value close to 1 indicates that patterns of correlations are compact and hence the Factor Analysis is reliable and appropriate for the study. KMO measures on budget communication had 0.831 which represented great acceptability of the use of factor analysis and sufficient intercorrelations. Bartlett's test of Sphericity is significant (chi-square=595.992, $p<0.000$). Bartlett's test checks if the observed correlation matrix

diverges significantly from the identity matrix. The total variance explained in the budget communication constructs was explained in Table 4.13

Table 4.13: Total Variance Explained for Budget Communication Measures

Component	Initial Eigen Values			Extraction Sums of Squared Loading			Rotation Sums Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.525	45.258	45.258	4.525	45.258	45.258	4.495	44.955	44.955
2	2.162	21.624	66.882	2.162	21.624	66.882	2.192	21.927	66.882
3	.951	10.567	77.449						
4	.715	7.950	85.399						
5	.566	6.284	91.683						
6	.423	4.700	96.383						
7	.207	2.296	98.679						
8	.067	.743	99.422						
9	.052	.578	100.000						

Extraction Method: Principal Component Analysis.

The analysis of variance identified the Eigen values are the elements that describe the degree of change in each variable in relationship to the total overall variables. In the analysis of variance, other elements include the percentage of variance and also the cumulative percentages. The nine measures of budget communication were subjected to factor analysis and the results show manufacturing firms which accumulated to 66.882% of the total variance. Had the highest variance had 45.258% while factor two had 21.624%. These two factors had the greatest influence on budget communication, hence the financial performance of manufacturing firms. Table 4.14 depicts the rotated component factor loadings.

Table 4.14: Rotated Component Matrix for Budget Communication Measures

Opinion Statement	Factor loadings
1 Transparent communication about budget plans fosters trust and minimizes resistance to change	.681
2 Clear budget communication ensures that all departments and employees understand the company's goals and priorities	.859
3 Emphasize the importance of addressing the needs and interests of all stakeholders in decision-making	.665
4 Budget communication presents financial information in accessible language and formats	.509
5 Transparent communication equips teams to navigate financial challenges effectively	.980
6 Clear communications about budgets reduces uncertainty and foster trust	.982
7 Emphasize the importance of adhering to the budget and responsible	.901
8 Highlight areas where cost-saving measures can support financial health	.760
9 Link budget allocations with performance metrics to demonstrate how Funding impact results	.867

a. Rotation converged in 3 iterations.
b. Extraction Method: Principal Component Analysis. 1 Component extracted.

The analysis of variance identified the Eigen values which is the variance of each factor or component in comparison with the total variance of all the items in the construct. In the analysis of variance other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and after the rotation.

Principal component analysis with a Varimax rotation was used to factor the nine items related to monitoring and control. The correlation matrices among the items revealed a number of correlations in excess of two which meant that all responses were suitable for factorization. From the Variance matrix, there was one variable that had Eigen values of more than 1.0 which meant that it was the budget communication variable that had the highest influence on manufacturing firm's performance. Component one had the highest variance of 4.5258 which accounted for 45.25 % of the variance. Component two had a variance of 2.162. The cumulative results showed that there were two critical factors driving the use of investment practice in manufacturing firms which accumulated to 66.882% of the total variance in this construct. The other three factors also explained the variance at less than 33%

which meant that some variance had been explained by latent variables. In evaluating what variables to retain the factor loadings were considered and factors affecting one variable were all loaded up together and given a name so that the factors were reduced to a minimum of two. The researcher deleted all the variables which did not relate to either factor one, or two in order to continue working out for further relationships as shown in the rotated component matrix.

From the rotation matrix in Table 4.14 the budget communication was grouped into one factor. Budget communication had; transparent communication about budget plans fosters trust, clear budget communication ensures that all departments and employees understand the company's financial goals, emphasize the importance of addressing the needs and interest of all stakeholders in decision-making, budget communication presents financial information in accessible language and format, transparent communication equips teams to navigate financial challenges effectively. The explanation is that most of the budget communication influence on manufacturing firms' financial performance was explained by this one factor. The agreed respondents' indications on financial performance of manufacturing linked with budget communication in manufacturing was consistent with the studies of Kung'u (2014) who established that budget communication in manufacturing enhances income and profitability.

4.4.5 Factor Results of Moderator Firm Size

In finance literature, according to Kisavi Mule & Suleiman Mukras (2015), firm size has been described as the amount and variety of production capacity and ability a firm possesses or the amount and variety of services a firm can provide concomitantly to the customers. India Bhattacharyya & Saxena (2018a) refers to it as how big or small the firm is and constitutes a primary factor in determining the financial robustness of a firm. In empirical research, different measures have been adopted to operationalize firm size. Measures such as the natural logarithm of total assets, the natural logarithm of total sales, as well as natural logarithm of total employees, have been extensively employed with success to depict the size of the firm in empirical research Doorasamy (2021).

To find out the factors that were driving firm size in manufacturing firms, KMO and Bartlett's tests were performed. KMO measures sampling adequacy which explains the extent to which indicators of a construct belong to each other. Table 4.15 shows the results of factor analysis for firm size.

Table 4.15: KMO and Bartlett's Test for Firm Size

Kaiser-Meyer-Olkin	Measure of Sampling Adequacy	.831
Bartlett's Test of Sphericity	Approx. Chi-Square	595.992
	df	36
	Sig.	.000

KMO test measures sample adequacy and it ranges between 0 and 1. A value close to 1 indicates that patterns of correlations are compact and hence the Factor Analysis is reliable and appropriate for the study. KMO measures on firm size had 0.831 which represented great acceptability of the use of factor analysis and sufficient intercorrelations. Bartlett's test of Sphericity is significant (chi-square=595.992, $p<0.000$). Bartlett's test checks if the observed correlation matrix diverges significantly from the identity matrix.

Table 4.16: Total Variance Explained for Firm Size Measures

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% Variance	Cumulative %
1	5.974	59.749	59.749	5.974	59.749	59.749	5.931	59.314	59.314
2	2.077	20.772	80.521	2.077	20.772	80.521	2.120	21.207	80.521
3	.833	9.251	89.771						
4	.397	4.414	94.186						
5	.267	2.969	97.454						
6	.116	1.285	98.439						
7	.063	.705	79.144						
8	.050	.553	99.697						
9	.027	.303	100.000						

Analysis Extraction Method: Principal Component,

The analysis of variance identified the Eigen values are the elements that describe the degree of change in each variable in relationship to the total overall variables. In the analysis of variance, other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and

after the rotation. The nine measures of firm size were subjected to factor analysis and the results show that there were two critical factors driving firm size use in manufacturing firms which accumulated to 80.52% of the total variance. Factor one had the highest variance of 59.74% while factor two had 20.77%. These two factors had the greatest influence on firm size and hence the financial performance of manufacturing firms. This is because they all had Eigen values of more than 1.0. Table 4.17 depicts the rotated component factor loadings firm size drivers of financial performance.

Table 4.17: Rotated Component Matrix for Firm Size Measures

Opinion Statement	Component Total Assets
1 Growing in size helps companies achieve economies of scale, reducing per-unit costs and enhancing price competitiveness	.929
2 Larger firms gain market power enabling price influence better supply terms and barriers for competitors	.595
3.Larger companies can generate more revenue streams and sustain growth over time	.964
4 Large firms access to capital markets gives them access to investment opportunities	.951
5 Growing in size boosts visibility and strengthen brand recognition thereby enhancing competitive advantage	.946
6 Larger companies attract skilled talent and invest in innovation	.911
7 Younger companies are more dynamic and volatile in their growth experience than older companies	.750
8 Large and medium firms have high ROA as compared to small firms	.955
9 Large firms experience lower profit rate due to the diminishing returns to the fixed factors of production	.958

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 2 iterations.

The analysis of variance identified the Eigen values which is the variance of each factor or component in comparison with the total variance of all the items in the construct. In the analysis of variance other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and after the rotation.

Principal component analysis with a Varimax rotation was used to factor the nine items related to firm size and financial performance. The correlation matrices among the items revealed several correlations over two which meant that all responses were suitable for factorization. From the Variance matrix, two variables had Eigen values of more than 1.0 which meant that these were the firm size variables that had the highest influence on the manufacturing firm's performance. Component one had the highest variance of 5.97 which accounted for 59.749 % of the variance. Component two had the second highest variance of 2.077 contributing 20.77% of the variance. The cumulative results showed that two important factors were driving the use of firm size measures in manufacturing firms which accumulated to 80.52% of the total variance in this construct.

The other factors also explained the variance at less than 20% which meant that some variance had been explained by latent variables. In evaluating what variables to retain the factor loadings were considered and the minimum factor loadings were 0.57 which was considered to be high. The factors affecting one variable were all put together and given a name so that the factors were reduced to a minimum of two. The researcher deleted all the variables that did not relate to either factor 1 or factor 2 to continue working out for further relationships.

From the rotation matrix in Table 4.17 all nine measures were grouped into two factors. Total assets 1 which had large firms are likely to manage their working capital more efficiently than small firms, large firms enjoy economies of scale hence able to boost financial performance, large companies have higher competitiveness than small ones thus generating large profits, large firms access to capital markets gives them access to investment opportunities, firms with the greatest market share and assets report better performance. This factor was named total assets. Total assets 2 had big firms can diversify their portfolios and hedge their operating risk better, young companies are more dynamic and more volatile in their growth experience than older companies This factor was called firm versatility. The explanation is that most of the firm size influence on manufacturing firms' financial performance was explained by these two factors. The agreed respondent's indications on the financial performance of manufacturing firms were consistent with the studies of Gatete

(2015) who established a moderate relationship between firm size and financial performance.

4.4.6 Financial Performance Factor Results

The factor analysis method was used to describe variability among observed variables and correlated variables in terms of the lower number of unobserved (latent) variables called factors. This helps in reducing a large number of variables to small numbers of factors for modeling purposes and to select subset variables from a large set, based on which original variables had the highest correlations with the factor. Factor loadings are the correlations between the original variables and factors and are the key to understanding the nature of a particular factor. Sigudla and Maritz (2023) aver that factor analysis helps in grouping variables with similar characteristics together. This study used factor analysis to create a small number of factors (budget planning, cash flow, earnings management, investment practice, and financial performance) from a large number of variables/indicators that were capable of explaining the observed variance in the larger number of variables. These factors were then used for further analysis. Squared factor loadings indicate what percentage of the variance in the original variables is explained by a factor Tavakol & Wetzel (2020).

Financial performance refers to the effectiveness with which a company utilizes its core business assets to produce profits. It also serves as a broad indicator of a company's financial well-being over a specific timeframe and can be employed to evaluate comparable firms within the same industry or to assess industries and sectors collectively Mara *et. al.,* (2019). The key financial drivers enhancing performance are profit margin, asset turnover, leverage, cash flow, and working capital. Roni et al.,(2018) postulates that the company's financial performance is reflected in profitability generated by the company for a certain period. Profitability serves as an important indicator in assessing the company's success by its stakeholders. To find out the factors that were driving financial performance measures in manufacturing firms, KMO and Bartlett's tests were taken. KMO

measures sampling adequacy which explains the extent to which indicators of a construct belong to each other.

Table 4.18: KMO and Bartlett's Test for Financial Performance

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.815**
Bartlett's Test of Sphericity	Approx. Chi-Square	350.095
	df	21
	Sig.	.000

KMO test measures sample adequacy and it ranges between 0 and 1. A value close to 1 indicates that patterns of correlations are compact and hence the Factor Analysis is reliable and appropriate for the study. KMO measures on financial performance had 0.815 which represented great acceptability of the use of factor analysis and sufficient intercorrelations.

Bartlett's test of Sphericity is significant (chi-square=350.095, p<0.000). Bartlett's test checks if the observed correlation matrix diverges significantly from the identity matrix. The total variance explained in the financial performance constructs was explained in the next section.

Table 4.19: Total Variance Explained for Financial Performance Measures

Component	**Initial Eigen Values**			**Extraction Sum of Squared Loading**		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	6.072	60.722	60.722	6.072	60.722	60.722
2	.898	12.822	73.544			
3	.674	9.627	83.171			
4	.573	8.190	91.362			
5	.319	4.550	95.912			
6	.181	2.582	98.494			
7	.105	1.506	100.000			

Extraction Method: Principal Component Analysis

The analysis of variance revealed that Eigenvalues represent the extent of variation in each variable relative to the total set of variables. In the analysis of variance other elements include the percentage of variance and also the cumulative percentages

which were explained by the extracted factors before and after the rotation. The nine measures of financial performance were subjected to factor analysis and the results show that there was one critical factor driving financial performance use in manufacturing firms which accumulated to 60.722% of the total variance. The factor had the greatest influence on financial performance of manufacturing firms. This is because it had Eigen values of more than 1.0. Principal component analysis with a Varimax rotation was used to factor the nine items related to financial performance. The factor results are shown in the next section.

Table 4.20: Component Matrix for Financial Performance Measures

Opinion Statement	**Component**
	1
1 We have achieved improved operating income	.901
2 We have had an improved return on investment over the last five years	.646
3 We have achieved an improved liquidity position over the last five years	.772
4 We have had enhanced profitability levels over the last five years	.839
5 We have achieved an improved return on assets over the last five years	.654
6 We have achieved an enhanced return on equity over the last five years	.707
7 We have achieved an improved return on capital employed over the last five years	.891

Extraction Method: Principal Component Analysis
a. 1 Component extracted.

The analysis of variance identified the Eigenvalues which is the variance of each factor or component in comparison with the total variance of all the items in the construct. In the analysis of variance, other elements include the percentage of variance and also the cumulative percentages which were explained by the extracted factors before and after the rotation. The cumulative results showed that there was one critical factor driving financial performance in manufacturing firms which accumulated to 60.07% of the total variance in this construct. The other factors also explained the variance at less than 40% which meant that some variance had been explained by latent variables. In evaluating what variables to retain the factor loadings were considered and the minimum factor loadings were 0.53 which was considered to be moderately high. From the extracted matrix all the financial

performance measures were grouped into one factor, FP1. Financial Performance 1 demonstrated improved operating income, stronger liquidity, increased profitability, greater market share, and enhanced returns on assets, equity, and capital employed. This factor was labeled as financial performance. The majority of its impact on the financial outcomes of manufacturing firms was attributed to this single factor. Respondents' assessments of financial performance, particularly in relation to profitability, aligned with the findings of Enekwe et al., (2023) , who established that strong financial performance in manufacturing firms is associated with profitability and high asset turnover.

The explanation is that most of the financial performance influence on a manufacturing firm's financial performance was explained by this one factor. The agreed respondent's indications on the financial performance of manufacturing linked with profitability were consistent with the studies of Enekwe et al., (2023) who established that favorable financial performance of manufacturing firms is related to profitability and high asset turnover. The results were also consistent with the findings of Soet et al., (2018) who established that manufacturing firms that have high return on equity reported high financial performance.

4.5 Descriptive Analysis

4.5.1 Descriptive Results on Budget Planning

This section presents descriptive statistics on budget planning practices among manufacturing firms in Kenya.

Table 4.21: Descriptive Results on Budget Planning

Budget Planning Statement	Mean	Std. Deviation	Interpretation
Budget planning aligns funds with organizational policies and goals	3.54	0.11	Agree
Budget planning helps maintain financial discipline	2.01	0.12	Disagree
Budget planning allows management to hold departments accountable	3.00	0.11	Neutral

Budget Planning Statement	Mean	Std. Deviation	Interpretation
Budget planning sets benchmarks and financial targets	3.23	0.12	Neutral
Budget planning identifies ways to reduce unnecessary expenses	3.44	0.11	Agree
Budget planning aligns with firm's short- and long-term goals	3.30	0.12	Neutral
Budget planning provides a clear financial framework for decision-making	3.33	0.12	Neutral
Budget planning enables informed managerial decisions	3.24	0.12	Neutral
Budget planning ensures sufficient funds for operational needs	3.30	0.12	Neutral
Composite Mean	**3.29**	—	**Moderate**

Scale: 1.00–1.80 = Strongly Disagree; 1.81–2.60 = Disagree; 2.61–3.40 = Neutral; 3.41–4.20 = Agree; 4.21–5.00 = Strongly Agree

The descriptive findings indicate that budget planning practices among manufacturing firms in Kenya are moderately applied, with a composite mean score of 3.29. This suggests that while firms recognize the importance of budget planning, its implementation is not consistently strong across all dimensions. The relatively high mean score for alignment of budget planning with organizational goals (M = 3.54) supports the argument by Nguyen (2024) and Brasit (2021) that budgeting serves as a strategic tool for linking organizational objectives with resource allocation. This finding is further consistent with Wangari and Luther (2022), who emphasized that budgeting enables firms to translate strategic plans into operational actions. Similarly, Foster (2017) found that firms that effectively use budgets for planning and coordination tend to achieve better financial performance, reinforcing the importance of strategic alignment observed in this study.

The finding that budget planning moderately supports cost control (M = 3.44) is in line with Shawe (2023), who argued that budgeting is essential for managing limited financial resources and enhancing operational efficiency. It also corroborates the findings of Agbenyo et al. (2018), who reported a positive relationship between effective budget planning and improved financial performance in manufacturing

firms. This suggests that Kenyan manufacturing firms are utilizing budgeting to some extent as a tool for cost management and financial efficiency.

However, the low mean score for financial discipline (M = 2.01) indicates a significant weakness in the enforcement and adherence to budgetary controls. This finding aligns with studies such as Maduekwe et al. (2016) and Mulani et al. (2015), which identified challenges such as lack of managerial commitment, inadequate technical capacity, and weak implementation of budgeting systems as key constraints affecting effective budget utilization. Similarly, Oladipo et al. (2020) and Abdi and Mutswenje (2023) reported negative or weak relationships between budgeting practices and performance where implementation and control mechanisms were ineffective. The neutral responses on aspects such as accountability, benchmarking, and decision support (means ranging from 3.00 to 3.33) suggest that although budgeting systems exist, their practical application in enhancing managerial decision-making is limited. This finding reflects the mixed evidence in the literature. While studies such as Libby and Lindsay (2010) and Suave et al. (2016) found that budgeting enhances performance through planning and control, others such as Ahmad and Salleh (2009) and Nwanyanwu and Nkiru (2018) reported inconclusive or insignificant relationships between budget planning and performance outcomes.

Overall, the findings of this study are consistent with the broader empirical literature, which presents mixed but generally positive evidence on the role of budget planning in organizational performance. While budget planning is widely recognized as a strategic and financial management tool, its effectiveness largely depends on the extent of implementation, enforcement of financial discipline, and managerial commitment. This suggests that for manufacturing firms in Kenya to fully realize the benefits of budget planning, greater emphasis should be placed on strengthening budgetary control systems and enhancing accountability mechanisms.

4.5.2 Descriptive Results on Budget Monitoring and Control

This section presents descriptive statistics on budget monitoring and control practices among manufacturing firms in Kenya.

Table 4.22: Descriptive Results on Budget Monitoring and Control

No.	Opinion Statement	Mean	Std. Dev.	Interpretation
1	Ensures expenses are kept within budget limits	4.028	0.761	Agree
2	Effective control of revenue and expenses supports profit targets	4.000	0.700	Agree
3	Tracks spending to hold departments accountable	3.782	1.010	Agree
4	Funds are used responsibly and for their intended purpose	3.718	0.999	Agree
5	Spending aligns with the firm's revenue and cash flow	3.493	0.973	Agree
6	Prevents financial inefficiencies and unnecessary expenses	3.514	0.864	Agree
7	Provides timely data to guide management in reallocating resources	3.415	0.889	Agree
	Composite Mean	**3.707**	**0.885**	**Agree**

Scale Interpretation:
1.0–1.8 = Strongly Disagree; 1.8–2.6 = Disagree; 2.6–3.4 = Neutral; 3.4–4.2 = Agree; 4.2–5.0 = Strongly Agree

The descriptive findings indicate a high level of application of budget monitoring and control practices, with a composite mean score of 3.707, suggesting that most manufacturing firms actively utilize monitoring mechanisms to guide financial performance. This finding strongly aligns with the conceptual arguments by Prasad et al. (2023), who identified budgetary control as a cornerstone of financial management used to plan, monitor, and regulate organizational resources. The relatively high mean score reinforces the view that firms recognize the importance of continuous budget tracking in achieving financial stability and performance.

The highest-rated aspect, ensuring expenses are kept within budget limits (M = 4.028), corroborates the findings of Grossi and Argento (2022), who emphasized that budget control plays a critical role in managing costs and maintaining financial discipline. Similarly, AL Mahroqi (2021) highlighted that budgetary control systems are designed to minimize deviations between planned and actual expenditures, thereby improving financial performance. The strong agreement among respondents suggests that Kenyan manufacturing firms prioritize expenditure control as a key

element of financial management. The finding that effective control of revenue and expenses supports profit targets (M = 4.000) is consistent with Gunawan et al. (2023), who argued that monitoring budget performance against actual outcomes enables organizations to stay aligned with growth objectives. It also supports Kool (2015), who found that effective budgetary control enhances organizational efficiency and profitability through optimal resource allocation.

The relatively strong agreement on accountability (M = 3.782) and responsible use of funds (M = 3.718) aligns with Pebrianti and Aziza (2019) and Mohamed et al. (2015), who emphasized that budgetary control strengthens internal control systems and promotes transparency in financial management. This is further supported by Adongo and Jagongo (2013), whose study in Kenya found that budgetary control significantly improves financial performance by enhancing accountability, resource allocation, and managerial efficiency. The moderate mean score for alignment of spending with revenue and cash flows (M = 3.493) suggests some constraints in achieving full financial alignment. This finding is consistent with Etale and Idumesaro (2019), who noted that while budgetary control systems are designed to regulate financial activities, their effectiveness depends on proper implementation and integration with organizational planning processes. It also reflects practical challenges identified by Shitanda Nyongesa et al. (2016), where variations in implementation affected the strength of the budgeting–performance relationship.

Similarly, the moderate agreement on prevention of inefficiencies (M = 3.514) supports the argument by Grossi and Argento (2022) that budgetary control helps identify inefficiencies, although its effectiveness may vary across organizations depending on managerial commitment and system robustness. The comparatively lower mean score for timely provision of budget information (M = 3.415) highlights a potential weakness in the timeliness and responsiveness of financial reporting systems. This finding resonates with Mbuthia and Omagwa (2019), who, despite finding a positive relationship between budgetary control and financial performance, noted that delays in financial information can limit effective decision-making. It also reflects concerns raised in empirical literature that while budgeting systems exist, their real-time applicability and responsiveness remain areas for improvement.

Overall, the findings of this study are consistent with the broader empirical literature, which largely reports a positive relationship between budget monitoring and control and financial performance. Studies such as Adongo and Jagongo (2013), Keng'Ara and Makina (2021), and Mbuthia and Omagwa (2019) provide strong empirical support for this relationship, particularly within the Kenyan context. However, the variation in mean scores across specific indicators also reflects the contextual and implementation challenges highlighted in prior studies.

4.5.3 Descriptive Results on Budget Evaluation

This section presents descriptive statistics on budget evaluation practices among manufacturing firms in Kenya.

Table 4.23: Descriptive Results on Budget Evaluation

No.	Opinion Statement	Mean	Std. Dev.	Interpretation
1	Evaluates how well the company is managing its resources compared to the budget	3.042	0.859	Neutral
2	Checks whether resources are used efficiently to meet company objectives	2.936	0.743	Neutral
3	Tracks and controls spending within approved limits to prevent budget overruns	2.584	0.906	Disagree
4	Uses evaluation data to guide future financial planning and strategy	3.077	0.866	Neutral
5	Highlights areas where costs can be reduced without sacrificing quality	2.972	0.830	Neutral
6	Holds departments and managers accountable for budget management	2.197	0.996	Disagree
7	Confirms that spending aligns with the company's strategic goals	2.675	0.900	Neutral
	Composite Mean	**2.783**	**0.871**	**Neutral**

Scale Interpretation:
1.0–1.8 = Strongly Disagree; 1.8–2.6 = Disagree; 2.6–3.4 = Neutral;
3.4–4.2 = Agree; 4.2–5.0 = Strongly Agree

The descriptive findings indicate that budget evaluation practices are moderately applied, with a composite mean score of 2.783, which falls within the neutral range. This suggests that while manufacturing firms in Kenya have budget evaluation mechanisms in place, their application is not strong or consistently institutionalized.

This finding aligns with the conceptual arguments by Selim et al. (2022) and Ho (2018), who emphasize that budget evaluation is essential for comparing actual and planned performance, identifying deviations, and informing corrective actions. However, the moderate application observed in this study suggests that these benefits may not be fully realized in practice. The highest mean score for use of evaluation data to guide future planning (M = 3.077) supports the findings of Radelet (2022) and IMF (2017, 2018), who argue that evaluation plays a critical role in organizational learning, strategic planning, and resource allocation. This indicates that firms moderately utilize evaluation outcomes for forward-looking decision-making, reinforcing the theoretical role of evaluation as a feedback mechanism in budgeting systems.

Similarly, the finding that firms moderately evaluate resource management against budgets (M = 3.042) is consistent with Auerbach and Gale (2020), who highlight the importance of budgeting in ensuring accurate financial estimates and effective cost management. It also supports Olando (2021), who found that evaluation has a strong association with performance when effectively implemented. However, the moderate mean suggests that this practice is not fully optimized across all firms. The neutral responses regarding cost reduction without compromising quality (M = 2.972) and efficient resource utilization (M = 2.936) reflect the mixed evidence in the literature. While Panyako and Miroga (2024) emphasize that continuous evaluation enhances financial efficiency and accountability, the findings of this study suggest that such benefits may not be consistently achieved. This is consistent with Wang and Niu (2020) and Maeenuddin et al. (2024), who reported weak or insignificant relationships between monitoring and evaluation practices and financial performance in certain contexts.

The relatively low mean scores for alignment of spending with strategic goals (M = 2.675) and control of budget overruns (M = 2.584) indicate weaknesses in the effectiveness of evaluation processes as enforcement mechanisms. This finding supports Njiru and Thoronjo (2023), who identified deficiencies in budgeting processes due to inadequate monitoring and evaluation. It also aligns with Nyagah

and Njoka (2022), who highlighted that although evaluation practices are recognized, their direct influence on financial outcomes is often unclear or underdeveloped.

The lowest mean score for accountability (M = 2.197) suggests that budget evaluation is not strongly used as a tool for holding departments and managers responsible for financial performance. This finding contrasts with Chepkorir et al. (2021) and Wandera and Sang (2017), who found that effective evaluation enhances accountability and performance outcomes. The disparity may indicate implementation gaps in Kenyan manufacturing firms, where evaluation processes exist but are not sufficiently enforced to drive accountability.

Overall, these findings support the broader empirical literature, which presents mixed and inconclusive evidence on the relationship between budget evaluation and financial performance. While studies such as Zhao (2022) and Jacqueline (2024) report positive effects of monitoring and evaluation on performance, others such as Wang and Niu (2020) and Maeenuddin et al. (2024) found no significant influence. The results of this study fall within this mixed spectrum, suggesting that the effectiveness of budget evaluation depends largely on the extent of implementation, integration with decision-making processes, and organizational commitment**.**

4.5.4 Descriptive Results on Budget Communication

This section presents descriptive statistics on budget communication practices among manufacturing firms in Kenya.

Table 4.24: Descriptive Results on Budget Communication

No.	Opinion Statement	Mean	Std. Dev.	Interpretation
1	Engages department heads and team leads during the budget process to gather input	4.190	0.793	Agree
2	Clearly outlines the budget structure, including revenue sources, cost areas, and allocation priorities	3.944	1.052	Agree
3	Builds trust by providing transparency around decision-making and spending plans	3.648	0.939	Agree

No.	Opinion Statement	Mean	Std. Dev.	Interpretation
4	Collaboration fosters ownership and reduces resistance to the budget	3.585	0.866	Agree
5	Presents data using charts, graphs, and infographics to simplify complex financial information	4.078	0.866	Agree
6	Customizes the level of detail and focus for different audiences	3.585	0.906	Agree
7	Shows how the budget aligns with the company's strategic plan	3.965	0.808	Agree
	Composite Mean	**3.856**	**0.890**	**Agree**

Scale Interpretation:
1.0–1.8 = Strongly Disagree; 1.8–2.6 = Disagree; 2.6–3.4 = Neutral; 3.4–4.2 = Agree; 4.2–5.0 = Strongly Agree

The descriptive findings indicate that budget communication practices are strongly applied among manufacturing firms in Kenya, with a composite mean score of 3.856**,** which falls within the "agree" category. This suggests that firms have established effective communication mechanisms to support budgeting processes. This finding is consistent with Abiji et al. (2024) and Nguyen (2024), who argue that effective budget communication enhances coordination, transparency, and alignment between organizational goals and financial resource allocation.

The highest mean score for engaging department heads and team leads during the budgeting process (M = 4.190) strongly supports the concept of participatory budgeting highlighted in the literature. This aligns with World Bank (2008) and Governance (2021) findings that participatory budgeting improves budget execution and aligns expenditures with stakeholder priorities. It also reinforces Ayuketang Nso (2020)**,** who emphasized that involving lower-level managers enhances ownership, commitment, and accountability in budget implementation through effective vertical communication.

The strong agreement on the use of visual tools such as charts, graphs, and infographics (M = 4.078) reflects the growing importance of digital and simplified communication mechanisms in budgeting. This finding corroborates OECD (2021**)** and Durkiewicz and Janowski (2021**),** who found that digital platforms and

interactive reporting tools improve transparency, accessibility, and accuracy of financial information. It also supports the argument that technological integration enhances the effectiveness of budget communication. The relatively high mean score for alignment of budgets with strategic plans (M = 3.965) is consistent with Albuali (2021), who emphasized that budget communication ensures that financial plans are clearly linked to organizational objectives. This also aligns with Kangas et al. (2015), who highlighted the importance of tailoring budget information to stakeholder needs to improve decision-making and strategic alignment.

Moderate agreement on clarity of budget structure (M = 3.944) and transparency in decision-making (M = 3.648) further supports Nguyen (2024), who identified clarity, consistency, and transparency as key attributes of effective budget communication. Additionally, the finding that communication builds trust aligns with Oguso Ochien'g (2019), who found that improved budget communication in Kenya enhances accountability and reduces fund misappropriation. The findings on collaboration and ownership (M = 3.585) and customization of budget information (M = 3.585) suggest that while communication practices are generally strong, there is still room for improvement in tailoring information to different user groups and strengthening collaborative engagement. This is consistent with ACCA guidelines (Kangas et al., 2015), which emphasize the importance of two-way communication and stakeholder-specific reporting to enhance effectiveness.

Overall, the findings of this study strongly align with the empirical literature, which consistently reports a positive relationship between effective budget communication and financial performance. Studies by OECD (2019, 2021) and World Bank (2023) highlight that timely, transparent, and well-structured communication improves fiscal discipline, reduces inefficiencies, and enhances organizational performance.

4.5.5 Descriptive Results on Firm Size

This section presents descriptive statistics on firm size practices among manufacturing firms in Kenya.

Table 4.25: Descriptive Results on Firm Size

Descriptive Statistic	Observed Value	Interpretation	Theoretical/Empirical Insight
Mean	6.8218	Indicates average firm size; shows most firms are moderately large	Supports literature that larger firms in emerging economies (Kenya, Nigeria, Ghana) often have better access to capital, economies of scale, and market positioning (Odalo et al., 2016; Musah et al., 2019)
Minimum / Maximum	0.0000 / 9.3698	Wide range reflects substantial variation in firm size	Aligns with studies highlighting heterogeneity in sample firms as a key factor explaining mixed size–performance relationships (Abeyrathna & Priyadarshana, 2019; John & Adebayo, 2013)
Standard Deviation	1.0108	Moderate dispersion around the mean	Suggests variation sufficient to test moderating effects of firm size on performance, consistent with Mutunga & Owino (2017) on size as a moderator
Skewness	–0.6088	Slight left skew; more firms above the mean size	Reflects the presence of larger firms which may leverage scale advantages for better performance, consistent with emerging-economy evidence (Aydın Unal et al., 2017; Odalo et al., 2016)
Kurtosis	2.991	Approx. normal distribution	Satisfies assumptions for regression and correlation; addresses literature concerns on small or biased samples limiting inference (Abeyrathna & Priyadarshana, 2019)

4.5.6 Financial Performance: Cumulative Report (2018–2022)

Financial performance of manufacturing firms was assessed using secondary data obtained from the Central Bank of Kenya (CBK) Report (2024). The analysis focused on net profit, gross profit, and total investment over a five-year period (2018–2022). Table 4.13 presents the cumulative financial performance trends.

Table 4.26: Financial Performance: Cumulative Report (2018-2022): Secondary data

Period	2018 (1)	2019(2)	2020(3)	2021(4)	2022(5)
1.Net Profit	18,107,147,000	17,508,815,000	16,806,705,000	14,606,750,000	10,905,470,000
2. Gross Profit	57,591,574,000	57,205,367,000	54,855,485,500	53,591,574,000	51,955,257,088
3. Total Investment	177,987,632,958	180,526,883,779	203,207,695,969	245,787,560,878	320,129,206,700

Source: CBK Report (2024)

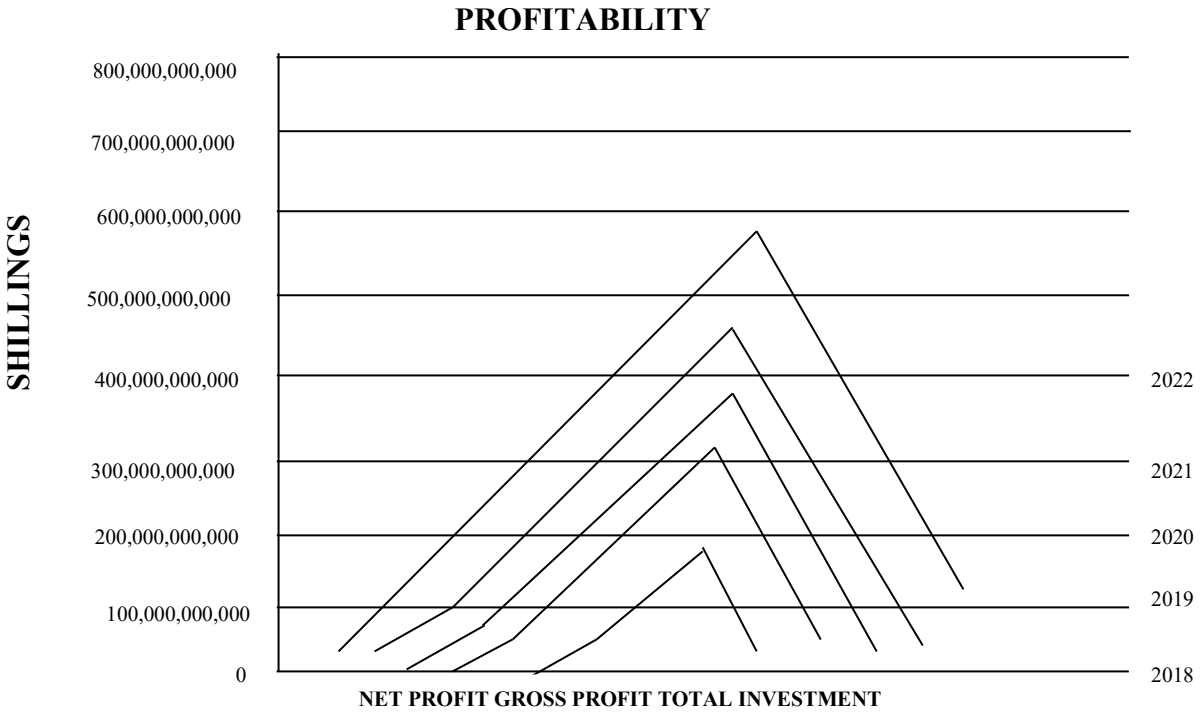

Figure 4.2:Trend Analysis of Profitability

The results reveal a persistent decline in net profits across the five-year period. Net profit decreased steadily from KES 18.11 billion in 2018 to KES 10.91 billion in 2022, indicating a sustained deterioration in profitability among manufacturing firms during the study period. This downward trend suggests increasing operational pressures and reduced efficiency in translating revenues into bottom-line earnings.

Similarly, gross profit exhibited a gradual decline, falling from KES 57.59 billion in 2018 to KES 51.96 billion in 2022. Although the reduction in gross profit was less pronounced than that of net profit, the pattern indicates weakening cost management

and pricing power, which may have constrained firms' ability to absorb operating and financing expenses.

In contrast, total investment increased substantially, rising from KES 177.99 billion in 2018 to KES 320.13 billion in 2022. The divergence between rising investment levels and declining profitability suggests that additional capital did not translate proportionately into improved financial returns. This points to possible inefficiencies in capital allocation and weaknesses in financial planning and control mechanisms.

These findings are consistent with Mbogo, Olando, and Macharia (2021), who documented declining profitability within Kenya's manufacturing sector and attributed it partly to weak budgeting practices and escalating operating costs.

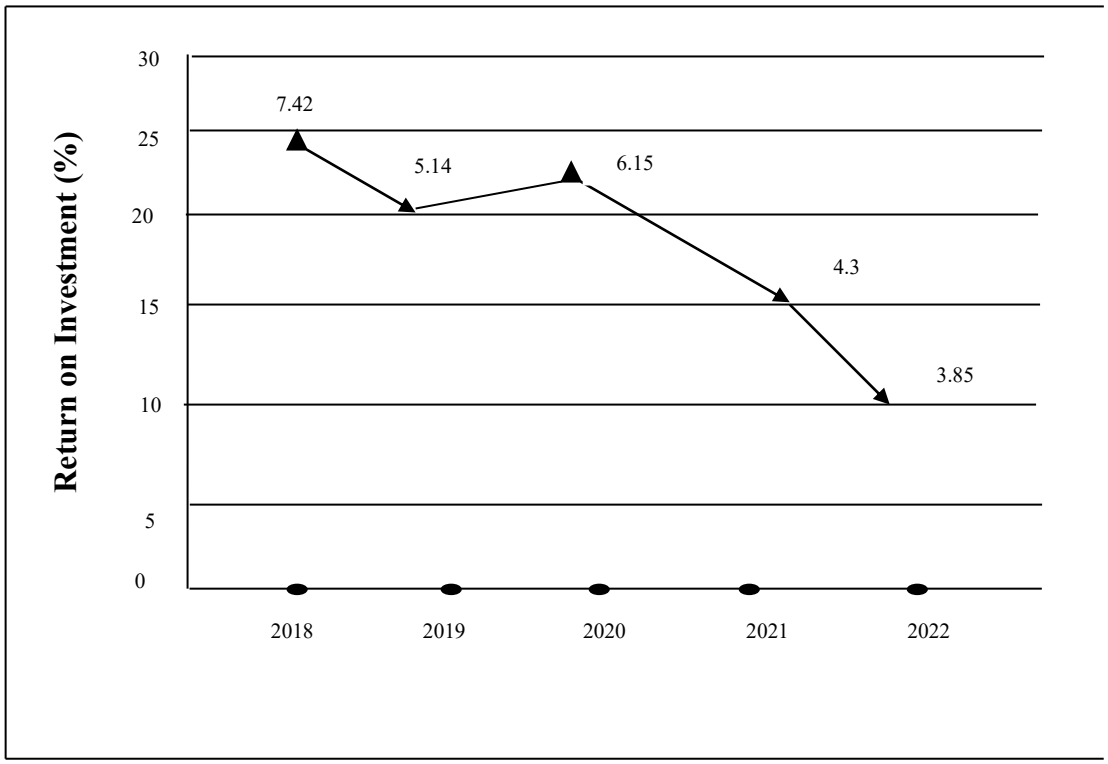

Figure 4.3: Financial Performance; Cumulative Report;(2018-2022)

Figures 4.3 illustrate the cumulative financial performance and the trend in return on investment (ROI) over the study period. The ROI pattern demonstrates notable volatility, with relatively higher returns in the initial years followed by a decline

towards the end of the period. The reduction in ROI coincides with increasing investment outlays alongside declining net profits, reinforcing the observation that manufacturing firms experienced diminishing returns on capital employed.

The decline in ROI is partly attributable to external shocks, particularly the COVID-19 pandemic during 2020–2021, which disrupted supply chains, reduced consumer demand, and increased production and compliance costs. Collectively, these factors exerted downward pressure on profitability and weakened overall financial performance in the sector.

Overall, the descriptive results indicate that manufacturing firms in Kenya experienced declining profitability despite increasing investment levels between 2018 and 2022. The widening gap between investment growth and profit generation underscores structural and managerial challenges, including cost inefficiencies and sub-optimal budgeting practices. These trends justify further inferential analysis to examine the extent to which budgeting practices explain variations in financial performance across firms.

4.6 Diagnostic Tests

4.6.1 Normality Test

In regression analysis, model assumption tests (also known as diagnostic tests) are conducted to examine whether the collected data is fit for regression modeling. Based on the nature of the hypothesized relationships between the study variables, regression modeling in the study involved performing normality test, linearity test, multicollinearity test and homoscedasticity test. Normality of the study variables was assessed separately for primary and secondary data to ensure methodological rigor.

Primary data:

The independent variables, captured through Likert-scale questionnaire items, were aggregated into composite construct scores. The Shapiro–Wilk test was employed to assess normality, as it is suitable for continuous variables derived from moderate sample sizes. The results indicated no significant deviations from normality for the

budgeting practice constructs. These findings were further supported by acceptable skewness and kurtosis values, confirming that the data met the normality assumption for parametric analyses.

Secondary data:

For the secondary data variables, firm size and financial performance (ROI) normality was evaluated using both skewness and kurtosis statistics and graphical methods, including histograms and normal Q–Q plots. Firm size, measured as the natural logarithm of total assets, demonstrated skewness and kurtosis within acceptable thresholds for approximate normality. Visual inspection of the distributions corroborated these findings, indicating no substantial departures from normality.

Overall, both primary and secondary data variables satisfied the normality assumption, supporting the use of parametric correlation and regression analyses in subsequent stages of the study.

4.6.2 Linearity

Linearity refers to the existence of a linear relationship between the independent variables and the dependent variable and is a key assumption for correlation and multiple regression analysis. In this study, linearity was assessed between the budgeting practice constructs, firm size, and financial performance.

Linearity was examined using scatterplots of each independent variable against financial performance. Visual inspection of the scatterplots indicated that the relationships between budget planning, budget monitoring and control, budget evaluation, budget communication, firm size, and financial performance were approximately linear. No systematic curvilinear patterns were observed.

Based on these results, the linearity assumption was considered to be satisfied, supporting the use of Pearson correlation and linear regression techniques in subsequent analyses.

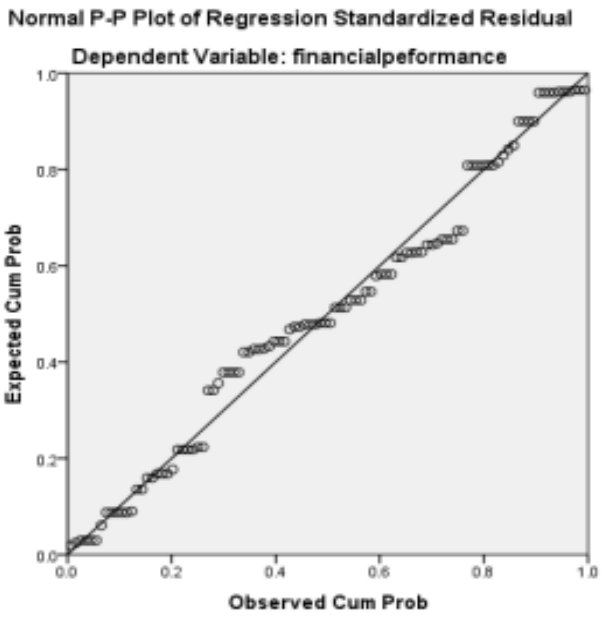

Figure 4.4: Result for Multicollinearity Test

4.6.3 Multicollinearity Test

Multicollinearity occurs when two or more independent variables are highly correlated, which can distort the estimation of regression coefficients and weaken statistical inference Kerlinger (2011). In this study, multicollinearity was assessed among the independent variables, namely budget planning, budget monitoring and control, budget evaluation, budget communication, and firm size, to ensure that each predictor contributed unique information to the regression and moderation analyses.

The Variance Inflation Factor (VIF) and tolerance statistics were computed to detect the presence of multicollinearity. As shown in Table 4.9, all VIF values were below the threshold of 4, while tolerance values exceeded 0.20. These results indicate that there was no serious multicollinearity among the predictor variables, confirming that they could be included simultaneously in the regression and moderation models without compromising the stability of the estimated coefficients.

Table 4.27: Multicollinearity Test for Independent Variables

Variable	Tolerance	VIF
Budget Planning	0.404	1.478
Budget Monitoring and Control	0.375	2.065
Budget Evaluation	0.214	1.571
Budget Communication	0.258	1.195
Firm Size	0.209	1.784

Dependent Variable: Financial Performance
Thresholds: VIF< 4: Tolerance > 0.20

4.6.4 Homoscedasticity and Independence of Errors

Homoscedasticity and independence of errors are key assumptions in multiple regression analysis. Homoscedasticity refers to the requirement that the variance of residuals (errors) is constant across all levels of the independent variables, while independence of errors requires that residuals are uncorrelated across observations (Field, 2018). Violations of these assumptions can lead to inefficient estimates and biased significance tests.

Homoscedasticity was assessed using scatterplots of standardized residuals against predicted values of financial performance (Figure 4.4). Visual inspection of the scatterplot indicated that the residuals were evenly dispersed around zero across all predicted values, showing no discernible pattern or funnel shape. This suggests that the variance of errors is approximately constant, satisfying the assumption of homoscedasticity.

Independence of errors was evaluated using the Durbin-Watson statistic, which tests for autocorrelation in the residuals of a regression model. A Durbin-Watson value close to 2 indicates that residuals are independent. In this study, the Durbin-Watson statistic was 1.987, which is very close to the benchmark of 2, confirming that the residuals are independent and that there is no significant autocorrelation.

The results indicate that the assumptions of homoscedasticity and independence of errors were satisfied, supporting the reliability of the regression and moderation analyses conducted in this study.

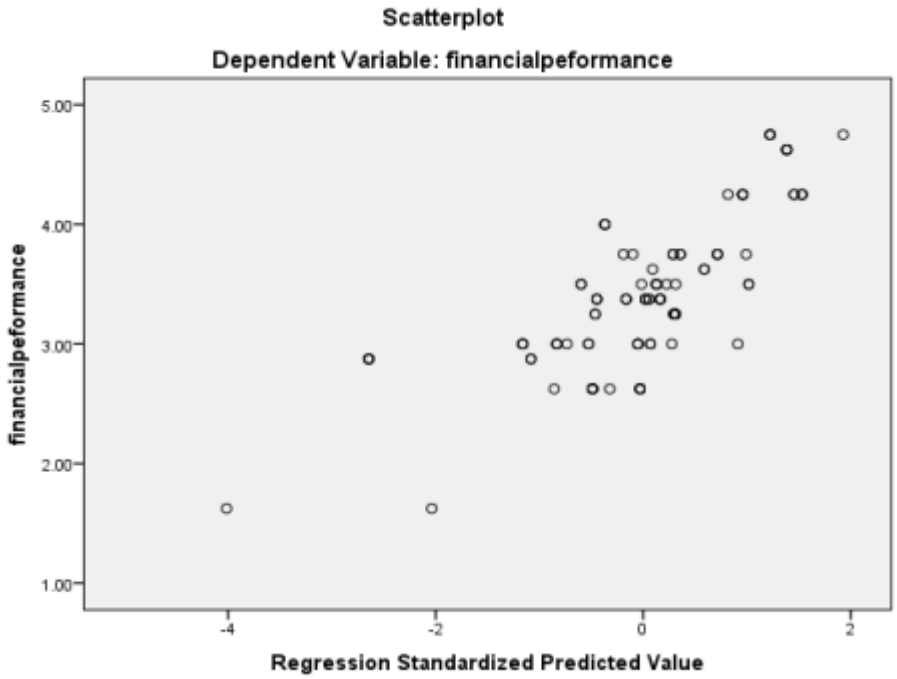

Figure 4.5: Homoscedasticity

The results indicate that the regression model meets the assumptions of homoscedasticity and independence of errors**.** The scatterplot of residuals showed a consistent spread around zero with no clear pattern, suggesting that the variance of errors is constant across predicted values. Additionally, the Durbin–Watson statistic of 1.987, which is close to 2, indicates that the residuals are independent and not autocorrelated. Overall, these findings confirm that the regression results are reliable and that the statistical tests based on the model are valid.

4.7 Inferential Analysis Results

This section presents the results of inferential statistical analyses conducted to examine the relationships among budgeting practices**,** firm size**,** and financial performance (ROI)**.** The analysis includes correlation and regression results, with firm size incorporated as a moderating variable. Pearson's correlation coefficient (r) was considered appropriate as the variables were continuous and satisfied the assumptions of normality and linearity. Statistical significance was evaluated at the

1% level ($p < 0.01$). The results of correlation analysis are as shown in shown in Table 4.28

Table 4.28: Pearson Correlation Matrix of Study Variables (N = 141)

Variable	1	2	3	4	5
1. Budget Planning	—				
2. Budget Monitoring and Control	.631**	—			
3. Budget Evaluation	.659**	.681**	—		
4. Budget Communication	.722**	.660**	.865**	—	
5. Firm Size	.715**	.715**	.771**	.750**	—
6. Financial Performance	.810**	.695**	.679**	.699**	.761**

Note. Values are Pearson's product–moment correlation coefficients. Firm size was measured as the natural logarithm of total assets. **p < .01 (two-tailed).

Table 4.28, shows that all the independent variables budget planning, budget monitoring and control, budget evaluation, budget communication, and firm size were positively and statistically significantly correlated with the financial performance of manufacturing firms. This correlation indicates that improvements in budgeting practices and increases in firm size are associated with enhanced financial performance.

Specifically, budget planning exhibited a very strong positive correlation with financial performance ($r = 0.810$, $p < 0.01$), suggesting that firms with well-structured and systematic budget planning processes tend to achieve superior financial outcomes. This finding is consistent with Mukumbi et al. (2020), who reported that effective budget planning significantly enhances the financial performance of manufacturing firms in Kenya.

Budget monitoring and control also demonstrated a strong positive relationship with financial performance ($r = 0.695$, $p < 0.01$). This implies that continuous tracking of budget implementation and corrective control mechanisms play a critical role in improving organizational performance. The finding aligns with Ofori-Dwumfuo and Amponsah-Tawiah (2019), who found a positive association between budget

monitoring practices and firm performance among manufacturing companies in Ghana.

Similarly, budget evaluation was found to have a moderate to strong positive correlation with financial performance ($r = 0.679$, $p < 0.01$). This suggests that periodic assessment of budget outcomes against planned targets contributes to improved financial results. The result supports the findings of Katana et al. (2022), who established that budgetary control and evaluation practices significantly influence the performance of firms listed on the Nairobi Securities Exchange.

The results further indicate that budget communication is strongly associated with financial performance ($r = 0.699$, $p < 0.01$). This highlights the importance of effectively disseminating budgetary information across organizational levels to enhance coordination, accountability, and performance.

With regard to the moderating variable, firm size showed a strong positive correlation with financial performance ($r = 0.761$, $p < 0.01$), indicating that larger firms tend to exhibit better financial outcomes, possibly due to economies of scale, enhanced resource availability, and stronger internal control systems.

Although some of the independent variables exhibited relatively high inter-correlations, all correlation coefficients were below the critical threshold of 0.90. Furthermore, multicollinearity was formally assessed using Variance Inflation Factor (VIF) and tolerance statistics, which confirmed that multicollinearity was within acceptable limits. This justified the inclusion of the variables in the subsequent regression and moderation analyses.

Overall, the correlation results provide preliminary empirical support for the hypothesized relationships and confirm the suitability of the variables for further inferential analysis.

4.7.1 Direct Effects Relationship

Direct effects relationship involved examining the effect of budget planning, budget monitoring and control, budget evaluation and budget communication on financial performance of manufacturing firms using multiple regression. The results for this procedure were used to test hypotheses $\mathbf{H_{01}}$, $\mathbf{H_{02}}$, $\mathbf{H_{03}}$, and $\mathbf{H_{04}}$. The corresponding regression model for analysis had the form

$$\mathbf{FP = \beta_0 + \beta_1 P + \beta_2 MC + \beta_3 E + \beta_4 C + \varepsilon}$$

Where:

FP = Financial Performance (Dependent variable)

S = Budget Planning (Independent variable)

MC = Budget Monitoring and Control (Independent variable)

E = Budget Evaluation (Independent variable)

C = Budget Communication (Independent variable)

β_0, β_1, β_2, β_3 and β_4 are regression coefficients to be determined

ε = Error term

In examining the influence of the predictors on financial performance of manufacturing firms, the results were given in three parts. This included model summary, ANOVA results and regression coefficients. In regression analysis, the model summary part gives the explained variation in the dependent variable attributed to variations in the independent variable. This is given by the value of multiple R^2 expressed as a percentage. That is, this section explains the extent to which the four independent variables influence financial performance of manufacturing firms. Model summary results were as shown in Table 4.29.

Table 4. 29: Model Summary for Direct Effect Model

Model summary					
R	R^2	Adjusted R^2	Std. Error	F Change	Sig.
0.79025	0.6245	0.6073	0.7715	78.325	0.000

***Dependent variable**: Financial performance of manufacturing firms*
***Predictors**: (Constant), budget planning, budget monitoring, budget evaluation, budget communication*

Table 4.29 shows that the coefficient of determination is 79% (R^2 = 0.79) with a standard error of 0.7715 and a corresponding F-statistics = 78.325. The value of R^2 shows that up to 79% of the total variations in financial performance of manufacturing firms is attributed to variations in the identified budgeting activities. In other words, according to the model, the predictor variables explain upto 79% of the total variations in the financial performance of manufacturing firms. The remaining 21% is an indication that there are other factors influencing financial performance of manufacturing firms but are not included in the model. This explained variation of 79% was found to be significant since the corresponding p-value was less than 0.05 (that is 0.03< 0.05).

The second part of the multiple regression analysis was the ANOVA results. The results in this section measures or tests the significance of the obtained model in describing the collected data. Thus, ANOVA tests model fitness to the collected data using the obtained p – value. For this part, the following summary statistics in Table 4.30 was obtained.

Table 4.30: ANOVA Results for Direct Relationship Model

ANOVA					
	Sum of squares	df	Mean squares	F-statistics	Sig.
Regression	106.437	4	26.609	78.325	0.000
Residual	46.205	136	0.3397		
Total	152.642	140			

***Dependent variable**: Financial performance of manufacturing firms*
***Predictors**: (Constant), budget planning, budget monitoring, budget evaluation, budget communication*

Source: Survey data (2025)

Table 4.30 gives the sum of squares, degrees of freedom, mean squares, F-statistics and p-value. This output is used to test model fitness in describing the collected data. Using the p-value (0. 000), it can be inferred that the obtained multiple regression model is significant since 0.000 is less than 0.05. This implies that the model correctly fit data description. The values of the regression coefficients and the corresponding p-values can, thus, be used to test the study hypothesis about the

influence of budget planning, budget monitoring, budget evaluation, budget communication on financial performance of manufacturing firms.

Regression coefficients section, gives the regression coefficients for each of the independent variable and the corresponding standard errors, t-statistics and p-values. For each of the predictor variables, the corresponding p – values were used to test for the significance of influence on the independent variables. The p-values were, consequently, used to test the study hypotheses. Summary statistics for the regression coefficients were as shown in Table 4.31.

Table 4.31: Regression Coefficients for Direct Relationship Model

	Unstandardized Regression coefficients		**Unstandardized Regression coefficients**	**t**	**Sig.**
	Beta	**SE**	**Beta**		
(Constant)	2.3114	0.192		12.039	.000
Budget planning	0.492	0.072	0.513	6.833	.001
Budget monitoring	0.272	0.101	0.151	2.693	.006
Budget evaluation	0.267	0.068	0.055	3.926	.005
Budget communication	0.339	0.091	0.361	3.725	.005

***Dependent variable**: Financial performance of manufacturing firms*
***Predictors**: (Constant), budget planning, budget monitoring, budget evaluation, budget communication*

From Table 4.31, the regression coefficients statistics for each independent variable is given. It is clear that all the four independent variables have positive influence on financial performance of manufacturing firms. The magnitude of influence of each independent variable is given by the unstandardized beta values. In each case, the coefficient values can be interpreted as the rate of increase in financial performance triggered by improvement in each of the budgeting practices. Based on this interpretation, it can be noted that the highest impact was observed in budget planning, while the least impact was recorded in evaluation.

To determine whether influence of each independent variable was significant, the p-values were used. A predictor has a significant influence on some dependent variable if the corresponding p-value is less than the level of significance, which is usually 0.05. Clearly, it can be seen that the corresponding p-values for all the independent variables were significant since none of the p-values is greater than 0.05. This is an indication that each of the identified budgeting practices has a significant influence on financial performance of manufacturing firms. A similar inference could also be made by comparing the corresponding t-statistics and t-critical (tabulated) values. In this case, the decision is to conclude that the influence is significant if the respective t-statistic value is greater than the tabulated values. The fact that all the independent predictors have significant influence is a justification for observing a relatively high explained variation as shown in Table 4.29.

Since the explained variation is relatively high (shown in Table 4.29), the obtained model correctly fits the data (shown in Table 4.30) and that all the independent variables have significant influence on the dependent variable, the obtained results in Table 4.31 can, thus, be used to test the study hypotheses H_{01}, H_{02}, H_{03}, and H_{04}. In testing the hypothesis about the significance of the regression coefficients, the decision is to reject the null hypothesis of no significant influence whenever the corresponding p-value is less than the level of significance. This decision rule is satisfied by the results shown in Table 4.31. This, therefore, implies that the null hypotheses H_{01}, H_{02}, H_{03}, and H_{04} were all rejected at 5% level of significance. Consequently, the multiple regression model explaining how budget planning, budget monitoring and control, budget evaluation, budget communication influences financial performance of manufacturing firms can be given as;

$$FP = 2.3114 + 0.492P + 0.272MC + 0.267E + 0.339C$$

4.7.2 Indirect Effects Relationship: Moderating Effects

To analyze the moderating effect of firm size on the relationship between budgeting practices and financial performance of manufacturing companies, three regression models were considered. The first regression model described the relationship between financial performance of manufacturing firms and a composite of the

budgeting practices. This regression model was, thus, a simple linear regression model. The second regression model was obtained when the moderating variable is included in the first model. The third model, on the other hand, described regression model when the interaction term is added in the second model.

The corresponding three regression models were, consequently, expressed as follows

$Y = \beta_0 + \beta_1 X + \varepsilon$……. (i)

$Y = \beta_0 + \beta_1 X + \beta_2 FS + \varepsilon$……..……..... (ii)

$Y = \beta_0 + \beta_1 X + \beta_2 FS + \beta_3 (X*FS) + \varepsilon$…..……..…… (iii)

Where;

Y = Performance of manufacturing firms (Dependent variable)

X = A composite variable representing budgeting practices (Combined variables)

FS = Firm size (Moderating variable)

X*FS = Interaction between budgeting practices and firm size (Interaction term)

ε = the error term

β_0 = Constant (the intercept of the model)

β_1 = Coefficient for the composite of budgeting practices

β_2 = Regression coefficient for firm size

β_3 = Regression coefficient for interaction term

In this analysis, the corresponding hypothesis was stated as follows

H_{05}: Firm size has no significant moderating effect on the relationship between budgeting practices and financial performance of manufacturing firms, in Kenya.

Analysis results for the three models were as shown in Table 4.32, Table 4.33 and Table 4.34

Table 4.32: Indirect Effects Model Summary Statistics

Model Summary						
Model	**R**	**R^2**	**Adjusted R^2**	**Std. error**	**F change**	**Sig.**
Model 1	0.5982	0.3579	0.3499	0.7821	77.485	0.000
Model 2	0.6457	0.4169	0.3821	0.7355	49.333	0.000
Model 3	0.6679	0.4461	0.4409	0.6521	36.776	0.000

A look at the explained variation for the three models shows an increased explained variation. The respective explained variations for the three models were 35.79%, 41.69% and 44.61%. Increase in the explained variation shows that inclusion of moderating variation improves model fittingness. This is also seen when the interaction term is included in the model. From the p-values, it can be noted that all these explained variations are significant.

Similar results were also seen in the ANOVA results where all the models were significant at 5% level of significance. This is seen in Table 4.33.

Table 4.33: Indirect Effects ANOVA Results Statistics

ANOVA RESULTS						
		Sum of squares	**df**	**Mean squares**	**F-statistic**	**Sig.**
Model 1	Regression	54.627	1	54.627	77.485	0.000
	Residual	98.015	139	0.705		
	Total	152.642	140			
		Sum of squares	**df**	**Mean squares**	**F-statistic**	**Sig.**
Model 2	Regression	63.639	2	31.820	49.333	0.000
	Residual	89.003	138	0.645		
	Total	152.642	140			
		Sum of squares	**df**	**Mean squares**	**F-statistic**	**Sig.**
Model 3	Regression	68.073	3	22.691	36.776	0.000
	Residual	84.569	137	0.617		
	Total	152.642	140			

Results for regression coefficients for the three models were as shown in Table 4.34

Table 4.34: Indirect Effects Regression Coefficients Results

Regression Coefficients					
		Beta	**Std. Error**	**t-statistics**	**Sig.**
Model 1	(Constant)	3.317	1.002	3.310	0.0000
	Budgeting Practices	2.911	0.612	4.755	0.0000
***Dependent variable**: Financial performance of manufacturing firms*					
***Predictors**: (Constant), Composite of budgeting practices*					
		Beta	**Std. Error**	**t-statistics**	**Sig.**
Model 2	(Constant)	3.024	0.891	3.394	0.0000
	Budgeting Practices	1.962	0.910	2.156	0.0001
	Firm Size	0.712	0.205	3.473	0.0000
***Dependent variable**: Financial performance of manufacturing firms*					
***Predictors**: (Constant), Composite of budgeting practices, Firm size*					
		Beta	**Std. Error**	**t-statistics**	**Sig.**
Model 3	(Constant)	2.001	0.912	2.194	0.0001
	Budgeting Practices	2.081	0.716	2.906	0.0001
	Firm Size	1.772	0.667	2.657	0.0001
	Interaction	0.132	0.031	4.016	0.0000
***Dependent variable**: Financial performance of manufacturing firms*					
***Predictors**: (Constant), Composite of budgeting practices, Firm size, Interaction*					

The results in Table 4.34 shows that all the predictors are significant at 5% level of significance. That is, the composite variable, moderating variable and interaction term all had a significant impact on financial performance of manufacturing firms. Also, it can be noted that all the predictors had a positive impact.

4.7.3 Testing About the Moderating Effect of Firm Size

In testing for the moderating effect of firm size on the relationship between budgeting practices and financial performance of manufacturing companies, significance of change was examined by comparing the p–values before and after moderation. This was done by checking the change in the p – values for the composite variable and firm size as well as that of the interaction term. A significant moderation effect is shown by a p-value being less than 0.05 before and after moderation or if the p-value decreases after moderation. This observation should apply for all the predictors in this analysis. Apart from changes in the respective p-values, a significant moderation influence is also shown by an increase in the explained variation (R-squared) after moderation. To test H_{05} the following statistics were extracted from Table 4.32 and Table 4.34

Table 4.35: Summary of Moderating Effect of Firm Size

Variable	Before moderation		After moderation		Significance of change	Implication of change
	Coef.	p-value	Coeff.	p-value		
R^2	0.4169	0.000	0.4461	0.000	P = 0.000	Increase in explained variation
Composite	1.962	0.0001	2.081	0.0001	P < 0.05	Moderation is
Firm size	0.712	0.0000	1.772	0.0001	P < 0.05	significant (P< 0.05)
Interaction			0.132	0.0000		Interaction variable is significant (P < 0.05)

From Table 4.35, it can be observed that there is an increase in the value of R-squared from 0.42 to 0.45 after moderation, which were both significant at 5% level of significance. Improvement of explained variation from 42 % to 45% implies that inclusion of the interaction factor in the model makes the moderating effect of firm size be significant. Also, it can be seen that for both composite variable (budgeting practices) and firm size, the p-values imply significance even after moderation. This is an indication that the interaction between budgeting practices and firm size makes the predictor variable be more significant. In fact, inclusion of the interaction term increases the magnitude of impact of budgeting practices on financial performance of manufacturing firms. Therefore, based on the summary presented in Table 4.36, the null hypothesis $\mathbf{H_{05}}$ was rejected.

4.8 Hypotheses Testing

This section presents the results of hypothesis testing based on the regression analysis. The study tested the direct effect of budgeting practices on financial performance (ROI) and the moderating effect of firm size on this relationship. The hypotheses were tested at a 5% level of significance ($\alpha = 0.05$).

Table 4.36: Summarizes the procedure for testing the hypotheses

Variable category	Variable definition	Beta	P-value	Decision
Independent variables	Budget planning	0.492	0.001	Reject H_{01}
	Budget monitoring	0.272	0.006	Reject H_{02}
	Budget evaluation	0.267	0.005	Reject H_{03}
	Budget communication	0.339	0.005	Reject H_{04}
Moderating variable	Firm size	0.132	0.000	Reject H_{05}

4.9 Discussion of Key Results

The key objective of the study was to assess the effect of budgeting practices and financial performance among manufacturing firms in Kenya. The variables under considerations were budget planning, budget monitoring & control, budget evaluation, budget communication, and firm size. The next section discusses the variables in full.

4.9.1 Budget Planning

The results demonstrate that budget planning plays a critical role in enhancing the financial performance of manufacturing enterprises by strengthening financial control, improving resource allocation, and guiding strategic decision-making. The Kaiser–Meyer–Olkin (KMO) value of 0.841 indicates strong sampling adequacy, meaning the interrelationships among budgeting variables were sufficiently robust to justify factor analysis. This suggests that budgeting practices within firms are systematically related and suitable for examining underlying performance drivers. In addition, Bartlett's Test of Sphericity ($\chi^2 = 841.936$, $p < 0.001$) confirms that the correlation matrix significantly differs from an identity matrix, further validating the appropriateness of factor analysis.

The factor analysis extracted one dominant budgeting factor explaining 58.782% of the total variance, implying that budgeting practices collectively operate as a unified managerial control system rather than as isolated practices. This dominant factor comprised several interrelated budgeting functions, including aligning financial resources with organizational policies, promoting financial discipline, enforcing

departmental accountability, setting performance benchmarks, controlling unnecessary expenditure, and guiding both short-term and long-term planning. The high factor loadings across these items indicate strong internal consistency and confirm that effective budgeting systems contribute significantly to enterprise financial outcomes.

These findings corroborate empirical evidence from earlier studies. For example, research by Abongo, (2017), Nair Manoharan, (2017), and Nwanyanwu, (2018), established that structured budgeting enhances decision-making efficiency, productivity, and financial management in organizations. Their studies emphasize that budgeting frameworks improve operational coordination and enable firms to track performance against planned targets.

Methodologically, the use of principal component analysis aligns with recommendations from Samuelsson, (2018), who noted that factor analysis helps identify dominant organizational practices influencing performance by reducing multiple related variables into a smaller number of meaningful components. This strengthens the validity of interpreting budget planning as a consolidated strategic factor affecting financial performance.

Further empirical support comes from studies such as Foster, (2017), which found that manufacturing firms with comprehensive budgeting systems achieve better financial results due to improved cost control and strategic resource alignment. Similarly, research by Pimpong, Laryea, (2016), and Koech, (2017), demonstrated that firms adopting both long-term and short-term budgeting practices experience enhanced profitability, better liquidity management, and improved overall financial stability.

The results strongly suggest that budget planning functions as an integrated financial management mechanism that improves accountability, supports strategic alignment, and enhances cost efficiency. By consolidating multiple budgeting roles into one dominant factor, the findings indicate that firms with comprehensive and well-implemented budgeting systems are more likely to achieve stronger financial performance. This conclusion is consistent with existing empirical literature and

reinforces the importance of systematic budget planning in manufacturing enterprises.

4.9.2 Budget Monitoring & Control

The results indicate that budget monitoring and control are critical drivers of financial performance in manufacturing firms. The Kaiser–Meyer–Olkin (KMO) value of 0.861 demonstrates strong sampling adequacy, confirming that the indicators of budget monitoring and control were sufficiently interrelated to justify factor analysis. Additionally, Bartlett's Test of Sphericity ($\chi^2 = 521.049$, $p < 0.001$) was statistically significant, indicating that the correlation matrix was appropriate for extracting underlying factors.

Factor analysis revealed two principal components explaining 79.44% of the total variance, with the first factor accounting for 62.306% and the second 17.135%. This suggests that budget monitoring and control practices strongly influence organizational financial performance, primarily through mechanisms related to expenditure control, accountability, and financial discipline. However, the rotated component matrix showed that the key monitoring and control variables largely converged into one dominant operational factor, highlighting the integrated nature of budget monitoring practices in organizations.

The dominant factor included practices such as maintaining expenditure within budget limits, supporting profit targets through revenue and expense control, ensuring departmental accountability, demonstrating responsible use of funds to stakeholders, aligning spending with cash flows, preventing financial inefficiencies, and providing timely financial information for decision-making. These findings imply that effective monitoring and control systems enhance transparency, improve cost efficiency, and support strategic resource allocation, which collectively strengthen financial performance.

The results corroborate empirical evidence from prior studies, including research by Silva, (2022) which found that improved financial information systems and control mechanisms positively influence corporate performance through enhanced organizational trust, commitment, and decision-making quality. This alignment

suggests that robust monitoring systems not only ensure financial discipline but also foster organizational confidence and stakeholder accountability.

Regression analysis further confirmed that budget monitoring and control have a positive and statistically significant influence on financial performance ($\beta = 0.272$, $p = 0.006$) Table 4.35. Although its impact was slightly lower than budget planning, it remained a significant predictor of firm performance. This highlights the complementary role of monitoring and control in ensuring that planned financial strategies are effectively implemented.

Overall, the findings suggest that budget monitoring and control function as essential financial governance tools that enhance accountability, reduce financial inefficiencies, and support informed managerial decision-making. Their strong explanatory power and significant regression effect reinforce the importance of continuous financial oversight in improving the financial performance of manufacturing firms.

4.9.3 Budget Evaluation

The findings indicate that budget evaluation plays an important role in enhancing financial performance in manufacturing firms by promoting accountability, improving financial control, and supporting informed strategic decision-making. The Kaiser–Meyer–Olkin (KMO) value of 0.772 demonstrates acceptable sampling adequacy, confirming that the budget evaluation indicators were sufficiently interrelated for factor analysis. Furthermore, Bartlett's Test of Sphericity ($\chi^2 = 377.728$, $p < 0.001$) was significant, indicating that the correlation matrix was appropriate for extracting underlying evaluation factors.

Factor analysis revealed two principal factors explaining 70.937% of the total variance, with the first factor accounting for nearly half of the variation (49.812%). However, the rotated component matrix showed that the budget evaluation measures largely converged into one dominant operational factor, suggesting that evaluation practices function collectively as an integrated financial control mechanism. These

practices included assessing resource utilization against budgets, ensuring efficiency in achieving organizational objectives, tracking spending to avoid overruns, guiding future planning, identifying cost-saving opportunities, enforcing managerial accountability, aligning expenditures with strategic goals, prioritizing high-impact projects, and forecasting future financial needs.

These results align with theoretical perspectives from Selim, (2022) who emphasizes comparing actual and projected expenditures as a foundation for performance improvement, and Ho, (2018) who highlights budgeting as a standard for evaluating organizational efficiency. Similarly, Auerbach, (2020) underscores the importance of accurate budgeting in preventing financial imbalances and improving cost control.
Despite its positive role, the relatively modest mean score suggests that budget evaluation may be less consistently practiced compared to other budgeting dimensions, possibly because firms often intensify evaluation after experiencing financial challenges. Nevertheless, regression analysis confirmed that budget evaluation has a positive and statistically significant influence on financial performance ($\beta = 0.267$, $p = 0.005$), indicating that improved evaluation practices contribute to better financial outcomes, even though the magnitude of influence was lower than that of budget planning.

The findings also corroborate empirical evidence from Abuga, (2019), who found that structured budgetary control systems including expenditure and revenue monitoring enhance financial performance by strengthening cost management and organizational accountability.

Overall, the results suggest that budget evaluation is a critical financial oversight function that enhances efficiency, accountability, and strategic financial planning. Although its influence may be slightly less pronounced than other budgeting practices, it remains a significant predictor of financial performance, reinforcing the importance of systematic evaluation in sustaining financial discipline and organizational effectiveness.

4.9.4 Budget Communication

The findings indicate that budget communication is an important determinant of financial performance in manufacturing firms because it enhances transparency, improves coordination, and strengthens alignment between financial plans and organizational objectives. The Kaiser–Meyer–Olkin (KMO) value of 0.831 shows strong sampling adequacy, confirming that the budget communication indicators were sufficiently correlated for factor analysis. Additionally, Bartlett's Test of Sphericity ($\chi^2 = 595.992$, $p < 0.001$) was statistically significant, indicating that the correlation matrix was suitable for extracting underlying communication factors.
Factor analysis revealed two principal components explaining 66.882% of the total variance, although the rotated component matrix showed that most communication indicators clustered into one dominant factor. This suggests that budget communication practices operate collectively as an integrated organizational process. Key elements of this factor included transparent communication of budget plans, clarity of organizational financial goals, stakeholder involvement in decision-making, accessibility of financial information, guidance during financial challenges, emphasis on responsible budget use, identification of cost-saving opportunities, and linking financial allocations to performance outcomes.

The regression results further showed that budget communication positively and significantly influences financial performance ($\beta = 0.339$, $p = 0.005$). Its effect was stronger than budget monitoring and evaluation but slightly lower than budget planning, indicating that effective communication is a critical complementary budgeting function. Clear financial communication enhances employee understanding, reduces uncertainty, strengthens accountability, and supports better implementation of financial strategies, all of which contribute to improved performance.

These findings are consistent with empirical evidence from Abiji, (2024) who highlights the role of communication in aligning organizational priorities and resource allocation. Similarly, Nguyen, (2024) emphasizes that transparent budget communication fosters stakeholder participation, clarity, and effective financial

governance. The results also corroborate earlier findings by Kung'u, (2014) who established that effective budget communication enhances profitability and income performance in manufacturing organizations.

Overall, the results suggest that budget communication is a vital managerial tool that enhances financial performance by promoting transparency, coordination, and strategic alignment. Although not the strongest predictor compared to budget planning, its significant positive influence highlights the importance of clear financial information sharing in supporting organizational efficiency, accountability, and sustainable financial outcomes.

4.9.5 Firm Size

The results indicate that firm size plays a significant moderating role in the relationship between budgeting practices and the financial performance of manufacturing firms. Factor analysis confirmed that the firm size construct was statistically adequate, with a Kaiser–Meyer–Olkin (KMO) value of 0.831, indicating strong sampling adequacy and sufficient intercorrelations among the firm size indicators. In addition, Bartlett's Test of Sphericity ($\chi^2 = 595.992$, $p < 0.001$) was significant, confirming that the data were appropriate for factor analysis and that firm size indicators were meaningfully related.

Principal Component Analysis revealed two dominant factors explaining 80.52% of the total variance in firm size measures. The first factor accounted for 59.74% of the variance, while the second explained 20.77%, suggesting that firm size effects in manufacturing firms are largely concentrated around two major dimensions. These dimensions were interpreted as asset strength/economic scale and firm versatility/adaptive capacity. The first reflects how larger firms benefit from economies of scale, improved access to capital markets, enhanced market power, diversified revenue streams, and stronger brand visibility. The second reflects organizational flexibility, innovation capacity, and differences in performance dynamics between younger and older firms.

The rotated component matrix further showed that firmest size indicators loaded strongly on these two factors, with factor loadings generally exceeding 0.57. This indicates that firm size influences financial performance primarily through resource capacity**,** operational scale, and strategic adaptability. Larger firms tend to leverage superior resources, technological capabilities, and financial flexibility, which enhance profitability and competitive positioning.

Regression analysis examining moderation effects confirmed these insights. In Model 1Table 4.34, budgeting practices alone significantly influenced financial performance ($\beta = 2.911$, $p < 0.001$). When firm size was introduced in Model 2Table 4.34, both budgeting practices ($\beta = 1.962$, $p < 0.001$) and firm size ($\beta = 0.712$, $p < 0.001$) remained significant predictors, indicating that firm size independently contributes to performance outcomes. In Model 3, the interaction term between budgeting practices and firm size was positive and highly significant ($\beta = 0.132$, $p < 0.001$). This confirms that firm size strengthens the effect of budgeting practices on financial performance, leading to the rejection of the null hypothesis that firm size has no moderating effect.

These findings align with established empirical evidence in finance. Research associated with Fama and French, (2015) highlights the “size effect,” demonstrating that firm size significantly influences financial performance, risk exposure, and market behavior. Larger firms often exhibit more stable earnings due to diversified operations and better access to capital, which enhances the effectiveness of financial management practices such as budgeting. Similarly, strategic management insights linked to Michael Porter, (2023) emphasize economies of scale and competitive positioning as key advantages enjoyed by larger firms, supporting the observed moderating influence of firm size.

Overall, the results suggest that firm size enhances the effectiveness of budgeting practices in improving financial performance. Larger manufacturing firms benefit more from structured budgeting due to stronger financial capacity, broader market reach, better access to financing, and improved operational efficiencies. Conversely,

smaller firms may face resource constraints that limit the full benefits of budgeting practices. Therefore, firm size acts as an important contextual factor that shapes how budgeting practices translate into financial success in manufacturing organizations.

4.10 Optimal Model

Following regression and hypothesis testing, the optimal model was selected based on statistical significance, explanatory power, and improvement in model fit across nested models. Among the three estimated models, Model 3 was identified as the optimal model because it incorporates the interaction effect and exhibits the highest explanatory power.

The estimated optimal regression model is specified as:

$$FP = \beta_0 + \beta_1 BP + \beta_2 FS + \beta_3 (BP \times FS) + \epsilon$$

Where:

FP = Financial Performance
BP = Budgeting Practices (composite index)
FS = Firm Size
BP×FS = Interaction term

4.10.1 Estimated Optimal Model

From Model 3 (Table 4.34), the estimated regression equation is:

$$FP = 2.001 + 2.081 BP + 1.772 FS + 0.132 (BP \times FS)$$

4.9.2 Regression Results

Table 4.37: Regression Results

Variable	Coefficient (β)	Std. Error	t-Statistic	p-value	Interpretation
Constant	2.001	0.912	2.194	0.0001	Baseline financial performance
Budgeting Practices (BP)	2.081	0.716	2.906	0.0001	Positive and significant
Firm Size (FS)	1.772	0.667	2.657	0.0001	Positive and significant
Interaction (BP × FS)	0.132	0.031	4.016	0.0000	Strong positive moderation

4.10.3 Model Fit and Selection

The superiority of Model 3 is supported by the model summary statistics:

$R^2 = 0.4461$
Adjusted $R^2 = 0.4409$
F-statistic = 36.776 (p = 0.000)

This indicates that approximately 44.61% of the variation in financial performance is explained by budgeting practices, firm size, and their interaction.

Compared to:

Model 1 ($R^2 = 0.3579$)
Model 2 ($R^2 = 0.4169$)

Model 3 provides the highest explanatory power, confirming the importance of including the moderating effect.

4.10.4 Interpretation of the Optimal Model

The results indicate that:

Budgeting practices (β = 2.081, p = 0.0001) have a positive and statistically significant effect on financial performance. This implies that improved budgeting systems significantly enhance firm performance.

Firm size (β = 1.772, p = 0.0001) also has a positive and significant effect, suggesting that larger firms tend to achieve better financial outcomes due to economies of scale and resource advantages.

The interaction term (β = 0.132, p = 0.0000) is positive and highly significant, confirming that firm size moderates the relationship between budgeting practices and financial performance. Specifically, the positive coefficient indicates that the effect of budgeting practices on financial performance becomes stronger as firm size increases.

4.10.5 Revised Conceptual Framework (Based on Results)

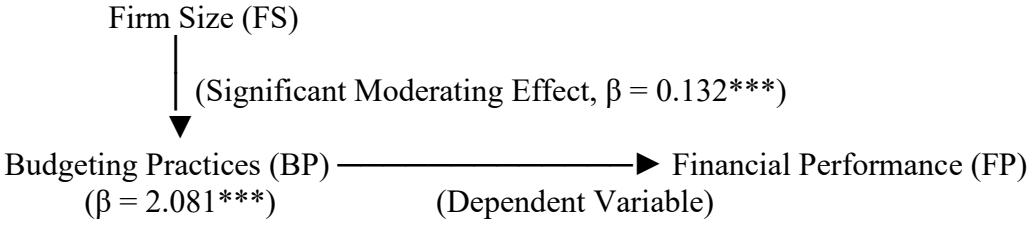

Figure 4.6: Revised Conceptual Framework

4.10.6 Interpretation of the Framework

The revised conceptual framework demonstrates that:

Budgeting practices have a direct, positive, and significant effect on financial performance.

Firm size has both a direct effect and a moderating effect.

The moderating effect is positive, meaning that larger firms amplify the effectiveness of budgeting practices.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions, recommendations, and implications arising from the study on budgeting practices and financial performance of manufacturing firms in Kenya. It synthesizes the key findings discussed in the previous chapter by linking them to the study objectives, research questions, and theoretical framework. The chapter highlights how budget planning, monitoring and control, and evaluation practices influence financial performance within the manufacturing sector.

The chapter further draws conclusions based on empirical evidence generated from the analysis and discusses their relevance to managers, policymakers, and other stakeholders in the manufacturing industry. Recommendations are provided to guide improvements in budgeting practices and financial management to enhance firm performance. In addition, the study outlines policy implications and practical strategies that manufacturing firms may adopt to strengthen financial sustainability.

Finally, the chapter identifies the study's limitations and suggests areas for further research to expand knowledge on budgeting practices and financial performance, particularly within emerging and dynamic industrial environments.

5.2.1 Budget Planning and Financial Performance of Manufacturing Firms in Kenya

Based on the study findings on budget planning and financial performance among manufacturing firms in Kenya, several actionable policy-level recommendations emerge to strengthen budgeting effectiveness and enhance organizational financial outcomes. Manufacturing firms should adopt standardized and documented budget planning frameworks aligned with strategic corporate goals. At the policy level, industry regulators and professional bodies can develop budgeting guidelines that emphasize strategic alignment, accountability, and performance monitoring. Such

frameworks would enhance consistency in financial planning and reduce ad-hoc budgeting practices.

The relatively weak financial discipline observed suggests the need for stronger internal financial control policies. Firms should establish clear enforcement mechanisms, including periodic budget compliance audits, variance accountability protocols, and performance-linked incentives. Policymakers may encourage adoption of corporate governance codes that explicitly incorporate budget adherence requirements. Organizations should formally link budgeting processes with strategic planning cycles. Policies should require that annual budgets reflect long-term corporate objectives, investment priorities, and operational efficiency targets. This integration enhances coherence between financial planning and organizational performance outcomes.

There is a need for continuous professional development in budgeting techniques, financial analytics, and strategic cost management. Industry associations, universities, and regulatory institutions should collaborate to provide certified training programs aimed at strengthening budgeting competencies among financial managers. Manufacturing firms should implement digital budgeting and financial planning systems to improve accuracy, transparency, and monitoring efficiency. Policymakers can support this through incentives for financial technology adoption, particularly for medium-sized firms that may face resource constraints.

Policies should encourage participatory budgeting approaches involving departmental managers and operational staff. This improves ownership, accountability, and realistic resource allocation, thereby strengthening implementation effectiveness.

The findings indicate that comprehensive budget planning functions as a strategic financial control tool that enhances organizational performance. Therefore, strengthening institutional budgeting policies, professional capacity, technological integration, and governance frameworks is essential for improving financial performance among manufacturing firms. These measures can contribute to stronger

financial sustainability, operational efficiency, and competitiveness within the manufacturing sector.

5.2.2 Budget Monitoring and Control on Financial Performance of Manufacturing Firms in Kenya

Based on the study findings on budget monitoring and control and their significant positive influence on financial performance among manufacturing firms in Kenya, several actionable policy-level recommendations are proposed to strengthen financial oversight and enhance organizational performance. Manufacturing firms should establish formal, continuous budget monitoring frameworks supported by clear operational guidelines. Policies should require periodic financial reviews, variance analysis, and corrective action protocols to ensure expenditures remain aligned with planned budgets and strategic objectives.

Organizations should adopt robust internal control mechanisms to minimize financial inefficiencies and prevent overspending. This includes standardized financial reporting procedures, internal audit schedules, and accountability structures linking departmental performance to budget adherence. Firms should implement technology-driven budgeting and monitoring systems that provide real-time financial data. Policy incentives such as tax benefits, training support, or regulatory guidance can encourage adoption of digital financial management systems, improving transparency and decision-making accuracy.

Corporate governance policies should explicitly incorporate budget monitoring responsibilities within managerial performance evaluations. This promotes financial discipline, strengthens accountability, and ensures responsible utilization of organizational resources. Professional training programs should be developed to strengthen competencies in cost control, financial analytics, and performance monitoring. Industry associations, academic institutions, and regulatory bodies can collaborate to provide continuous professional development tailored to manufacturing sector needs.

Budget monitoring policies should emphasize alignment between operational expenditure and long-term strategic goals. Firms should ensure that budgetary controls not only prevent overspending but also support efficiency, competitiveness, and sustainable financial performance. The results demonstrate that effective budget monitoring and control significantly enhance financial performance by improving cost management, resource allocation efficiency, and managerial accountability. Strengthening institutional budgeting controls, governance frameworks, technological adoption, and professional capacity is therefore critical for improving financial sustainability and competitiveness within the manufacturing sector.

5.2.3 Budget Evaluation and Financial Performance of Manufacturing Firms in Kenya

Based on the study findings on budget evaluation and its influence on financial performance among manufacturing firms in Kenya, several actionable, policy-level recommendations are proposed to strengthen evaluation practices and enhance organizational financial outcomes. Manufacturing firms should establish structured post-budget evaluation frameworks that systematically assess financial outcomes against planned targets. Policy guidelines should require periodic evaluation reports, variance interpretation, and documented corrective measures to promote accountability and continuous financial improvement. Organizations should link budget evaluation outcomes to managerial performance appraisal systems. This policy approach enhances responsibility for financial results and encourages proactive cost management, efficiency improvements, and alignment with strategic objectives.

Firms should adopt advanced financial analytics and digital evaluation platforms to support evidence-based budget assessment. Policymakers and industry stakeholders can facilitate this through incentives, technical support, and training initiatives aimed at improving analytical capacity in financial evaluation. Budget evaluation should be positioned as a strategic learning tool rather than merely a compliance exercise. Policies should require that evaluation findings inform future budget planning,

investment decisions, and operational strategies to enhance long-term financial sustainability.

Continuous professional development programs should focus on strengthening skills in financial analysis, performance measurement, and evaluation methodologies. Collaboration between academic institutions, professional associations, and industry regulators can enhance the technical competence required for rigorous budget evaluation. Organizations should embed budget evaluation within broader corporate governance frameworks. Policies promoting transparent reporting, internal audit independence, and stakeholder accountability will improve financial discipline and organizational credibility.

The findings suggest that effective budget evaluation enhances financial performance by improving financial accountability, supporting strategic decision-making, and promoting continuous organizational learning. Strengthening institutional evaluation policies, governance structures, technological adoption, and professional capacity is therefore essential for sustaining financial performance and competitiveness within the manufacturing sector.

5.2.4 Budget Communication and Financial Performance of Manufacturing Firms in Kenya

Based on the study findings regarding budget communication and its influence on financial performance among manufacturing firms in Kenya, several actionable policy-level recommendations are proposed to enhance communication effectiveness and strengthen financial outcomes. Manufacturing firms should establish structured budget communication frameworks that clearly define information flow, reporting channels, and stakeholder responsibilities. Organizational policies should ensure timely dissemination of budget objectives, expectations, and performance feedback to all relevant departments to promote transparency and alignment.

Budget communication should be embedded within broader strategic planning and performance management systems. Policies should require regular communication of financial goals, resource allocations, and performance outcomes to ensure coherence

between operational activities and organizational financial objectives. Firms should implement technology-driven communication systems, such as enterprise resource planning (ERP) tools and financial dashboards, to facilitate real-time sharing of budget information. Policymakers and industry stakeholders can encourage adoption through incentives, training initiatives, and digital transformation support programs.

Organizations should promote inclusive budget communication by involving departmental managers and operational staff in discussions on budget formulation, implementation, and evaluation. Policies encouraging participatory communication can enhance ownership, accountability, and practical alignment between budgets and operational realities. Continuous professional training should be provided to strengthen competencies in financial reporting, interpretation, and communication. Industry associations, academic institutions, and professional bodies can collaborate to develop specialized programs that enhance clarity, accuracy, and effectiveness in financial communication.

Budget communication policies should emphasize transparency, ethical reporting, and accountability. Strong governance structures, including regular financial briefings and accessible reporting systems, can improve trust among stakeholders and support better financial decision-making. The findings indicate that effective budget communication enhances financial performance by improving transparency, coordination, and managerial accountability. Strengthening institutional communication policies, technological integration, governance frameworks, and professional capacity is therefore essential for promoting financial sustainability and competitiveness within the manufacturing sector.

5.2.5 Firm Size as a Moderating factor and the Financial Performance of Manufacturing Firms in Kenya

Based on the study findings demonstrating that firm size significantly moderates the relationship between budgeting practices and financial performance among manufacturing firms in Kenya, several actionable, policy-level recommendations are proposed to strengthen financial outcomes across firms of varying sizes. Industry regulators and professional bodies should develop differentiated budgeting

guidelines tailored to small, medium, and large manufacturing firms. Such policies would recognize variations in financial capacity, operational complexity, and resource availability, ensuring that budgeting practices are practical and effective for firms at different scales.

Smaller firms often face financial, technological, and managerial constraints that limit the effectiveness of budgeting practices. Policymakers should introduce targeted financial management support programs, including subsidized training, advisory services, and access to financial planning tools to enhance budgeting capacity in smaller enterprises. Digital budgeting and financial monitoring systems enhance the effectiveness of budgeting practices, particularly in larger firms with complex operations. Policy incentives such as tax credits, grants, or digital transformation programs should encourage adoption of financial management technologies across firms of all sizes. Since firm size influences the effectiveness of budgeting through resource availability and operational scale, policies that improve access to affordable financing can help smaller firms grow and better leverage structured budgeting practices. Financial institutions and government agencies should promote credit access programs tailored to manufacturing sector needs.

Industry associations should facilitate collaboration between large and small manufacturing firms through mentorship programs, benchmarking initiatives, and knowledge-sharing platforms. This can help smaller firms adopt best practices in budgeting, financial planning, and operational efficiency. Corporate governance frameworks should explicitly consider firm size when designing financial management structures, reporting requirements, and internal control systems. This ensures that budgeting practices remain proportionate, efficient, and aligned with organizational capacity. The findings indicate that firm size enhances the effectiveness of budgeting practices in improving financial performance. Policies that support firm growth, strengthen financial capacity, encourage technological adoption, and provide differentiated financial management frameworks will help manufacturing firms maximize the benefits of budgeting practices and achieve sustainable financial performance.

5.3 Conclusions

5.3.1 Budget Planning and Financial Performance of Manufacturing Firms in Kenya

The study findings indicate that budget planning has a significant positive influence on the financial performance of manufacturing firms in Kenya. Effective budget planning enhances financial discipline, promotes efficient allocation of resources, and supports alignment between organizational strategies and financial objectives. Firms that adopt structured planning processes tend to experience improved cost control, better forecasting accuracy, and enhanced profitability. The results therefore confirm that comprehensive and systematic budget planning serves as a critical financial management tool that strengthens operational efficiency and contributes to sustainable financial performance within the manufacturing sector.

5.3.2 Budget Monitoring and Control on Financial Performance of Manufacturing Effect Firms in Kenya

The study established that budget monitoring and control have a significant positive effect on the financial performance of manufacturing firms in Kenya. Effective monitoring and control mechanisms enhance financial accountability, improve cost management, and ensure that actual expenditures remain aligned with planned budgets. The findings indicate that firms that consistently track budget implementation, analyze variances, and undertake corrective actions achieve better operational efficiency and financial stability. Consequently, robust budget monitoring and control practices are essential for strengthening financial performance and sustaining competitiveness within the manufacturing sector.

5.3.3 Budget Evaluation and Financial Performance of Manufacturing Firms in Kenya

The study findings indicate that budget evaluation has a significant positive influence on the financial performance of manufacturing firms in Kenya. Effective budget evaluation enhances financial accountability, supports informed decision-making,

and facilitates continuous improvement in financial management practices. Firms that regularly assess budget outcomes against planned targets are better positioned to identify performance gaps, implement corrective measures, and improve resource utilization. The results therefore confirm that systematic budget evaluation is an essential component of financial control that contributes to improved organizational efficiency and sustainable financial performance.

5.3.4 Budget Communication and Financial Performance of Manufacturing Firms in Kenya

The study findings reveal that budget communication significantly and positively affects the financial performance of manufacturing firms in Kenya. Effective communication of budget information ensures that managers, department heads, and employees clearly understand financial goals, responsibilities, and resource allocations. This clarity enhances coordination, fosters accountability, and supports timely decision-making across the organization. The results demonstrate that when budgetary objectives are well-communicated, firms experience improved alignment of operational activities with strategic priorities, which ultimately strengthens overall financial performance and organizational efficiency.

5.3.5 Firm Size as a Moderating Factor in the Relationship between Budgeting Practices and Financial Performance of Manufacturing Firms in Kenya

The study established that firm size plays a significant moderating role in the relationship between budgeting practices and financial performance of manufacturing firms in Kenya. Larger firms benefit more from budgeting practices due to greater resource capacity, economies of scale, better access to financing, diversified operations, and enhanced market reach. The interaction between firm size and budgeting practices strengthens the positive impact of budgeting on financial performance, indicating that the effectiveness of budgeting is context-dependent. Smaller firms, with limited resources, experience relatively lower gains from budgeting practices. Overall, firm size acts as a critical contextual factor that amplifies the benefits of structured budgeting in improving financial outcomes.

5.4 Areas of Further Studies

While this study provides valuable insights into the relationship between budgeting practices and financial performance of manufacturing firms in Kenya, several limitations highlight opportunities for further research. First, the study was geographically confined to selected manufacturing firms, which limits the generalizability of findings. Future research could extend this investigation to other sectors, such as services, agriculture, or technology-based industries, and across different regions of Kenya or East Africa to examine whether the observed relationships hold in diverse operational contexts.

Second, the study employed a cross-sectional design, capturing budgeting practices and firm performance at a single point in time. Longitudinal studies are recommended to investigate how the impact of budgeting practices, as well as the moderating role of firm size, evolves over time and responds to economic cycles or organizational growth.

Third, while firm size was identified as a significant moderating factor, other organizational characteristics such as ownership structure, managerial expertise, or technological adoption were not examined. Future studies could explore additional moderating variables to provide a more nuanced understanding of the conditions under which budgeting practices influence financial performance.

Fourth, the study focused primarily on internal factors, leaving out external economic, regulatory, and market conditions that may affect budgeting effectiveness. Further research could investigate how macroeconomic shocks, policy changes, or supply chain dynamics interact with budgeting practices and firm size to influence performance outcomes.

Finally, while composite measures of budgeting practices were employed, aspects such as leadership commitment, organizational culture, and digitalization of budgeting processes were not fully captured. Future research could examine these behavioral and technological dimensions to better understand their contribution to the effectiveness of budgeting practices.

Addressing these limitations will enhance the scholarly understanding of budgeting practices and provide practical insights for managers seeking to optimize financial performance across different firm sizes, sectors, and economic environments.

REFERENCES

Abbasi, A., & Malik, Q. A. (2015). Firm size moderating financial performance in growing firms: Empirical evidence from Pakistan. *International Journal of Economics and Financial Issues, 5*(2), 334–339.

Abdallah, S. S. (2018). *Effect of budgeting process on financial performance of county government of* Kwale i*n Kenya* (pp. 1–67).

Abdi, M. B., & Mutswenje, V. S. (2023). Budgetary process and financial performance of manufacturing firms listed in the Nairobi Securities Exchange, Kenya. *International Academic Journal of Economics and Finance, 3*(9), 288–308. http://iajournals.org/articles/iajef _v3_i9_288 _308.pdf

Abeyrathna, S. P. G. M., & Priyadarshana, A. J. M. (2019). Impact of firm size on profitability. *International Journal of Scientific and Research Publications, 9*(6), 1–5. https://doi.org/10.29322/ijsrp.9.06.2019.p9081

Abiji, E., Joseph, C., & Acquah, S. J. (2024). Budgeting practices: Its implications on the performance of small healthcare businesses in Ogoja, Cross River State. *International Research Journal of Economics and Management Studies, 3*(1), 104–115. https://doi.org/10.56472/25835238/IRJEMS

Abongo, S. (2017). *The effect of budgeting process on the financial performance of top 100 small and medium firms in Kenya* (Master's thesis, University of Nairobi). http://erepository.uonbi.ac.ke/bitstream/handle/ 11295/106376/ STELLAH%20ABONGO.pdf

Adebayo, L. Q. (2022). Firm size and equity return of quoted consumer goods manufacturing firms in Nigeria. *World Journal of Research and Review, 14*(6), 13–23. https://doi.org/10.31871/wjrr.14.6.13

Adede, A. A., Namusonge, P. G., & Sakwa, P. M. (2022). Effect of liquidity on growth of manufacturing firms in Kenya. *Strategic Journal of Business & Change Management, 9*(4). https://doi.org/10.61426/sjbcm.v9i4.2426

Adembesa, M. S., & Ombaba, M. K. B. (2020). Budgeting planning practices and performance: Empirical evidence from manufacturing firms in Uasin Gishu County. *IOSR Journal of Economics and Finance, 11*(5), 33–45. https://doi.org/10.9790/5933-1105063345

Adongo, K. O., & Jagongo, A. (2013). Budgetary control as a measure of financial performance of state corporations in Kenya. *International Journal of Accounting and Taxation, 1*(1), 38–57.

Agbenyo, W., Danquah, F. O., & Shuangshuang, W. (2018). Budgeting and its effect on the financial performance of listed manufacturing firms: Evidence from manufacturing firms listed on Ghana Stock Exchange. *Research Journal of Finance and Accounting, 9*(8), 12–22.

Department of Economic Affairs. (2020). *South Africa economic outlook* (Vol. 14).

Ahmad, M. F., & Salleh, A. (2009). *Budget planning, control and evaluation: An overview of its practices in manufacturing* (pp. 85–104). Penerbit UTM Press. http://eprints.utm.my/14448/

Ahmed, A. Y., & Mwangi, L. W. (2022). Working capital management and financial performance of small and medium enterprises in Garissa County, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting, 4*(1), 56–71. https://doi.org/10.35942/ijcfa.v4i1.229

Akinyi, R. T. (2021). Effect of firm size on financial leverage of firms: A study on Kenyan sugar firms in Kenya. *The International Journal of Business & Management, 9*(1), 28–33. https://doi.org/10.24940/theijbm/2021/v9/i1/bm2101-011

Al Mahroqi, R. M. (2021). Examining the effect of budgetary controls on the financial performance of Oman Telecommunication Company. *Advances in Social Sciences Research Journal, 8*(6), 83–95. https://doi.org/10.14738/assrj.86.10321

Alarussi, A. S. (2019). Factors affecting profitability in Malaysia. *Journal of Economic Studies*.

Albuali, M. (2021). Effective strategies for managing communication in a project. *International Journal of Applied Industrial Engineering, 8*(1), 1–6. https://doi.org/10.4018/ijaie.20210101.oa1

Alex, M. K., & Ngaba, D. (2018). Effect of firm size on financial performance on banks: Case of commercial banks in Kenya. *IAJEF: Economics and Finance, 3*(1), 175–190. http://www.iajournals.org/articles/iajef_v3_i1_175_190.pdf

Alireza, K, & Nair, K. M. (2021). Effective budgetary control system: A regression model for Indian listed companies. *Journal of Modern Accounting and Auditing, 17*(1), 41–51. https://doi.org/10.17265/1548-6583/2021.01.003

Auerbach, A. J., & Gale, W. (2020). The effects of the COVID pandemic on the federal budget outlook. *Business Economics, 55*(4), 202–212. https://doi.org/10.1057/s11369-020-00188-y

Aydın Unal, E., Unal, Y., & Isık, O. (2017). The effect of firm size on profitability: Evidence from Turkish manufacturing sector. Pressacademia, 6(4), 301–308. https://doi.org/10.17261/pressacademia.2017.762

Ayuketang Nso, M. (2020). Fundraising and budgeting practices for SMEs. *Asian Journal of Interdisciplinary Research*, 151–161. https://doi.org/10.34256/ajir20111

Banerjee, R., & Majumdar, S. (2018). Impact of firm specific and macroeconomic factors on financial performance of the UAE insurance sector. *Global Business and Economics Review, 20*(2), 248–261. https://doi.org/ 10.1504/ GBER.2018.090091

Basuki, F. H. (2015). Participatory budgeting and managerial performance in conditions of information asymmetry. *International Journal of Applied Business and Economic Research, 13*(6), 4529–4555.

Becker-Blease, J. R., Kaen, F. R., Etebari, A., & Baumann, H. (2010). Employees, firm size and profitability in U.S. manufacturing industries. *Investment Management and Financial Innovations, 7*(2), 119–132.

Bethmeldy Karimi, N., & Nambuswa Makokha, E. (2021). Effect of budgetary process on performance of county governments in Kenya: A case of Migori County. *International Journal of Recent Research in Social Sciences and Humanities (IJRRSSH), 8*(1), 40–54.

Bhattacharyya, S., & Saxena, A. (2018). Does the firm size matter? An empirical enquiry into the performance of Indian manufacturing firms. *SSRN Electronic Journal*, 1–14. https://doi.org/10.2139/ssrn.1300293

Brasit, N. (2021). The effect of budget planning on organizational performance through standard cost analysis in the general bureau of the regional secretariat of West Sulawesi Province. *Quest Journals Journal of Research in Business and Management, 9*(11), 2347–3002. www.questjournals.org

Budgeting and public expenditures in OECD countries 2019. (2019). *OECD Publishing*. https://doi.org/10.1787/9789264307957-en

C., D. N. M., S., D. A. P., & Okechukwu C, E. (2020). Multidimensional budgeting concepts and budget control modeling for production systems performance efficiency. *International Journal of Engineering and Management Research, 10*(4), 200–224. https://doi.org/10.31033/ ijemr. 10.4.28

Cappelli, P., & Conyon, M. J. (2018). What do performance appraisals do? *ILR Review, 71*(1), 88–116. https://doi.org/10.1177/0019793917698649

Charli, M. S., Eshete, S. K., & Debela, K. L. (2022). Learning how research design methods work: A review of Creswell's *Research design: Qualitative, quantitative and mixed methods approach*. *The Qualitative Report, 27*(12), 2956–2960.

Chaudhary, M. K., & Chaudhary, R. K. (2018). Budgetary control and financial performance: An observation (A case study of Nepal Oil Corporation). *Amity Journal of Strategic Management, 1*(2), 41–49.

Chelangat, V. (2018). *Accountability and financial sustainability of public governance non-government organization in Nairobi County, Kenya* (Unpublished MBA thesis). Kenyatta University. https://ir-library.ku.ac.ke/bitstream/handle/123456789/19019/Accountability%20and%20financial....pdf

Chepkorir, M., Langat, P., & Rugut, W. (2021). Relationship between budgetary monitoring and financial performance of County Government of Kericho, Kenya. *East African Journal of Business and Economics, 4*(1), 76–84. https://doi.org/10.37284/eajbe.4.1.497

Chimy, A. S. Y., & Forzeh, F. M. (2021). Accrual accounting practice and financial performance in local governments of Cameroon. *European Scientific Journal, 17*(23). https://doi.org/10.19044/esj.2021.v17n23p269

Cooper, D. R., & Schindler, P. S. (2010). *Business research methods* (11th ed.). McGraw-Hill/Irwin.

Diaz, J. F., & Pandey, R. (2019). Factors affecting return on assets of US technology and financial corporations. Journal Manajemen Dan Kewirausahaan, *21*(2), 134–144. https://doi.org/10.9744/jmk.21.2.134-144

Dokulil, J., Popesko, B., & Dvorský, J. (2020). The budgeting processes of Czech companies: The role of the ownership structure and foreign capital. Oeconomia Copernicana, 11(4), 779–798. https://doi.org/10. 24136/OC.2020.031

Doorasamy, M. (2021). Capital structure, firm value and managerial ownership: Evidence from East African countries. *Investment Management and Financial Innovations, 18*(1), 346–356. https://doi.org/10.21511/i mfi.18(1).2021.28

Durkiewicz, J., & Janowski, T. (2021). Is digital government advancing sustainable governance? A study of OECD/EU countries. *Sustainability, 13*(24). https://doi.org/10.3390/su132413603

Enekwe, C. I., Ugwudioha, O. M., & Uyagu, B. D. (2023). Effect of environmental costs on the financial performance of listed oil and gas companies in Nigeria. *International Journal of Accounting Research, 8*(1), 31–36.

Etale, L. M., & Idumesaro, J. (2019). Analyzing the link between budgetary control and performance: A case study of Bayelsa State of Nigeria. *European Journal of Training and Development Studies, 6*(4), 1–13.

Everien, M. N., & Claude, D. R. (2020). Budgetary control and financial performance of government corporations: A case of Water and Sanitation Corporation (WASAC). *International Journal of Scientific and Research Publications, 10*(9), 505–514.

https://doi.org/10.29322/ijsrp. 10.09. 2020.p10559

Foster, T. A. (2017). *Budget planning, budget control, business age, and financial performance in small businesses* (Doctoral dissertation). ProQuest Dissertations and Theses. https://scholarworks.waldenu.edu/dissertations/3605/

Frimpong, E. A., Ameyaw, F., & Osei-Bonsu, E. (2020). Budgeting and budgetary control practices in timber industries in Ghana: A case of Logs and Lumber Limited. *International Journal of Technology and Management Research, 2*(2), 44–50. https://doi.org/10.47127/ijtmr.v2i2.57

Governance, B. (2021). Budgeting in local self-governments in Poland. In *Better governance, planning and services in local self-governments in Poland* (pp. 183–207). https://doi.org/10.1787/3a1740d2-en

Grossi, G., & Argento, D. (2022). The fate of accounting for public governance development. *Accounting, Auditing & Accountability Journal, 35*(9), 272–303. https://doi.org/10.1108/AAAJ-11-2020-5001

Gunawan, A., Mukmin, Wahyuni, S. F., & Sari, M. (2023). Factors affecting financial management behavior of Paylater users in Indonesia: Examining the moderating role of locus of control. Investment Management and Financial Innovations, *20*(4), 171–181. https://doi.org/10.21511/imfi.20(4).2023.15

Hamam Roni, A. D., & D. (2018). State-owned enterprise in processing. *36*, 293–299.

Hashmi, S. D., Gulzar, S., Ghafoor, Z., & Naz, I. (2020). Sensitivity of firm size measures to practices of corporate finance: Evidence from BRICS. *Future Business Journal, 6*(1), 1–19. https://doi.org/10.1186/s43093-020-00015-y

Ho, A. T. K. (2018). From performance budgeting to performance budget management: Theory and practice. *Public Administration Review, 78*(5), 748–758. https://doi.org/10.1111/puar.12915

Huang, G., & Song, F. M. (2006). The determinants of capital structure: Evidence from China. *China Economic Review, 17*(1), 14–36. https://doi.org/10.1016/j.chieco.2005.02.007

Ibrahim, A. U., & Mustapha, A. M. (2019). Impact of financial control mechanisms on profitability performance: A case of manufacturing firms in Nigeria. *International Journal of Managerial Studies and Research, 7*(3), 1–10. https://doi.org/10.20431/2349-0349.0703001

Ichsan, I., Silvia, I., Mahdawi, M., & Syamni, G. (2021). The financial performance of manufacturing companies in IDX and some factors that influence. Jurnal Aplikasi Manajemen, *19*(2), 354–362. https://doi.org/10.21776 /ub.jam.2021.019.02.11

Imo, T. O., & Des-Wosu, C. (2018). An assessment on the effect of budgetary control on return on assets and net profit of government-owned companies in Rivers State. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 8*(3), 277–286. https://doi.org/10.6007/IJARAFMS/v8-i3/4836

Internal, B., & Banks, C. (2021). Impact of bank internal factors on financial performance. *International Journal of Economics, Finance and Management Science.*

Jacqueline, M. (2024). The effect of monitoring and evaluation on local government projects' performance: A case of the modern market building project in Musanze District. *Global Scientific Journal, 12*(1), 2460–2581.

Jeganathan, P. P., Degamboda, S., & Prasad, D. (2021). A framework for SME development in the Western Province of Sri Lanka. *European Journal of Management and Marketing Studies, 6*(4), 48–83. https://doi.org/10.46827/ejmms.v6i4.1147

Kamau, J. K., Rotich, G., & Anyango, W. (2017). Effect of budgeting process on budget performance of state corporations in Kenya: A case of Kenyatta National Hospital. *International Academic Journal of Human Resource and Business Administration, 2*(3), 255–281.

Kangas, A., Kurttila, M., Hujala, T., Eyvindson, K., & Kangas, J. (2015). Behavioural aspects of decision support systems. In *Decision support for forest management* (pp. 289–300). Springer. https://doi.org/10.1007/978-3-319-23522-6_12

Karanja, J. W., & Yusuf, D. M. (2018). Role of monitoring and evaluation on performance of non-governmental organization projects in Kiambu County. *International Journal of Management and Commerce Innovations, 6*(1), 649–664.

Kasozi, J. S. (2018). Capital structure and the profitability of listed retail firms. *Journal of Economics and Behavioral Studies, 10*(1), 171–181. https://doi.org/10.22610/jebs.v10i1.2100

Katana, H. W., Atieno, M., & Wanyama, S. M. (2022). Budgetary control and financial performance of listed manufacturing firms in Kenya: Application of liquidity control. *International Journal of Advanced Research and Publications, 5*(10), 33–41.

Kayani, U. N., Gan, C., Choudhury, T., & Arslan, A. (2023). Working capital management and firm performance: Evidence from emerging African markets. *International Journal of Emerging Markets.* https://doi.org/10.1108/IJOEM-03-2022-0490

Keng'Ara, R., & Makina, I. (2021). Effect of budgetary processes on organizational performance: A case of marine state agencies, Kenya. *Universal Journal of Accounting and Finance, 8*(4), 115–130. https://doi.org/10.13189/UJAF.2020.080404

Kielanowicz, Z., Wnuk-Pel, T., Christauskas, C., & Kazlauskiene, V. (2023). Assessment of IT tools used for operational budgeting in Polish and Lithuanian companies. *Engineering Economics, 34*(2), 158–174. https://doi.org/10.5755/j01.ee.34.2.30480

Kimunguyi, S., Memba, F., & Njeru, A. (2015). Effect of budgetary process on financial performance of NGOs in the health sector in Kenya. *International Journal of Business and Social Science, 6*(12), 163–172.

Kisavi Mule, R., & Suleiman Mukras, M. (2015). Financial leverage and performance of listed firms in a frontier market: Panel evidence from Kenya. *European Scientific Journal, 11*(7), 534–550.

Kool, A. (2015). Budgetary control and organizational performance. *Journal of Emerging Technologies and Innovative Research, 1*(1), 97–108. https://www.jetir.org

Kung'u, J. N. (2017). Effect of liquidity management practices on profitability of manufacturing industry in Kenya. *IOSR Journal of Economics and Finance, 8*(1), 84–89. https://doi.org/10.9790/5933-0801038489

Kwak, S. (2023). Are only p-values less than 0.05 significant? A p-value greater than 0.05 is also significant! *Journal of Lipid and Atherosclerosis, 12*(2), 89–95. https://doi.org/10.12997/jla.2023.12.2.89

Libby, T., & Lindsay, R. M. (2010). Beyond budgeting or budgeting reconsidered? A survey of North-American budgeting practice. *Management Accounting Research, 21*(1), 56–75. https://doi.org/10.1016/j.mar.2009.10.003

Locke, E. A., & Latham, G. P. (2013). *New developments in goal setting and task performance.* Routledge. https://doi.org/10.4324/9780203082744

Madlela, N., & Kapepiso, F. (2020). Analysis of the application of budgetary control in non-profit organisations: A case study of ADRA Namibia. *Journal of*

Economics, Investment and Entrepreneurship in East Africa and Finance and Banking, 9(1).

Maduekwe, C. C., & Kamala, P. (2016). The use of budgets by small and medium enterprises in Cape Metropolis, South Africa. *Problems and Perspectives in Management, 14*(1), 183–191.

Maeenuddin, Hamid, S. A., Nassir, A. M. D., Fahlevi, M., Aljuaid, M., & Jermsittiparsert, K. (2024). Measuring financial sustainability and its influential factors in the microfinance sector of Pakistan. *SAGE Open, 14*(3), 1–18. https://doi.org/10.1177/21582440241259288

Mathematics, I. (2019). The link between strategic alliances and performance. *International Journal of Economics, Commerce and Management, 6*(6), 67–91.

Matsoso, M. L., Nyathi, M., & Nakpodia, F. A. (2021). An assessment of budgeting and budgetary controls among small and medium-sized enterprises: Evidence from a developing economy. *Journal of Accounting in Emerging Economies.* https://doi.org/10.1108/JAEE-04-2020-0082

Mbuthia, V. W., & Omagwa, J. (2019). Effect of budgetary control on financial performance of selected commercial banks in Kenya. *IOSR Journal of Economics and Finance, 10*(3), 34–42. https://doi.org/10.9790/5933-1003053442

Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac* Anaesthesia, *22*(1), 67–72. https://doi.org/10.4103/aca.ACA_157_18

Mkasiwa, T. A. (2020). Budgetary practices in a Tanzanian university: Bourdieu's theory. *Journal of Public Budgeting, Accounting and Financial Management, 32*(3), 399–420. https://doi.org/10.1108/JPBAFM-08-2019-0119

Mohamed, I. A., Evans, K., & Tirimba, O. I. (2015). Analysis of the effectiveness of budgetary control techniques on organizational performance at Dara-Salaam Bank headquarters in Hargeisa, Somaliland. *International Journal of Business Management and Economic Research, 6*(6), 327–340. https://www.ijbmer.com

Mohammed, R., Al, A., & Matriano, M. T. (2021). Examining the effect of budgetary controls on the financial performance of Oman Telecommunication Company. *International Journal of Accounting and Finance, 2*, 37–46.

Mukumbi, M. C., Eugine, K. W., & Jinghong, S. (2020). Effect of capital structure on the financial performance of non-financial firms quoted at the Nairobi Securities Exchange. *International Journal of Science and Business, 4*(4), 165–179. https://doi.org/10.5281/zenodo.3787293

Mulani, J., Chi, G., & Yang, J. (2015). Effects of the budgetary process on SMEs' performance: An exploratory study based on selected SMEs in India. *Research Journal of Finance and Accounting, 6*(14), 135–153. https://core.ac.uk/download/pdf/234630913.pdf

Musah, M., Kong, Y., & Mensah, I. A. (2019). Exploring the link between operational efficiency and firms' financial performance: Empirical evidence from the Ghana Stock Exchange. *International Journal of Trend in Scientific Research and Development, 3*(4), 842–848. https://doi.org/10.31142/ijtsrd23954

Mutai, K. G. (2015). The effect of budgetary controls on financial performance of manufacturing companies in Kenya. *Accounting, Organizations and Society, 243*(11), 189–204.

Mutitu Kiruga, A., Oombok, B., & Adoyo, P. O. (2024). Influence of firm size on financial performance of firms listed at Nairobi Securities Exchange, Kenya. *International Journal of Accounting and Finance, 1*(1), 33–46. https://www.topnotchjournals.org

Mutunga, D., & Owino, E. (2017). Moderating role of firm size on the relationship between micro factors and financial performance of manufacturing firms in Kenya. *Journal of Finance and Accounting, 1*(2), 14–27. http://41.89.56.62:8080/handle/123456789/1692

Mutungi, Z. W. (2017). Effects of budgeting and budgetary control on financial performance of devolved government in Kenya.

Mwaniki, S. M. (2018). Effect of financial structure on the financial performance of deposit-taking savings and credit cooperatives in Kenya. *Strategic Journal of Business & Change Management, 5*(2). https://doi.org/10.61426/sjbcm.v5i2.706

Myint, Y. Y. (2019). Analysis of the relationship between budget participation and job performance in Myanmar private commercial banks. *International Journal of Economics, Business and Management Research, 3*(2), 144–154. https://www.ijebmr.com

Nair Manoharan, K. (2017). Budgeting and budgetary control system: A study on selected Indian companies. *International Journal of Management and Social Sciences Research, 6*(8), 1–6.

Nemec, J., & de Vries, M. S. (2019). Effectuating performance-based budgeting takes time. In *Governance and public management* (pp. 257–269). Springer. https://doi.org/10.1007/978-3-030-02077-4_14

Nguyen, T. T. T. (2024). Toward financial optimization: Assessing the influence of budget process on effective accounting management. *Management Dynamics in the Knowledge Economy, 12*(2), 116–132. https://doi.org/10.2478/mdke-2024-0008

Niresh, J. A., & Velnampy, T. (2014). Firm size and profitability: A study of listed manufacturing firms in Sri Lanka. *International Journal of Business and Management, 9*(4), 57–64. https://doi.org/10.5539/ijbm.v9n4p57

Njiru, M., & Thoronjo, E. (2023). Analysis of monitoring and evaluation practices on performance of non-governmental organizations' projects in Kiambu County, Kenya. *Journal of Business Management and Economic Development, 2*(1), 1–12. https://doi.org/10.59653/jbmed.v2i01.308

Nwanyanwu, L. A., & Nkiru, A. (2018). Budgetary control and financial performance of small and medium-sized enterprises in Rivers State. *International Journal of Economics and Financial Management, 3*(1). https://www.iiardpub.org

Nyagah, C. F., & Njoka, C. (2022). Public participation and public finance management performance in Embu County Government, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting, 4*(1), 104–122. https://doi.org/10.35942/ijcfa.v4i1.236

Nyamwanza, L., Haufiku, H. I., Ellen, M., & Mhaka, C. (2020). The link between debt finance and profitability in the emerging market: A case study of a furniture retail company. *Risk Governance and Control: Financial Markets and Institutions, 10*(4), 57–80. https://doi.org/10.22495 /rgcv10i4p5

Obara Onduso, E. (2013). *The effect of budgets on financial performance of manufacturing companies in Nairobi County* (Master's thesis, University of Nairobi). http://erepository.uonbi.ac.ke/bitstream/handle/11295/ 63511/ onduso%20final%20project%20for%20submission%2050.pdf

Ochieng, O. K., Okiro, K., & Okeyo, O. F. (2024). Organizational characteristics, efficiency, financial regulation, and performance of commercial banks in Kenya. *International Journal of Economics and Financial Studies, 7*(4), 84–106.

Odalo, S. K., Achoki, G., & Njuguna, A. (2016). Relating company size and financial performance in agricultural firms listed in the Nairobi Securities Exchange in Kenya. *International Journal of Economics and Finance, 8*(9), 34–40. https://doi.org/10.5539/ijef.v8n9p34

OECD. (2017). *OECD budget transparency toolkit: Practical steps for supporting openness, integrity and accountability in public financial management.* OECD Publishing. https://doi.org/10.1787/9789264282070-en

OECD. (2021). *Development co-operation report 2021: Shaping a just digital transformation.* OECD Publishing. https://www.oecd-ilibrary.org

OECD. (2022). *OECD economic surveys: Ireland 2022.* OECD Publishing. https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-ireland-2022_46a6ea85-en

OECD. (2023). *Drivers of trust in public institutions in Brazil.* OECD Publishing. https://www.oecd-ilibrary.org

Ofori-Dwumfuo, G., & Amponsah-Tawiah, K. (2019). The impact of budgetary control on financial performance in selected manufacturing firms in Ghana. *Journal of Accounting and Taxation, 11*(2), 16–23. https://doi.org/10.5897/JAT2018.0342

Oguso Ochien'g, A. (2019). *Fiscal consolidation constraints and budget imbalance dynamics in Kenya.*

Olando, C. (2021). Effect of budgeting practices on financial performance. *Journal of Finance and Accounting Research, 12*(1), 84–110.

Olaniyan, N. O., & Efuntade, A. O. (2020a). Budget and the budgetary control system on tertiary institutions' financial performance in Nigeria. *KIU Interdisciplinary Journal of Humanities and Social Sciences, 1*(2), 281–302. https://doi.org/10.59568/kijhus-2020-1-2-19

Olaniyan, N. O., & Efuntade, L. O. (2020b). Budget and the budgetary control system in tertiary institutions' financial performance in Nigeria. *KIU Interdisciplinary Journal of Humanities and Social Sciences, 1*(2), 281–302.

Ondoro, C. (2017). Strategic control and organizational social performance: A conceptual review. *International Journal of Economics, Commerce and Management, 8*(8), 360–371.

Onduso, E. O. (2013). *The effect of budgets on financial performance of manufacturing companies in Nairobi County* (Master's thesis, University of Nairobi). http://erepository.uonbi.ac.ke/bitstream/handle/11295/63511/ onduso%20final%20project%20for%20submission%2050.pdf

Panyako, D. O., & Miroga, J. (2024). Budgeting process and financial performance of the County Government of Trans Nzoia, Kenya. *International Academic Journal of Economics and Finance, 4*(1), 299–320. https://iajournals.org/articles/iajef_v4_i1_299_320.pdf

Pebrianti, S., & Aziza, N. (2019). Effect of clarity of budget objectives, accounting control, reporting systems, and compliance with regulations on performance accountability of government agencies. In *Proceedings of the Advances in Economics, Business and Management Research Conference* (Vol. 292, pp. 396–410). https://doi.org/10.2991/agc-18.2019.62

Pervan, M., & Višić, J. (2012). Influence of firm size on its business success. *Croatian Operational Research Review, 3*, 213–223.

Pham, D. C., Do, T. N. A., Doan, T. N., Nguyen, T. X. H., & Pham, T. K. Y. (2021). The impact of sustainability practices on financial performance: Empirical evidence from Sweden. *Cogent Business & Management, 8*(1), 1–19. https://doi.org/10.1080/23311975.2021.1912526

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.

Prasad, N., Bajpai, M., & Tripathi, A. (2023). The impact of budgetary control on organizational performance. *International Journal of Research in Finance and Management, 6*(2), 266–272. https://doi.org/10.33545/26175754.2023.v6.i2c.333

Radelet, S. (2022). *The IMF and capacity development: Monitoring, evaluation, and effectiveness.* International Monetary Fund.

Rahman, A., & Muktadir, M. G. (2021). SPSS: An imperative quantitative data analysis tool for social science research. *International Journal of Research and Innovation in Social Science, 5*(10), 300–302. https://doi.org/10.47772/ijriss.2021.51012

Razaq, I. T., & Akinlo, P. (2017). Interrelationship between size, growth, and profitability of non-financial firms in Nigeria. *European Journal of Business and Management, 9*(7), 76–86.

Rutto, K. J., & Oluoch, O. (2017). Effect of budgetary control on financial performance of savings and credit cooperative organizations in Nairobi County. *Strategic Journal of Business & Change Management, 4*(2), 797–816.

Sarwar, M. I., Abbas, Q., Alyas, T., Alzahrani, A., Alghamdi, T., & Alsaawy, Y. (2023). Digital transformation of public sector governance with IT service management: A pilot study. *IEEE Access, 11*, 6490–6512. https://doi.org/10.1109/ACCESS.2023.3237550

Sasaka, P. S. (2016). *Effect of strategic management practices on the performance of corporate social responsibility of state parastatals in Kenya* (Master's thesis, Jomo Kenyatta University of Agriculture and Technology).

Selim, H., Suc, G., Imbert, B., & Zhao, Q. (2022). Unorthodox expenditure procedures in CEMAC and WAEMU countries. *IMF Working Papers, 2022*(148), 1–25. https://doi.org/10.5089/9798400215681.001

Shawe, R. (2023). Budget and organization management. *Open Journal of Business and Management, 11*(3), 910–919.https://doi.org/10.4236 /ojbm. 2023.113049

Shibutse, R. L., Kalunda, E., & Achoki, G. (2019). Effect of leverage and firm size on financial performance of deposit-taking savings and credit cooperatives in Kenya. *International Journal of Research in Business and Social Science, 8*(5), 182–193. https://doi.org/10.20525/ijrbs.v 8i5.462

Shitanda Nyongesa, A., Odhiambo, A., & Moses, N. (2016). Budgetary control and financial performance in public institutions of higher learning in Western Kenya. *International Journal of Business and Management Invention, 5*(8), 18–22.

Silva, L. M. D., & Jayamaha, A. (2012). Budgetary process and organizational performance of apparel industry in Sri Lanka. *Journal of Emerging Trends in Economics and Management Sciences, 3*(4), 354–360.

Sistiyan, M. P., Palikhatun, P., & Payamta, P. (2019). The effect of budgetary participation, organizational commitment, and leadership styles on employees' performance. *SEISENSE Journal of Management, 2*(1), 107–117. https://doi.org/10.33215/sjom.v2i1.97

Soren, C. (2023). Data analysis in social science research. *International Journal for Novel Research and Development, 8*(8).

Student, Y. A. (2013). The effect of firm size on firms' profitability in Nigeria. *Journal of Economics and Sustainable Development, 4*(5), 90–95.

Suave, R., Lunkes, R. J., Petri, S. M., & Rosa, F. S. (2016). Sophistication in the use of budgeting practices. *Advances in Scientific and Applied Accounting, 9*(3), 318–337. https://doi.org/10.14392/asaa.2016090305

Sunaryo, D. (2020). The effect of profitability (return on investment) and financial risk on stock price before COVID-19. *International Journal of Science, Technology & Management, 1*(2), 87–99. https://doi.org/10.46729/ ijstm.v1i2.19

Tavakol, M., & Wetzel, A. (2020). Factor analysis: A means for theory and instrument development in support of construct validity. *International Journal of Medical Education, 11*, 245–247. https://doi.org/ 10.5116/ ijme.5f96.0f4a

Tranmer, M., Murphy, J., Elliot, M., & Pampaka, M. (2020). *Multiple linear regression* (2nd ed.). Cathie Marsh Institute for Social Research Working Paper Series. https://hummedia.manchester.ac.uk/institutes/cmist/ archive-publications/working-papers/2020/2020-1-multiple-linear-regression.pdf

Tsagris, M., & Pandis, N. (2021). Normality test: Is it really necessary? *American Journal of* Orthodontics and Dentofacial Orthopedics*, 159*(4), 548–549. https://doi.org/10.1016/j.ajodo.2021.01.003

Tsonkov, N. (2023). Assessment of Bulgarian municipalities in providing basic services and shaping the local business environment. Ekonomika a Spoločnosť*, 24*(1), 108–134. https://doi.org/10.24040/eas.2023.24.1.108-134

Uddin, M. S., & Kader, S. A. (2022). Financial performance evaluation through ratio analysis: A study on Rural Power Company Ltd. *International Journal of Business and Management Future, 8*(1), 9–18. https://doi.org/10.46281 /ijbmf.v8i1.1827

Uka, A., & Prendi, A. (2021). Motivation as an indicator of performance and productivity from the perspective of employees. *Management & Marketing, 16*(3), 268–285. https://doi.org/10.2478/mmcks-2021-0016

Waikenda, M. (2020). Influence of stakeholders' participation on performance of county governments in Kenya. *Journal of Research in Management, 2*(4), 11–21. https://doi.org/10.32424/jorim.v2i4.86

Wambua, M. F. (2019). *The effect of cross listing on the value of firms listed at the Nairobi Securities Exchange* (Master's thesis, University of Nairobi).

Wamiori, M. G., Gregory, N., & Maurice, S. (2016). Effect of access to finance on financial performance of manufacturing firms in Kenya. *Strategic Journal of Business & Change Management, 3*(4), 403–421.

Wandera, T. V., & Sang, D. P. (2017). Financial management practices and sustainability of non-governmental organisations projects in Juba, South Sudan. *International Journal of Finance, 2*(4), 38–57. https://doi.org/10.47941/ijf.113

Wang, Q., & Niu, M. (2020). Exploring the relationship between government budget information and citizens' perceptions of public service performance in China. *Public Management Review, 22*(3), 317–340. https://doi.org/10.1080/14719037.2019.1584234

Wangari, M. J., & Luther, O. O. (2022). Budgeting practices in manufacturing firms in Kenya. *African Development Finance Journal, 4*(1), 227–247. https://uonjournals.uonbi.ac.ke/ojs/index.php/adfj/article/view/1398

Wanjiru, V. (2021). *Effectiveness of ratio analysis in predicting financial performance of commercial banks in Kenya* (Master's thesis).

Willems, I., Verbestel, V., Calders, P., Lapauw, B., & De Craemer, M. (2023). Test–retest reliability and internal consistency of a newly developed questionnaire to assess explanatory variables of 24-hour movement

behaviors in adults. *International Journal of Environmental Research and Public Health, 20*(5). https://doi.org/10.3390/ijerph20054407

World Bank. (2008). *Brazil: Toward a more inclusive and effective participatory budget in Porto Alegre*. World Bank.

Yang, Q. (2010). *The impact of the budgeting process on performance in small and medium-sized firms in China* (Doctoral dissertation). https://doi.org/10.3990/1.9789036529839

Zhao, J. (2022). Comprehensive budget execution performance evaluation of companies incorporating EVA unsupervised learning model. *Mobile Information Systems, 2022*. https://doi.org/10.1155/2022/5921443

APPENDICES

Appendix I: Letter of Introduction

Mr. Moses Odongo Otieno

P.O. Box 35818

NAIROBI.

Dear Participant,

RE: Invitation to Participate in a Study

My name is **Moses Odongo Otieno**, a PhD candidate at Jomo Kenyatta University of Agriculture and Technology (JKUAT). Iam undertaking research entitled "B**udgeting practices and financial performance of manufacturing firms in Kenya".** It is hoped that the findings of the research will help improve the performance of all manufacturing firms in Kenya as envisioned by vision 2030. I would be pleased if you find time to complete the attached questionnaire to facilitate the study. Your participation is voluntary and any information that you will give will be treated with utmost confidentiality. No personal data will be divulged for whatever reasons and therefore take some time and answer the questions as honestly as possible. As conclusion of the study, a summary of the results and associated reports will be made available. Should you have any queries, please forward them to the undersigned.

Yours Sincerely,

Moses Odongo Otieno

Mobile No.+254 717108890

Email: wrightodongo2013@gmail.com

Appendix II: Questionnaire

(BUDGETING PRACTICES AND FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS IN KENYA)

Dear esteemed respondent,

Purpose of the survey: The purpose of this survey is to obtain in-depth information on budgetary control on financial performance of manufacturing firms in Kenya. This information is linked to a project of improving financial performance of manufacturing firms in Kenya.

Businesses to be surveyed: All manufacturing firms registered by Kenya association of manufacturers (KAM).

Respondent: We ask that this questionnaire should be answered by the key functional manager (e.g., heads of departments/sections, financial manager or chief accountant) who is responsible for planning and financial function in your business. We would like you to answer each question from the perspective of the business unit that you manage rather than from the general ideas or views and please add any additional comments that you believe are appropriate.

Confidentiality: Data collected from the survey will be used to test the model relating to a theory developed as a part of a PhD thesis. It does not involve any commercial activities and all information will be treated in strictest confidence.

How to answer the questions: To answer the questions you simply tick or circle the most appropriate numbers, which are listed, excepting of some cases you are requested to fill the appropriate number into the blanks. Your corporation by answering questions raised by the interviewer is viewed as the most important contribution for the development of manufacturing industry. There are no right or wrong answers to these questions. Just give your opinion about your business.

SECTION A: GENERAL

In this section the study would like you to provide some background information about yourself.

Kindly tick (√) or circle appropriately.

a) What is your gender? Male ☐ Female ☐
b) What is your highest education level?

PhD ☐ Masters ☐ Undergraduate ☐ Diploma ☐ Certificate ☐

Others (Specify)……

SECTION B: COMPANY PROFILE

a) Name your organization (Optional)…….

b) What is your position in your business (Please circle one that applies)?

Owner…… ☐

Manager…… ☐

Finance Officer…… ☐

Chief Accountant…… ☐

Other, please specify…… ☐

c) Do you ever attend management training programs related to budgetary control in a year? (Please circle one that applies)

Never…… Rarely (from 1 to 2 attendance) Sometimes (3 to 4 attendances)

Frequently (more than 4 attendances) ….. ☐

d) What best describes your background (Please circle one that applies)

Management general…… ☐

Technical field…… ☐

Business general…… ☐

Financial management…… ☐

Others,…… ☐

1. When did your company commence its operations?

1-10 Years ago,	( )
11-20 Years ago,	( )
21-30 Years ago,	( )
31- 40 Years ago	( )
41-50 Years ago,	( )
Over 50 Years ago	( )

2. How long has your company been a member of the Kenya association of manufacturers?

1-5 Years	( )
6-10 Years	( )
11-15 Years	( )
16-20 Years	( )
21-25 Years	( )
Over 25 Years	( )

3. How is your company classified by the Kenya association of manufacturers (KAM)?
   a. Building, Mining and Construction ( )
   b. Chemical and Allied Sector ( )
   c. Energy, Electrical and Electronics Sector ( )
   d. Foods and Beverages Sector ( )
   e. Leather and Footwear Sector ( )
   f. Metal and Allied Sector ( )
   g. Motor Vehicles Assemblers and Accessories Sector ( )
   h. Paper and Board Sector ( )
   i. Pharmaceutical and Metal Equipment Sector ( )
   j. Plastic and Rubber Sector ( )
   k. Textile and Apparels Sector ( )
   l. Timber, Wood and Furniture Sector ( )

4. What is your organizational form?
   a. Listed Company ( )
   b. Other limited companies ( )
   c. Partnership ( )
   d. Sole Proprietorship ( )
   e. Co-operative Society ( )

   Other, please specify ……

5. How many workers are currently employed by your company?

Between 1 and 10 workers	
Between 11 and 50 workers	
Between 51 and 100 workers	
Between 101 and 250 workers	
Between 251 and 500 workers	
Over 500 workers	

6. What types of products does your company deal with?

Raw Materials	
Parts	
Semi-Assembled Components	
Finished Goods	
Don't know	

7.Turnover

   a. Below 1 million ( )
   b. 1- 500 million ( )
   c. 501 million – 1 billion ( )
   d. Over 1 billion ( )

8. What formal organization structure does your company have?

   a. Simple form ( )
   b. Functional ( )
   c. Divisional ( )
   d. Matrix ( )

   Other, please specify……..

SECTION- C:

i) BUDGET PLANNING

In this section the study is interested in your view about budget planning. Read each of the statements carefully and tick the appropriate choice.

Key SA- Strongly Agree, A- Agree, N- Neutral, D- Disagrees, SD- Strongly Disagree

	STATEMENT	Response				
		SD	D	N	A	SA
B1	Budget planning ensures funds are distributed to areas that align with the organization's priorities, goals, and strategic initiatives.					
B2	Budget planning help maintain financial discipline, ensuring expenditures stay within set limits.					
B3	Budget planning allows management to hold departments accountable for their spending.					
B4	Budget planning sets benchmarks and financial targets, helping to evaluate departments' performance against planned outcomes.					
B5	Budget planning identifies ways to reduce unnecessary expenses and optimize resource use.					
B6	Budget planning ensures that the budget aligns with the organization's short-term and long-term goals.					
B7	Budget planning provides a clear financial framework for decision-makers.					
B 8	Budget planning enables decision-makers to make informed choices based on available resources and priorities.					
B 9	Budget planning ensures there are sufficient funds for operational needs by managing inflows and outflows.					

Suggest other ways to improve in budget planning to enhance performance of the firm.……

……

……

……

SECTION-D

ii) BUDGET MONITORING AND CONTROL

In this section the study is interested in your view about budget monitoring and control. Read each of the statements carefully and tick the appropriate choice.

Key SA- Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD- Strongly Disagree

	STATEMENT	Response				
		SD	D	N	A	SA
BM1	Budget monitoring and control ensures expenses are kept within budget limits to avoid overspending.					
BM2	Through effective control of revenues and expenses, budgetary control supports profit targets.					
BM3	Budget monitoring and control track spending to hold departments and teams accountable for their financial decisions.					
BM4	Budget monitoring and control demonstrate to stakeholders that funds are used responsibly and for intended purposes.					
BM5	Budget monitoring and control ensure that spending aligns with the organization's revenue and cash flow.					
BM6	Budget monitoring and control prevent financial inefficiencies by assessing and reducing unnecessary expenses.					
BM7	Budget monitoring and control provide timely data to guide leadership in reallocating resources or adjusting priorities.					
BM8	Budget monitoring and control ensure adherence to regulatory and organizational financial policies.					
BM9	Budget monitoring and control maintain records and documentation to support audits and comply with legal requirements.					

8. What do you think are the obstacles of budget monitoring and control in improving financial performance of your manufacturing firm?

……

……

SECTION-E

iii) BUDGET EVALUATION

In this section the study is interested in your view about budget evaluation. Read each of the statements carefully and tick the appropriate choice.

Key SA- Strongly Agree, A- Agree, N- Neutral, D- Disagree, SD- Strongly Disagree

	STATEMENT	Response				
		SD	D	N	A	SA
BE1	Evaluate how well the company is managing its resources compared to the budget.					
BE2	Check if resources are being used efficiently to meet the company's objectives.					
BE3	Track and control spending within approved limits to prevent budget overruns.					
BE4	Use the evaluation data to guide future financial planning and strategy.					
BE5	Highlight areas where costs can be reduced without sacrificing quality or productivity.					
BE6	Hold departments and managers accountable for their budget management.					
BE7	Confirm that spending aligns with the company's strategic goals.					
BE8	Ensuring funds are directed towards high-priority projects and initiatives.					
BE9	Project future financial requirements based on past performance, allowing the company to prepare for upcoming periods and ensure they have sufficient resources.					

SECTION- F

iv) BUDGET COMMUNICATION

In this section the study is interested in your view about budget communication on financial performance of your firm.

Key SA- Strongly Agree, A- Agree, N-Neutral, D- Disagree, SD- Strongly Disagree

	STATEMENT	Response				
		SD	D	N	A	SA
BC1	Transparent communication about budget plans fosters trust, minimizes resistance to change, and promotes					
BC2	Clear budget communication ensures that all departments and employees understand the company's financial goals and priorities.					
BC3	Emphasizes the importance of addressing the needs and interests of all stakeholders in decision-making.					
BC4	Budget communication presents financial information in accessible language and formats.					
BC5	Transparent communication equips teams to navigate financial challenges effectively.					
BC6	Clear communication about budgets reduces uncertainty and fosters trust.					
BC7	Emphasize the importance of adhering to the budget and responsible spending.					
BC8	Highlight areas where cost-saving measures or operational efficiencies can support financial health.					
BC9	Link budget allocations with performance metrics to demonstrate how funding impacts results.					

THE END

THANK YOU VERY MUCH FOR YOUR HONEST RESPONSE GOD BLESS YOU

Appendix III: Secondary Data Collection Form

Table A1: Financial Performance (KES)

Period	Net Profit (KES	Gross Profit (KES)	Total Investment (KES)
2018	18,107.147,000	57,591,574,000	177,987,632,958
2019	17,508,815,000	57,205,367,000	180,526,883,779
2020	16,806,705,000	54,855,485,500	203,207,695,969
2021	14,606,750,000	53,591,574,000	245,787,560,878
2022	10,905,470,000	51,955,257,088	320,129,206,700

Sources: CBK Report (2024); Audited Financial Statements (Secondary Data)

Table A2: Descriptive Statistics of Firm Size (Ln Total Assets)

Descriptive Statistics of Firm Size (Secondary Data)

Variable	Mean	Maximum	Minimum	Standard Deviation	Skewness	Kurtosis
Firm Size(Ln Total Assets	6.8218	9.3698	0.0000	1.0108	- 0.6088	2.991

Sources: CBK Report (2024); Audited Financial Statements (Secondary Data)

Appendix IV: List Sector-Wise KAM Companies

1. Brookside Dairy Ltd
2. Unga Group Ltd
3. East African Breweries Ltd
4. Bidco Africa Ltd
5. Del Monte Kenya Ltd
6. Kevian Kenya Ltd
7. Mount Elgon Orchards Ltd
8. Twiga Chemical Industries Ltd
9. Henkel Kenya Ltd
10. H.B. Fuller Kenya Ltd
11. Highchem East Africa Ltd
12. Crown Paints Kenya Plc
13. Orbit Chemical Industries Ltd
14. Alltex EPZ Ltd
15. Alpha Knits Ltd
16. Ashton Apparel EPZ Ltd
17. Adpack Ltd
18. Rivatex East Africa Ltd
19. Bamburi Cement Ltd
20. ARM Cement Ltd
21. Central Glass Industries Ltd
22. African Diatomite Industries Ltd
23. East African Portland Cement Ltd
24. Kibo Africa Ltd
25. Associated Vehicle Assemblers Ltd
26. Car & General Kenya Ltd
27. Devki Steel Mills Ltd
28. Mabati Rolling Mills Ltd
29. Doshi Ironmongers Ltd
30. Rugged Equipment Ltd
31. Chandaria Industries Ltd

32. East African Packaging Industries Ltd
33. Kartasi Industries Ltd
34. Blowplast Ltd
35. Kenpoly Manufacturers Ltd
36. Cosmos Pharmaceuticals Ltd
37. Universal Corporation Ltd
38. Regal Pharmaceuticals Ltd
39. Polythene Industries Ltd
40. Blowplast Ltd
41. Kenpoly Manufacturers Ltd
42. Silafrica Kenya Ltd
43. Mount Elgon Orchards Ltd
44. Kakuzi Plc
45. Sasini Plc
46. Comply Industries Ltd
47. Rai Plywood Ltd
48. PG Bison Kenya Ltd

(Source: Directory, Kenya Association of Manufacturers, 2022)

Appendix V: Manufacturing Firms (Under Association of Manufacturers)

a. Building, Mining and Construction
b. Chemical and Allied Sector
c. Energy, Electrical and Electronics Sector
d. Foods and Beverages Sector
e. Leather and Footwear Sector
f. Metal and Allied Sector
g. Motor Vehicles Assemblers and Accessories Sector
h. Paper and Board Sector
i. Pharmaceutical and Metal Equipment Sector
j. Plastic and Rubber Sector
k. Textile and Apparels Sector
l. Timber, Wood and Furniture Sector

(Source: Industry Insights, Kenya Association of Manufacturers, 2022)