# BUDGETARY CONTROL AND FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS LISTED ON THE NAIROBI SECURITY EXCHANGE IN KENYA

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A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND FINANCE IN THE SCHOOL OF BUSINESS AND ECONOMICS IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION (ACCOUNTING) OF KAIMOSI FRIENDS UNIVERSITY

## **DECLARATION**

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

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## DEDICATION

I sincerely dedicate this thesis to my parent: Mr. Katana Kingo Kadange who has continuously inspired me.

## ABSTRACT

In the recent past, manufacturing firms listed at Nairobi Securities Exchange have had several challenges, including making losses, inability to pay debts, and inability to align the actual expenses to the planned despite extensive use of budgetary control measures. Various attempts were made to enhance financial performance of the listed manufacturing firms including the government reducing production costs and allocating budget to act as subsidies but still, the problems persist. Therefore, this study looked at how listed manufacturing firms controlled the liquidity, debts and expenses to improve financial performance. The purpose of this study was to examine the influence of budgetary control on financial performance of listed manufacturing firms in Kenya. The specific objectives were to examine the influence of liquidity control on the financial performance of listed manufacturing firms in Kenya, to establish the influence of debt control on financial performance of listed manufacturing firms in Kenya, and to assess the influence of expenses control on financial performance of listed manufacturing firms in Kenya. The study used current ratio, debt ratio and expenditure variance as the measures for liquidity control, debt control and expenses control respectively. Pearson correlation analysis revealed that had a significant positive relationship with ROA, with an r = 0.5952, while debt control and expenses control had a significant negative correlation with r = -0.3566 and - 0.4044, respectively. Furthermore, the study showed that liquidity control, debt control, and expenses control had a significant influence on financial performance since they had coefficient values of 0.2585, -0.0793, and -0.3854, respectively, with p-values<0.05. The study concluded that liquidity control, debt control and expenditure control had significant influence on financial performance of manufacturing firms listed at NSE. The study recommends that listed manufacturing firms should understand the budgeted liquidity, debt and expenditure and perform continuous analysis for effective control as opposed to the current style where all variances are computed at the end of the year.

DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	v
LIST OF TABLES	ix
LIST OF FIGURES	X
ABBREVIATIONS AND ACRONYMS	xi
OPERATIONAL DEFINITION OF TERMS	xii
CHAPTER 1	
INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem	11
1.3 Research Objectives	12
1.3.1 General Objective	12
1.3.2 Specific Objectives	12
1.4 Research Hypotheses	12
1.5 Significant of the Study	13
1.6 Scope of the Study	14
1.7 Limitation of the Study	14
CHAPTER 2	
LITERATURE REVIEW	15
2.1 Introduction	15
2.2 Theoretical Framework	15
2.2.1 The Liability Management Theory	15
2.2.2 Pecking Order Theory	18
2.2.3 Goal-Setting Theory	21
2.3 Conceptual Framework	24
2.3.1 Budgetary Control	24
2.3.2 Liquidity Control	25
2.3.3 Debts Control	25
2.3.4 Expenditure Control	25
2.3.5 Financial Performance	26
2.4 Empirical Literature Review	
2.4.1 Liquidity Control and Financial Performance	26
2.4.2 Debts Control and Financial Performance	29
2.4.3 Expenditure Control and Financial Performance	30

## TABLE OF CONTENT

2.5 Critique and Research Gaps in Literature Review	33
CHAPTER 3	
METHODOLOGY	
3.1 Introduction	36
3.2 Research Philosophy	36
3.3 Research Design	36
3.4 Target Population	36
3.4.1 Sampling Technique	37
3.5 Data Collection Procedure	
3.6 Measurement of Variables	
3.7 Data Processing, Analysis, and Presentation	
3.7.1 Multiple Regression Analysis	
3.8 Ethical Considerations	39
CHAPTER 4	
RESEARCH FINDINGS AND DISCUSSION	40
4.1 Introduction	40
4.2 Descriptive Statistics	40
4.3 Inferential Statistics	43
4.3.1 Diagnostic Tests Results	43
4.3.1.1 Normality Distribution Test Results	44
4.3.1.2 Stationary Test	45
4.3.1.3 Residual Normality	46
4.3.1.4 Multicollinearity	46
4.3.1.5 Heteroscedasticity	47
4.3.1.6 Autocorrelation	48
4.3.2 Correlation Analysis	49
4.3.3 Fixed and Random Effect Panel Regression Analysis	51
4.3.3.3 Hausman Test	53
4.4 Discussion of Results	53
4.4.4 Expenditure Control and Financial Performance	56
4.5 Theoretical Synergy	57
CHAPTER 5	
SUMMARY, CONCLUSION, AND RECOMMENDATION	59
5.1 Introduction	59
5.2 Summary	59
5.3 Conclusions	61
5.3.1 Liquidity Control and Financial Performance	61

APPENDICES	
REFERENCES	66
5.5 Areas of Further Study	65
5.4.3 Expenses Control and Financial Performance	64
5.4.2 Debts Control and Financial Performance	64
5.4.1 Liquidity Control and Financial Performance	63
5.4 Recommendations	63
5.3.3 Expenses Control and Financial Performance	63
5.3.2 Debts Control and Financial Performance	62

## LIST OF TABLES

Table 3. 1: Target Population	37
Table 3. 2: Measure of Variables	
Table 4. 1: Descriptive Statistics	40
Table 4. 2: Shapiro-Wilk W Test for Normal data	44
Table 4. 3: Levin-Lin-Chu Stationarity Test Results	45
Table 4. 4: Shapiro-Wilk W Test for Residual Normality	46
Table 4. 5: Multicollinearity Test Results	47
Table 4. 6: Heteroscedasticity Test Results	48
Table 4. 7: Autocorrelation Test Results	49
Table 4. 8: Pearson Correlation Coefficients	50
Table 4. 9: Fixed Effect Results	51
Table 4. 10: Random Effect Results	52
Table 4. 11: Hausman Test Results	53

## LIST OF FIGURES

Figure 2.1: Conceptual	Framework
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## ABBREVIATIONS AND ACRONYMS

CR	Current Ratio	
DR	Debt Ratio	
EV	Expenditure Variance	
KAM:	Kenya Association of Manufacturers	
NACOSTI	National Commission for Science, Technology, and	
	Innovation	
NGOs	Non-governmental Organizations	
NPM	Net Profit Margin	
NSE	Nairobi Stock Exchange	
ROA	Return on Assets	
ROE	Return on Equity	
ROI	Return on Investment	
SMEs	Small and Medium Size Enterprises	
SPSS	Statistical Package for Social Sciences	

## **OPERATIONAL DEFINITION OF TERMS**

<b>Budgetary control</b>	is the process of utilizing the available resources,
	minimizing expenses, debts and aligning planned
	activities to actual results (DuBrin, 2012).
Debt control	Is the process of monitoring the financing plan, the
	short and long term debts to required rate of the
	firms (Qi, 2010).
Expenses control	Is the process of identifying expenses, allocated in
	every department, monitoring and reducing them to
	enhance organizational profitability (Drury, 2012).
Financial	Refers to a measure of how well a manufacturing
performance:	firm can use assets from its primary business model
	and generate revenues (Greenberg, 2011).
Liquidity control	Refers to the process of maintaining current assets
	that could be used to meet short and medium-term
	obligations (Greenberg, 2011).

#### CHAPTER 1

## **INTRODUCTION**

#### **1.1 Background of the Study**

Budgetary control is the process of utilizing the available resources, minimizing expenses, and aligning planned activities to actual results. Manufacturing firms' resources are limited, and budgetary control allows adopting measures that effectively utilize resources and provide returns. Budgetary control is important in the organization since it helps analyze variances and take corrective action (Klimaitiene & Ramanauskaite, 2019).

Manufacturing firms' budgetary control includes liquidity control, debts control, and expenses control. Liquidity control enhances the capability of the manufacturing firm to meet daily expenses and finance daily operations. Debt control ensures minimization of the company debts by carrying out proper investment plans and ensuring minimizations of deviations, while expenses control involves minimizing the costs of managing and operations to increase profits. Implementing budgetary control in the manufacturing firms includes benefits like increased profits and ensuring a company's business continuity (Akeem, 2014).

Financial performance is the desire of every profitable firm. The concern of every shareholder is not how to get sources of capital to expand and improve the operations of their businesses but effective utilization of the resources allocated. Managers in every organization are required to effectively control revenue expenses and determine micro and macro-economic factors and other economic changes that may affect the organization through the adoption of budgetary control measures (Drury, 2012).

A firm's financial performance can be regarded as the indicator of its overall financial well-being throughout time. It speaks to the degree to which listed manufacturing firms are capable of achieving their financial aims and objectives. Profitability ratios like Return on Assets (ROA) are useful for evaluating financial success. Financial success can be assessed using a variety of factors, including a company's capacity to debts, finance short-term needs, and reduce total costs (Chaudhary & Chaudhary, 2018).

ROA is the total net profit over the total assets. It shows how the listed manufacturing firms can utilize the available assets to generate income. The higher the value, the higher the financial performance of the firm. Higher ROA attracts the potential investors to subscribe to the available shares, enabling the expansion and survival of the listed manufacturing firms' activities (Simiyu, 2018).

Financial goals and objectives are formulated and implemented during the budgetary process. After implementation, control of all activities is required to ensure that the budget activities produce the desired results. Budgetary control, therefore, plays a role as a check between the planned financial objectives and the results. It also provides means of reporting any deviation. Every firm budgets short-term assets, liabilities, debts, and expenditures for a certain period, mostly one year (Greenberg, 2011).

Short-term assets include cash, stock, debtors, and convertible assets. Short-term liabilities include creditors, bank overdrafts, short-term debts, and any other firm

liability that takes a period not more than one year before settling it. Current assets being more than the current liabilities ensures continuous business operations and facilitates the effective undertaking of daily activities. When a firm can pay all short-term obligations without selling the fixed assets, the firm is said to be liquid. Through budgetary control, the listed manufacturing firms can monitor the liquidity position by comparing the available current assets of the firm and the current liabilities (DuBrin, 2012).

Different ratios can be used to determine liquidity, but for good performance control, the quick ratio and current ratio are employed to manage liquidity. The quick ratio is computed comparing the current liabilities to current assets less inventories. In contrast, the current ratio is a ratio of short-term liabilities to the most liquid assets. The quick ratio, which does not account for all current assets, gauges a company's capacity to meet the current obligations with its most liquid assets. Therefore, current assets can be used alone to measure liquidity control, while quick ratio depends on the current ratio and cannot be used as a single measure (Sanna, 2013).

Debts are external sources of funding that firms use to finance various operations. Debt financing increases a firm's value and operations. Budgetary control is used to identify the need for external funding and monitors the use of the borrowed funds to ensure the firm's financial performance. The manufacturing industry debt to equity ratio should be in line with the company financial goals, and it is required that manufacturing firms borrow funds but should first consider internal sources. Internal sources of funds reduces the interest cost of firms and the cost of bankruptcy (Njahi, 2017).

Budgetary control also involves controlling the firms' expenses. The expenditure of the firms should be up to the budgeted amount. Increasing expenditure more than the budgeted increases negative expenditure variance, which reduces the firms' ability to achieve the financial performance objectives. Budgetary control monitors the expenditures to ensure that they align with the budgeted results. Therefore, budgetary control and financial performance are key in any profitmaking firm (Obida & Owolabi, 2012).

Globally, the profitability of manufacturing companies has been fluctuating over the past five years ranging from 2014 to 2019 in European countries. According to a world bank report (2021), variations experienced resulted from the companies' inability to put into practice what they budgeted for. Most of the variations were identified in debts of the firms, overspendings, and low liquidity rates. The debts were increasing, but the value of the firm and overall returns were reducing every year.

The Engro company limited, being the most prominent listed manufacturing firm in Pakistan, had a net loss of 13% in 2010 and a general increase of expenditure by 26% in the same year. The company management had to set priorities and monitor activities, control expenses, and well-outlined revenue plans for the next financial year. In 2011, the company registered a 5% increase in profit and a 12% reduction in the total company debts. This indicates that the budget is a good program and route to the success of manufacturing firms' financial performance (Tahir, Memon, & Mohd, 2012).

The large manufacturing firms in Lithuania's revenue and expenses needed vital management tools like budgetary control. Cases of theft, waste, excessive use of

material, and machine breakdown were majorly identified as problems affecting manufacturing firms worldwide. According to the study, manufacturing firms had higher cases of wastage in excessive use of raw material. The study shows that by implementing budgetary control through close monitoring of liquidity, debts, and expenses, companies registered a 20% increase in revenue and decreased expenditure by 27%. (Klimaitiene & Ramanauskaite, 2019).

African manufacturing companies have implemented international and regional budgetary control to ensure financial performance and economic transformation. There have been conferences and seminars to ensure cost minimization in manufacturing firms and achieve global competitiveness. The budgetary control initiated includes revenue control, expenditure control, and wage control, which improved the financial performance (Abuga, 2019).

Budgetary control in Africa seems to be a tool for directing resources and identifying activities. Issues of corruption in manufacturing firms and the inability of workers to understand the overall process of planning, control mechanisms, and evaluation of performance hinder the profitability of the firms. The study notes that South Africa was the leading country in the continent in conducting industrial budgetary control reforms to ensure a clear understanding of financial goals and objectives. Most of the manufacturing industries in South Africa have grown to be top 20 globally (Torbert, 2019).

In the budgetary control implemented by manufacturing firms in Sub-saharan Africa, only 50% of the budgetary control mechanisms were understood by the company's employees. This was after involving all section heads and other staff in different companies. A large percentage of the people in Africa view

budgetary control as a tool to control their actions and not to achieve financial goals. Therefore, firms must ensure good communication and definition of control activities to avoid wastage and losses (World Bank Report, 2021).

Since 2010, only four African countries, including South Africa, Nigeria, Morocco, and Egypt, have struggled to effectively utilize resources by reducing the resource underutilization cases in the manufacturing industry. The report further indicated that the countries had to effectively project the quality of products required in the international market. Through that, they are currently one of the top fifty performing manufacturing countries globally. The report also indicated that, although other countries in the continent were trying to improve their financial performance, the growth rate was 2%. In comparison, developing countries in Asia had a growth rate of 5.2%. The difference in performance in the two regions was due to the non-adoption of policies, including budgetary control (Signé, 2018).

In Ghana, listed manufacturing firms use debts as sources of financing compared to other sources. Most manufacturing companies in the country reduced equity as a source of finance to 14%. The debts were obtained from a financial institution; however, due to bad budgetary management, there was poor financial performance and growth. The effect was that many listed manufacturing firms became bankrupt and eventually collapsed between 2012 to 2015 (Prempeh, Sekyere, & Asare, 2016).

Many countries in Africa have tried to come up with budgetary control measures. For example, Uganda strengthened its manufacturing sector by emphasizing budgetary control by implementing laws and reforms. Uganda and Tanzania are doing well in East Africa, and Kenya has had problems sustaining its manufacturing firms. The overall performance of East African countries is not pleasing. Most of the products used are from other countries within the African continent or outside Africa. There is also stiff completion with imported products that were cheaper compared to the countries' products (Agbenyo, Danquah, & Shuang, 2018)

To ensure domination of the African market and global competition, countries in Africa have to adopt new ways of managing costs and ensure that every cost contributes to the firm's revenue. Global competition can only be met when the prices of products align with international price indices and products meet the global quality. This makes most African countries struggle to meet the global market demand, which led to the decline of the manufacturing firms in Africa by 10% in 2020 compared to 20219 (World Bank Report, 2021).

In a report concerning success factors for manufacturing firms in Africa, the African countries must put well outlined budgetary controls on the cost of production and human capital. This was after the report revealed that 50% of workers in manufacturing industries in Africa were not productive due to lack of medical facilities, incompetence of workers, and lack of motivation in the industry. This indicates that apart from budgetary control giving manufacturing firms better financial performance, it also gives managers the qualities and skills they want when hiring to ensure productive employees are injected into the company. Therefore, budgetary control is the success factor of manufacturing firms in Africa, which should be emphasized (Velde, Balchin, Banga, & Hoque, 2018).

Budgetary control is used in Kenya to regulate government and private sectors' financial operations. The government of Kenya has set a good pace in ensuring budgetary control is done in accordance with the laid down rules and regulations. Budgetary control improves financial performance by enhancing every state and the private body's returns.

Through budgetary control, the government of Kenya has tried to ensure the financial performance of manufacturing firms by implementing various reforms and policies. The introduction of vision 2030 in 2008 focused on improving Kenyan manufacturing firms' financial performance by providing a wide market for the produced goods through the revival of the East African Community and other economic partners in the continent (Kenya National Bureau of Statistics, 2021).

In 2013, the government also initiated the big four agenda, which also targeted improving manufacturing firms' performance and increasing the sector's growth rate. The government also supports the manufacturing firms by allocating a budget, providing incubation centres for new firms, and giving tax holidays for starting firms. The government's overall aim was to ensure the transformation of the manufacturing sector, attract investors, and guarantee the continuity of the firms (Kenya Association of Manufacturers Report, 2019).

The manufacturing firms' challenges in Kenya were improper financial decisions, huge debts, and the inability to pay expenses. Companies like Nzoia Sugar Company bought tractors that could not be used on Kenya roads, termed improper budgetary control. Manufacturing firms in Kenya suffer from low growth rates, challenges in financial performance, and the risk of being

liquidated. The growth rate of manufacturing firms declined in the past five years, from 6.2% in 2015 to 4.9% in 2019 (Kenyan parliamentary report, 2019).

Most listed manufacturing companies depend on debts as a source of financing rather than equity. According to the World Bank report (2021), only British American Tobacco Limited has been able to use equity as a source of financing for the last 5 years. Other companies like Flame Tree Group have had losses for the last five years. The report also stated that listed manufacturing firms had made losses amounting to 4.8 billion in 2020, which was a 1.8% increase compared to 2019.

Statistics show that listed manufacturing firms in Kenya depend on loans. The loans channeled by commercial banks to manufacturing firms proliferated over the last ten years to 70% from Ksh. 182.6 billion in 2011 to 311.8 billion in 2020. In addition, the growth rate of listed manufacturing firms reduced from 6.2% in 2015 to 4.9 in 2020. Many listed manufacturing firms in Kenya do not declare dividends (Kenya National Bureau of Statistics, 2021).

Parliamentary Report of Kenya (2019) stated that more than 50% of the listed manufacturing firms in Kenya operate below 60% capacity and suffer from massive debts and increased operating expenses. In addition, listed manufacturing firms have various expenditures that need to be budgeted and controlled. Non-control of the expenditures leads to expenditure variances that reduce the firm's performance. Therefore, budgetary control is vital in the listed manufacturing firms in Kenya. Some suggestions include enforcing budgeting control and measures that ensure proper control of the debts, liquidity, and expense of the firms were proposed in several reports, but it was not known whether implementing the stated budgetary control improves the financial performance of listed manufacturing firms in Kenya.

Studies done in manufacturing companies did not concentrate on controlling expenses, indebtedness, or liquidity. Onduso (2013) carried out research on Nairobi County's manufacturing companies' budgets and financial performance. The study focused on budgets and independent management performance and targeted listed manufacturing companies in Nairobi County. Return on Equity was used to gauge financial performance (ROE).

Koech (2015) focused on budgetary control and financial performance of manufacturing firms in Kenya but concentrated in Nairobi county. The study focused on planning, monitoring, and controlling budget preparation and follow-up. The study targeted 50 manufacturing firms in Nairobi County, of which only two listed manufacturing firms were used in the study. Other studies like Mandela (2015), Simiyu, 2018), Abuga (2019), and Mbogo, Olando, and Macharia (2021) concentrated on case studies of Nzoi Sugar company, public sugar manufacturing firms in Kenya, tea manufacturing firms in Kisii county and manufacturing Small and Medium Enterprises in Nairobi County respectively. Therefore, it was still unknown whether liquidity control, debt control, and expenses control affect the financial performance of listed manufacturing firms in Kenya. This study intends to fill the existing gap.

### **1.2 Statement of the Problem**

Manufacturing companies listed on the Nairobi Securities Exchange have undertaken various attempts to improve their budgetary control to enhance greater financial discipline in the past ten years (Rhodes, 2020). Despite the comprehensive implementation of these budgetary controls, these firms still suffer losses. Some cannot pay their debts and have high and uncontrolled overhead expenditures. According to the Kenya National Bureau of Statistics Report (2021), the total loans advanced by commercial banks to manufacturing firms increased from Ksh. 182.6 billion in 2012 to 311.8 billion in 2021 which translates to a 70% increase. The listed manufacturing firms also operate on negative working capital, have unpaid creditors, and excessive use of debts compared to equity capital. In addition, listed manufacturing firms made losses amounting to 4.8 billion in 2020, which was about a 1.8% increase compared to 2019, due to uncontrolled expenses, lack of materials from suppliers, and huge debt interest expenses. The overall growth rate of manufacturing firms shows a decline, from 6.2% in 2015 to 4.9% in 2021, which was a threat to realizing the big four agenda and vision 2030. Furthermore, if efforts to address this problem will not be initiated may lead to collapse of the listed manufacturing firms in Kenya. Despite all the challenges facing listed manufacturing firms, there are few studies that tried to address the problem, for instance Mandela (2015) and Onduso (2013) focused on budget planning, monitoring, and evaluation. The studies did not use variables like debts, liquidity, and expenditure control, hence it is not known whether budgetary control has a significant influence on financial performance. Therefore, this study is grounded on the question of the influence of budgetary control on the financial performance of manufacturing firms listed at Nairobi Securities Exchange in Kenya? The results of this study will be used to understand whether controlling liquidity position, debts and expenditure enhances financial performance.

## **1.3 Research Objectives**

## **1.3.1 General Objective**

To determine the influence of budgetary control on financial performance of manufacturing firms listed at Nairobi Securities Exchange in Kenya.

## **1.3.2 Specific Objectives**

- i. To examine the influence of liquidity control on financial performance of manufacturing firms listed at Nairobi Securities Exchange in Kenya.
- To establish the influence of debt control on financial performance of manufacturing firms listed at Nairobi Securities Exchange in Kenya.
- iii. To assess the influence of expenditure control on financial performance of listed manufacturing firms listed at Nairobi Securities Exchange in Kenya.

## **1.4 Research Hypotheses**

- i.  $H_{0_1}$ : Liquidity control has no significant influence on the financial performance of manufacturing firms listed at Nairobi Securities Exchange in Kenya.
- ii.  $H_{0_2}$ : Debt control has no significant influence on the financial performance of manufacturing firms listed at Nairobi Securities Exchange in Kenya.
- iii.  $H_{0_3}$ : Expenditure control has no significant influence on the financial performance of manufacturing firms listed at Nairobi Securities Exchange in Kenya.

## 1.5 Significant of the Study

The government and policymakers need to implement reforms governing budgetary control in the manufacturing industry; hence, this research is to assist the government and policymakers in understanding the point of weakness of the existing reforms and making adjustments to enhance the financial performance of the manufacturing industry in the country. The study is useful as it gives evidence as to whether the companies are complying with the budgetary control reforms, rules and regulations set.

This study will be beneficial to suppliers, lenders, and creditors who, when dealing with listed manufacturing firms, base their judgments primarily on the continuity findings of qualifying firms given on audited financial statements and match from budgetary control plans. In negotiating terms with publicly traded manufacturing companies, suppliers take advantage of the anticipated financial performance. The payment agreement is achieved by looking at the financial status of a particular firm. Lenders can ascertain the amount to give to the listed manufacturing firms as loans, top-up existing loans, or cancel a loan request based on the financial health of the respective firm.

This study will benefit consumers of manufactured goods, who place hopes on the continuity of the firm. The customers need their wants to be fulfilled through high-quality products in the market. The provision of quality products depends on the survival of the firm. Understanding the financial health of the listed manufacturing firms gives customers the strength to sign short and long-term contracts with the respective companies. The listed manufacturing firms' managers and staff, who are the main beneficiaries of these companies' solvency, can determine from financial projections whether their work in the company adds value and whether their employees are secure.

Lastly, shareholders of listed manufacturing firms will benefit from the findings of this study if the firms keep better budgetary control measures and maintain financial health. The information guarantees rights and interests to shareholders. Investors also assess whether the financial performance attributed is permanent or temporary, and this guide whether to invest their resources or not.

#### **1.6 Scope of the Study**

The study covered eight listed manufacturing firms that were trading as at 2021 in the NSE. Data from financial statements for the ten years, from 2012 to 2021, were included in the study. The period covered was appropriate because it helped in comparing the financial performance of the listed manufacturing firms that were trading as at 2021. From 2012 to 2021, loans advanced to listed manufacturing firms increased by 70%, and there was a drop in the listed manufacturing firms from 13 in 2012 to 8 in 2021.

## 1.7 Limitation of the Study

The study collected data that included the financial statements and budget records for the eight companies. Budgetary records were not in the NSE website or the respective companies' websites. This forced the researcher to travel to the respective companies and some of the companies delayed to provide information which delayed the analysis of the results. Additionally, some companies publish their financial statements in the form of slides, making it very difficult to extract required information easily.

## **CHAPTER 2**

## LITERATURE REVIEW

### **2.1 Introduction**

This chapter covered the theoretical framework, conceptual framework, empirical studies critiques, and research gaps. Theories were liquidity management theory, pecking order theory, and goal setting theory. The conceptual framework included independent and dependent variables, empirical review, research gaps, and critics of the reviewed literature.

#### **2.2 Theoretical Framework**

Under this section, the study reviewed three theories, liquidity management theory, pecking order theory, and goal setting theory.

## 2.2.1 The Liability Management Theory

The liability management theory was proposed by Fleming in 1960. Due to the tight connection between liquidity and liability control, the Liability Management theory states the financial performance of any firm depends on its ability to control liabilities of the firm. The idea holds that old ways of holding excess assets, such as keeping adequate assets that effectively finance the liabilities of the firm, are irrelevant because firms can obtain such assets from capital (Flaming, 1987).

Liquidity control was elaborated to ensure that institutions maintain an adequate amount of cash and liquid assets. This is done for two reasons: first, to meet all short-term liabilities and smooth running of the firms, and second, to convert excess current assets to long-term assets. Maintaining a liquidity position involves ensuring the overall current liabilities do not outperform the current assets through either purchased funds or generated within the firm (Murray, 1990).

Excessive use of borrowed money to maintain a liquidity position leads to liquidity crisis and eventual bankruptcy of the firm since purchased funds become liability upon maturity. Many firms currently only pay attention to the liabilities side of the statement of financial position, without looking at the source of the current assets in maintaining liquidity position. The main contribution of the theory was to ensure firms look at both sides of the financial position, which include assets acquired through borrowing (liability) and the internal generated assets. Many firms today use both assets and liabilities in maintaining liquidity measures, and achieving the financial goals (Post, Lawrence, & Weber, 2002).

According to Ray (2009), increasing liquidity measures in a firm reduces several risks of the company. Some of the risks associated to liquidity include the insolvency risk which involves inability of the firm to pay the short term liabilities. The second risk was the risk of inefficiency whereby the firm cannot perform most of the business activities. The overall impact of the risks is impairment of most activities, making losses and even closure of the firm. Therefore, liquidity control is the overall existence and performance criteria in any profit making firm.

The managerial pressure, as a factor in determining the liabilities of the firm involves managers making decisions that are outside the budget plan. In most cases, managers compare their organization with others without looking at the financial structure of the other organizations. On the other hand, the need of managers to colour the organisation wall also limits many organizational performance. Liabilities like short term borrowing meant to facilitate managers' trips, office luxuries and other expenses that were out of budget limits the liquidity position of the organization. Therefore, for firms to achieve their budgeted liabilities, control on the budget should be in place (Latham, 2003).

The theory was criticized by Freeman and Philips (2003) The study stated that firms would react differently to liquidity measures due to differences in structures and even the type of business. Firms that do not convert excess current assets to investments may have higher liquidity positions but fail to perform due to the unused assets. The study recommended that in order for a firm to manage a proper liquidity position, close monitoring of the assets is required to ensure any excess is converted to other investments.

The theory's proponents were also criticized in that the budget liquidity arrives from the budgetary process which uses historical information to predict the future. The budgetary control mechanism in relation to liquidity does not provide for uncertainties caused by economic and non-economic factors. Therefore, in any event that requires more liabilities to be incurred, the firm will experience an imbalanced liquidity level, but should be short term and not lasting for more than two years. In any case of having a more liabilities than assets in the long run then the firm is at risk of making losses and collapsing (Jonick, 2017).

This theory was relevant and applicable in this study since it helps to understand how listed manufacturing firms maintained liquidity levels for the last ten years. It also helps in understanding the state at which listed manufacturing firms were for the last ten years, and also gives an insight in understanding how the maintaining liquidity controls helps in financial performance of listed manufacturing firms in Kenya. Hence the theory covers one variable which is the liquidity control variable. Liquidity control include the current assets and the current liability, hence by linking to this theory, it helps in drawing conclusions on whether controlling the liabilities and the current assets influences financial performance of the listed manufacturing firms in Kenya.

To reduce the danger that savers won't be able to access their deposits when they need them, liquidity management entails a daily examination and precise estimation of the magnitude and timing of cash inflows and withdrawals over the upcoming days and weeks. An institution must have a management information system in place that is adequate to produce the data required to make reasonable growth and liquidity projections in order to manage liquidity.

The theory was used to understand how the listed manufacturing firms were controlling liabilities to ensure that listed manufacturing firms' operations. The theory also looks at the liquidity levels that listed manufacturing firms should hold to ensure that there was proper management of current assets. Additionally, the theory was crucial in establishing the flow of current assets and liabilities for the last ten years.

#### 2.2.2 Pecking Order Theory

The theory was advanced by Myers and Majluf (1984), and it stipulates that companies fore choose internal finances for external. In the event a company calls for external sources of funds, the first choice would be debt rather than issuing new shares in terms of equity. For every quoted company, there are three sources of finance, which include internal funding, debt, and new equity. Firms prioritize internal funding as the first prudent source, then debts and new equity as a last resort.

According to Bandura (1997), firms are required to utilize the available finances to meet their obligations. This means that the firms should first use the internal sources until depleted, then advance to debts, and when there is no other option, the firms can issue shares to the public. This is because debts have two related costs that are the cost of bankruptcy and the interest cost. When a company is unable to pay the cost of debts, the company may be at risk of being liquidated or declared bankruptcy. The issue of new shares increases the number of shareholders in the company, hence reducing control.

This theory maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required (equity would mean issuing shares which meant 'bringing external ownership' into the company). Thus, the form of debt a firm chooses can act as a signal of its need for external finance (Freeman & Philips, 2003).

Availability of information asymmetries between the firm and investors leads to an increased preference of ploughed back profit to the debt over equity. This is because if firms issue no new security but only use their retained earnings to finance the available business opportunities, it resolves the information asymmetry. This insinuates that issuing equity becomes more expensive since the information asymmetry between insiders and outsiders increases. Companies with vast information asymmetry issue debts to avoid issuing under-priced securities (Flannery & Rangan, 2006) According to Leary and Roberts (2010), managers of firms use the cheapest source of finance to fund the firm activities. The managers use the retained earnings before issuing loans. The managers' perception is that issue of shares should be the last resort since it reduces the firm value. This helps in monitoring the debt amount and the cheapest source available in the market, hence enhancing the financial performance of the firms.

The debt ratio depends on the number of new investment opportunities available for the firm and the cash flow. A firm with few investment gaps and higher cash flow will have a low debt ratio as opposed to a firm with many opportunities and low cash flow. The basis for the differences is that the debt is used for investment opportunities to increase cash flow hence viable for the company (Bessler & Drobetz, 2011)

Ahmeti and Prenaj, (2015) criticized the theory, stating that the theory was based on information asymmetry and only applicable based on the market condition. The theory is also not applicable to intense capital investments, which mainly use debts as the main source of funding. The theory did not look at the returns of the investment opportunities, whereby some investments have higher returns, and the managers who are risk takers will take loans and invest in those opportunities.

This theory is relevant to the study since it looks at firms' financing their activities. The theory tackled debt control variables since the study looked at how listed manufacturing firms utilized internal and external financing and whether they comply with the theory's suggestions that internal funding in a firm

was preferred. In addition the theory assisted in understanding the influence of debt in listed manufacturing firms in relation to the financial performance.

### 2.2.3 Goal-Setting Theory

The goal-setting theory proposed by Locke and Latham (1990) states that specific goals contribute to the performance of firms. They defined a goal as what a firm plans to achieve in a given period based on experience, resources, and competencies. That is, a firm's desire to create financial value revolves around the level of expenditure usage, designing a procedure to undertake activities, and the willingness of employees to minimize expenses in the organization.

Goals help in directing attention and action. Higher and challenging financial goals increases financial performance as it leads to higher organizational efforts and increases utilization of human resources. This is because the expenditures incurred should be directly linked to the financial output. Head of departments in any organization understands the budgeted expenses to achieve a departmental financial goal and ensures that they stick to the budgeted amount for the specified period (Tosi, 1991).

Latham (2003) stated that budgetary goals must be challenging but attainable. Budget expenses that organizations set must be realistic and attainable. Firms' employees strive to attain minimized budgeted expenses but should be sustainable in the organizational activities. Employees normally reject too strained budgeted expenses as they term them unrealistic and unattainable, contributing to poor financial performance. The primary factor to goal attainability is self-efficiency, representing the inner belief regarding organizational capacity and competencies. If the organizational employees have higher self-efficiency, they set higher budget goals and, based on that belief; attain them using minimal cost. Organizations based on this factor succeed in overall organizational financial performance due to the ability to minimize cost and attain the financial objective of the organization (Herzberg, 2009).

According to Greenberg (2011), budgeted expenses must be accepted for proper control. To ensure little resistance to the cost target, employees must be involved. Participation in the budget cost-setting process is crucial as it enables employees' commitments and increases self-efficiency among employees. The success of expense control relies on the willingness of the managers and employees to set priorities for achieving goals.

Giving budget feedback on attainment costs estimated during budgeting control encourages employees to continuously improve their willingness to minimize costs. Feedback serves two essential roles. First, it allows knowing how well employees perform in a different department and comparing the costs incurred and the value attained. Every department needs to know a score and the organization's overall financial performance. Secondly, feedback helps departments and individual employees know their adjustment areas for better financial performance. Top management can access the firm's growth, profitability, and expenditures for decision-making (Lunenburg, 2011).

According to DuBrin (2012), expense goals are more efficient when evaluating financial performance. The goals are set in organizations to enhance financial

performance, and expenditure control is attained when employees' performance is measured according to their financial performance. Furthermore, the study argued that for managers to understand the effectiveness of the expenses control mechanism, expenditure variance is employed where by the budgeted is compared to the actual expenses. Any variance, either positive or negative is not tolerated, unless the minimised cost realized the overall financial objective of the firm.

Locke and Latham (2019) stated that a firm that uses less than the budgeted expenses opens room for budget slacks where managers put unrealistic expenses in the budget for them to attest that they are able to minimize expenses. Spending more than the budgeted values means that the firm looks for other sources of finance outside the budget, or even suspends some projects. Therefore, a minimum value of no variance was recommended where by the firms should undertake research during budgeting and ensure that the expenses budgeted equals the actual spending.

The theory was criticized by Lander (2015). The study stated that goal-setting theory requires organizations to focus on minimizing costs and achieving financial goals without looking at economic factors like inflation which affect costs. This could lead to the organization's failure when the budgeted costs are less than the market indices. The theory also discourages some activities with long-term returns like research and development. This could limit innovation within the organization and fail to meet the competitiveness of the markets.

This theory is relevant in this study to understand how financial goals regarding expenses were formulated and implemented to enhance the financial performance of listed manufacturing firms. The theory covers expenses control variables to help understand how managers in listed manufacturing firms set expenses targets and control to ensure the achievement of the overall financial objective.

## **2.3 Conceptual Framework**

A conceptual framework is a structure through which the relationship between variables is displayed. Figure 1 shows the relationship between the independent variable (budgetary control) and dependent variable (financial performance).

**Figure 2. 1:Conceptual Framework** 



## **Independent Variable**



(Source: Researcher, 2022)

## 2.3.1 Budgetary Control

Budgetary control is the ability of managers to use budgets to control and monitor the liquidity level, debts, and expenditures of the listed manufacturing firms. It is the ability of the managers to manage liquidity, assets, debts, and expenses by ensuring the budgeted figures and the actual values are in line after a specified time. Budgetary control ensures financial performance by providing
measures to realize listed manufacturing firms' financial goals and objectives (Drury, 2012).

### **2.3.2 Liquidity Control**

Liquidity control refers to measures that enable listed manufacturing firms to generate assets that could be used to meet short, medium, and long-term obligations. The control ensures the availability of free liquid assets after deducting the liabilities from the current assets of the firms. Liquidity is the ability of a listed manufacturing firm to pay all liabilities when they fall due using the current assets. The measure of liquidity is the current ratio, which compares the current assets with liabilities. It gives the ability of the company to pay debts, creditors, and operational liabilities. The higher the ratio, the higher the financial performance of the firm (Greenberg, 2011).

### 2.3.3 Debts Control

Debt control is the measure of using the budget plans to control the financing of the listed manufacturing firms through loans. The debt control system ensures that debts are paid on time, and the number of debts does not exceed the equity capital. Firms that depend on loans increase the risk of being bankrupt and losing managerial control as some debts have conditions. The debt control is measured using total debts to equity ratio, which compares between debt financing and equity financing. The lower the ratio, the higher the financial performance (Jonick, 2017).

# 2.3.4 Expenditure Control

Expenses control is the use of budgets to control the expenses of the listed manufacturing firms. Effective expenses control measures ensure the actual expenses equals planned expenses. Expenses reduce the firms' profits; hence, management ensures enough control to minimize them. Expenses control is measured through expenditure variance, which is the actual expenses expenditure minus the budgeted expenses expenditure divided by the budgeted expenses. The lower the variances the higher the financial performance (Sagwa, 2019).

# **2.3.5 Financial Performance**

Financial performance is a state whereby a firm utilizes its available assets, equity, or investments in the business to generate revenues. The common measures for financial performance include return on asset (ROA), return on equity (ROE), return on investment (ROI) and net profit margin (NPM) (Saleemi, 2010). ROA as a measure is considered to be the most appropriate measure of financial performance in manufacturing firms since it takes in to account the total assets available in the firm and how they are used in generating profit (Drury, 2012). Therefore this study used ROA as measure of financial performance to understand the ability of listed manufacturing firms to utilize the available assets to generate profit.

# **2.4 Empirical Literature Review**

# **2.4.1 Liquidity Control and Financial Performance**

Obida and Owolabi (2012) studied liquidity management and profitability in Nigerian stock exchange manufacturing companies. The variables used were cash flow management, the company's credit policy, and the cash conversion cycle. Primary and secondary data were used in conducting the study. Profitability was measured using Return on Asset and Return on equity. The result obtained was analyzed using descriptive analysis. The results showed that liquidity control had strong positive influences on profitability of listed manufacturing firms in Nigeria.

Ethiedu (2014) based on the impact of liquidity on the profitability of selected manufacturing entities in Nigeria. The study used the current ratio and acid test as liquidity measures, whereas profitability was measured using ROA. The study showed that the current ratio had a significant positive effect on profitability. The study stated that the positive relationship between the current ratio and profitability was due to idle funds, mostly the borrowed funds that could not generate profits.

Two of the analyzed companies had a negative correlation between the acid test ratio and ROA, indicating that the liquidity also had a negative influence on profitability. Therefore, according to the study, it could not define any correlation between the current ratio and profitability. The findings were contrary to that of Obida and Owolabi (2012), who established a strong positive relationship.

Nyabate (2015) studied the influence of liquidity on the financial performance of financial institutions listed on the Nairobi Securities Exchange. Cash position was the major variable for liquidity while return on investment was used as a measure of profitability. The research design used was descriptive research design, and secondary data covering five years from 2010-to 2014 were used in the study. The results implied that liquidity control has an insignificant relationship with the financial performance of the financial institutions in NSE. The study further stated that there was a negative relationship between cash position and the financial performance of financial institutions. Mandela (2015) focused on budgetary control and financial performance of public enterprises in Kenya, a case study of Nzoia Sugar Company (a manufacturing company), with a significant focus on the ability of the company to meet the liquidity position. The study used 132 employees, who were interviewed while others filled questionaires. Data was analysed using Statistical Package for Social Science (SPSS). The study revied that there was a significant relationship between liquidity control and financial performance. The study recommended that organizations should embrace liquidity control to enhance financial performance. The research also stipulated that liquidity control is crucial in budgeting as it determines firms' survival.

Alali (2020) studied liquidity management and financial performance of commercial banks in the Kuwait security exchange. The study used ROE and ROA as dependent variables and used the loan to total assets, the ratio of loans, deposits, and the ratio of financing deficit to assets as indicators for measuring liquidity. The study used document analysis to collect secondary data from 2010 to 2018. The study established that liquiduty management had a significant influence on financial performance of the banks.

Mbogo, Olando, and Macharia (2021) analysed the effect of budgeting practices on the financial performance of manufacturing small and medium enterprises (SMEs) In Nairobi County. Cash control was a measure of the liquidity control for the manufacturing SMEs, while ROA was used as the main dependent variable. The study findings stipulated that cash control had significant positive influence on the financial performance of the manufacturing SMEs.

# **2.4.2 Debts Control and Financial Performance**

Akeem (2014) researched budgeting and budgetary control in the manufacturing sector of Nigeria. The study used all the manufacturing firms in the manufacturing industry. Three hundred questionnaires were administered to managers, accountants, and administrative staff, but only two hundred and fifty were returned. The study revealed that debt control is crucial in a manufacturing firm. Budget control was measured by debt control in the company. Debts control had a positive influence on the financial performance of the manufacturing firms since it guaranteed firm survival. Effective debt control put in place by management aligns the required result and the action taken. The study recommended that managers control the firms' debts and ensure the achievement of desired results.

Onchong'a, Muturi, and Atambo (2016) studied the effect of debt financing on business firms' financial performance. The study targeted 60 firms listed on the NSE. Variables used include short-term debts, long-term debts, and trade credit. Dependent variables were measured using ROI. The study used purposive sampling and a case study research design. Secondary data was collected from the 60 listed manufacturing firms from 2009-to 2015. The study showed debt financing had a negative significant influence on financial performance. This means that increase in debt reduces the financial performance of the firms.

Prempeh, Sekyere, and Asare (2016) studied the effect of debt policy on firms' performance: empirical evidence from Listed Manufacturing Companies on the Ghana Stock Exchange. Secondary data were used between 2005 and 2015, and

the independent variable indicators were short-term debts, long-term debts, and total debts. Financial performance indicators were NPV and ROA. The study revealed that most of the listed manufacturing firms in Ghana used 86% debts financing. The findings also revealed that debt financing had a positive influence on financial performance, impling that, increase in debts increases financial performance.

Mbuthia and Omagwa (2019) conducted a study on the effect of budgetary control on the financial performance of selected commercial banks in Kenya. The research used a cross-section descriptive design and targeted credit officers, accountants, and operational departments for three selected banks. Primary and secondary data were adopted, and analysis was done using trend analysis, multiregression Analysis, and descriptive analysis. The study found that debt control had a positive relationship with financial performance but not to a great extent. The research revealed that debt control was only effective where other factors like debt planning, implementation, and monitoring were done according to the standards required. The study recommended that for debt control to be effective, good planning and monitoring must be done.

# 2.4.3 Expenditure Control and Financial Performance

Kimunguyi (2015) carried out a study on the effect of budgetary control on the financial performance of non-governmental organizations (NGOs) in the health sector in Kenya. The research used both primary and secondary data. Primary data was obtained through the administration of questionnaires and interviews. A descriptive research design was used, and correlational Analysis, descriptive Analysis, and regression were used to analyze the data. The study established that expense control had a positive influence on financial performance.

Koech (2015) studied the effects of budgetary control on the financial performance of manufacturing firms in Nairobi County. The study targeted 10 manufacturing firms extracted from each sub-group in Nairobi County. Both primary and secondary data were used in the study. A regression model was used to determine the association between dependent and independent variables. The independent variables used include budget planning, monitoring, and control. The study revealed that budget control significantly influences financial performance. The study stated that budgetary control only becomes effective when correct plans and implementation procedures are done in accordance with the laid down standard.

Ngumi (2017) studied the effects of budgeting practices on the financial performance of insurance companies in Kenya. The study focused on operating expenditure variances and the used ratio of operating and administrative expenses to budget to measure the expenditure variances. The study also used Return on investment (ROI), Return on assets (ROA), and return on equity (ROE) as the measures for financial performance. The study used secondary data, and the results showed that the control of the expenses directly impacted the financial performance of the insurance companies in Kenya.

Agbenyo et al. (2018) conducted a study on budgeting and its effect on the financial performance of manufacturing firms listed on the Ghana stock exchange. The variables used were budget planning, budget monitoring, and budget controlling. Questionnaires were used to gather primary data from a

sample of 51 respondents, who were obtained using both cross-sectional and convenient sampling techniques. The study established that expenses control had an impact on financial performance. The control measures used include control of the expenses, and the results showed that controlling expenses minimize costs and improve firms' performance.

Atuilik, Peregri, and Adafula (2019) carried out a study on budgeting and budgetary control on the financial performance of Ghana health services. The research used primary data through the use of interviews. The study investigated the measures to control expenses in Ghana's health services. The study findings revealed that expenses control positively affects the financial performance of health services in Ghana. The study recommended that organizations effectively implement budget expenses control to monitor and analyze all expenses and provide measures to minimize expenses.

# 2.5 Critique and Research Gaps in Literature Review

Author	Focus	Design	Findings	Gap
Ehiedu (2014)	Manufacturing firms in Nigeria	Correlational research design	The current ratio had no correlation with profitability. Acid-test ratio had a direct influence on profitability.	The current study focused on the Kenyan perspective and used major control measures like debts and expenses that were not covered.
Obida and Owolabi (2012)	Listed manufacturing firms in Nigeria	Descriptive research design	Liquidity management had a direct impact on the profitability of listed manufacturing firms in Nigeria	The study used cash and credit policy to measure liquidity, and the findings could not be generalized in a Kenyan context.
Nyabela (2015)	Financial institutions listed in NSE	Descriptive research design	Cash position had an insignificant relationship with financial performance.	The target of the study was financial institutions only, and used only cash position as the only measure, hence, the need for the current study.
Mbogo, Olando, and Macharia , (2021)	Manufacturing SMEs in Nairobi	Descriptive research design	Cash control had a positive result on financial performance	The focus was limited to manufacturing SMEs in Nairobi county only. The current study focused on listed manufacturing firms in Kenya.
Mandela (2015)	Nzoia Sugar Company	Case study research design	Liquidity control had a positive effect on financial performance.	The study used a case study research design and was limited to the Nzoia Sugar Company. The intended study covered all quoted manufacturing firms in Kenya.
Alali (2020)	Commercial banks in Kuwait	Panel data	Liquidity control had mixed results, and not known if they influence financial performance	The liquidity position required in the banking sector and manufacturing firms are different, hence the need for the current study.
Onchang'a, Muturi, and Atambo (2016)	Business firms listed in the NSE	Cross-sectional research design	There was an inverse relationship between debts and financial	The study used short-term loans, long-term loans, and trade credit as the main variables. The study did not look at other variables like

# Table 2. 1: Critiques and Research Gaps

Prempeh, Sekyere, and Asare (2016)	Listed manufacturing firms in Ghana	Correlational research design	performance. An increase in debts reduces financial performance. Debt controlling had a significant relationship but not to a greater extent.	liquidity control and expenses control; hence, the current study intends to fill the gap by including other variables. The study used short-term debts, long-term debts, and total debts as a measure of debt financing control but did not capture the relationship when liquidity, expenses, and debts were controlled. Hence, the current study
Akeem (2014)	The manufacturing sector in Nigeria	Survey research design	Debt controlling had a significant positive influence on financial performance.	included liquidity and expenses control. The study's primary data is subjected to personal opinion; hence the current study used secondary data to cover the limitation
Chaudhary and Chaudhary (2018)	SMEs in China	descriptive research design	Debt control had a significant positive impact on financial performance.	The focus was on SMEs, which differ from listed manufacturing firms in managing and controlling debts; hence, the current study bridged the gap.
Mbuthia and Omagwa (2019)	Commercial banks	Cross-sectional descriptive research design	Debt control positively influenced financial performance but not to a greater extent.	The study used primary data and was conducted in a commercial bank, which differs from listed manufacturing firms in capital structure, operations, and gearing; hence the current study bridged the gap.
Ngumi (2017)	Insurance Companies in Kenya	Descriptive research design	Expenses control had a direct impact on the financial performance of insurance companies in Kenya	The study focused on operating expenditure as the main target in the analysis, while the current study intended to analyze all expenses control through variance analysis.
Atuilik, Peregri, and Adafula (2019)	Health Services in Ghana	Survey research design	Expense3fdc c c c control had a significant positive effect on financial performance.	The study analyzed expenses for health services, which differ from manufacturing firms; hence this study bridged the gap by looking at expenses control in manufacturing firms.
Kimunguyi (2015)	NGOs in the health sector	Descriptive research design	The expense control had a significant positive	The study was based on information system expenses control in the health sector, but the

Agbenyo et al. (2018)	Listed manufacturing firms in Ghana	Descriptive design	research	effect on financial performance. The expenses control had a positive effect on financial performance	current study used all expenses in manufacturing firms. The study targeted listed manufacturing firms in Ghana; hence, a gap exists in finding the influence of expense control on the financial
					performance of listed manufacturing firms in Kenya.
Koech (2015)	Selected Manufacturing firms in Nairobi county	Descriptive design	research	Budgetary control had a significant effect on financial performance.	The study sampled 50 manufacturing firms in Nairobi county, of which only ten firms were used. The targeted company used only two listed manufacturing firms: East African Breweries Limited and British American Tobacco Kenya Ltd. The study used the regression model's planning, monitoring, control, and participative budget. The focus was on how the firms plan, monitor, control, and involve the shareholders in budget preparations. The intended study targeted all listed manufacturing firms and used the regression model's liquidity, debts, and expenses control.

(Researcher, 2022)

# **CHAPTER 3**

### **METHODOLOGY**

### **3.1 Introduction**

The research philosophy, research design, target audience, data collection process, variable measurements, data analysis, and ethical considerations are all covered in this chapter.

# **3.2 Research Philosophy**

The study adopted a positivism research philosophy which stipulates that the study findings are usually based on analyzed data and researcher had no control over the findings. Research philosophy is a defined structure directing means of conducting research know-how, ideas, and reality. Additioanlly, the findings are indipedent and do not suffer from the reasercher's interest (Cline , 2018). This philosophy was suitable for the study since the observations were quantifiable and all the findings were based on research findings, distant from human interest. The study came up with conclusions based on the findings and results.

### **3.3 Research Design**

This study adopted a correlational research design to establish the relationship between the independent and dependent variables. A research design is a framework of the methods and techniques used in the study (Kothari & Garg, 2014).

# **3.4 Target Population**

All eight of Kenya's manufacturing companies quoted in NSE listings were the focus of this study. The research goals were successfully attained by the population that was selected. A target population is a complete element from

which the researcher plans to select a sample for the study (Kothari, 2004). The target population is as shown below in table 3.1.

**Table 3.1 Target Population** 

	Listed Manufacturing Companies
1	B.O.C Kenya Ltd
2	British American Tobacco Kenya Ltd
3	Carbacid Investments Ltd
4	East African Breweries Ltd
5	Unga Group Ltd
6	Flame Tree Group Holdings
7	Kenya Orchards Ltd
8	Eveready East Africa Ltd
Sou	Irce: (NSE handbook 2021)

### **3.4.1 Sampling Technique**

A census sampling technique was used where by all the listed manufacturing firms were used in obtaining the required data useful for the analysis. According to Kothari (2004), census sampling is where the total population of the study is used to form a sample.

# **3.5 Data Collection Procedure**

After receiving the approval letter from the University and NACOSTI, financial statements were accessed on the websites of the different companies, the NSE, and the central bank of Kenya. Furthermore, budgetary documents were accessed by visiting the respective companies. A notification was made by previsiting the companies two weeks before the actual data collection. Data gathering is a methodical process used to compile crucial information for reaching research goals (Kothari, 2004).

# **3.6 Measurement of Variables**

Table 3.2 below depicts how the dependent and independent variables were measured.

Variables	Measure	Ratio calculation	
Financial	Return on Assets	Net income	
performance Liquidity Control	Current ratio	Total assets Current assets	
Debt Control	Debt ratio	Current liabilities Total debts	
Expense Control	Variance analysis	Total Shareholders'equity (Actual results expenditure- budget)/budgeted expenditure	

 Table 3. 2:Measure of Variables

(Researcher, 2022)

### 3.7 Data Processing, Analysis, and Presentation

Data collected was coded using Microsoft Excel before being exported to STATA. Normality was tested through the Shapiro-Wilk W test for residual normality, autocorrelation was tested by use of the Wooldridge test, the Breusch-Pagan test was used for heteroscedasticity test, and variance inflation factors were used to test for multicollinearity. Descriptive and inferential statistics were used in analyzing the panel data. Descriptive statistics included; mean, minimum, maximum, and standard deviation. Inferential statistics consisted of correlational analysis and the Hausman test for random and fixed-effect models. Data was presented in the form of graphs and tables.

# 3.7.1 Multiple Regression Analysis

After tests for normality and multicollinearity, formulating indispensable for multiple regression analysis was conducted. Regression analysis determined the association between the independent variables (current ratio, debt ratio, and expenditure variance) and the dependent variable return on assets. The multiple regression model was presented in the equation below;

# Equation

 $Y_{it} = \beta 0 + \beta_1 CR_{1it} + \beta_2 DR_{2it} + \beta_3 EV_{3it} + Eit$ 

Where:

 $\mathbf{Y}_{it}$  – Return on Assets of firm i at time t,

CR<sub>1it</sub> - current ratio,

DR<sub>2it</sub> – Debt ratio,

EV<sub>3it</sub> – Expenditure variance,

**i** – 1 to 8 firms

t – The time period from 2012-2021

Eit - Error term,

 $\beta_0$  - Regression constant,

 $\beta_1 - \beta_3$  Represent slope coefficient indicating the sensitivity of budgetary control on financial performance.

# **3.8 Ethical Considerations**

The researcher treated every piece of information provided and collected as confidential, and it was only used for the intended purpose of carrying out this study. The information was handled with great care to prevent unauthorized access. The researcher ensured adherence to all protocols, procedures, and rules in undertaking the research. Information received and collected were not disclosed to any other person not unless required and with the concept of the respective company's management.

### **CHAPTER 4**

# **RESEARCH FINDINGS AND DISCUSSION**

### **4.1 Introduction**

The chapter is segmented into four sections: descriptive statistics that describe the data and the variables, diagnostic analysis, inferential statistics, and discussion of results.

# 4.2 Descriptive Statistics

The descriptive statistics used were the mean, standard deviation, minimum, and maximum. The dependent variable (ROA) and the independent variables (current ratio (CR), debt ratio (DR), and expenditure variance ratio (EV) are summarized in Table 4.1

Table 4. 1: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ROA	80	0.2078	0.1164	-0.1753	0.4438
CR	80	2.878	1.3449	.0696	5.8431
DR	80	5.135	2.181	1.0048	9.6770
EV	80	0.1993	0.1328	1482	.4468

#### Source: (Researcher, 2022)

The study used 10 years (2012-2021), and eight listed manufacturing firms were used; hence the expected observations were 80. Table 4.1 shows that all the 80 observations were made for ROA, CR, DR, and EV, which implies that all observations in each of the variables was available. The mean established was the average value of the data, and the standard deviation gave a picture of how data was dispersed above and below the mean. A standard deviation closer to zero means that the data is closer to the mean, and a value not closer than zero indicates that the data is away from the mean. The mean and standard deviation of ROA across different firms over 10 years were 0.2078 and 0.1164, respectively. The mean shows that most of the listed manufacturing firms performed at 20.78%. The standard deviation shows that there was a wider dispersion below the mean. The maximum value was 0.4438 and the minimum of -0.1753, which indicates a wider variation in the listed manufacturing firms since some of the listed manufacturing firms were making profits while others were making losses. The listed manufacturing firms' ROA generally fluctuated for the ten years.

The CR had an average mean of 2.878 and a standard deviation of 1.3449, indicating that most of the listed manufacturing firms could pay short-term obligations, but some of the firms could not meet the daily obligation due to the wider variation in standard deviation below the mean. The minimum and maximum values further backed this up.

The minimum value shows 0.0696, indicating that some listed manufacturing firms could not meet short-term obligations. The minimum value shows that some listed manufacturing firms had higher short-term liabilities than their current assets. On the contrary, the maximum value shows a ratio of 5.8431, indicating that some companies were holding more current assets that could be used for investment. The maximum value also shows that some listed manufacturing firms could pay their creditors and meet other short-term obligations.

The mean and standard deviation for the DR was 5.135 and 2.181, respectively, which means that most listed manufacturing firms were highly leveraged. The value also shows that most of the listed manufacturing firms had low equity

values as a source of financing, making them depend on loans. This implies that most listed manufacturing firms depended on loans as a financing means for the last 10 years. The standard deviation showed a wider variance, indicating that the debt ratio largely differed in listed manufacturing firms. This shows that some firms had low debts while others had higher debts, as shown by the maximum and minimum values.

The minimum value of the debt ratio was 1.0048, meaning that some firms were using higher equity financing than debts. The maximum value indicates a ratio of 9.6770, meaning some firms had loans 9 times the overall equity, which is a risk to the firms. The higher amount of loans in some firms can be confirmed by the higher level of liquidity in some firms, which indicates that the loans taken from the firms were not utilized, contributing to the low return on assets.

The findings showed that the manufacturing firms' EV had a mean of 0.1993, which means that most companies were operating above the budgeted expenditure values since the expenditure variance should be equal to zero in practice. The standard deviation of 0.1328 shows that the data values were close to the mean range; hence most of the listed manufacturing firms operated around the mean. This means that most of the listed manufacturing firms for the last ten years had expenses above the budgeted amount.

The minimum value for expenditure variance was -0.1482, while the maximum was 0.4468. This shows that some firms were operating below the budgeted amount while others were operating above the budgeted amount. This means that the control of the expenses was not taken off since all activities budgeted for

should be undertaken as budgeted, and an increase in expenses should contribute to an increase in additional profits.

The overall results show that the higher liquidity may be due to the higher loans taken that were unused for the period. The higher debt may be due to the firms that increased the amount of budgeted expenses for the entire period, which forced listed manufacturing firms to look for other sources of funds to finance their budgets. Therefore, the data describes that listed manufacturing firms' minimum ROA value may be due to the firms having higher expense variance, low liquidity levels, and higher debt levels.

# **4.3 Inferential Statistics**

A set of sample data can be used to draw inferences about larger groups or populations using inferential statistics. By putting the hypothesis and the multiple regression model to the test, inferential statistics were employed to draw conclusions about the study variables. The Pearson correlation and regression model, which was determined from the fixed and random effect models, were used after the investigation, demonstrating that the data were normally distributed. The hausman test was used to choose the best model between the fixed and random effect models.

# **4.3.1 Diagnostic Tests Results**

This section covers normality distribution for variables, Levin-Lin-Chu, Residual normality, multicollinearity, heteroscedasticity, and autocorrelation test results. The tests were performed to determine if the data met all the regression assumptions.

### **4.3.1.1** Normality Distribution Test Results

A normality test is a statistical test undertaken to understand if the panel data is normally distributed. The normal distribution is a symmetrical continuous distribution defined by the mean and standard deviation of the data. The normality test is important because it helps to understand data distribution and aligns with the t-statistics assumptions that the data should be normally distributed. The test also suggests using inferential statistical tools (Serakan & Bougie, 2013).

At a significance level of 5%, the Shapiro-Wilk W test for normality was applied, assuming that the variable was normally distributed. The investigation would fail to refute the null hypothesis that the data gathered were normally distributed if the p-value found was more than 0.05, and the W values were close to 1. The results are presented in table 4.2

Table 4. 2: Shapiro-Wilk W Test for Normal data

Variable	Obs.	W	V	Ζ	Prob.	
ROA	80	0.97702	1.577	0.999	0.15899	
CR	80	0.97756	1.540	0.946	0.17201	
DR	80	0.97204	1.919	1.428	0.07659	
EV	80	0.97896	1.444	0.805	0.21041	

#### Source: (Researcher, 2022)

Table 4.2 shows that the W values were above 0.9, which was approximately 1, the Z values were below the critical value of 1.96, and the p-values were above 0.05; hence, the study failed to reject the null hypothesis that variables were normally distributed, hence the data were normally distributed. This means that parametric tests were appropriate for inferential statistics.

# 4.3.1.2 Stationary Test

The stationarity test states that the variable's value doesn't change with time; that is, variation in time does not serve as a factor that changes the value of the variables used. Non-stationarity implies that the variances, means, and covariance change over time. The results of non-stationary data may be spurious, meaning that they may show a significant relationship among variables that do not exist. Therefore, a stationarity test was conducted to ensure reliable and consistent results in the regression model (Serakan & Bougie, 2013).

The study used Levin-Lin-Chu stationary to measure the stationarity of the data, with the null hypothesis that variables were not stationary at a 5% significance level and 1.990 critical value, and the results are shown.

Table 4. 3: Levin-Lin-Chu Stationarity Test Results

Variable	Panels	Periods	<b>Test Statistic</b>	<b>P-value</b>
ROA	8	10	-5.3982	0.0014
CR	8	10	- 6.7519	0.0276
DR	8	10	-6.4069	0.0001
EV	8	10	- 7.2076	0.0000

### Source: (Researcher, 2022)

The stationary test results show the test statistic values were below the critical value of -1.990 and the significant level of 0.05, thus indicating that the null hypothesis that variables were not stationary was rejected. This means that the regression results would show a true reflection of reality and not fallacious results.

## 4.3.1.3 Residual Normality

Residual is the difference between the forecasted values of the data and the actual data. The residual normality test is important to ensure the regression results are in line with the linear regression and assumes that the residuals should be normally distributed. If the residuals are not normally distributed, the p-values, t-tests, and F-tests will be affected, hence unreliable (Ejones, 2015). The Shapiro-Wilk W test was used to test the residual normality under the null hypothesis that the residuals were normally distributed at a 5% significance level.

Table 4. 4: Shapiro-Wilk W Test for Residual Normality

Variable	Obs.	W	V	Z	Prob.
Residuals	80	0.99317	0.469	-1.660	0.95154

# Source: (Researcher, 2022)

Table 4.8 showed a W value of 0.98170; the z value was -1.660, which was above the critical value of -1.96; and the probability value was 0.30856, which is above the p-value of 0.05 significant level; hence the study failed to reject the null hypothesis that the residuals were normally distributed, meaning that the estimates of p-values, F-tests and t-tests were valid, and not influenced.

### 4.3.1.4 Multicollinearity

Multicollinearity in regression analysis only occurs if two or more independent variables are a function of each other, and the variables do not give peculiar information in the regression model. This can cause a problem fitting and interpreting the regression model since it provides that the independent variables will influence each other; hence if that is the case, the variables should be dropped from the regression model (Serakan & Bougie, 2013).

The study used Variance Inflation Factor (VIF) because it measures the magnitude of the correlation between the independent variables in the regression model. VIF tolerance level requires a value of less than 2.5. A VIF above 2.5 shows a higher magnitude of multicollinearity, implying that the independent variables are functions of one another. The test results are shown below.

 Table 4. 5: Multicollinearity Test Results

Variable	VIF	1/VIF	
CR	1.30	0.771765	
DR	1.27	0.787326	
EV	1.07	0.938228	

### Source: (Researcher, 2022)

Table 4.4 show VIF values for all independent variables of CR, DR, and EV, which were less than 2.5, which shows that there was no Multicollinearity accepted, meaning there was no correlation between the independent variables. This shows that the independent variables did not influence one another; hence all the variables were used in the regression model.

#### 4.3.1.5 Heteroscedasticity

Heteroscedasticity is the situation whereby the residuals are unequal for the range of periods under study. The regression model assumption is that the residuals are homoscedasticity, which means equal variances for the residuals over a period of time. Therefore, heteroscedasticity was conducted to test whether the variance of the residuals was unequal for the range of 10 years before performing the regression model. The test is important since if there is variation in the residuals, the regression model will provide

the wrong coefficient and misleading t-values. The test is based on the null hypothesis of constant variance (Ejones, 2015).

The test was done using Breusch-pagan tests since it determined whether or not heteroscedasticity is present in a regression model. Breusch-Pagan tests state that if the p-value of the test is less than the significant level of 0.05 and the  $\text{Chi}^2$  above the critical  $\text{Chi}^2$  value of 5.991, the null hypothesis is rejected and concludes that heteroscedasticity is present in the regression model. The test results are displayed in table 4.5.

 Table
 4. 6: Heteroscedasticity
 Test Results

Breusch-Pagan test for heteroscedasticity	
Ho: Constant variance	
Variables: fitting values of ROA	
chi2(1) = 0.07	
$Prob > chi^2 = 0.7855$	

Source: (Researcher, 2022)

Table 4.10 shows that the p-value of 0.7855 was greater than 0.05 and the  $Chi^2$  value of 0.07, which was less than the 5.99 critical value hence accepting the null hypothesis that the variables had constant variation. This means that the data is fit for the regression model.

# **4.3.1.6** Autocorrelation

Autocorrelation is whereby the error terms are correlated or not independent. The assumptions of the test state that error terms should be normally distributed with zero mean, and constant error terms, and they should be independent. When autocorrelation exists, the independent correlates to each other, causing the regression coefficients to be biased and inconsistent. The  $R^2$  will also be

overestimated, while the F and t statistics will tend to be higher than normal ( Reyna, 2017).

Wooldridge test for autocorrelation was used to test the first-order serial correlation, and the results are presented in table 4.11 below. The test was conducted at a 5% significance level and an F-critical value of 2.72. The test was based on the null hypothesis that there was no first-order autocorrelation.

 Table 4. 7: Autocorrelation Test Results

<b>H0: no first-order autocorrelation</b> F(7, 69) = 1.08	Wooldridge test for autocorrelation in panel data
F(7, 69) = 1.08	H0: no first-order autocorrelation
	F(7, 69) = 1.08
Prob > F = 0.3845	Prob > F = 0.3845

# Source: (Researcher, 2022)

As indicated in table 4.7, the F-value was 1.08, less than the critical F-statistic value of 2.72. The P-value was also 0.3845, greater than the critical P-value of 0.05. The values indicated that the study failed to reject the null hypothesis that there was no first-order autocorrelation at a 5% significance level. This means there was no similarity among the error terms; hence there were no biases in the regression model, and the data was consistent.

# **4.3.2** Correlation Analysis

A Pearson correlation is a parametric test with coefficient values (r) ranging between -1 and 1 ( $-1 \le r \le 1$ ). Conducting the correlation analysis holds the assumptions that a positive value signifies a positive correlation, zero value signifies that there is no correlation between the variables, while a negative value symbolizes a negative correlation between the variables (Ejones, 2015). The Pearson correlation results for the study are presented in table 4.8.

VARIABLE	ROA	CR	DR	EV
ROA	1.0000			
CR	0.5952*	1.0000		
	(0.0000)			
DR	-0.3566*	-0.1472	1.0000	
	(0.0012)	(0.1927)		
EV	-0.4044*	-0.1680	0.3449*	1.0000
	(0.0000)	(0.1364)	(0.0017)	

**Table 4. 8: Pearson Correlation Coefficients** 

### Source: (Researcher, 2022)

**Note**. Values in parenthesis () are p-values, and \* indicates statistically significance given p-value < 0.05.

The test findings in Table 4.4 demonstrate that the CR and the ROA are positively correlated. The variable showed a significant positive correlation between the CR and the ROA, which had a coefficient of r = 0.5952 and a p-value of 0.0000, which was less than the 0.05 significant level. This indicates that the CR and ROA have a positive linear connection. As a result, the findings show that a unit increase in the CR causes an increase in the ROA of 0.5952.

The correlation coefficient for DR was -0.3566, while the p-value was 0.0012, which was less than the significant level of 0.05, indicating that there was a negative association between DR and ROA. The results show that a unit increase in the DR reduces the ROA by -0.3566.

The EV showed a correlation coefficient of -0.4044 and a p-value of 0.0000, which was less than the significant level of 0.05, showing that EV had a significant negative relationship with the financial performance of listed manufacturing firms. The results show that a unit increase in EV decreases ROA by -0.4044.

# 4.3.3 Fixed and Random Effect Panel Regression Analysis

Predicting the changes in ROA caused by budgetary control variables of current ratio, debt ratio, and expenditure variance was done by conducting the Fixed and random effect panel regression. The regression models' significance was measured using the  $Chi^2$ >f at 5% significance levels. The model also shows the  $R^2$  representing the amount of ROA contributed by the budgetary control. The constant represents the amount of ROA when all other factors are constant, while the Rho signifies the percentage change due to variations across the listed manufacturing firms.

# 4.3.3.1 Fixed Effect Model Panel Regression

The fixed effect model ensures control of time-invariant differences between the individuals in that the regression coefficients are free from biases due to the non-inclusion of the time-invariant characters not covered in the model. Therefore, causing the model to be unfit for time-invariant variables. The model is constant for each independent variable. The model also assumes that the independent variables don't have perfect collinearity with each other or the firms; hence the results from the model are independent of each other. The results of the model are shown in table 4.9.

 Table 4. 9: Fixed Effect Results

ROA	Coef.	Std. Error.	Т	p >  t	Prob > f	<b>R-square</b>
CR	.212981	.076464	2.79	0.007	0.0000	0.5565
DR	-	.039376	-2.23	0.029		
	.087726					
EV	-	.074093	-4.60	0.000		
	.340504					
Constant	.253765	.105949	6.94	0.000		
Rho	.284681					

Source: (Researcher, 2022)

According to the above model, all variables had a significant influence since they had p-values<0.05 significance levels and t-values >1.990. Additionally, the model was fit since it had Prob > f of 0.0000 less than the 5% significant level. The R-square value was 0.5565, meaning that budgetary control contributed 55.65% while the remaining was contributed by other variables.

# 4.3.3.2 Random Effect Regression Model

The model assumes that variation across firms (Rho) is random and uncorrelated with the predator or independent variables in the model; that is, the model holds that Rho has an impact on the regression model results. In addition, the model also incorporates time-invariant variables. Lastly, the error term for each firm is not correlated with the model. The results of the random effect model are shown below.

 Table 4. 10: Random Effect Results

ROA	Coef.	Std. Error.	Ζ	p >  z	Prob > chi2	<b>R-square</b>
CR	.258464	.075922	3.40	0.001	0.0000	0.5610
DR	079317	.039663	-2.00	0.046		
EV	385436	.071923	-5.36	0.000		
Constant	.244968	.037474	6.54	0.000		
Rho	.100829					

Source: (Researcher, 2022)

The results of the random effect model that gave out the regression model as shown in the random effect model were discussed in accordance with the study's objectives, theories, literature review, research philosophy, and research design. The random effect model showed that all variables were statistically significant at a 0.05 significant level. The Prob > chi2 shows a model fit at 0.05. A value lower than the significant level indicates a model is fit; hence, the above model was fit since it had a p-value of 0.0000. The model also shows an R-squire of 0.5610, meaning that 56.10% were contributed by the budgetary control, while 43.90 were contributed

by other variables. The interclass correlation Rho showed a coefficient of 0.1008, indicating that a 10.08% variation in ROA is not related to the differences across listed manufacturing firms. Lastly, the model had a constant coefficient of 0.245, implying that 20.5% of ROA, can be produced in the absence of budgetary control among listed manufacturing firms.

# 4.3.3.3 Hausman Test

After running the two fixed and random effect models, hausman test was conducted to determine the suitable model to be used in the regression equation. The test null hypothesis states that the random effect model is appropriate at a% significant level ( Reyna, 2017). The results are presented in table 4.11

Table 4. 11: Hausman Test Results

ROA	<b>(b)</b>	<b>(B</b> )	S.E.	$p >  Chi^2 $
	fe	re		
CR	.2129816	.2584641	0454831	0.0924
DR	0877262	0793177	0084175	
EV	3405039	3854362	.0449322	
b	= consistent under r	ull hypothesis; ran	dom effect approp	riate
B = i	nconsistent under al	ternative hypothesi	s; fixed effect appr	opriate
		* *	**	-

Source: (Researcher, 2022)

Table 4.7 shows the fixed-effect model (FE) and random effect model (RE) column. The results showed a p-value ( $p > |Chi^2|$ ) of 0.0924, above 0.05, indicating that the random effect model was appropriate at 5% significance level.

### ROA = 0.244968+ 0.258464CR<sub>it</sub> - 0.079317DR<sub>it</sub> -0.3854362EV<sub>it</sub>

# **4.4 Discussion of Results**

The study adopted a random effect model, which was significant at a 5% significance level. All the variables' coefficients were also significant since they had p-values less than 0.05. The findings were related to the positivism research

philosophy since the data collection, and analysis method was based on the research problem, and the model gave significant results. This also indicates that failure to maintain budgetary control in the listed manufacturing firms would lead to poor financial performance since the variable contributes to 56.10%. In addition, the correlation research design chosen for this study is relevant since the study was able to establish the relationship between budgetary control and financial performance, as discussed below.

# 4.4.1 Liquidity Control and Financial Performance

Liquidity control was measured using the current ratio (CR). The results in the correlation analysis showed r= 0.5745, with a p-value of 0.000, indicating that there was a significant positive association between CR and financial performance ROA. The random effect results show a regression coefficient for the current ratio of 0.258464 and a p-value of 0.001, less than the 0.05 significant level.

The results implied that the variable had a significant positive influence on the financial performance of listed manufacturing firms in Kenya. It also shows a percentage increase in the current ratio by a 25.84% increase in financial performance (ROA). The null hypothesis that liquidity control had no significant influence on the financial performance of listed manufacturing firms was rejected at a 5% significant level.

The findings show that regulating the current ratio as a liquidity control measure improves financial performance. The strong association between the current ratio and the return on assets indicates that the current ratio should increase at a moderate level to ensure firms work according to the industrial limits. The findings were similar to the findings by Ethiedu (2014), who carried out a study on the impact of liquidity on the profitability of selected manufacturing companies in Nigeria and found that liquidity control significantly influenced financial performance. The finding is in line with the liquidity management theory that firms must hold liquid assets to offset their short-term obligations. This shows that liquidity control enhances financial performance.

# 4.4.2 Debt Control and Financial Performance

Debt control was measured using debt ratio, and the findings showed a correlation coefficient was – 3072, with a p-value of 0.0056<0.05, implying a negative association between debt control and financial performance. This means that increasing debts reduces financial performance by the same value. The random effect model showed a coefficient value of – 0.079317 and a p-value of 0.046, which was less than 0.05 for the random effect model, showing a significant negative relationship between debt control and financial performance; hence controlling it increases financial performance. The null hypothesis that debt control had no significant influence was rejected at a 5% significance level.

The findings agreed with that of Onchong'a, Muturi, and Alambo, who conducted a study on the effects of debt financing on business firms and found that debt financing had a significant negative influence on the financial performance of the business firms. The results contradicted that of Mbuthia and Omagwa (2019), who concluded that debt financing had a significance positive influence on financial performance. The results also confirmed the relevance of

the pecking order theory that internal financing is preferred over external since increasing debts reduces financial performance.

### **4.4.4 Expenditure Control and Financial Performance**

The expense control was measured using expenditure variance. The correlation coefficient was – 0.6746, with a p-value of 0.0000, showing a strong negative association between expenditure control and financial performance. The random model effect shows that the coefficient value for expenditure control was - 0.3854362, with a p-value of 0.000, which means a significant negative influence between expenditure control and financial performance. This means that increasing expenses beyond the budgeted amount reduces financial performance; hence controlling expenditures was significant in listed manufacturing firms. The null hypothesis was also rejected at a 5% significance level.

The findings were similar to that of Kimunguyi (2015) carried out a study on the effect of budgetary control on the financial performance of non-governmental organizations, and Ngumi (2017), who studied on effects of budgeting practices on the financial performance of insurance companies in Kenya, and found that expenses control had a significant positive influence on financial performance. The results confirmed the goal-setting theory idea that controlling expenses enhance financial performance since, as evidently in the study, increasing the budgeted expenses reduces financial performance.

# 4.5 Theoretical Synergy

The first theory was liquidity management theory, whereby liquidity control was used in its application. According to the theory proposed by Fleming in 1960, firms prefer holding current assets that enable effective business operations. According to the theory, failure to maintain a good liquidity level threatens the survival of the firm. According to the findings, increasing liquidity control increases financial performance, which shows that the findings agree with the theory proponents that firms should hold more current assets than liabilities.

The second theory was the pecking order theory, which states that firms prefer internal funding to debt and the issue of shares. According to the theory, internal funding is cheaper, while debt financing has three costs, which include the cost of bankruptcy, interest, and solvency, while shares reduce the value of the firm. Controlling debts helps in establishing ways to avoid the costs related to debts.

According to the findings, increasing the debt ratio reduces the financial performance of the listed manufacturing firms in Kenya. This means that when debts increase, financial performance reduces. Therefore, the findings are in line with the pecking order theory since reducing debts, and increasing internal funding increases the financial performance of the listed manufacturing firms in Kenya.

Lastly, the goal-setting theory covers expenditure control variables. The theory states that firms' budgeted expenditure should align with the actual, and any variance recorded be explained by the results of the company. According to the theory, companies should forecast well and ensure that the actual results align with the budget cost. Deviations reduce the company's ability to enhance efficiency.

According to the findings, expenditure control had a negative influence on financial performance. This shows that increasing expenditure variance reduces the financial performance of the listed manufacturing firms in Kenya while reducing expenditure variance increases the financial performance of the listed manufacturing firms in Kenya. The results align with the goal-setting theory that attaining expenditure expenses budgeted helps in improving financial performance.

In conclusion, the theories used in the study were relevant since all the theories were tagged to a variable, and the findings were tallied with the proponents of the respective theories. This makes the findings reliable and fit for drawing conclusions and recommendations. The study model used also was relevant since the outcome of the results was in line with the theoretical review, which formed the basis of the model.

## **CHAPTER 5**

# SUMMARY, CONCLUSION, AND RECOMMENDATION

### **5.1 Introduction**

This chapter covers the summary, conclusions, recommendations, and areas for further study.

# 5.2 Summary

A panel of 8 manufacturing firms listed in the NSE was included in the study for 10 years ranging from 2012 to 2021. The measures used for the variables were ROA for financial performance, debt ratio for debt control, current ratio for liquidity control, and expenditure variance for expenses control. The observations for all variables were 80. The descriptive statistics showing the average for the variables understudy for the listed manufacturing firms indicated that the ROA, liquidity control, debts control, and expenses control had 0.2078, 2.878, 5.135, and 0.1993, respectively.

All the variables in the study were normally distributed since all variables had a W value of approximately 1. The p values were greater than the critical value of 0.05; hence the variables were normally distributed. Levin-Lin-Chu stationarity test shows that all t statistics were greater than the t critical of 1.990, and the p values were less than 0.05, meaning that the variables were stationary. The Hausman values confirmed the best model was the random effect model.

The study's first objective was to establish the influence of liquidity control on the financial performance of listed manufacturing firms in Kenya. The null hypothesis tested by the objective was that liquidity control had no influence on the financial performance of listed manufacturing firms in Kenya, which was rejected at a 5% significant level.

The random effect results show a coefficient for the current ratio of 0.258464 and a p-value of 0.001, less than the 0.05 significant level. The results implied that the variable had a significant positive influence on the financial performance of listed manufacturing firms in Kenya. It also shows that an increase in the current ratio by one factor increases the financial performance (ROA) by 0.258464.

The second goal of the study was to evaluate how debt control influenced the financial results of Kenyan manufacturing companies that are publicly traded. The debt ratio was used to gauge debt control. While the p-value was 0.0056<0.05, the Pearson correlation coefficient was -0.3072, meaning that there was a significant association at the threshold of 0.05. This indicates that there was an inverse relationship between debt control and financial performance.

The random effect model shows the percentage change in ROA when debt control changes. The study showed that the coefficient value of -.079317 and p-value of 0.046, which was less than 0.05 for the random effect model, show a significant negative relationship between debt control and the financial performance of listed manufacturing firms in Kenya.

The third objective of the study was to examine the influence of expenses control on the financial performance of listed manufacturing in Kenya. The Pearson correlation coefficient of -0.6746 and p-value of 0.000 was less than the 0.05 significance level. The findings showed that the expenses control had a significant negative influence on financial performance. This showed that
increasing expenses reduces the financial performance of listed manufacturing firms by -0.6746.

The random model effect shows that the value for the control of the expenses was -0.3854362, with a p-value of 0.000, which means there was a significant negative influence between expenses control and the financial performance of the listed manufacturing firms in Kenya. The findings showed that increasing expenses, influence the financial performance negatively, while reducing expenses had positive influence. Therefore, in order to improve performance of the listed manufacturing firms, controlling the expenses to the required level is required.

#### **5.3 Conclusions**

This section gives the conclusion of the study based on the study summary. Each conclusion was derived from the findings in summary.

#### **5.3.1 Liquidity Control and Financial Performance**

The current ratio was used as a measure of liquidity control. The results showed a correlation coefficient of r = 0.5952, with a p-value <0.05, and a regression coefficient of 0.2585, meaning liquidity control had a significant positive influence on financial performance. The study, therefore, concluded that liquidity control has a significant influence on financial performance since maintaining current assets that could meet all the liabilities as budgeted increases financial performance.

The findings signify that manufacturing firms listed at the NSE financial performance can be increased by looking at the liquidity level of the firms. This

is by ensuring liabilities and other obligations are avoided by the company until meeting the existing liabilities. Additionally, paying all creditors and other liabilities help in enabling trust, increasing supplier relationships and ensuring that there is flow of services within the firm. Lastly, the listed manufacturing firms continuity depends on the ability to finance daily operations, hence maintaining liquidity control enhances listed manufacturing firms continuity.

#### **5.3.2 Debts Control and Financial Performance**

Since the debt ratio showed a negative correlation, r = -0.3566, which was significant, and a negative regression coefficient of -0.0793, with a p-value less than 0.05, indicating that there was a negative association and influence between debt ratio and financial performance. This means that increasing debts reduces financial performance, hence use of equity financing and the exact budgeted debt increases financial performance; therefore, the study concluded that debt control significantly influences financial performance.

Debts as they reduce financial performance of manufacturing firms listed at NSE. Controlling the debts ensures proper check between the internal sources and the external sources. During budgeting, the manufacturing firms listed at NSE can check the proposed debts and the proposed internal funding. The firms can look at the sources of internal sourcing and ensure that each identified unit performs as expected. Reducing negative variances in the internal sources of funds ensures that listed manufacturing firms are able to generate sources of funding and avoid external sourcing that threatens their survival.

#### **5.3.3 Expenses Control and Financial Performance**

The study produced a correlation, and regression coefficients of - 4044 and - 0.3854, respectively, with p-values less than 0.05 significant level, meaning there was a negative association and influence for expenditure variance and financial performance. This implies that increasing expenditure variances reduces financial performance; hence control is required to ensure the attainment of the desired results of no variance. Therefore, the study concludes that expenses control significantly influences financial performance.

Expenditure variances reduce the financial performance of firms listed at NSE. During budgeting expenses are allocated based on the forecasted activities for the period. Any increase in expenses requires an exact increase in the results generated. Close monitoring of the expenses, identifying variances and explaining the cause of deviations helps in minimizing losses and other related problems that may affect the financial ability of the manufacturing firms listed at NSE.

#### **5.4 Recommendations**

The following recommendations were drawn based on the conclusions.

## 5.4.1 Liquidity Control and Financial Performance

Since the current ratio was above the industrial rate, listed manufacturing firms should develop measures to ensure that the budgeted liquidity level is in line with the industrial value. This will assist in ensuring the availability of the required liquid cash to meet all the current liabilities and ensure investment of the excess assets to enhance financial performance. Since some firms have a low current ratio rate, meaning they cannot finance their daily activities, the managers should impose a liquidity control mechanism to ensure that listed manufacturing firms do not operate below the margin. This will help the company to run smoothly and ensure the achievement of the global and national goals like the big four agenda and vision 2030. In addition, the government can create funds to support firms with low liquidity levels to boost their continuity.

## 5.4.2 Debts Control and Financial Performance

Listed manufacturing firms had different borrowing rates, some relying on debts only; hence the listed manufacturing firms should develop a budget control measure to monitor their activities, balance sources of funds, and set priorities to avoid wastage of resources. The budget control will assist in developing a loan policy that will ensure that the company borrows when needed and the borrowed funds will be utilized effectively. This will help reduce the loans and ensure that companies' borrowings are controlled.

Since some listed manufacturing firms have huge debts, the managers also should monitor the debt status of the listed manufacturing firms and ensure the development of a borrowing policy that regulates the intervals and the amount required to be borrowed by a company. This will attract investors and gain more equity capital to minimize the debts.

## **5.4.3 Expenses Control and Financial Performance**

Since there was a budget variance for the listed manufacturing firms, the firms should ensure the meeting of budgeted expenses to avoid undesired variances.

Every department in the listed manufacturing firms should ensure that every activity aims to reduce expenses. Setting expenses priorities will also enhance the performance of the listed manufacturing firms in Kenya.

Since increasing expenditure variances reduces financial performance, managers should ensure close monitoring of all the expenses incurred and perform expenditure variance analysis regularly to identify variances and correct them at an earlier stage. This will help ensure a close check of the budgeted expenses against the actual results.

## 5.5 Areas of Further Study

This study targeted only the listed manufacturing firms in Kenya; hence another study should be undertaken on manufacturing firms that are not listed at the NSE and find out if they will yield the same results. Budgetary control is a useful tool for growth and expansion and the overall financial performance of any firm.

The model considered liquidity control, debt control, and expenses control as factors that can be considered when studying the influence of budgetary control on the financial performance of listed manufacturing firms in Kenya. The study recommends that it's important to study other variables that could affect the financial performance of listed manufacturing firms in Kenya.

This study focused on the listed companies in the NSE, which are in the manufacturing industry, but did not include companies from other sectors; hence difficult to generalize the finding to the other sectors. Therefore, another study can focus on other industries apart from manufacturing.

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# APPENDICES

# Appendix I: Approval letter from the University

	3	51150)
К/ Р.О	AIMOSI FRIENDS UNIVERSITY COLLEGE (KA Office of the Director, Directorate of Graduate Studies, Box, 385-50100, Kaimosi; Tel.no. 0712764536, email address: dgs@ Memo	(FUCO) <u>(kafuco.ac.ke</u>
REG NO:	DGS/MBA/G/0008/2019 DATE: 15	ith February, 2022
FROM: DI	RECTOR, GRADUATE STUDIES	
TO: HAI	rrison katana wanje	
SUBJECT:	APPROVAL OF PROPOSAL	
This is to <i>Performal</i> meeting o	inform you that your MBA Proposal titled "Budgetary Connec of Listed Manufacturing Firms in Kenya" was approved of 8th February, 2022.	at the 90 <sup>th</sup> UCAB
You will v	vork closely with the following approved supervisors in exect	uting your research:
1. Dr. 2. Dr.	Margaret Atieno - Dept. of Accounting and Finance Silvester Wanyama - Department of Economics	e
You will b pertaining studies.	be expected to submit progress reports regularly to the undersi g to your studies. The Directorate of Graduate Studies wishes	gned on any matter you success in your
Prof. Ban	Solvand von Oiwand' PhD	
Director o Copy to:	of Graduate Studies - Principal - To note in file	
	Deputy Principal (A&SA) Dean, SOBE Supervisor-	
	Registrar, Academics	

# **Appendix II: Letter from NACOSTI**

Regionel Commission for 1 NACOST isl Commision Fer and Contracticion for NATIONAL COMMISSION FOR REPUBLIC OF KENYA SCIENCE, TECHNOLOGY & INNOVATION Commission For Seisnes, Tachnology and Innovation -Commission for Science, Technology and Incontinue Perional Commission For Science. Ref No: 217827 Date of Issue: 23/May/2022 Definited Commission for Sciences RESEARCH LICENSE s) Conneldon for Education Technology and Inc envision for Ediance, Technology and Issocration nizion for Science, "behaology and Inseverion on for Schurze, Technology and loss nizion for Edianca, Tachaolozo enzi inspietico -For Science, Technology and Innovation -For Science, Technology and Innovation -This is to Certify that Mr. Harrison Wanje katana of Masinde Muliro University of Science and Technology, has been licensed to conduct research in Kiambu, Nairobi, Nakuru on the topic: BUDGETARY CONTROL AND FINANCIAL PERFORMANCE OF LISTED MANUFACTURING FIRMS IN KENYA for the period ending : 23/May/2023. vision for Reisnes, Tachnology and In-License No: NACOSTI/P/22/17631 victor for Science, Technolog Definited Commission for Resonant, Tachnology and D on for Spinned, Taskne logg and Innovation lando, Tacknelogy and Innevation-Retional Commision for Salary nel commision for acism Mallierib 217827 Applicant Identification Number Petional Commulation for Sciences Director General (199 NATION AL COMMISSION FOR SCIENCE, TECHNOLOGY & ion for Sciesce, Tacknelogy and Innevation residual Compilation for Reliance, INNO VATION Interaction VerBonel Commission for Science, Technology and Innovation Verification QR Code Vertional Commizion for Edianos, Technology and Inc. Vestions I Commission For So el Consucie in the F Residuel Commision For Petionel Germaldian for t Residnel Constrilation for t NOTE: This is a computer generated License. To verify the authenticity of this document, emerician for Scan the QR Code using QR scanner application. medicien fer Estavoa. Tastroslogy zud Innevztion -Philonal Commizian for Sciences. Resident Commission For Selanda, Ibsheelogy and Innovation 

Appendix III: Data Collection Sheet

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
ROA	-1.35	0.56	0.31	0.40	0.85	0.29	0.28	0.24	0.22	0.07
CR	16.51	28.38	2.54	1.91	1.78	2.03	1.94	2.29	1.88	2.00
DR	- 116.38	67.68	3.19	0.49	1.93	1.43	0.87	0.84	1.36	1.43
EV	0.12	0.13	0.10	0.14	0.12	0.09	0.12	0.09	0.10	0.16

Source : (Researcher, 2022)

	Significance level						
Degrees of	Two-tailed	10%	5%	2%	1%	0.2%	0.1%
freedom	One-tailed t	5%	2.5%	1%	0.5%	0.1%	0.05%
1		6.314	12.706	31.821	63.657	318.309	636.619
2		2.920	4.303	6.965	9.925	22.327	31.599
3		2.353	3.182	4.541	5.841	10.215	12.924
4		2.132	2.776	3.747	4.604	7.173	8.610
5		2.015	2.571	3.305	4.032	5.893	0.869 5.050
6		1.945	2.447	3.143	5.707 2.400	5.208	5.959
8		1.894	2.305	2.998	3.499 3.355	4.785	5.408 5.041
9		1.833	2.262	2.821	3.250	4.297	4.781
10		1.812	2.228	2.764	3.169	4.144	4.587
11		1.796	2.201	2.718	3.106	4.025	4.437
12		1.782	2.179	2.681	3.055	3.930	4.318
13		1.771	2.160	2.650	3.012	3.852	4.221
14		1.761	2.145	2.624	2.977	3.787	4.140
15		1.753	2.131	2.602	2.947	3.733	4.073
16		1.746	2.120	2.583	2.921	3.686	4.015
17		1.740	2.110	2.567	2.898	3.646	3.965
10		1.734	2.101	2.532	2.878	3 579	3.822
20		1.725	2.086	2.528	2.845	3.552	3.850
21		1.721	2.080	2.518	2.831	3.527	3.819
22		1.717	2.074	2.508	2.819	3.505	3.792
23		1.714	2.069	2.500	2.807	3.485	3.768
24		1.711	2.064	2.492	2.797	3.467	3.745
25		1.708	2.060	2.485	2.787	3.450	3.725
26		1.706	2.056	2.479	2.779	3.435	3.707
27		1.703	2.052	2.473	2.771	3.421	3.690
20 29		1.701	2.048	2.467	2.765	3 396	3.674
30		1.697	2.042	2.457	2.750	3.385	3.646
32		1.694	2.037	2.449	2.738	3.365	3.622
34		1.691	2.032	2.441	2.728	3.348	3.601
36		1.688	2.028	2.434	2.719	3.333	3.582
38		1.686	2.024	2.429	2.712	3.319	3.566
40		1.684	2.021	2.423	2.704	3.307	3.551
42		1.682	2.018	2.418	2.698	3.296	3.538
44 46		1.680	2.015	2.414	2.692	3.286 3.277	5.526 3.515
40		1.677	2.013	2.410	2.682	3 269	3 505
50		1.676	2.009	2.403	2.678	3.261	3.496
60		1.671	2.000	2.390	2.660	3.232	3.460
70		1.667	1.994	2.381	2.648	3.211	3.435
80		1.664	1.990	2.374	2.639	3.195	3.416

Appendix IV: t Distribution table

# <u>Critical values of F for the 0.05 significance level:</u>

	1		2	3	4	5		6	7	8	9	10
1	16	1.45	199.5 233.9	0 9	215.71	224.5	224.58 230.3		236.77	238.88	240.54	241.88
2	18 19	.51 .33	19.00	0	19.16	19	19.25		19.35	19.37	19.39	19.40
3	10 9.	.13 01	9.5 8.9	5 4	9.28	9	9.12		8.89	8.85	8.81	8.79
4	7	.71	6.94	4 6	6.59	6	6.39		6.09	6.04	6.00	5.96
5	6	.61	5.79	9 5	5.41	5	.19		4.88	4.82	4.77	4.74
6	5	.99	5.14	4 0	4.76	4	.53		4.21	4.15	4.10	4.06
7	5	.59	4.20	8 4 7	4.35	4	.12		3.79	3.73	3.68	3.64
8	5	.32	3.8 4.4	/ 6	4.07	3	.84		3.50	3.44	3.39	3.35
9	5	3.69 3 5.12 4		8 6 7	3.86	3	3.63		3.29	3.23	3.18	3.14
10	4	.40 .97	4.1	/ 0	3.71	3	.48		3.14	3.07	3.02	2.98
11	4	.84	3.9	2 8	3.59	3	.36		3.01	2.95	2.90	2.85
12	3	.75	3.10	9	3.49	3	.26		2.91	2.85	2.80	2.75
13	4	.11	3.0	0	3.41	3	.18		2.83	2.77	2.71	2.67
14	3	.03 .60	2.92 3.74	2 4	3.34	3	3.11		2.76	2.70	2.65	2.60
15	2 4	.96 .54	2.8 3.6	5 8	3.29	3	3.06		2.71	2.64	2.59	2.54
16	2 4	.90 .49	2.79 3.63	9 3	3.24	3	.01		2.66	2.59	2.54	2.49
17	2 4	.85 .45	2.74	4 9	3.20	2	.97		2.61	2.55	2.49	2.45
18	2 4	.81	2.7	0 6	3.16	2	.93		2.58	2.51	2.46	2.41
19	2 4	.77	2.6	6	3 13	2	90		2 54	2.48	2 4 2	2 38
20	2	.74	2.6	3	2 10	-			2.34	2.40	2.72	2.50
20	4 2	.35	2.6	9	3.10	2	.87		2.51	2.45	2.39	2.35
21	4 2	.33 .69	3.4 2.5	7 7	3.07	2	.84		2.49	2.42	2.37	2.32
22	4	.30 .66	3.4 2.5	4 5	3.05	2	.82		2.46	2.40	2.34	2.30
23	4	.28 .64	3.42 2.53	2 3	3.03	2	.80		2.44	2.38	2.32	2.28

	24	4.26	3.40	3.01	2.78	2.42	2.36	2.30	2.26
		2.62	2.51						
	25	4.24	3.39	2.99	2.76	2.41	2.34	2.28	2.24
		2.60	2.49						
	26	4.23	3.37	2.98	2.74	2.39	2.32	2.27	2.22
		2.59	2.47						
	27	4.21	3.35	2.96	2.73	2.37	2.31	2.25	2.20
		2.57	2.46						
	28	4.20	3.34	2.95	2.71	2.36	2.29	2.24	2.19
		2.56	2.45						
	29	4.18	3.33	2.93	2.70	2.35	2.28	2.22	2.18
		2.55	2.43						
	30	4.17	3.32	2.92	2.69	2.33	2.27	2.21	2.17
		2.53	2.42						
	31	4.16	3.31	2.91	2.68	2.32	2.26	2.20	2.15
		2.52	2.41						
	32	4.15	3.30	2.90	2.67	2.31	2.24	2.19	2.14
		2.51	2.40						
	33	4.14	3.29	2.89	2.66	2.30	2.24	2.18	2.13
		2.50	2.39						
	34	4.13	3.28	2.88	2.65	2.29	2.23	2.17	2.12
		2.49	2.38						
I	35	4.12	3.27	2.87	2.64	2.29	2.22	2.16	2.11
		2.49	2.37						