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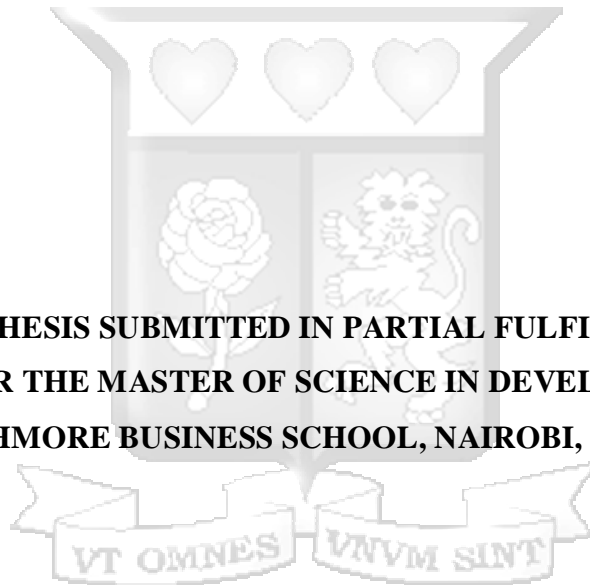
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**THE EFFECT OF BUDGET IMPLEMENTATION ON BUDGETARY CONTROL IN
ELGEYO MARAKWET COUNTY**

MERCY JELAGAT KANDA

MDF/114623/18

**A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE MASTER OF SCIENCE IN DEVELOPMENT FINANCE,
STRATHMORE BUSINESS SCHOOL, NAIROBI, KENYA.**



Strathmore University Business School

Strathmore University

Nairobi, Kenya

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief the dissertation contains no material previously published or written by another person except where due reference is made in the project itself.

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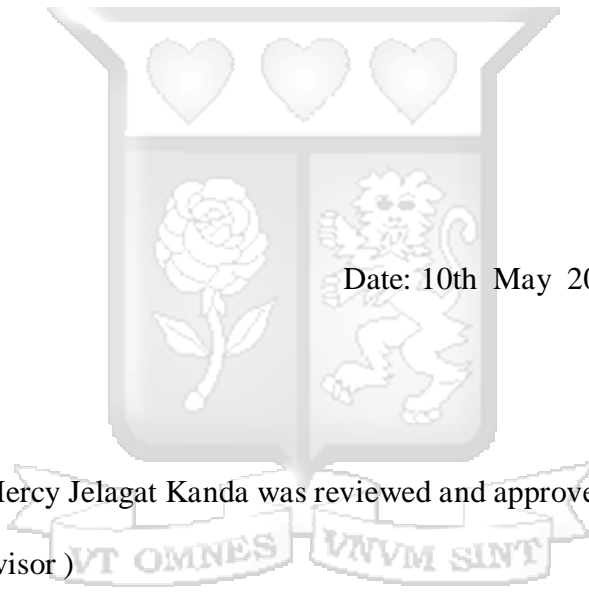
Date: 10th May 2023

Approval

The Research thesis of Mercy Jelagat Kanda was reviewed and approved by Dr. Muli Maingi (Supervisor) Strathmore Business School.

Sign: 

Date: 10th May, 2023



DEDICATION

This work is dedicated to my dear loving husband, our son Saviour Kipchumba and my parents for their great encouragement and motivation while doing the proposal; my brothers and sisters who continuously offered me support both spiritually and materially so that I could accomplish this research Thesis.



ACKNOWLEDGEMENTS

First and foremost, I would like to thank almighty God for his supreme power upon me throughout my research proposal. Special thanks to my supervisor Dr Muli Maingi for his valuable guidance and assistance during the Course of writing my research proposal. His intellectual know-how and wide experience has greatly influenced the outcome of this project. Secondly, my gratitude goes to my father and mother Mr and Mrs Dominic for their understanding, encouragement and bearing with me during the entire period of my studies. Above all, I thank the Almighty God for I have experienced unmerited favour.

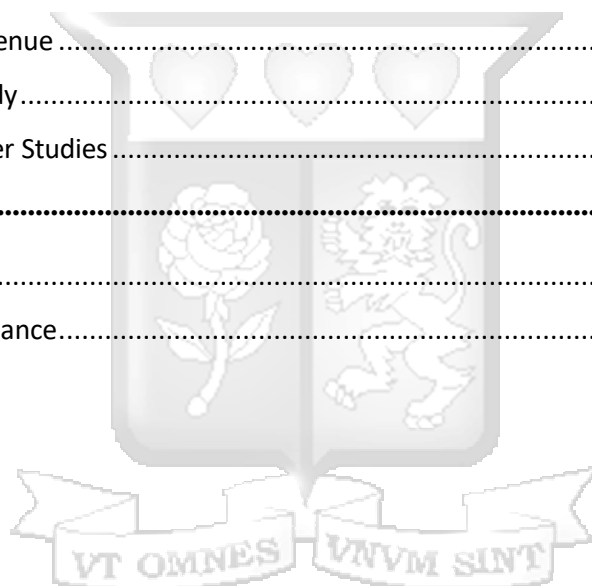


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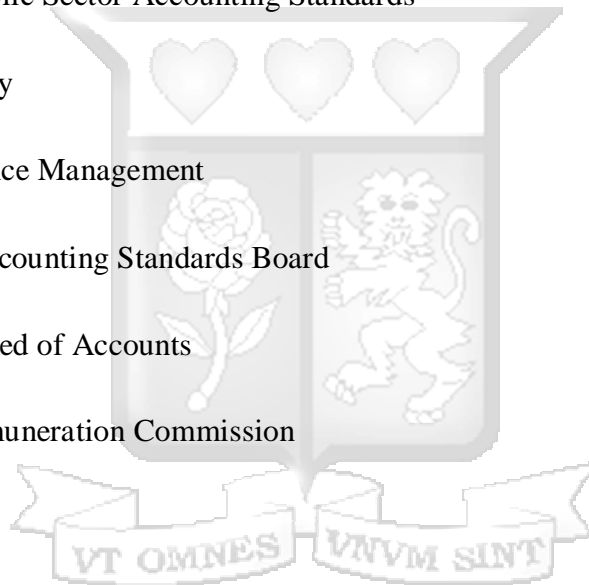
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ABBREVIATIONS AND ACRONYMS

ADP	Annual Development Plan
CEC	Chief Executive Committee
CG	County Government
CRA	Commission for Revenue Allocation
GFS	Government Finance Statistics
IPSAS	International Public Sector Accounting Standards
NT	National Treasury
PFM	The Public Finance Management
PSASB	Public Sector Accounting Standards Board
SCOA	Standard Chartered of Accounts
SRC	Salaries and Remuneration Commission



DEFINITION OF TERMS

Budget Expenditure - the allotment of funds for disbursement to different ministries, sectors, departments in a financial year as part of the government budget.

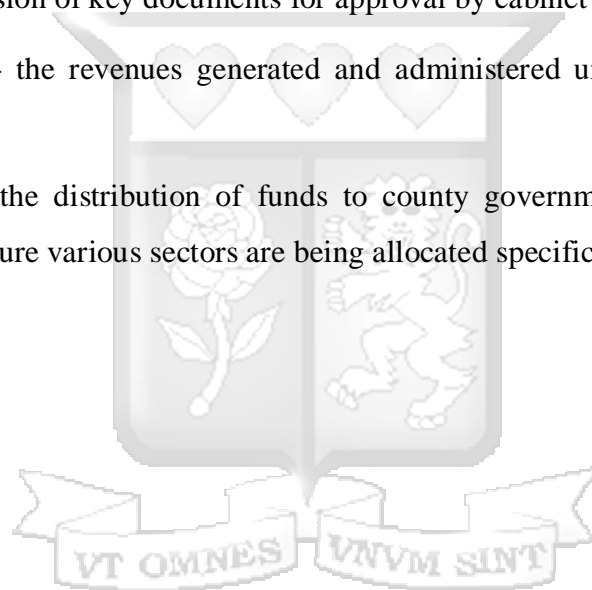
Budget implementation – The process refers to committing a certain amount from a specific budgeting line in order to finance a specific activity.

Budgetary control- Is a control technique whereby actual results are compared with budgets.

Budgeting - the formulation and preparation of the planned activities that involves the development and submission of key documents for approval by cabinet and parliament.

Own source Revenue - the revenues generated and administered under the authority of the county governments.

Resource Allocation - the distribution of funds to county governments through the normal budgeting process, to ensure various sectors are being allocated specific amount for specific purposes.



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ABSTRACT

The Controller of Budget has raised concerns about implementation of budget by the county governments among them being Elgeyo Marakwet. The county government has been marred by problems of budget deficits since the beginning of county governments in 2013-14 Financial year. It has also been facing challenges of under absorption of the recurrent and development expenditures. This study sought to investigate the effect of budget implementation process on budgetary control of Elgeyo Marakwet County in Kenya. The study also investigated the relationship between the budgetary control and the independent variables which are the budget expenditure, resource allocation and the Own Source Revenue Mobilization. The study was guided by budget theory and allocation theory. Data was collected from secondary sources, data of approved reports from the office of the Auditor General. Analysis of the data was based on the descriptive statistics and regression model analysis. The study used the Vector Autoregressive analysis. The choice of the model was informed by stationarity of data in levels. A lag selection of 2 was adopted, to ensure that the model was well-specified and had enough degrees of freedom. From the estimation, the study established that expenditure has a negative effect on budgetary control in the first and second lag. Own source revenue had a positive effect in the first lag. On the other hand, recurrent absorption had a negative effect on budgetary control in both the first lag and second lags. Finally, development expenditure absorption had a negative effect on budgetary control in both lags. The study suggests that the Elgeyo Marakwet county government need to enhance its revenue stream while also improving revenue collection efficiency by blocking leakages. This will guarantee that the approved budget is adequately funded. Secondly, the county government need to prioritize development initiatives and ensuring that projects are begun on schedule and within the time frame specified.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Budgeting is the formulation and preparation of the planned activities that involves the development and submission of key documents for approval by cabinet and parliament. The process is being guided by budget calendar which stipulates for a number of key activities to be undertaken in order to finalize the budget and submit it for approval by 30th April of each financial year. The implementation process involves the commitment and payments of the activities carried out during each financial year in all the sectors of the economy (PFM ACT 2012). Budgeting is vital because it enables the government to plan and manage its financial resources to support the implementation of various programs and projects that best promote the development of the country. It also provides the standards against which actual performance can be measured, through balancing of incomes with expenses. In addition, the implementation process of budgeting is important because sectors in the government which are in need of economic welfare policies will be identified, and through this the government will achieve efficient governance and economic stability in the country.

Hemsing and Baker (2013) carried out a study on the effect of Tight Budgetary Control on Managerial Behaviour in Swedish Public Sector. The findings established that majority of local managers in Swedish Public Sector experienced tight budgetary controls. The results revealed a positive relationship between budgetary control and organisational performance of government parastatals. Folscher (2017) provides guidance on budgeting methods and practices. Budgeting in the public sector is a complex exercise, and fragmentation is inevitable. Ubiquitous problems arise in the public sector context, including the tendency of spending agencies to consider their own spending increases to be too small to affect the total significantly, information asymmetry and dysfunctional political processes. Over time, budgeting systems, methods and practices have evolved to address these problems.

In the developing world, there are many governments on the edge of financial instability for example in Africa. Too many amendments during the year weaken the credibility of the budget. However, in the fluid conditions of most African developing countries, in-year amendments are necessary. As a general rule, budget amendments should be limited to one or two years and should be brought to the legislature in a package of proposed changes instead of in a series of

individual requests, depending on the context. Finally, any major amendment of the budget during the fiscal year should receive legislative approval through the same process by which the budget is originally approved (Premchard, 2019).

Notwithstanding, the seeming virtues of capital budgets, opinion has been divided, during the past seven decades, about their utility in governments. Now, as several industrial countries have budgetary surpluses and are using them to reduce levels of public debt, there is little incentive to revive the debate about the need for capital budgets. Elsewhere, in the developing world, however, where many governments still are on the edge of financial instability, debate continues about capital budgets and their equivalents.

Shah (2007) notes that, since the democratic transition in 1994, management of the public finances in South Africa has undergone complete reform to reorient spending toward new priorities and to overcome fiscal imbalances. The reforms have been underpinned by the key themes of comprehensiveness and integration; political oversight and a focus on policy priorities; the strategic use of information; changes to incentives and behavior; and minimizing of incrementalism and maximizing of strategic reallocation of funds.

Thuita and Kibati (2016), did a study on the influence of Budget Management Practices and Controls on Effective Management of Finances in Public Universities in Kenya. It considered campuses within Nakuru town and used exploratory research design. The study findings revealed that financial performance of public universities was significantly affected by the extent to which budget management practices were upheld and the financial controls put in place. The research focused majorly on Budget Management Practices and financial controls other than on Budgetary Control uses and their effect on financial performance of County Government in Kenya which this study will dwell into.

Folscher (2007) presents case studies of public finance management reforms in Kenya and South Africa, respectively. Reforming systems of public finance management has long been a Kenyan government priority. Improvements in planning, budgeting, budget execution and oversight were recognised to be fundamental to achieving key development objectives. The first reforms were introduced as early as the 1970s. The latest wave of reforms commenced at the beginning of the 21st century, as deteriorating budgetary control exacted a toll on macroeconomic growth, fiscal management and service delivery. The case study reviews earlier reforms but focuses its

discussion on the current system of budget management. It highlights the challenges of reforming complex systems when human resource capacity is limited, accountability is insufficient, and the reforms do not quickly address the nuts and bolts of underlying budgeting systems.

The County Government of Elgeyo Marakwet is one of the 47 semi-autonomous devolved systems of governance that came into existence with the promulgation of the Constitution of Kenya in 2010 as established under Chapter 11 of the constitution. This chapter outlines the principles of devolution to include democratic ideas and separation of powers. The constitution supports the decentralisation of functions and provision of services by county governments as long as it is efficient and practical to do so.

Expenditure performance was assessed by examining budget implementation at the county level, utilisation of revenue, pending bills and compliance with the 30% requirement on development expenditure. The absorptive capacity of the county was also analysed to assess the extent to which the county utilises its resources. The study used secondary data obtained from the reports of the Controller of Budget, The National Treasury and the County Allocation Revenue Act. The secondary data shows that counties are dependent on national transfers at an average of 87% and have been performing dismally on the mobilisation of their own revenue. On the expenditure side, there are counties whose recurrent expenditure exceeds 70% of budget allocations from the national government. Also, on compliance with development expenditure, available data shows that 24 counties have not met the 30% requirement on average over the past three years.

Articles 125 and 126 of the Public Finance Management (PFM) Act, 2012, provide that every county prepares a CIDP (County Integrated Development Plan) which includes both medium-term and long-term priorities to be achieved by the county. The integrated development plan includes priorities that are strategic, and medium-term and reflect on the priorities of the county governments. It also provides a description of how the County Government responds to changes in its economic environment and the programmes to be delivered. This, therefore, forms the backbone of the budgetary process for each financial year and a base for monitoring and evaluation for the County Government.

Section 166 of the PFM Act requires that an Accounting Officer for a County Government entity prepares a report for each quarter of the financial year in respect of the entity. The County

Executive Committee (CEC) member for finance being the head of the County Treasury is responsible for the preparation and presentation of the County Government's financial statements, which give a true and fair view of the state of affairs of the County Government for and as at the end of the quarter ended on 30th June. This responsibility includes maintaining adequate financial management arrangements and ensuring that these continue to be effective throughout the report. Maintaining proper accounting records which disclose with reasonable accuracy at any time of the financial position of the County Government, designing, implementing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements, and ensuring that they are free from material misstatements, whether due to error or fraud, safeguarding the assets of the County Government, selecting and applying appropriate accounting policies. The CEC member for finance accepts responsibility for the County Government's financial statements, which are prepared on the Cash Basis Method of Financial Reporting, using appropriate accounting policies in accordance with International Public Sector Accounting Standards (IPSAS).

According to Bartle (2008) budgets provide a focus for the organisation, aid in the coordination of activities and facilitate control. Through budgeting, both the management level and operation level look at the future and lay down what has to be achieved. Budgetary controls check whether the plans are being realised and put into effect corrective measures where deviation or shortfall occurs (Bartle, 2001). Bartle emphasises that without effective controls, an enterprise is at the mercy of internal and external forces which can disrupt its efficiency and be unaware, the enterprise will not successfully combat such forces.

1.1.1 Budget Implementation Process

The budget implementation process refers to committing a certain amount from a specific budgeting line in order to finance a specific activity. For example, the county government is allocated a certain amount to finance specific activities. Budget implementation maximizes the impact of public expenditure on economic growth and development, as it ensures that resource allocation is directly linked to national priorities. The aspects of the budget implementation process are adequacy of financial resource allocation and county revenue collection, human resource capabilities and public participatory processes. Also, presence of effective procedures

and guidelines governing resource allocation and operational execution, sound and transparency revenue model and strong audit and oversight system (Shand, 2010).

Budgeting process is an effective and valuable technique of management of accounting that contributes significantly to organisational growth and development if properly understood and implemented (Suberu, 2010). The significance of the budgeting process relates to the organisational goals being identified, responsibilities for achieving these goals allocated and consequently executed (Drake & Fabozzi, 2010). It enables prudent use of available resources, enriches decision making and acts as a point of reference in measuring organisational performance. In spite of the likely benefits accruing from budgeting, public sector institutions in Kenya have continued to perform dismally in their budgeting process (Wanyoike, 2015). The scenario is not unique to Kenya as almost 85% of the governments all over the world do fail to provide adequate information for the public to hold them accountable.

The budget implementation process in Kenya, has four stages these are preparation, approval, execution, and evaluation. Under preparation stage, there is an issuance of the budget preparation circular by the National Treasury by end of August in every financial year. Upon the approval by the National assembly the CS shall prepare and submit an appropriate bill of the approved estimates to the National assembly for it to be approved. The execution stage is whereby the allocated resources are used to implement policies incorporated in the budget. Especially, the budget proposals passed at the approval stage by the national assembly. Evaluation is accounting on the budget amount versus the actual figures to see if it was implemented or not. The budget implementation process maximizes the impact of public expenditure on economic growth and development as it ensures that resource allocation is directly linked to national priorities (Shand 2010).

1.1.2 Budgetary control

Budgetary Control refers to a technique whereby actual results are compared with budgets. This ensures that county's actual revenue and expenditure adhere to the financial plans. According to Davidson (2009) budgetary control entails preparing of budgets, recording of actual performance, ascertaining of variance, evaluating financial performance and taking suitable corrective action so that budgeted financial performance may be achieved. The measures of budgetary control are policies and procedures, Variance analysis that is making comparison

between actual and budgeted results. The budgetary control indicators are revenues and expenditures, Fiscal and financial autonomy, budget position and debt indicators.

Budgetary control is important to ensure that the financial, operational and capital plans that were developed and approved for implementation as part of the budget processes are being implemented.

1.1.3 County Government of Elgeyo Marakwet

This is a county in Rift Valley Province. It is one of the 47 semi-autonomous counties that were created by the 2010 Constitution to replace the provinces and Districts administrative structure and to actualize the country's dream for devolved system of 6 government positions. This county borders four counties Uasin-Gishu, Baringo, West Pokot and Transzoia respectively. The county has a total population of 454480 persons. Administratively, the county is run by the executive and county assembly, which the county executive comprises of the Governor, Deputy Governor, and the county executives. The County Assembly comprises the representatives from the 20 electives wards. The executive is majorly responsible for budget implementation while the county assembly plays supervisory and oversight role. The Main Budget Priorities in the county are agriculture and irrigation, education, water land, environment and climate change, road, public works and transport.

In 2020 The Controller of Budget has raised concerns about implementation of budget by the county governments. Many of them have fallen behind in this endeavour and among the counties that a red flag was issued was Elegyo Marakwet County. The county government has been recording budget deficits since the inception of county governments in 2013 and under absorption of the recurrent and development expenditures. In the FY 2020-21 the total absorption of budget was 37.65 percent with a recurrent absorption rate of 56.35 percent and a development absorption rate of 19 percent. In the FY 2021-22 the absorption rate was 39.63 with a recurrent expenditure of 57.05 and a development expenditure of 22.2. Similarly, the Own Source Revenue has been fluctuating from Ksh 71.29 million in FY2019-20 to Ksh 236.4 million in FY2020-21 and Ksh 187.09 in FY 2021-22. From these trends it is evident that the county budget has been performing dismally as far as budget execution is concerned and this is likely to lead to inadequate service delivery if left unchecked. From this backdrop the study sought to

understand the effect of budget implementation on Budgetary control in Elgeyo Mraikwet County.

1.2. Statement of the Problem

According to Macklin Ogolla Director Corporate Services Office of the Controller of Budget, Elgeyo Mraikwet county has been facing challenges of budget implementation. Some of the reasons cited for these are, inadequacy of financial management information system, shortfalls in revenue, lengthy procurement procedures, inadequate legislation regulations, lack of effective monitoring and evaluation framework and also unstructured salary harmonisation. Sabahi (2020) explains that the Kenyan Budget Controller on 13th August 2020 had given county governments two weeks to revise their budgets after a report from the Commission on Revenue Allocation (CRA) revealed that 25 of Kenya's 47 counties faced significant budget deficits.

According to the reports of the Controller of Budgets and Auditor General FY 2013/2014 to FY 2020/2021, Elgeyo Mraikwet County Government had been experiencing huge unexplained budget deficits posing a risk to the budgetary control of the county. However, whether corrective measures in budget process efficiency have been affected remain an enigma. The reports further noted that annual amount of funds not utilised by Kenyan Government counties and returned to treasury has been a cause of concern to all stakeholders in the public management field. Government budgets clearly indicate that budget process and financial performance is an understudied area.

From the literature review several research gaps have been identified that warrant further investigation and therefore, makes the study at hand relevant. Firstly, whilst some studies have focused on country level studies (for example Phillip and Costa, 2020 in Mexico; and Rustan 2021 in Indonesia), Majority of the studies on this topic have concentrated on firm level analysis. For instance, Ngumi and Njogo (2017) analysed Kenyan insurance firms and Kwarteng (2021) focused on Ghanaian firms in while Lemarleniet al., (2017) analysed budgeting in the Kenya Police Service. It is worth point out that budgeting at national level has different mechanism and dynamics from budgeting at firm level. Secondly, methodologically, some studies have used qualitative approaches to analyse the connection between budget implementation and budgetary control for example (Adongo (2017) and Agbenyo et al., 2018). Budgeting is a complex process that requires high level quantitative data in order to draw meaningful insights. From this

backdrop therefore, Elgeyo Marakwet will be guided by the research findings on how to focus on the budget implementation process. This too can be duplicated across other counties. Owing to this limited focus by previous researchers, this study thus sought to add knowledge on the influence of the budgetary process on budgetary control of the Kenya county governments while focusing on Elgeyo Marakwet County Government.

1.3. Research Objectives

1.3.1 General Objective

To evaluate the effect of the budget implementation on budgetary control in county governments with a case study of Elgeyo Marakwet County Government, Kenya.

1.3.2. Specific Objectives

- i. To assess the effect of budget expenditure on budgetary control in Elgeyo Marakwet County.
- ii. To establish the effects of resource allocation on budgetary control in Elgeyo Marakwet County.
- iii. To determine the effects of Own Source Revenue Mobilisation on budgetary control in Elgeyo Marakwet County.

1.4. Research Questions

- i. How does budget expenditure affect budgetary control in Elgeyo Marakwet County?
- ii. How does resource allocation affect budgetary control in Elgeyo Marakwet County?
- iii. How does Own Source Revenue Mobilisation affect budgetary control?

1.5 Scope of the Study

The study focuses on Elgeyo Marakwet County. Data was sourced from the County Budget documents, planning documents and legal documents. The study spanned from Q1 FY2013-14 to Q4 FY 2021-22 where data is available and the existence of devolution to date. This makes the total number of observation 36.

In addition, this study focused on three variables these are the budget expenditure, resource allocation and Own Source Revenue Mobilisation which are the independent variables and the budgetary control which is the dependent variable.

1.6 Significance of the Study

This study will benefit the stakeholders who participate in budgeting process. Notably among them are:

1.6.1 County Government Officials

The County Government of Elgeyo Marakwet (and other counties) by identifying gaps within the process. The officials drafting the county budgets will understand the causes of the variance in budget implementation which affect the budgetary control of the county. Once corrective measures are established, the County Government will be able to offer effective services to its citizenry by having a reliable budgeting process. The results of the study will be used for informed decision making in the county governments, particularly at the legislative level to formulate or revise policies to enhance efficient and effective budgeting process in order to improve their budgetary control.

1.6.2 Policy Makers

Using the study findings, both national assembly and county assembly will be in a position to formulate supportive legislations on effective and efficient budgeting process at the counties. This will further allow development of proper disbursement procedures of funds by National Treasury to the counties. Through the study, the counties will achieve the power of transparency and accountability thus leading to minimisation of wasting of funds and thus maximum utilisation of funds which avoids refund of money to the National Treasury.

1.6.3 Scholars

The study will also benefit the academia as it is expected to add to the existing knowledge base on the effects of budgeting process on budgetary control of county governments as well as a good literature base and reference for future researchers. Similar studies could be carried out in other counties.

1.7 Organisation of the Thesis

This research thesis is well organised from Chapter One to Chapter five. The first chapter is about the introduction of the study which has its subtitles as the background of the study, the

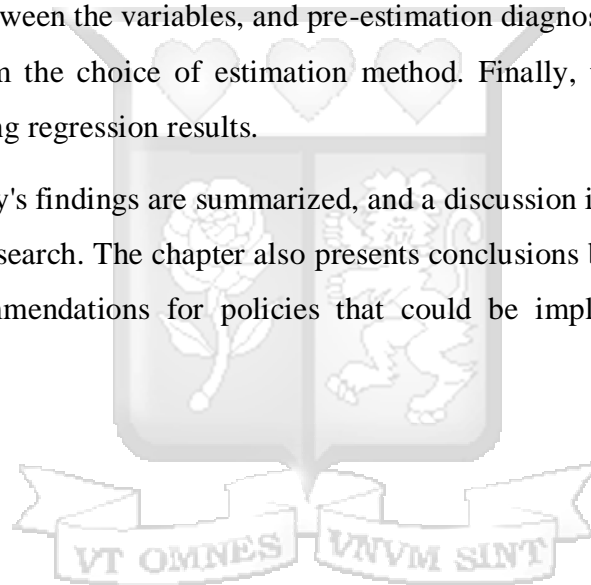
statement of research problem, the objectives of the study, the research questions and significance of the study.

Chapter Two entails the Literature Review of the related literature, empirical review, research gap and ends with the conceptual framework.

Chapter Three is devoted to research methodology, and it has these subtitles: research design, population and sampling, data collection methods, data analysis and ethical issues in research.

In Chapter Four of the research, the results are presented and analyzed using both descriptive and empirical methods. The data is displayed in tables, starting with a summary of statistics to give an overview of what the data looks like. The chapter then includes correlation analysis to explore possible relationships between the variables, and pre-estimation diagnostics to identify any issues with the data and inform the choice of estimation method. Finally, the chapter concludes by presenting and interpreting regression results.

In Chapter Five, the study's findings are summarized, and a discussion is provided regarding how they relate to previous research. The chapter also presents conclusions based on the results of the study, and offers recommendations for policies that could be implemented based on these findings



CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This chapter covers the theoretical and empirical review of literature regarding study. The relationships between the main concepts of the study established by the review of literature enables the researcher to make meaningful conclusions.

2.2. Theoretical Literature Review

The study reviews allocation theory, budget theory, agency theory and stewardship theory discussed in the same order as they are relevant to the study where the county governments place dependence on revenues and national government for progression and service delivery.

2.2.1. Allocation Theory

Allocation of resource theory by Peteraf and Barney (2003) concerns with the discovery of how nations, corporates, entrepreneurs or individuals distribute financial resources through budgeting process to attain financial goals (Zipporah, 2013). For corporate economic resources to attain sustainable competitive advantage, it should have the following qualities: priceless, rare, imperfectly imitable and non-sustainable. This calls for use of budgetary control systems to allocate these scarce resources in government institutions too (Anantadjaya, 2008). Zipporah (2013) asserts that the Allocation of resource theory helps organisations in allocating finance resources at their budget control system level.

This theory explains how County Government takes time to understand the needs and availability of resources and allocate the limited resources to various departments and programmes to enable efficient service delivery. The resource that is also expected to be allocated is own source revenue and therefore a county needs to adopt revenue mobilisation to maximise its resource and have enough to share. This theory explains the effect of programme-based budgeting and attainment of targets on budgetary control. Resources ought to be allocated to various programmes and activities at the county in ways that promote the general well-being of the citizens. Various programmes at the county will be linked to the long-term vision through strategic allocation of the available resources. In order to generate maximum returns from such programmes, the county needs to attain its targets in collection of own source revenue.

The Allocation of Resource Theory by Peteraf and Barney (2003) is applicable to this study as it can provide insights into how resources are allocated within the county. The theory emphasizes the importance of strategic decision-making in the allocation of resources and suggests that organizations that make better strategic decisions are more likely to achieve superior performance outcomes.

Applying this theory to the study, it can be used to analyze how the county government makes strategic decisions in allocating resources and how these decisions affect budgetary control. The theory can help to identify the factors that influence resource allocation decisions, including political, economic, and social factors, as well as organizational factors such as the capacity and expertise of decision-makers. The theory can also help to identify the potential challenges and limitations in the resource allocation process in the county, including issues related to resource scarcity, decision-making biases, and conflicting stakeholder interests.

2.2.2. Budget Theory

According to Shields and Young (1993) budget serves as a good indicator of inconsistencies between organisational objectives and performance which is an effective mechanism of monitoring any budgetary performance. The theory states that budgets predict future financial performance that enables financial viability, which will be evaluated in a strategy. Organisations formalise the budgeting process mostly by preparing budgets annually and control performance by monitoring variances (Silva & Jayamaha, 2012), a case we see similar to government institutions. Budgets serve as a reflection of the financial implication of organisational plans, identify the resource needed in terms of amounts and the time required (Shields & Young, 1993). They form yardsticks for comparison of actual output against estimated budget and take necessary actions to correct (Sharma, 2012). Estimates in budget do allow goals and establish standards of performance with analysis of actual outcomes against the agreed standards.

However, critics argue that budget theory may be too prescriptive and may not take into account the complexity and unpredictability of real-world budgetary processes. Additionally, some argue that budget theory may focus too heavily on technical aspects of budgeting, neglecting broader political and social factors that influence budgetary control.

The Budget Theory is applicable to this study as it can provide insights into how the budgeting process in the county operates. The theory can help explain how budgets are prepared, authorized, executed, and evaluated in the county. Specifically, the theory can provide a framework for analyzing the role of budgeting in achieving organizational goals and allocating resources within the county. The theory can also provide an understanding of how budgeting is used as a tool for organizational control and strategic planning within the county government. Additionally, the theory can help to identify potential challenges and limitations in the budgeting process in the county, including issues related to technical aspects of budgeting and broader political and social factors that may influence budgetary control. Overall, the Budget Theory can provide a valuable framework for analyzing the budgeting process in Elgeyo Marakwet County and understanding the factors that contribute to budgetary outcomes in the county.

2.3. Empirical Literature Review

The Empirical studies will focus on the budget expenditure, resource allocation and the Own Source Revenue mobilisation in relation to the budgetary control.

2.3.1 Budget Expenditure and Budgetary Control

Qi and Menash (2017) investigated the nexus between performance-based budgeting and how this impacted budgetary control in the United States. They paid particular attention to expenditures on public education, social expenditure, transportation and institutions of higher learning. They also considered two sources of revenues that is the individual states own source revenue as well as general funds from the state. The study used data from previous budget surveys for a period spanning from 2000 to 2009. The study adopted a mixture of descriptive and empirical approaches to conduct the analysis. In particular, with regards to empirical analysis, the study used Nerlove variance components analysis. The findings of the study established a negative association between performance-based budgeting and total expenditure from the states own funds and a positive connection with funds from the state. The study also found that it was negatively associated social expenditures and positively associated with transportation and education expenditures. This study fragmented expenditures into granular components while the current study focuses on county governments expenditures wholesomely.

Adongo (2017) conducted study which investigated the Relationship between Budgetary Control and Financial Performance of State Corporations in Kenya. It sought to determine the salient

features of budgetary controls in state corporations, establish the human factors within budgetary controls, establish the process of budgetary control in public organisations and determine the challenges affecting budgetary controls. A descriptive survey design was used to gather data from managers of the sampled state corporations. 14 corporations were selected from a population of 138 to participate in the study. Purposive sampling was used to select 42 corporate service managers, finance managers and budget officers from the sampled corporations to participate in the study. The findings indicated a positive significant relationship between budgetary controls and financial performance of state corporations. The study focused on independent variables such as human factors within business control. A literature gap therefore still exists on the effect of budgetary control uses such as Control, Planning and Coordination on budgetary control of County Government in Kenya that this study seeks to give more information.

Ngumi and Njogo (2017) sought to find out how budgeting practices affect financial performance of insurance firms in Kenya. The study adopted a descriptive analysis approach on a sample of 23 firms. In measuring budgeting practices, the study used capital expenditures and operating expenditures as proxies. The study obtained data from secondary sources and used regression analysis to model the relationship. The study established that both capital and operating expenditures had a negative effect on performance of insurance firms. This study only focused on 23 insurance firm whose budget systems differ significantly from county government budget.

Kerosi (2018), sought to determine the Association between Budgetary Control Practices and the Management of Micro and Small Enterprises at Kangemi Town in Kenya. A descriptive survey design was adopted to capture categorical description of attitudes of the study population. A sample size of 75 out of 160 registered micro and small enterprises in Kangemi, Kenya, was taken. The study established that management of micro and small enterprises is positively related to Budgetary Control Practices. There is a literature gap as independent variables considered never included coordination as a function under budgetary control which this study includes. Besides, it focused on micro and small enterprises other than County Government in Kenya which has different financing systems, revenue streams, methods of operations and objectives, thus a gap this study will explore.

Agbenyo, Danquah and Wang (2018) conducted a study to establish how budgeting influenced budgetary control among Ghanaian firms. The study focused on 51 listed manufacturing firms. The study analysed how planning, expenditure monitoring impact firm performance which was a proxy for budgetary control in the study. The study used qualitative approaches to collect the data. Questionnaire was the main tool for data collection. The study conducted linear regression and correlation analysis to ascertain the effect. The study findings revealed that financial performance was positively affected by planning and expenditure monitoring. This study weakness emanates from use of qualitative approach to budgeting process. Budgeting is a highly quantitative activity that requires data in terms of figures to give robust inferences.

2.3.2 Resource Allocation and Budgetary control

Lemarleni, et al., (2017) conducted a study on resource allocation and efficiency in budgetary allocation in the Kenya Police Service. The study conducted a stratified sampling on 49 police officers. The paper collected data by use of questionnaire. Afterwards, data was analysed using regression techniques, whose findings revealed that financial resource allocation impacted positively on strategy. One limitation of this study, is that it only focused on 49 police officers and data was collected using questionnaires, which is qualitative and would therefore, not give a true picture of budgeting process. This study was majorly on the Kenya Police Service which can be compared to a mere department in the county government, thus the findings would not be adequate to apply to a county government.

Kwarteng (2018) investigated the connection between resource allocation and budgeting among Ghanaian firms. The study followed the budgetary planning principles approach and sought to understand whether the principles were adopted by firm executives and budget departments. The study conducted a survey that targeted budget holders among firms that are listed in the securities exchange. The study adopted a structural equation modelling approach to model the connection between budgeting and resource allocation. The study established that there is a positive connection between resource allocation and budget performance. The study is relevant however much emphasis was placed Ghanaian firms.

Phillips and Costa (2020) conducted a study on resource allocation and transparent budgeting among governmental and non-governmental organisations. The study adopted a systemic review of past literature materials in a bid to shed light on the nexus between the two constructs. The

findings of the study established resource allocation led to better budgetary outcomes. The study recommended that for effective budgeting it would be imperative for organisations to allocate financial resources optimally and transparently. This study was focused on Non-governmental organisations whilst the current study is based on county government.

2.3.3 Own Source Revenue Mobilisation and Budgetary Control

Ndunda, Ngahu and Wanyoike (2015) researched on the factors that influence the ability of counties to achieve optimal revenue collection. The study was focused on Nakuru county and the findings show that tax compliance has a significant effect on revenue collection which subsequently affects the budgetary control, The Constitution of Kenya (2010) stipulates that counties get a large proportion of their budget funding from the central government. These funds can delay for disbursement and thus creates a challenge with budget implementation process. This study specifically focused on tax compliance as determinant of revenue mobilization. In the current study, own source revenue mobilization comes in as an independent variable that explains the budget implementation process.

Gachithi (2018) through the assessment they used four variables in determining revenue potential these are the revenue collected by each district council, the inverse of the wealth rate , each district's population and the GDP figures .The team applied the an output oriented Data Envelop Analysis model having the question by how much can the output quantity of district revenue collections be expanded without altering the input quantities of the district , that is the GDP , population base and poverty rate. The results found out were that the highest revenue gaps are Mafinga 94.2 % Chama 93.8%. Chama council District collected ZMK 58000 in property rates in 2020. (Zambia Local Impact Governance Activity by USAID 2021).

Rustan et al., (2021) investigated the nexus between own source revenue and capital expenditure in Indonesia. Their study collected data from secondary sources mainly government official documents, which spanned between 2009 to 2018. Ordinary least squares regression was used in analysis. From the findings, it was established that local revenue positively affected capital expenditure in Indonesia. The study considered capital expenditure as reference for budgetary control. This study is focused on national budget while the current study is based on a county budget which has a different dynamic from the national budget.

2.3.4. Summary of the Literature

This chapter explored existing literature on budgets and budgetary control systems which intend to serve as a means of effectively monitoring and controlling cost in order to enhance performance. Over the years, experts have emphasised the importance of the budget as a policy tool. Existing literature indicates that budget experts have broadened from focusing on budget layout formats and systems to emphasise on institutions that are involved in budgeting. One such institution is legislature. Several studies contain useful references that can be valuable for countries such as Kenya seeking to improve their budgetary process. The government should incorporate the public on the effects of budget so that the belief that budgets are forced on them is removed from their minds. Causes of variances should also be investigated and corrective actions taken immediately. Variances can be used by officials concerned to monitor and control activities. They are also used to identify problem areas.

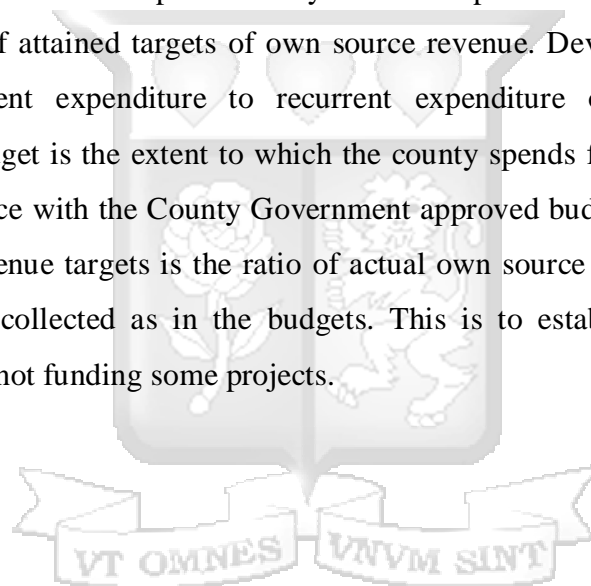
Through the literature review several research gaps have been identified. Firstly, whilst some studies have focused on country level studies. Majority of the studies on this topic have concentrated on firm level analysis. It is worth point out that budgeting at national level has different mechanism and dynamics from budgeting at firm level. Secondly, methodologically, some studies have used qualitative approaches to analyse the connection between budget implementation and budgetary control. Budgeting is a complex process that requires high level quantitative data in order to draw meaningful insights. From this backdrop therefore, Elgeyo Marakwet will be guided by the research findings on how to focus on the budget implementation process. This too can be duplicated across other counties.

2.5. Conceptual Framework

Conceptual framework explains the relationship between the dependent and independent variables. Independent variables entail the budget expenditure, resource allocation and the Own Source Revenue mobilisation which has effect on the budgetary control (the dependent variable). Budgeting committee, public participation, budgetary timelines, planning and implementation, monitoring and evaluation of budgets all form important elements of budgetary control. Realistic projections and being able to meet own source revenue collection targets will ensure availability of cash flows.

This is to mean that the projection of targets, collection of own source revenue, availability of cash flows, operating cost, capital cost and minimising wastage and leakages are basics of attainment of revenue targets. Linking of programme activities with long-term goals, identifying operational aims, accounting separate costs, revenue of activities, measuring the outputs and performance of activities are sub-variables of the budget implementation process which has an impact on the implementation of the budgets.

It is in this that we can establish if end-to-end process of service delivery is taken care of. County legislation is concerned with the appropriation bill, assembly policies, budget legislation and budget plans, raising revenue measures and timely passing of bills. The dependent variable which is the budgetary control is represented by the development index, compliance with set budget and percentage of attained targets of own source revenue. Development index refers to the ratio of development expenditure to recurrent expenditure of County Government. Compliance with set budget is the extent to which the county spends funds availed by National Government in accordance with the County Government approved budget estimates. Percentage to attain own source revenue targets is the ratio of actual own source revenue collection of the expected amount to be collected as in the budgets. This is to establish the shortfall of the amounts that can lead to not funding some projects.



INDEPENDENT VARIABLES

DEPENDENT VARIABLE

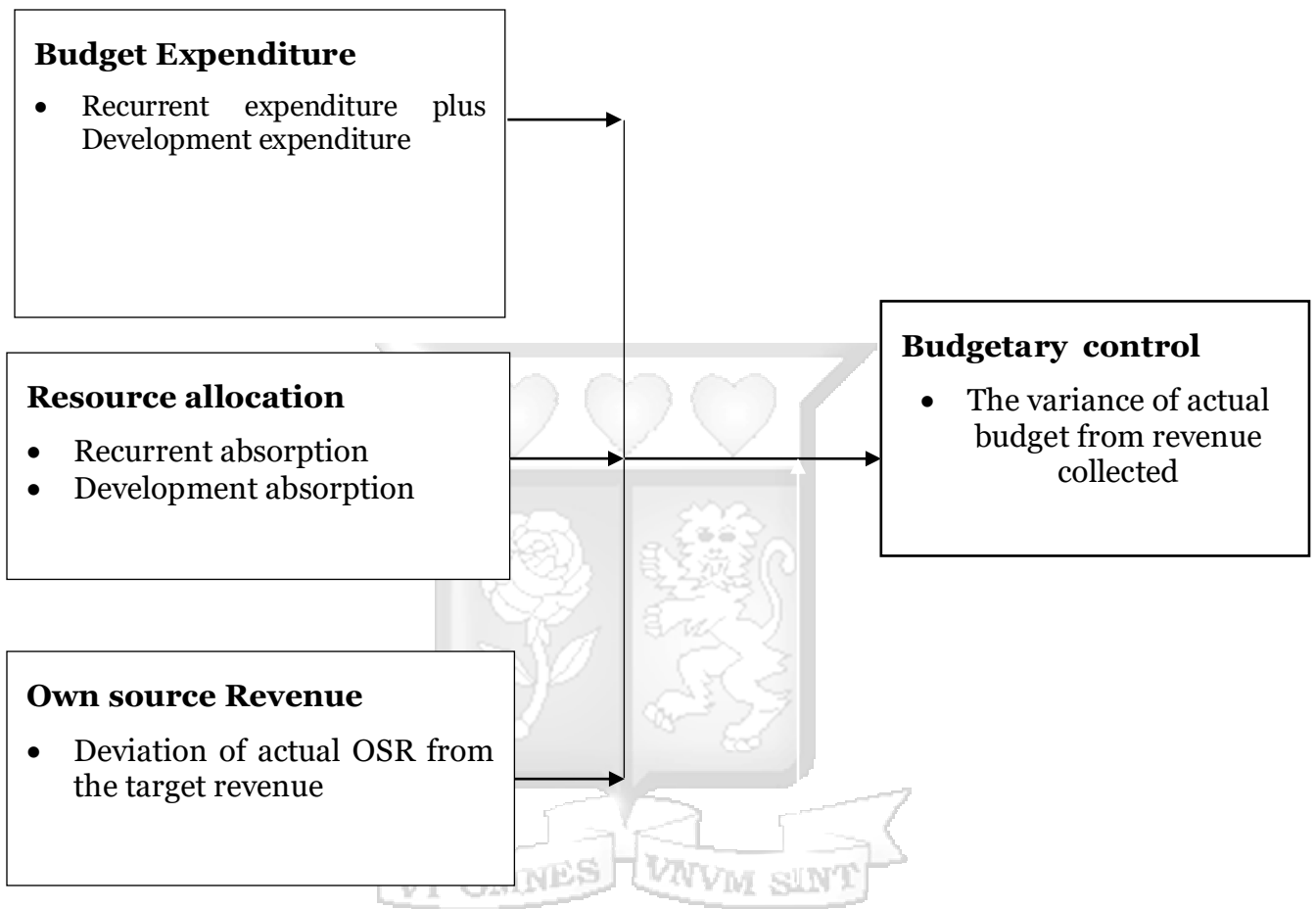


Figure 2.1: Conceptual Framework

2.6.1 Budget expenditure

This is the allotment of funds for disbursement to different ministries, sectors, departments in a financial year as part of the government budget. The 2022 BPS projects total expenditure of ksh. 3.309billion in the FY 2021/2022 which represents an increase of 9.2% from the approved budget of the previous year. The increase is on account of an increase in consolidated fund services expenditures which is majorly driven by interest payments on public debts.

During the financial year 2021/2022 there was an increment in the National Security which increased from 162.2 billion to ksh. 203 billion, Energy and infrastructure and ICT from ksh. 335.8 billion to kshs. 368.3 billion and education sector from ksh.503.9 billion to kshs 525.9 billion. The ordinary revenue raised each year must be shared between debt repayment, recurrent expenditure and county allocations.

2.6.2 Resource allocation

This is the distribution of funds to county governments through the normal budgeting process, to ensure various sectors are being allocated specific amounts for specific purposes. The county governments in Kenya have received Ksh 2 Trillion from the FY 2013/2014 to FY 2020/2021. In the FY2022/2023 out of the projected shareable revenue of Ksh.2141.6 billion the National Treasury proposes an allocation of KSH. 370 billion to the county governments. This is equivalent to 26.2% of the most recent audited and approved accounts for financial year 2017/2018 of KSH 1413.69 billion (BPS 2022).

The county governments received over 200 billion as conditional allocation between 2017/18 and 2020/21. These accrue from National government share of revenue as well as loans and grants from development partners and were being allocated through Division of Revenue Acts. In the Financial year 2022/2023 the National Treasury proposes to allocate Ksh. 37 billion as additional conditional allocations to counties.

2.6.3 Own Source Revenue

Own source revenue are the revenues generated and administered under the authority of the county governments. It is one of the revenues that county governments collect through inter alia, rent, commercial leasing, parking fees, land rates, business permits and construction permits. Efficiency and effectiveness in OSR collection would enable county governments to meet their budget targets. The study measures this variable using the deviation of actual OSR collected from the target OSR. The OSR collection by counties from FY2013/14 to FY 2020/21 was Ksh. 270.7 billion against a target of ksh. 442.6 billion. The low OSR collection by counties has led to overdependence on national government share for funding their operations.

2.6.4 Budgetary Control

There are several definitions of budgetary control based on the interest of the policymaker. On one hand, it could mean the difference between revenue and the approved budget. On the second hand, it could mean the deviation of the approved budget from the indicative ceilings. The PFM Act of Kenya uses the former definition and advises county governments to measure budget performance based on this criterion. Considering this, the study measures budgetary control by getting the deviation of the actual budget in the County Fiscal Strategy Paper from the budget ceilings set in the County Budget Review and Outlook Paper.

Table 2.1: Study data; Data sources and measurement

Variable	Definition	Supporting literature	Source	Measurement
Revenue Performance	Own revenue source	Ndunda, Ngahu and Wanyoike (2015); Gachithi (2018); Rustan et al., (2021)	CBROP, CFSP, PBIB	Continuous
Budget expenditure	development expenditure	Qi and Menash (2017); Adongo (2017); Ngumi and Njogo (2017); Kerosi (2018).		Continuous
	recurrent expenditure			Continuous
Resource allocation	Budget absorption	Lemarlani, et al., (2017); Kwarteng (2018); Phillips and Costa (2020)		Continuous
Budgetary control	The variance of actual budget from revenue collected	ACCA (2022), Program Based budget		Continuous

Source: Author, 2022

2.7 Summary of the Chapter

Chapter Two was devoted to a literature review of related literature, empirical review and research gap and ends with the conceptual framework. The review focused on what scholars and researchers support in the budgetary process in public institutions and their budgetary control.



CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the procedures that used to conduct the study, focusing on research design, population and sampling, data collection methods, data analysis and ethical issues in research.

3.2 Research Philosophy

A research philosophy is a blueprint that steers the direction of research regarding the nature of knowledge as well as reality (Collis & Hussey, 2014). Two primary forms of research philosophies exist namely interpretivism and positivism. In Positivism philosophy, the realities are autonomous to us and researchers can only observe reality in an objective manner. Interpretivism are realities observed subjectively, they are shaped by human perceptions. The study was underpinned by positivism research philosophy. The rationale behind this is that the study intends to use quantitative data which was tested through hypothesis to objectively find out the relationship between the variable under study.

3.3 Research Design

Cooper and Schindler (2014) define research design as process through which data collection is structured with the intention of achieving the objectives of the study by applying empirical techniques. This study used descriptive research design in order to answer the study questions. Kothari (2014) asserts that descriptive research design is beneficial as it has the ability of describing data in a systematic way and thereby providing a clear description of the attributes of the subjects under study. The design is also multipurpose as it can accommodate data of many forms and shapes thus giving the researcher a wider option of analysis and approaches to choose from when handling the data (Kothari, 2004).

In addition to descriptive design, the study will also adopt a correlational research design. Correlational research design is a method used in social sciences to study the relationship between two or more variables. In this design, researchers collect data on multiple variables and analyze how they are related to each other (Cooper & Schindler, 2014). Unlike experimental research, correlational research design does not manipulate any variables. Instead, it simply observes the naturally occurring relationship between variables. The advantages of using

correlational research design include its ability to identify patterns and associations between variables that may not have been previously considered. It also allows researchers to study variables that cannot be manipulated, such as age or gender, and can provide insight into complex, real-world problems. Furthermore, it can help establish the direction of causality between variables, which can guide future research or interventions (Kothari, 2014).

3.4 Population and Sampling

The research is a case study of Elgeyo Markwet County. The study utilized data from secondary sources in this case county budgeting and planning documents. Every year the counties are required to submit budget documents to the Office of the Controller of Budget (OCOB) detailing the sectoral budget and expenditure as well as giving the ceiling.

3.5 Data Collection Methods

The study used data obtained from secondary sources. In this regard budget-related data obtained from County Fiscal Strategy Paper (CFSP), Program Based and Itemized Budgets (PBIB) and County Budget Review and Outlook Paper (CBROP). On the other hand, planning data was collected from the County Annual development plans (CADP). These documents were sourced from Elgeyo Marakwet county government website. The documents contain adequate information regarding revenue collected, expenditure breakdown and budget performance. Furthermore, the study sourced legal documents from the Kenya Law review website these are the Public Finance Management Act of 2012 and the Public Finance Management regulation of 2014. The study period covered the first quarter of 2013-14 financial year to the fourth quarter of 2021-2022 financial years, making the number of observation 36 and data points 144.

3.6 Data Analysis

Quantitative approaches were used in the study, among the methods applied were descriptive statistics on a preliminary basis to assess the character of the variables and the data in general. The second form of analysis was the inferential analysis which entailed correlation and regression analyses. These were useful in assessing the resource allocation, revenue, and expenditure performances and how they affect budgetary control. The regression model is presented in the following form:

$$\ln Y_t = \alpha + \sum_{t=1}^k \beta_1 \ln Y_{t-1} + \sum_{j=1}^k \beta_2 \ln X_{1t-j} + \sum_{m=1}^k \beta_3 \ln X_{2t-m} + \sum_{n=1}^k \beta_4 \ln X_{3t-n} + \sum_{p=1}^k \beta_5 \ln X_{4t-p} + \epsilon_t$$

Where:

$\ln Y_t$ = log of budgetary control measured as deviation of actual budget from revenue

$\ln X_{1t}$ = total budget expenditure

$\ln X_{2t}$ = Own source Revenue

$\ln X_{3t}$ = resource allocation (recurrent absorption)

$\ln X_{4t}$ = resource allocation (development absorption)

α = Y intercept

$\beta_1, \beta_2, \beta_3$ and β_4 = Coefficients of variables

3.7 Diagnostic Tests

The research carried out various diagnostic test to ensure that the model does not violate the ordinary least squares assumptions (OLS) rendering the results inconsistent and inefficient. This is critical for robustness and credibility of results. These checks include normality, autocorrelation, unit root test and stability tests. The same are expounded on below.

3.7.1 Normality Test

For linear regression whole variables are expected to be multivariate normal. Tests for normality was conducted using the Shapiro-Wilk tests which involves comparing a sample with a probability distribution. Log transformation came in handy in the adjustment of data that are not normally distributed.

3.7.2 Autocorrelation Test

Autocorrelation is the test for successive association between two error terms. Econometrics assumptions require minimal or absence of autocorrelation in linear regression analysis. The Lagrange-multiplier test was used to analyse autocorrelation in the data.

3.7.3 Unit-root Test

Time series data are susceptible to unit roots which are a reflection of the inconsistency in mean and variance across the observation. Augmented Dickey Fuller test was used for this.

3.8 Ethical Issues in Research

The researcher ensured utmost compliance with ethical issue in research not only at the data collection stage but throughout the entire research process. Firstly, the authenticity of the document was given utmost importance by citing relevant works used and no plagiarism of other scholars' works. Secondly, the study obtained accurate data from the various county documents. The researcher ensured that no information is falsified or manipulated. Finally, the researcher sought clearance from the ethics committee prior to data collection.



CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This segment contains the outcomes of the research analyzed using descriptive and empirical approaches. Data are presented in tabular form. The chapter starts with a summary of statistics that sets the tone of what the data is like. It goes ahead to give correlation analysis to know the possible relationship among the variables. This is followed by pre-estimation diagnostics which are vital for informing the choice of estimation approach and the possible shortcomings in data. The chapter ends by presenting regression results, and their interpretations.

4.2 Descriptive Statistics

Descriptive statistics form the inception point of analysis. It is fundamental in that it enables the researcher and readers of the research to get a feel of the variables before delving into the empirical analysis. The main significance of descriptive statistics is that it provides a summary of the statistics, which is crucial in identifying possible outliers and detecting any general errors within the dataset. This informs the researcher about the course of action to be undertaken (Kothari, 2014). Summary statistics of the variables in the study are displayed in Table 4.1

Table 4.2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Budget	36	2871	1905	1358	7981
Recurrent absorption rate	36	59.358	22.812	14	97.2
Development absorption rate	36	27.028	18.826	0	70
Own source revenue	36	32771492	19344823	9000000	84650000
Expenditure	36	960.3	483.6	67.9	2185
Budgetary control	36	-191	138	-742	-67.9

Table 4.1 shows summary statistics based on lowest and maximum values, means, standard deviations, and the number of observations. A total of 36 observations represent the quarterly data obtained from quarter 1 in 2013 to quarter 4 in 2022. The mean for the quarterly budget is Ksh 2.871 billion with a standard deviation of Ksh 1.905 billion. The minimum budget provided and approved by Elgeyo-Marakwet county was Ksh 1.358 billion with a maximum budget of 7.981 billion.

Budget absorption rate was used to proxy resource allocation, to this end data for two forms of budget absorption were obtained, recurrent expenditure and development expenditure. Absorption rate was measured as the difference between budget and expenditure expressed in percentage form. During the period under study, recurrent expenditure had a mean of 59.358 per cent and a standard deviation of 22.812. The minimum recurrent absorption was 14 per cent and the maximum was 97.2 per cent. On the other hand, development absorption was significantly lower than the recurrent one with a mean of 27.028 and a standard deviation of 18.826, there are instances when there was no development absorption resulting in a minimum of 0. The maximum development absorption was 70.

Own source revenue collection average Ksh 32.77 million over the 36 quarters with a standard deviation of Ksh 19.344 million. The lowest revenue collected by Elgeyo-Marakwet was Ksh 9 million while the highest revenue collected amounted to Ksh 84.65 million. Finally, expenditures for the 36 quarters averaged Ksh 960 million and a standard deviation was Ksh 483 million. The lowest expenditure was Ksh 67 million whilst the highest value was Ksh 2.185 billion.

Budgetary control was measured as a net of approved budget and revenue collected by the county government. The mean for the 36 quarters was a deficit of Ksh 191 million, and a standard deviation of Ksh 138 the minimum variance was -742 whilst the maximum was -67.9.

4.3 Pre-estimation Tests

Results for the pre-estimation diagnostic test that was employed in the study are presented in this section. These tests are critical in ensuring the robustness of the data and sound empirical results.

4.3.1 Normality of Data

The first pre-estimation test conducted is the normality distribution of data. This test is essential in guiding the researcher about the kind of empirical tests that they would adopt that is it informs a choice between non-parametric and parametric tests. For this purpose, the study used Shapiro-Wilk test for normal data. Results are presented in Table 4.2.

Table 4.3: Test for Normality

Variable	Obs	W	V	Z stat	Prob>z
Budgetary control	36	0.794	7.521	4.219	0.000
recurrent absorption	36	0.933	2.429	1.855	0.032
development absorption	36	0.96	1.472	0.808	0.209
Own source Revenue	36	0.88	4.378	3.088	0.001
expenditure	36	0.969	1.14	0.274	0.392

Source: Author's construction

The null hypothesis of the test states that the variable exhibits a normal distribution. Referring to the probability values in the Table, we reject the null in the budgetary control, recurrent absorption and own source revenue and conclude that data is normally distributed ($P\text{-value} < 0.05$). On the other hand, we fail to reject the null on development absorption and expenditure. We, therefore, transform the data to logarithms to normalize them (Greene, 2018).

4.3.2 Unit-root Test

Timeseries data are likely to suffer from non-stationarity problems which infer that the mean and variance of a variable is non-constant over the period. The implication of this is that the results obtained may not be making sense leading to wrong inferences and non-credible results. The study used the Augmented Dickey-Fuller methodology for this purpose. The method is suitable for time series data with less than 60 observations.

Table 4.4: Stationarity Test

Variable	Test statistics Z(t)	MacKinnon approximate p-value for Z(t)	Verdict
Budgetary control	-5.295	0.000	Stationary
recurrent absorption	-6.441	0.000	Stationary
development absorption	-5.311	0.000	Stationary
Own Source Revenue	-5.478	0.000	Stationary
Expenditure	-5.519	0.000	Stationary

Source: Author's construction

From the findings in Table 4.3, all the variables are stationary at levels an indication that they are devoid of unit root ($P\text{-value} < 0.05$). They are thus integrated into order zero. This means that the Vector Autoregressive regression model is preferred for analysis.

4.3.3 Lag Order Selection

Lags are a critical concept in time series analysis, variables are known to have a delayed effect on the outcome variables. It is imperative therefore to carry out a pre-estimation analysis to determine the period that the effect would lag. Results are presented in Table 4.4

Table 5.4 Lag order selection

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-278.005				33.0671	17.6878	17.7637	17.9168*
1	-240.405	75.2	25	0.00	15.3847	16.9003	17.3558	18.2744
2	-210.357	60.095	25	0.00	12.6967	16.5848	17.4199	19.1041
3	-178.667	63.381	25	0.00	11.8268	16.1667	17.3813	19.831
4	-136.124	85.087*	25	0.00	8.84919*	15.0702*	16.6644*	19.8797

Source Author's construction

From the results presented in Table 4.4 majority of the test namely Final Predicted Error, Akaike Information Criteria and Hannan-Quinn information criteria suggest a maximum lag order of 4. On the other hand, Schwarz-Bayesian Criteria inform that no lag should be selected. The test gives information about the maximum lags, for the sake of this study a lag of two quarters was used, in order to prevent the loss of degrees of freedom. Not choosing the lags as suggested by the Schwarz criteria might render the equation mis-specified and likely to cause serial correlation problems (Greene, 2018).

4.4 Correlation Analysis

It references a two-variable relationship, whose coefficient ranges between -1 and 1. Those that approach 1 in absolute terms signify a strong association between the variables while those below 0.5 denote a weak correlation. The correlation results are displayed in Table 4.5.

Table 4.6: Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) lnOutcome	1.000					
(2) lnExp	0.416 (0.012)	1.000				
(3) lnOSR	0.309 (0.067)	0.458 (0.005)	1.000			
(4) recurrent absorption	-0.681 (0.000)	0.345 (0.039)	-0.011 (0.951)	1.000		
(5) Development absorption	-0.844 (0.000)	0.006 (0.972)	-0.101 (0.558)	0.784 (0.000)	1.000	

Values in parenthesis designate P-values

From Table 4.5 the log for expenditure and outcome have a correlation coefficient of 0.416 and a P-value of 0.012, this denotes that expenditure and budgetary control go in the same direction. Own source revenue has a positive and significant coefficient of 0.309 meaning that the two variables move in the same direction. Conversely, recurrent expenditure absorption is inversely related to the budgetary control as depicted by the coefficient of -0.681. Similar inference can be made for development expenditure absorption with a coefficient of 0.844.

4.5 Post-estimation Tests

Several tests were conducted as post-estimation tests, for starters, the study conducted Granger causality test, this was followed by model stability test, and test for autocorrelation.

4.5.1 Stability Test

Stability test is used to check on whether the time-series abruptly changes in ways not predicted by the model. From the results presented in Figure 4.1 All the eigenvalues lie inside the unit circle. This implies that VAR satisfies stability condition.

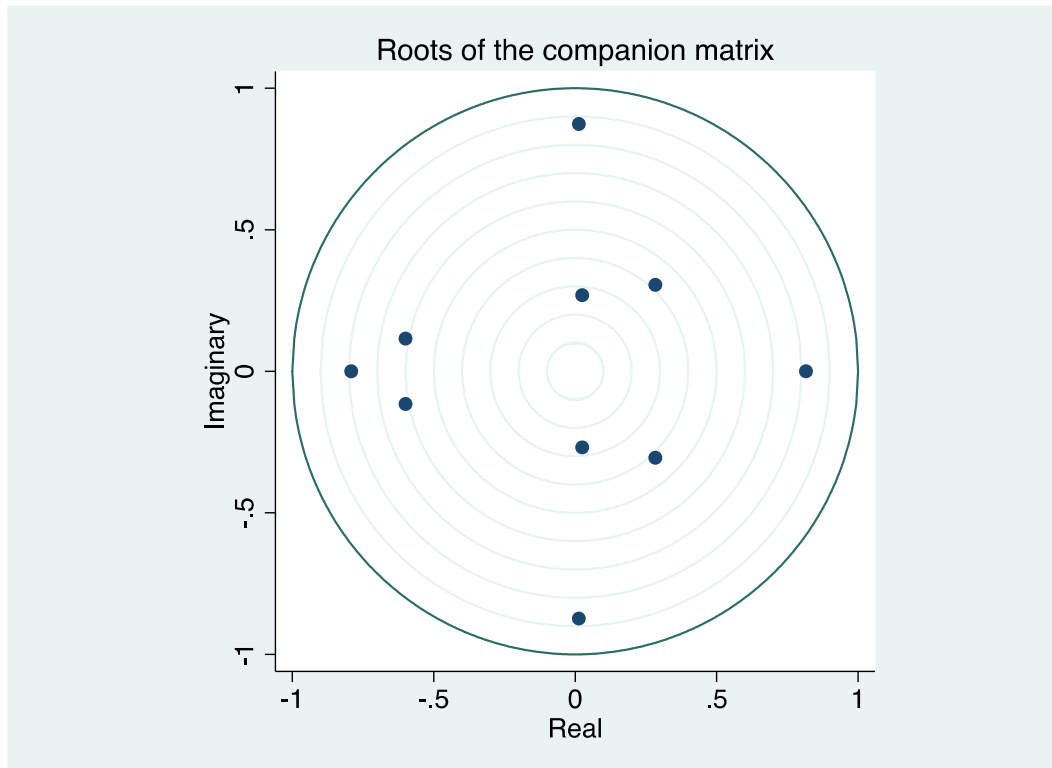


Figure 4.2: Stability Test

4.5.2 Autocorrelation Test

The autocorrelation test was conducted using the Langrage Multiplier test. The test's null hypothesis states that there is no autocorrelation at lag order. From the results presented in table 4.8, we accept the null hypothesis and conclude that there is no autocorrelation in the model.

Table 4.7: Autocorrelation test

lag	chi2	Df	Prob>chi2
1	23.6605	25	0.53905
2	24.5685	25	0.48675

Source: Author's computation

4.6 Regression Analysis

Following that the data was stationary in level and owing to the time series data. The study goes ahead to estimate a Vector Autoregressive model. The study saw it fit to run a VAR model because of the aspect of lags, this implies that independent variables may have a lag or postponed effect on the budgetary control in the subsequent quarters. Results are displayed in Table 4.6.

Table 4.8: Regression Results

	Coef.	Std.Err.	z	P>z
Ln_outcome				
L1.	3.493	1.333	2.62	0.009
L2.	3.438	1.073	3.2	0.001
lnExpenditure				
L1.	-3.192	1.377	-2.32	0.02
L2.	-3.082	1.162	-2.65	0.008
lnOwn source revenue				
L1.	0.201	0.0217	9.26	0.000
L2.	0.291	0.248	1.17	0.241
Recurrent absorption				
L1.	-0.092	0.036	-2.57	0.01
L2.	-0.102	0.032	-3.22	0.001

Development absorption

L1.	-0.099	0.034	-2.9	0.004
L2.	-0.053	0.026	-2.06	0.04

Source: Author's Computation

From the regression results presented in Table 4.6, it is evident that the present values and past values of both the independent and dependent variables affect the dependent variable. The conventional lag of two was adopted as opposed to the maximum of 4 identified by the lag order selection in order to avert the problem of losing the degrees of freedom. In addition, failure to choose a lag would result in misspecification of the model and potential autocorrelation of the error terms.

Among the results produced by the VAR approach is the effect of the past values of the dependent variable on its present values. The study obtains a coefficient of 3.493 for the first lag and 3.438 for the second lag. Both coefficients are statistically significant at 1 per cent. This infers that a 1 per cent increase in the current output in this quarter would lead to a 3.493 per cent increase in itself in the next quarter and 3.438 in the immediate second quarter.

Expenditure was found to have a negative coefficient in both lags. The coefficient in the first lag is -3.192 which is statistically significant at 1 per cent. This implies that a 1 per cent increase in expenditure would result in a 3.192 per cent reduction in the budgetary control. The coefficient for the second lag is -3.082, which means that a 1 per cent increase in expenditure would lead to a reduction in budgetary control in the second lag. The implication of this is that when the County increases its expenditure this would lead to the corresponding improvement in budgetary control.

Own source revenue has a negative coefficient in both lags but is only significant in the first lag $\beta = -0.201$. This means that a 1 per cent change in own source revenue would result in a 0.201 per cent change in the budgetary control. This means that an increase in own source revenue leads to better budgetary control.

Recurrent absorption had a negative coefficient for both the first lag and second lags of -0.092 and -0.102 respectively. These coefficients were significant at 1 per cent an indication that a 1

per cent increase in recurrent expenditure absorption would lead to 0.092 better outcomes in the first quarter and 0.102 in the second quarter. It is worth noting that this effect is pronounced in the second lag than the first one owing to the slightly larger coefficient. The study also obtained significant and negative coefficients in both lags, that is -0.099 and -0.053. This implies that resource allocation is critical for budgetary control, efficient resource allocation leads to better budgetary control in Elgeyo Marakwet County.

4.7 Granger Causality test

Block Wald tests, also known as Granger causality tests are frequently used to diagnose VARs. These tests look at whether each variable significantly affects each equation. These criteria could make it easier to determine a logical causal sequence. Results are displayed in table 4.7.

Table 4.9: Granger causality Wald tests

Equation	Excluded	chi2	Df	Prob>Chi2
Ln_outcome	lnExp	11.864	2	0.003
Ln_outcome	lnOSR	1.959	2	0.376
Ln_outcome	recurrent	17.67	2	0.000
Ln_outcome	development	11.862	2	0.003
Ln_outcome	ALL	41.899	8	0.000
lnExp	Ln_outcome	3.885	2	0.143
lnExp	lnOSR	2.094	2	0.351
lnExp	recurrent	4.273	2	0.118
lnExp	development	8.149	2	0.017

lnExp	ALL	33.476	8	0.000
lnOSR	Ln_outcome	0.605	2	0.739
lnOSR	lnExp	0.598	2	0.742
lnOSR	recurrent	0.926	2	0.630
lnOSR	development	0.43	2	0.806
lnOSR	ALL	5.233	8	0.732
recurrent	Ln_outcome	12.503	2	0.002
recurrent	lnExp	10.883	2	0.004
recurrent	lnOSR	2.148	2	0.342
recurrent	development	12.202	2	0.002
recurrent	ALL	18.895	8	0.015
development	Ln_outcome	36.755	2	0.000
development	lnExp	30.278	2	0.000
development	lnOSR	6.569	2	0.037
development	recurrent	37.758	2	0.000
development	ALL	72.078	8	0.000

Source: Author's computation

From Granger causality result in the first equation presented in the Table 4.7 it is observed that all the variables apart from Own source revenue granger affects budgetary control. This is as shown by the P-values <0.05 . Own source revenue has a chi2 of 2.094 and a P-value of 0.351. The main justification for this could be the proportion of Elgeyo-Marakwet county financed by own source revenue is quite low. A greater proportion of revenue for Elgeyo Marakwet comes from the exchequer transfer. From the Table it is evident also that budgetary control influences recurrent (Chi2=12.503, P-value=0.002) and development absorption (Chi2=36.755, P-value=0.000). This implies that there exists a bidirectional causality between budgetary control and resource allocation.



CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the study's findings, discussion in connection to previous studies, offers conclusions, and policy recommendations.

5.2 Discussion

Evaluating the effect of the budget implementation process on budgetary control in Elgeyo Marakwet County Government, Kenya was the primal aim of this study. To achieve this the study conceptualized several budget implementation mechanisms and how they influence the budgetary control in the country, amongst them included, county expenditure, resource allocation and own source revenue mobilization. The budgetary control was measured as the net of the approved budget and total county expenditure. Quarterly time series data was collected from the county reports namely County Fiscal Strategy Paper and the County Budget Review and Outlook Paper. Data spanned from the first quarter of the 2013-14 financial year to the fourth quarter of the 2021-22 financial year.

Before establishing the nexus between budget implementation and budgetary control, Several analyses and tests had to be conducted to gauge the adequacy of the variables and data as well as to enlighten the choice between parametric and non-parametric tests. The analysis began with descriptive analysis to enable the researcher to get a general feel of the data. In this regard, average, dispersion, maximum and minimum values were computed. The aim was to identify outliers in the dataset, explain why they were present, and suggest solutions for how they can be solved.

Secondly, the study went ahead to run some pre-diagnostic tests, among the test included the Shapiro-Wilk test for normality. This test established that budgetary control, recurrent absorption and own source revenue were normally distributed whilst development absorption and expenditure were not normally distributed. The study transformed the variables to logarithms in a bid to linearize and normalize them. Unit root test was among the other test conducted as pre-estimation; the study established that all the variables were stationary in levels. In modelling, the study used the Vector Autoregressive Model, a choice that was informed by the lack of unit root

in the data. A lag selection of 2 was adopted, to ensure that the model was well-specified and had enough degrees of freedom. Discussions are presented in the following subsection.

5.2.1 Budget expenditure

In both lags, it was discovered that expenditure had a negative coefficient. The first lag's coefficient is -3.192 and statistically significant at 1 per cent. The findings suggest that a 1 per cent increase in spending would cause the budgetary control to decrease by 3.192 per cent. The second lag's coefficient is -3.082, which suggests that a 1 per cent increase in spending would result in a worse budgetary control in the second lag. This implies that as the County raises its spending, the results of its budget will also grow in line with that increase.

These findings are in line with several literatures. For instance, it is in agreement with the study by Ngumi and Njonjo (2017) who established that capital and operation expenditures affected negatively the performance of companies. Qi and Menash (2017) obtained similar results in their investigation of the nexus between performance-based budgeting and how this impacted budgetary control in the United States. By employing the Nerlove variance components analysis, the study's findings showed a negative link between performance-based budgeting and overall state expenditure and social expenditure

5.2.2 Resource Allocation

Resource allocation was proxied by development and recurrent budget absorption rates. Budget absorption is the difference between the amount spent by the county government and the approved budget. It represents how effectively resources are allocated (Kartweng, 2018). Recurrent absorption yielded a negative value of -0.092 and -0.102 for the first lag and second lags, respectively. These coefficients, which were significant at 1 per cent, showed that a 1 per cent increase in recurrent expenditure absorption would produce better results in the first and second quarters of 0.092 and 0.102, respectively. It is important to note that due to the somewhat bigger coefficient, this impact is more noticeable in the second lag than in the first. Additionally, the study found significant and negative coefficients for both lags, namely -0.099 and -0.053.

When compared, to other findings the findings are similar, a higher budget absorption percentage is a connotation of inefficient allocation of resources. Lemarleni, et al., (2017) established that resource allocation was positively related with budgetary control in the police service. Kwarteng

(2018) investigated the connection between resource allocation and budgeting among Ghanaian firms. The study established that there is a positive connection between resource allocation and budget performance. Phillips and Costa (2020) suggested that for effective budgeting it would be imperative for organisations to allocate financial resources optimally and transparently.

5.2.3 Own Source Revenue

In both lags, own source revenue has a negative coefficient, although it is only significant in the first lag $= -0.201$. This indicates that a 1 per cent change in own source revenue results in a 0.201 per cent difference in the budgetary control. This suggests that increasing own source revenue results in improved budgetary control. The findings are consistent with the work of Ndunda et al., (2015) established that tax compliance has a significant effect on revenue collection which subsequently positively affects the budgetary control. Rustan et al., (2021) found that local revenue positively affected capital expenditure in Indonesia. The study considered capital expenditure as a reference to the budgetary control.

5.3 Conclusion and Recommendation

Inferring from the research that has been done, the study's goal of evaluating the effect of the budget implementation process on budgetary control in Elgeyo Marakwet County Government, Kenya has been successfully achieved. From the first objective which sought to assess the effect of budget expenditure on budgetary control in Elgeyo Marakwet County, the study concludes that budget expenditure has a positive effect on budgetary control. This effect is highly elastic as a percentage change in expenditure results in more than one per cent change in budgetary control. The implication is that when the County increases its expenditure, it would lead to the corresponding improvement in budgetary control (Kartweng, 2018).

The second objective aimed to establish the effects of resource allocation on budgetary control in Elgeyo Marakwet County. In this regard, resource allocation was proxied by absorption rate that was categorized into development and recurrent absorption. The study finds that absorption has a positive effect on the budgetary control. Budget absorption is a reflection of a proper utilization of funds through allocating them to intended purposes. It also established that Elgeyo Marakwet county has a very low absorption rate for development funds less than 30 per cent on average.

The study recommends that the county government should give more priority to development projects and ensure that projects are initiated on time and follow the stipulated time frame.

Finally, from the third objective intended to determine the effects of own Source Revenue Mobilisation on budgetary control in Elgeyo Marakwet County, the study concludes that Own source revenue has a positive effect on budgetary control. This effect is less than proportionate and in only one period. This is explained by the remarkably low revenue share of own-source revenue compared to other sources such as exchequer releases in Elgeyo-market county. The study recommends that the county government increase its stream of income as well as increase efficiency in revenue collection through sealing seepages. This will ensure that the approved budget is fully financed.

5.4 Limitation of the study

The study was constrained by a statistical limitation of only having a 10-year period to examine, as the counties being studied had only been established for the past decade. To overcome this, the study utilized quarterly data instead, as using annual data would have resulted in smaller data points.

The study was limited by finances and therefore could only rely on data from secondary sources. Future studies should triangulate the data to draw wholesome inferences.

5.5 Suggestion for Further Studies

The 10-year horizon for the study was statistically limiting, this is due to the fact that the counties have only been in operation for the past decade. The study averted this situation by using quarterly data. However, since devolution is enshrined in the constitution and is bound to stay, future studies should look at the long-term and short-term budgetary implications of budget allocation.

The study relied on secondary data, which had some availability issues. Furthermore, they could not address all the aspects that the researcher wanted to capture especially the reasons for the underperformance of development absorption among others. These issues can be adequately captured through interviews.

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APPENDICES

Appendix 1: NACOSTE

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RESEARCH LICENSE



This is to Certify that Mrs. Merry Jelagat Kanda of Strathmore University, has been licensed to conduct research in Elgeyo-Marakwet on the topic: THE EFFECT OF BUDGET IMPLEMENTATION PROCESS ON BUDGET OUTCOMES, A CASE STUDY OF ELGEYO MARAKWET COUNTY for the period ending : 27/May/2023.

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Appendix 2: Ethical Clearance



3rd February 2023

Mrs Kanda Mercy,
mercy.kanda@strathmore.edu

Dear Mrs Kanda,

RE: The Effect of Budget Implementation Process on Budget Outcomes: A Case Study of Elgeyo Marakwet County


This is to inform you that SU-ISERC has reviewed and **approved** your above **SU- master's** research proposal. Your application reference number is **SU-ISERC1524/22**. The approval period is from **3rd February 2023 to 2nd February 2024**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, and MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 48 hours of notification
- iv. Any changes, anticipated or otherwise, that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 48 hours
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,


for: **Dr Ben Ngoye,**
Secretary; SU-ISERC

Cc: Prof Fred Were,
Chairperson; SU-ISERC

