

**SURVEY OF BUDGETING CONTROL PRACTICES IN MANAGEMENT OF
SECONDARY SCHOOLS: CASE OF MERU NORTH REGION IN KENYA**

SAMUEL N. KAMUNGE

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DECLARATION

This project is my original work and has not been presented for award of a degree in any other university.

Sign..... Date.....

SAMUEL N. KAMUNGE

D61/76270/2012

This project has been submitted for examination with my approval as University Supervisor:

Sign..... Date.....

DR. WINNIE NYAMUTE

LECTURER IN THE SCHOOL OF BUSINESS

UNIVERSITY OF NAIROBI

DEDICATION

I wish to dedicate this work to my wife Elizabeth for her support, my sons Victor, Alvin and daughter Joy who inspired me with their curiosity to my family and friends. Thank you so much for your continuous encouragement to complete my studies.

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LIST OF ABBREVIATIONS

NGO's	:	Non-Governmental Organizations
PBBS	:	Performance-Based Budgeting System
SACCOs	:	Savings and Credit Cooperative Societies
SPSS	:	Statistical Package for Social Scientists
SBB	:	School Based Budgeting
ZBB	:	Zero Based Budgeting
BOMs	:	Board of Managements

ABSTRACT

This study was a survey of budgetary control practices in management of secondary schools in Meru North region in Kenya. The theory of budgeting, accounting, budgetary control theory and the school based budgeting model were reviewed under the theoretical framework. Determinants of budgetary control were examined after which an empirical review of the study variables was done both globally and locally. A descriptive survey design was adopted to capture the categorical description of population attitudes. Sample size of the study consisted of 160 secondary schools in Meru North Region. The sample size constituted 75 secondary schools in Meru North Region. Out of the selected schools, convenience sampling was used to select 2 respondents from the schools to make a total sample size of the respondents to be 150. Both open and closed semi-structured questionnaires were used for data collection. Secondary data sources were used to supplement the data collected from questionnaires. Validity and reliability were determined. Data was analysed to establish the measures of central tendency that include the mean, mode, and median highlighting the key findings. Inferential statistics was used to establish the relationship between the variables of the study and qualitatively by content analysis. Analysis of variance (ANOVA) was used to determine the significance relationship of the variables. Regression analysis was used to determine the extent to which budgetary control affects management of educational institutions in Meru North District in Kenya. The study established positive relationship between management of secondary institutions and budgetary control practices by the schools. In establishing the time period covered by budgets, the study found that majority (65.15%) of schools in Meru north region review budget after 1 to 5 years. Pertaining the annual budget revenue, it was found that 55.07% of the secondary schools in Meru north region have approximate budget revenue of Ksh.1,200,000 - 3,600,000 per annum while the study found that none of the school budget holders' disagreed that there were no objectives in the budget while results are linked to programs and school activities. On the impact of evaluation on budgetary control practices in management of secondary schools, the study found schools involves all key players in decisions about budget and the management of the schools review the budget as the respondents strongly agreed at 44% respectively. The study recommended frequent budget review as soon as possible, further recommended capacity building courses for schools BoM members through the ministry of education in Kenya, both internal and external evaluations be done regularly to ensure school finances are prudently utilized as per the school's education objectives while nomination of BoMs members prioritize those versed with financial management concepts and demonstrate highest integrity. A study is recommended to evaluate the adoption of common technology software and advanced accounting systems in the management of finances in secondary schools. Further studies are emphasized on the effect of education level for board members (currently Board of management) on implementation of development plans and their appointment procedure, effect of involvement of deputy principals in the budgeting committee, on development plan, effects of gender of principals on implementation of school development plans and the influence of auditing and reporting on implementation of development plan.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Good financial management is fundamental to the success of both public and private institutions globally. Many companies make use of budgets mainly as an internal control tool for efficient and effective resource allocation. Budgets help organizations compare between the actual and intended performance for effective inference and evaluations. Hokal and Shaw (2002) assert that, ideal budgets are a base for performance management and standard setting. According to Kimani (2014), budgeting entails predetermined goals versus actual performance results duly evaluated to highlight any variation for actions after.

Budget control systems are universal essential tool for financial planning. Churchill (2001) argues that, the main role of budgetary control is to provide a projection incomes and expenses. Horngren et al. (2004) sees budgets as the management proposed action plan quantitatively expressed for a particular time aiding implementation of that plan. In nutshell, a budget is a financial or quantitative statement, with detailed plans and policies geared to be achieved within a specific time period (annual).

Riley (2012) asserts that budgets are tools of income control used to guide on priorities setting targets in order to ensure that business objectives are realized.

According to Uyar and Bilgin (2011), budgets are used to aid future projections, control expenses, profitability as well as planning. Organizations should have both recurrent and capital budgets in order to control and plan for both short term and long term cash flows.

1.1.1 Budget Control

Dunk (2009) defines budget control as the process of developing a spending plan and from time to time make comparison over actual expenditures versus plan to establish whether any variation that requires timely action. Thus budgetary control is key in ensuring that spending do meet set financial goals. Firm's should capitalize more on controls in order to check intra-firm spending activities. This technique is universally applicable to private and public sectors institutions as well as individuals aiming to live within their means.

Implementation of budgetary control techniques is geared towards minimizing risks emanating through cases like theft, fraud and technological malfunction as well as guaranteeing management in ensuring that expenditures are within set capping. The merits of budgetary control are ease of implementation even by three departments as a way of enhancing efficiency and effectiveness. Some of these departments include accounting, statistical and management department. Suberu (2009) adds further that the management departments make use of both accounting and statistical departments' as source of information for the organization in its routine practices.

Carr and Joseph (2000) ascertain that, budgetary controls help management teams in making future plans through implementation of short term plans and monitoring activities aimed at conforming to the plans, further the author argues that effective implementation of budgetary control techniques enables managers in helping them perform major routine functions.

Ineffective management and improperly conceived budgeting procedures, may be frustrating to managers resulting to very stringent cautionary measures such as

downsizing, retrenchments, company buy-outs due to insolvency and possible business failure due to continued mismanagement leading to closure.

1.1.2 Management of Educational Institutions

Educational policy makers in schools and districts may encounter stakeholders who are resistant to or opposed to changes. This may lead to decisions making pertaining to prudent resources utilization in effective, thus stakeholders should be adequately informed to enable them make best decisions. Effectively articulating the proposed changes is also key opportunity in building consensus (Carl, 2008)

Southwest Educational Development Laboratory (2001) finds that those study findings are unpredictable. Analyzed study of about 400 studies established unclear relationship among student and resources thus arriving at a conclusion of student outcome and resources as at now. Pan et al. (2003) argues that some of the other researchers who have worked on this area indicated that spending levels may influence educational management especially when examining specific student sub-groups or educational programs. Details of the resources likely to be spent remain unclear.

The student-based allocation budgeting technique of resource distribution wherein all cases funds are not guided by general enrollment rather on students individually, rather than basing schools' budgets on enrollment. According to the Education Commission of the States (2012), the student-based budgeting argues that it disallows distribution of revenue among most deserving schools such as those disadvantaged by, regional disparities or special needs education or marginalized area among other cultural diversities.

There is an argument that equity does not mean equal dollars the leveling of the playing field and providing all student's similar opportunities to learn. Often there is disequilibrium in this distribution resulting to some schools and/or students receiving more dollars than others. To create equality in school resource allocation and distribution, the student-based budgets have proven to be most useful in large and diverse districts (Baker, 2009).

The National Center for Education Statistics (2009) argues that linking spending to income is not possible in most education settings. Whereas the main objective was spending effect possible in order to get, different results among individual sub counties may likely differ on the samples collected with analytical ability.

1.1.3 Budgetary Control Practices in Meru North Region

Meru North district (Nyambene) is a district that was split from the larger Meru District, along with Meru South District (Tharaka Nithi) and Meru Central District. From the Supreme Court's decision in September 2009, Meru North was brought back to be again part and parcel of Meru County (Nyasato, 2009). Trading in khat is a boom to other vendors as it stimulates the sale of banana leaves to khat traders to protect the khat harvest from drying (Nyasato, 2009).

County budgeting committee at Meru north region government level is responsible for the budgeting purpose while auditors, on the other hand, are responsible for the main function of evaluating resource use so as to identify cases of misappropriations and wastage of resources. At the School level contexts, school heads and their finance officers are entrusted with the roles of budgeting and evaluation thereby making the process prejudiced as the thief cannot be sent to catch another thief or himself even. As per Arora (1995), budgets provide detailed plans of action for firms over particular periods of time.

Schools in Meru North Region can be guided to lower cost of goods by implementation of proper budgetary control planning, based on existing allocations. According to Mathis (1989), budgetary control planning helps reduce costs and achieve goals and thus organizational effectiveness and efficiency. Through good coordination by budgeting organizational are harmonized with the objectives of its constituent parts. (Churchill, 2001).

1.2 Research Problem

The National Center for Education Statistics (2009) argues that school's financial models, especially on areas disadvantaged by geographical, cultural and social challenges may likely not support high levels of student learning. These models were designed to accommodate long term objectives such as programs support, boost

student's enrollment, hire staff, infrastructure improvements etc. Today funding arrangements are mainly parent and government subsidies making it complex to use resources strategically or track their effects.

The effectiveness of resources utilization is dependent on the prudent management across different stakeholders including students and teachers whenever they are available. It is important to recognize however that the effects of spending on student performance are difficult to isolate. (2012) also finds that, the process of budget preparation, control of budgeting process and implementation of budgets substantially influences possible budget variances.

It is extremely difficult in most education settings to link spending to outcomes. In most regions schools are restricted on how to spend through guided ratios per specific vote heads such as personal emoluments, local travelling and transport, electricity water and conservancy, activities, tuition, lunch, boarding equipment and stores among others if any, deviation likely to support other probable use of the funds may thereby result to difficulties in sustaining new strategies and the lack of appropriate accountability. Furthermore, many school heads do make decisions that are based more on political considerations rather than on mutual participation of involved stakeholders as well as on organizational effectiveness.

The presence of inappropriate budgeting in schools has been the cause of the poor service delivery which has been demonstrated by increased student strikes due to inappropriate boarding facilities and other infrastructures, low food quality and quantities, high teacher turnover levels and consequently low student performance. It has also become difficult to spot school heads who misappropriate funds by hiding in white elephant projects under the guise of stakeholder's consent.

While many local and international studies have addressed budgetary control techniques and effects on organizational performance, the role of budgetary control in management of educational institutions has been neglected despite its importance thereby leaving this area of study grey. This study sought to address this gap by surveying budgetary control practices in management of secondary schools in Meru North Region in Kenya.

1.3 Research Objective

To assess the effect of budgetary control practices in management of secondary schools in Meru North Region in Kenya

1.4 Value of the Study

The study benefits schools not only in Meru North District but across Kenya in understanding budgetary controls standards that safeguards equitable distribution of resources is achieved as well as fostering accountability for allocated funds. The study helps other firms to better deal with budgets and budgetary control matters by explaining the main principles involved in budgeting; preparation, implementation and control.

The results of this research provides more knowledge to governments agencies and private sector relevant findings that advocate schools should be independent from political interference and to allow school management a great locus of control in management of their funds so as to ensure holistic development across the district in terms of boarding facilities, educational buildings and other learning facilities key to performance of these schools.

This study also provokes policy makers to put in place structures for accountability, disciplinary and participation in matters of educational budgets. These measures are vital in ensuring that schools manage their funds accordingly for the purpose of all stakeholders and not biased to only few budgeting committee members' interests. Scholars and future studies on related topics may enrich their empirical literatures using these findings. It is without mention that this study opens the doors for school based budgeting studies in Kenya and Africa as a whole.

Additionally, benefits of budgeting enables stakeholders in overall performance evaluation the organization set goals. Those who are still rigid to the concepts of budgeting and associated controls can learn the dangers associated with the lack of or poor budgeting in businesses and it is expected that the study changes their mentalities to embrace budgetary control precepts in management of educational institutions globally.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter majors on theoretical framework of the study; addresses theories that support budget control and effectiveness, budgetary control techniques, as well as empirical studies and the literature review summary.

2.2 Theoretical framework

This section explains the theories that form the emphasis of this study, that try to explain the research question and articulate the already published arguments for verification and critique following the results that were realized from this research.

2.2.1 The Theory of Budgeting

Budgets are used by most firms and projects as future financial performance tools which enable in the evaluation of their financial viability. Organizations can prepare both long-term and short term budgets in different timeliness such as monthly, quarterly, semiannually, annually and over a wide range of years. Usually, short term budget covers a period of within a year while long-term budgets cover more than three years, in some instances an organization can have a medium term budget which covers 1-3 years. Budgets have been defined by Silva and Jayamaha (2012) as a mere collection of plans and forecasts. Budgetary control enables an organization to compare between actual and expected outcomes as regards to budgeting. According to Hirst (1987), an effective budgetary control system helps organizations in planning and providing measures on how to tackle emerging threats through establishment and safeguarding laid down controls. Shields and Young (1993) states budgeting theory as one used to detect differences between organizational objectives and performance.

Sharma (2012) further details that the management benchmarks in similar or related industries with an aim of strategizing or take corrective actions where necessary. Budgets influence the behavior and decisions of employees through providing targets against which performance can be measured.

According to Scott (2005), budgeting and budgetary control processes allow for a subsequent comparison of actual results with the expected results. According to Selznick (2008), budgets has several roles which includes coding, learning, making goals explicit, contracting with external parties as well as facilitating control.

2.2.2 Accounting Theory

Accounting theory sets acceptable standards geared towards strong policy development and future continuous improvement (Kaplan & Norton, 1996). Otley and Pollanen (2000) exemplify further to explain main goal in accounting theory development as means of weighing techniques for accounting acceptability.

Budgeting provides a feedback mechanism to the management of an organization on how well financial assets are managed as determined by the match between the plans and the actual status upon implementation of budgets. The matching concept in accounting as per Hopwood (1976) is used as a point of reference in analytical budgeting.

2.2.3 Theory of Budget Control

Robinson and Last (2009), budget serves as a tool to for expected income and expenditure allocation in the firm. Budgeting systems help in ensuring that the objectives set are achieved as per results and services generated.

Financial viability is determined by the level of income a firm is able to maintain in any given time Robinson, 2009. Enterprise requires clear measures to guarantee that plans are well distributed as required to aid in timely mitigation of variances identified. Robin and Last (2009) assert that, if a firm has lesser income, strategic initiative should be put in place through seeking external funding

According to Sawhill and Williamson (2001), assert budget may act as parameters that is measuring governments' performances and thus serving as statements of measuring whether these governments are competent in administering their national goals through good resource use.

2.2.4 School Based Budgeting Model

School-Based Budgeting (SBB) is often discussed in the context of the School-Based Management (SBM) strategies that aim at increasing schools' educational productivity. SBB is an administrative budgeting process independent of the governance restructuring concept of SBM. Its primary objective is the achievement of economic efficiency through cost-benefit analysis.

SBB involves decentralization of a school system of budgeting and spending functions, by devolving both responsibility and authority for these functions to school-site agents. It is important to note that SBB cannot be effective in every school system and as such, the other budgeting control techniques can be applied to schools which experience this kind of incompatibility. According to Willstatter and Buffett (1992), the prime role of SBB is not "cost savings," rather the achievement of an increased educational production.

2.3 Budgetary Control Determinants

Multiple determinants exist that influence successive budgetary implementation, according to Srinivasan (2005), include: availability of monetary support, skilled manpower capital, and employee participation and effectiveness of staff motivation while planning.

2.3.1 Adequate Financial Resources

Despite the provision of other requirements, firms are expected to allocate adequate finances and other structures efficiently so as to ensure effective implementation of projects and other activities. According to Dunk (2001), budgeted estimates should super cede any budget before implementing any projects.

2.3.2 Competence of Human Resource

Firms are expected to have experts well versed with enough understanding of the budget. According to Horngren (2002), in order to successfully execute firms'

activities, firms must ensure that they have adequate technical expertise to handle budget procedures and control.

2.3.3 Employees and stakeholder's involvement

During budgetary formulation, all employees and other participants should be involved in overall achievement of the expected output. Budgetary control systems thrive only when both superiors and subordinates work as a team. Full participation in budget and budgetary control process guarantees teamwork in ensuring set plans are measurable and attainable (Simiyu, 2002).

2.3.4 Proper Planning

The budgetary period duration is annual the plan should also consider long term development strategy of the firm, though shorter term should also not be negated. Feedback should be encouraged and made available to the managers responsible for budget operations through monthly budget reports to identify variances and act on them. The management team ought to define these occurrences of income and expenses over the span of the project. (Joshi & Abdulla, 1996).

2.3.5 Evaluation

Simiyu (2002) states evaluation as the process of developing a plan jointly with an evaluation workgroup of stakeholders who foster common objective for effective budgetary control. Hancock (2009) says for sound and prudence management requires direct engagement through both monitoring and evaluation.

2.3.6 Budget Process Monitoring and Control

Upon budget implementation there is need for monitoring and control to guarantee correctness over a given time span (Horngren *et al.*, 1997). Open approach to budget planning boost confidence to financial partners (Otley & Van der Stede, 2003).

2.3.7 Motivation of Employees

Realistic and achievable targets in budgeting may play a significant part in motivating management. Hansen *et al.* (2003) In addition targets must be measurable and easier to achieve. The budget acts as parameter for top management to measure results. It should be noted, that adherence to the budget alone may not measure all aspects of management's performance according to, Hansen *et al.* (2003)

2.4 Empirical Studies

In Kenya, most of the public and privately owned firms now place the departments as resourceful units through routine monitoring and reporting making them key part of non-organizations in Africa (NGO's, 2013). This section reviews the empirical studies which have been advanced on budgetary control practices and how that affects the management of schools both globally and locally:

2.4.1 Global Studies

Stiefel *et al.* (2003) conducted a study on budgeting and performance in schools New York City's. The researchers analyzed the student test for both fourth and fifth grades about their spending occurrences impact. The New York City Education board data on schools' level was used, within a period of four years, 1995-1996 and 1998-1999 about 609 set of data was used as the basis of this research. To study estimated school production function models that incorporate school fixed effects and an indicator for participation in PDB. After controlling for these and other student body characteristics, the study established that there was positive relation on PDB versus scores achieved by students thus leading to mixed spending changes had led to a change in the mix of spending, but not its level.

Pan *et al.* (2003) researched on how resource allocation affects the educational sector. The study sought to connect between spending and performance by examining student performance versus monetary allocation from the following states, Louisiana, Texas, Arkansas New Mexico. Study also sought 12 schools that had greatly improved within the districts from the sample which indicated relationship was strong and closely related to finance allocations.

Badu (2011) researched on budgeting practices in Ernest Chemist, a Ghanaian based drug supply company with an aim of identifying the perception of budgeting experts designed questionnaires to interview members of staff in the companies to get their views over problems, concerns on budgetary. Results indicated appropriate budgetary had been adopted while preparing the pharmacy's budgets.

Kabiru et al. (2013)'s study sought establish variance analysis relevance for cost control in management among Nigerians. The study intended to analyze data on variance analysis in managerial control within the organization. Study recommended that standards should be put in place to guarantee expected results.

Ekanem (2014) sought to find out Zero-Based Budgeting (ZBB) application in management as an aid for implementation in Calabar University, Nigeria. A sample of 250 members was randomly selected to establish effectiveness level using ZBB application for implementation through identifying the dissimilarities among teaching and non-teaching staff for ZBB implementation within university Analysis of the data was done using independent t-test statistics and mean. The outcome was Zero Based Budgeting implementation in the university was effective while application was inhibited by some factors in its application. Zero Based Budgeting implementation largely depended on top cadre staff within the university. In conclusion study asserted the implementation of budget at University of Calabar was above board.

Mohamed et al. (2015) examined performance impact on budget control at Dara-salaam Bank in Somaliland. Study aim was to determine organizational budget effect on its performance and accounting influence. Also to investigate impact on cost and zero based budgeting in the performance overall within an organizational Both were descriptive and retrospective research designs were used. Selected 70 members of staff for Dara-salaam Bank in Hargeisa Somaliland was done. Data was analyzed by SPSS version and charts and table frequency was provided. The study revealed accounting, zero based budgeting and variance analysis task enhanced budgetary controls and improved results. The study recommended for accounting staff needs to acquire relevant training in accounting skills so as to enhance process business decisions and improve efficiency and productivity of the accounting profession.

2.4.2 Local Studies

Meliano (2011) researched on perception within management and importance of ZBB from organization not government based (NGOs) in Kenya. Main aim was to establish the managerial perception on the usefulness of Zero Based Budgeting among organizations that are not government based in Kenya. Descriptive survey design was adopted with a sample size constituted involving 300 nonprofit making organizations (NGOs) for this study. Collection of data was done through questionnaires while descriptive statistics were analytically generated. The study findings revealed that technique for zero based budgeting are important among Kenyan NGOs due to flexibility, communicated corporate goals, minimized cost and encouraged knowledge sharing. Further, it was established that bases of budgeting we the most vital factors affecting managements' perception and effectiveness of Zero Based Budgeting in NGOs followed by organization structure. The researcher therefore recommended for a further study on other stakeholders' perceptions on the usefulness of zero based budgeting.

Karanja (2011) researched on Saccos within Nyeri County budget process control. This study used descriptive design method to generalize the results. Sampled size of officers in the finance department numbering 120 in Nyeri County SACCOs was selected. Stratified random sampling technique was used where a stratum of 30% through simple unbiased representation method was used. While by use of questionnaires initial data was collected. Study indicated that both finance and administration section were involved, further study indicated budgetary process control had no connection with regulations within labor sector.

2.5 Summary of Literature Review

This chapter has reviewed both the empirical and theoretical literature on budgetary control technique as a tool for management of educational institutions. Budgets have emerged as key in process control and therefore important aspect in proper management both locally and internationally. Researchers have established that there is no universal budget method to all sectors in business. Its argued that firms adopt specific approach based on prevailing dynamics within its operation such as

prevailing industry threats, legal requirements, adopted strategies viz a viz controls adopted in their operations

It was established that the interaction of School Based Budgeting (SBB) allocations with other revenue streams, such as state or federal categorical programs, reduces budget clarity and weakens the link between weighted pupil funding formula and the actual amount of resources schools receive.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the approaches and techniques researcher used when collecting data, analyzing data and presenting the findings. These include the research design, target population, data collection methods and data analysis techniques.

3.2 Research Design

A descriptive survey design was adopted to capture the categorical description of attitudes of the study population. According to Sekeran (2003), descriptive studies often result in formulation of principles of knowledge and solution to significant problems. Sekeran (2003) further states that the descriptive studies are designed to obtain current phenomenon and whenever possible to draw varied conclusions from facts that are discussed. Sekeran (2003) asserts that a descriptive research design is easy to understand as it attempts to collect data from population members and describes existing phenomenon with reference to budgeting controls.

3.3 Target Population

Lumley (2004) defines a population as a larger collection of all subjects from where a sample is drawn. Sekeran (2003) define target population as the population in which the researcher wants to generalize the study results. The population of the study consisted of 160 secondary schools in Meru North Region. There are 160 secondary schools in total in Meru North Region (Meru County Report, 2015) as shown in Appendix VI below.

3.4 Sample Design

Since the population of the study was 160 schools which were less than 10,000, Kothari (2004)'s formulawas used in order to draw the required sample size from the targeted school population:

$$n = \frac{Z^2 * p * q + ME^2}{ME^2 + \frac{Z^2 * p * q}{N}}$$

- Where:** n = sample size desired
z = standard normal variable at the required confidence level.
P = target population characteristics estimated
q = 1- p
ME = level of statistical significance sets/margin of error
N = total population targeted

Given that:

N = 160, z = 1.96/95%, p = 0.9, q = 0.1, ME = 0.05/5%

$$n = \frac{((1.96)^2 (0.9) (0.1) + (0.05)^2)}{(0.05)^2 + \frac{(1.96)^2 (0.9) (0.1)}{160}} = \frac{0.345744 + 0.0025}{0.0025 + \frac{0.345744}{160}} = \frac{0.348244}{0.0046609}$$

n= 74.716

Therefore, the sample size constituted 75 secondary schools in Meru North Region as shown in appendix V below. The schools for the sample size was picked by systematic random sampling in which case every 2nd element from the school population formed part of the sample size, this continued until the 75 schools are selected. Out of the selected schools, convenience sampling was used to select 2 respondents from the schools who were convenient to the reach of the researcher. This made the total sample size of the respondents to be 150. The 2 respondents from each school entailed the school bursar and the head teachers who are assumed to have the pertinent financial information required by the study. Sekeran (2003) argues that sampling merits are economical and time conscious.

3.5 Collection of data

Primary as well as secondary data techniques were used. Initial data collection was through semi-structured questionnaires. The closed and open questions were contained in the questionnaire. Administration of the structured questionnaire was done through agreed time frame where the researcher would drop and pick afterward approach through. Recent annual reports provided the parameter indicators to measure the dependent variables in order to achieve goals of the study; the dependent variable

was measured using performance indicators from the recent annual reports. Data collected were supplemented from the secondary one.

Variables that were independent consisted of budget controls practices such as which involves evaluation and control, monitoring review and planning. Likert scale was used to have data on budgetary control.

3.5.1 Reliability and validity

Validity test is concept or measurement which accurately corresponds to the real world pertaining instrument used in research. Are the measures purported to have been achieved, Mugenda and Mugenda (1999) states that to enhance validity of a questionnaire, data should be collected from reliable sources, the language used on questionnaire should be kept simple to avoid any ambiguity and misunderstanding. To establish validity of research instrument the researcher will seek opinions of experts in the field of study especially the researcher's supervisor to enhance validity. Internal consistency reliability will be done after all items have been constructed (Kombo & Tromp, 2006). Cronbach alpha test will be used to test for reliability of this study. In this study if the alpha coefficient of correlation obtained is 0.7 or above, then the questionnaire is accepted as reliable to be used in the study (Boudens and Abbott, 2005). Field (2014) contended that Cronbach's alpha value that is at least 0.70 is for a reliable research instrument.

3.6 Data Analysis

Analysed data was intended to measure central tendency which comprised of mean, mode, and median giving key findings. Analysis of variance (ANOVA) was used to determine the significance relationship of the variables. Analysis of variance (ANOVA) was used to determine the significance relationship of the variables. Regression analysis was used to determine the extent to which budgetary control affects management of educational institutions in Meru North District in Kenya

3.6.1 Analytical Model

Linear regression mode was adopted to test the relationship among the variables in budget control as the independent and management of educational institutions as the dependent. The empirical model was thus:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where:

Y = management of educational institutions.

β_0 = Intercept

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = coefficients

X1 = Planning assessed through questionnaire by defining the patterns of expenditure and revenue for the activity.

X2 = Monitoring review and Control was assessed through questionnaire and review of reports generated from time to time

X3 = Evaluation was assessed through questionnaire where comparisons between the budget allocated actual budget reports

X4 = Adequate availability of monetary was determined through questionnaire by determining the amount of money committed to an activity.

X5 = Reduction of cost in the projects done through evaluating percentage of cost reduced.

X6 = Performance evaluation was done using a questionnaire to determine the time spend in a certain project versus budgetary allocation for the project.

ε = error term

3.6.2 Variable, Variable Measurement and Selection

A variable in the study were sequentially and through ratios scales. Managements of educational institutions within Meru North Region in Kenya were used to test effectiveness. Independent variables that were used to measure budgetary control of secondary schools in Meru North Region included planning, monitoring review and control and evaluation. To achieve the objective of this study, the independent variables were measured using the frequency at which budgetary control is implemented in order to achieve effectiveness of Meru North Region secondary schools. Mean and Standard Deviation within a range of five points was used to measure all the independent variables.

3.6.3 Tests of Significance

Dependent variable Y, management of educational institutions, β_0 is Y intercepts $\beta_1 \dots \beta_6$ are regression model coefficients. The model basis is to enable us measure whether Meru North Region secondary schools adhere to proper budgetary control measures in order to achieve effectiveness and efficiency in their procedures. Multiple independent key variables were used which includes planning, monitoring and control and evaluation. Data will be collected through use of questionnaire well structured. The test significance is the ANOVA test.

CHAPTER FOUR

DATA ANALYSIS AND RESEARCH FINDINGS

4.1 Introduction

This chapter describes the analysis of data followed by a discussion of the research findings. The findings relate to the research questions that guided the study. Data was analyzed to identify, describe and explore the relationship between budgetary control and management of education sector and to help determine the understanding effective budgetary control measures for prudent budgets as well as fostering accountability for allocated funds.

Data was obtained from self-administered questionnaires, completed by 150 school head teachers/budgetary staff and teachers, however 34 questionnaires had incomplete information. The researcher therefore analyzed 116 questionnaires (n=116), from a population of 160 secondary schools in Meru County, the researcher used a sample size of 116 which represents a response rate of 72.5%. The response rate of 72.5% is considered adequate in drawing conclusion of the population from the characteristics of the sample. The questionnaire and interview schedules are attached as Appendix II.

Descriptive statistical analysis was used to identify frequencies and percentages to answer all of the questions in the questionnaire to present the data analysis. Not all respondents answered all of the questions therefore percentages reported correspond to the total number of school managers answering the individual questions. The statistical significance of relationships among selected variables was determined using the Fishers exact test. The level of significance was set at 0.05.

4.2 Descriptive Analysis

The questionnaire had twenty-six questions, which were classified to represent the study variables as shown in the table 4.1 below:

Table 4.1: Classification of Variables

Dependent variable Y is a measure of management of educational institutions	Represented by answers to question 11, 16, 20, 21 and 26
X1 measured by Planning activities and expenditures	Represented by question 1, 4, 5 and 24 in the questionnaire
X2 Measured by activities and expenditures undertaken in monitoring and control	Represented by questions 2, 9, 10,13, 14, 21, and 22.
X3 measured by the set of activities undertaken in evaluation of budget process and activities	Represented by question 6, 10 and 12 of the questionnaire.
X4 measured by availability of financial resources	The variable was answered by question 3 of the questionnaire.
X5 measured by activities undertaken to curb costs for budgetary process	The variable was represented by question 15, 18 and 25.
X6 Measured by performance evaluation activities determined by time spent and allocation on budgetary tools and process	The variable was represented by question 7, 8, 17, 19 and 23.

Source: Author (2016)

A pre determined likert scale of values from -5 to represent the lowest score in an activity while the highest score was represented by 5, was used. The resulting data can be explained by the descriptive statistics in the table below.

Table 4.2: Descriptive Statistics Table.

	Y	X1	X2	X3	X4	X5	X6
Mean	8.6034482 76	9.2672 41	16.284 48	6.5689 66	1.5172 41	5.5603 45	11.672 41
Standard Error	0.6644630 47	0.5353 13	1.1595 25	0.3576 59	0.2593 04	0.4881 33	0.6607 18
Median	6	10	17	7	1	6	11
Mode	8	10	36	7	1	2	9
Standard Deviation	7.1564860 34	5.7655 01	12.488 47	3.8521 01	2.7927 94	5.2573 57	7.1161 49
Sample Variance	51.215292 35	33.241	155.96 18	14.838 68	7.7997	27.639 81	50.639 58
Kurtosis	- 0.9843125 62	- 0.5691 3	- 0.1559 24	- 0.8715 04	- 0.8293 98	- 0.1862 86	- 18.890 26
Skewness	0.4073561 3	- 0.3257 6	- 0.5018 9	- 0.5916 5	- 0.8448 5	- 0.2170 6	- 2.9382 46
Range	25	21	53	20	10	25	62
Minimum	-4	-3	-17	-5	-5	-10	-1
Maximum	21	18	36	15	5	15	61
Sum	998	1075	1889	762	176	645	1354
Count	116	116	116	116	116	116	116
Largest(1)	21	18	36	15	5	15	61
Smallest(1)	-4	-3	-17	-5	-5	-10	-1
Confidence Level (95.0%)	1.3161733 71	1.0603 53	2.2967 96	0.7084 53	0.5136 32	0.9668 98	1.3087 55

Source: Author (2016)

The dependent variable (Y) had a total mean of 8.6, a standard error of 0.664 with a positive skewness of 0.407; the data had a significance of 1.32 at 95% confidence level.

The table above gives descriptive statistics for the independent variables X1, X2, X3, X4, X5 and X6. The analysis was done at 95% confidence level.

4.2.2 Frequency of Budget Review

The result indicates that a greater percentage (67.47%) of schools review their budget annually. A significant percentage also indicated to be reviewing their budget quarterly (26.43%), does not review at all (3.78%) and monthly (2.27%). This

information is critical in determining whether the public schools adjust their budgets to meet actual expected outcomes after comparing between the actual and expected performance. It was noted that some schools do not review their budgets at all indicating that their budgets were rigid to meeting the potential changes in their operating environment.

Table 4.3: How often is the budget reviewed?

		Total	
		1-5 years	Percentage
How often is the budget reviewed?	Annually	89	67.47
	Monthly	3	2.27
	None	5	3.78
	Quarterly	35	26.43
Total		132	138

4.2.3 Approximate Annual Budgetary Revenue

Financing Education for All (EFA) remains one of the core challenges facing many developing countries in Sub-Saharan Africa. Most of these governments depend upon donor support which more often than not, come with strings attached (EI, 2009). Kenya continues to face a number of challenges following the introduction of Free Primary education in 2003 and Free Secondary Education in 2008. These challenges are mainly associated with lack of adequate teachers (human resources), and equipment and facilities (physical resources) (UNESCO, 2005). The root cause of all these challenges is lack of adequate financial resources.

As shown in the table below, most (55.07%) of the secondary schools in Meru County have approximate budget revenue of Ksh. 1,200,000 - 3,600,000 per annum. Others have 6,000,000 and above (41%), 1,200,000 or less (8.7%) and 3,600,000-6,000,000 (6.82%). The study found out that a majority of schools have hefty annual budgets

indicating that their spending was likely high as well. This information also translates to mean that many schools in Meru County are potentially big institutions and they have higher financing power to meet those high budgets.

Table 4.4: Approximate Budget Revenue for Schools in Meru North Region

	Frequency	Percent
1,200,000 - 3,600,000	76	55.07
1,200,000 or less	12	8.70
3,600,000-6,000,000	9	6.82
6,000,000 and above	41	29.41
Total	138	100

4.2.4 School Budget Planning and Budgetary Control Practices

To examine how school budget planning affects effect budgetary control practices in management of secondary schools in Meru North Region in Kenya, the study examined the extent to which budget control members of the school agreed on how the school should have a long term and short term budget plans, the budgets have clear goals and objectives, when budgeting, outcomes, goals and objectives are linked to programs and school activities, the school put priorities for the coming annual budget conference and committees and that educational departments prepare budget plans prior to the budget year.

The result revealed that schools have clear goals and objectives, and when budgeting outcomes, goals and objectives are linked to programs and school activities. This means schools in this county plan for budgetary practices in order to control practices in management of secondary schools. This is contrary to what Mapesa and Kumbua (2006) observed that the budgeting committee members are technically incompetent and with limited capacity in project identification, planning, monitoring and evaluation. If this continues then there might be adverse effect on the implementation of school development plans.

Table 4.5: School Budget Planning and Budgetary Control Practices

Responses	Strongly agree		Agree		Disagree		Strongly Disagree		Not sure	
	f	%	f	%	f	%	F	%	f	%
The school has a long term and short term budget plans	19	13.77	81	58.69	10	7.25	2	1.45	20	14.49
The budgets have clear goals and objectives	33	23.9	58	42.03	5	3.6	3	2.17	39	28.26
When budgeting, outcomes, goals and objectives are linked to programs and school activities	26	18.84	67	48.55	9	6.5	34	24.63	2	1.45
The school put priorities for the coming annual budget conference and Committees	16	11.6	68	49.3	41	29.7	8	5.8	5	3.6
Educational departments prepare budget plans prior to the budget year	21	15.2	62	44.9	8	5.70	39	28.3	8	5.8

4.2.4 Evaluation Impact on Budgetary Control Practices

The study sought to find out how evaluation of budgetary control practices affects management of secondary schools. From table 4.5 below it can be revealed that the school engages its stakeholders in making key budget decisions and the management of the organization review of the budget as the respondents strongly agreed at 28% and 24% respectively.

On the other hand, the respondents agreed that the school review the process of budget allocation at 61% and the school the management of the organization review the budget at 57.3% are the leading factors that affect the budgetary control practices in management of secondary schools; followed by the school engages its stakeholders in making key budget decisions while the school put priorities for the coming annual budget conference and committees constitute the least percentage. This implies that budget allocation review is mandatory for budgetary control practices in management of secondary schools. It therefore calls that the budget review committee should be competent. According to the Basic Education Act (2013), the BoM must have form four as the lowest level of education in order to run budgetary and administrative rolls of the schools. Whereas budget preparation is an important activity, it is necessary to

involve all stakeholders to make it more acceptable and realizable. Failure to involve stakeholders will lead to deficiencies in the budget where some areas will not be catered for.

Table 4.6: Impact of Evaluation on Budgetary Control Practices

Response	Strongly agree		Agree		Disagree		Strongly Disagree		Not sure	
	F	%	F	%	F	%	f	%	f	%
The management of the organization review the budget	18	24.0	25	33.3	0	0	1	1.3	31	41.3
The school review the process of budget allocation	13	17.3	33	44.0	5	6.7	0	0	22	32.0
The school put priorities for the coming annual budget conference and Committees	8	10.7	27	36.0	5	6.7	3	4.0	32	42.7
The school engages its stakeholders in making key budget decisions	21	28.0	18	24.0	8	10.7	5	6.7	23	30.7
The management of the organization review the budget	11	14.7	22	29.3	9	12.0	3	4.0	30	40.0

4.2.5 Monitoring and Control Impact on Budgetary Control Practices

The study also sought to establish the effect of monitoring and control on budgetary control practices in management of secondary schools. The respondents were asked to indicate the level of agreement that they agree or disagree that: There exist a budgeting committee that holds budget conferences and meetings regularly to review performance, the school has budget policies that monitors budget spending, control of the budget activities is done by the departmental heads, the school put priorities for the coming annual budget conference and committees, the costs of activities and functions of the school are constantly reviewed by the budgeting committee (if any), the school's budget performance evaluation reports are prepared frequently, the school's budget deviations are reported to budget committees, school heads always take timely corrective actions when adverse variances are reported and there is a regular follow up on budget plans by the budget committee and departmental heads.

Data showed that control of the budget activities is done by the departmental heads as indicated by 60 (44%), through put priorities for the coming annual budget conference for the school. The costs of activities and functions of the school are constantly reviewed by the budgeting committee (if any) and the schools have budget policies that monitor budget spending.

The data also revealed that a good number (60) strongly agree and agree that the school's budget deviations are reported to budget committees. Devolving the school budget per sector helps solve misappropriation of school funds and also gives the departmental heads opportunity to factor in key needs for the department. The importance of monitoring and evaluation is that it enhances effectiveness within the school departments.

Management department uses both department services to estimate the expenditures and revenue of business under the normal conditions of business (Suberu, 2010). These results are as shown in table 4.7 below:

Table 4.7: Monitoring and Control Impact on Budgetary Control Practices

Response	Strongly agree		Agree		Disagree		Strongly disagree		Not sure	
	f	%	F	%	F	%	f	%	f	%
There exist a budgeting committee that holds budget conferences and meetings regularly to review performance	29	17.3	36	26.7	15	10.7	24	17.3	29	21.3
The school has budget policies that monitors budget spending	17	12.0	48	34.7	18	13.3	17	12.0	38	28.0
Control of the budget activities is done by the departmental heads	31	22.7	46	33.3	15	10.7	9	6.7	36	26.7
The school put priorities for the coming annual budget conference and Committees	17	12.0	50	36.0	11	8.0	0	0	60	44
The costs of activities and functions of the school are constantly reviewed by the budgeting committee (if any)	25	18.7	39	28.0	18	13.3	15	10.7	54	39.3
The school's budget performance evaluation reports are prepared frequently	11	8.0	71	52	17	12.0	4	2.7	35	25.3
The school's budget deviations are reported to budget committees	18	13.3	50	36.0	22	16.0	9	6.7	37	28
School heads always take timely corrective actions when adverse variances are reported	17	12.0	42	30.7	15	10.7	9	6.7	55	40
There is a regular follow up on budget plans by the budget committee and departmental heads	11	14.7	20	26.7	11	14.7	3	4.0	30	40

4.2.6 Budgetary Control Effectiveness in Management of Secondary Schools

According to findings results in Figure 1 below, project performance level of the school was average at 63% followed high at 34% and about 3% stated below average.

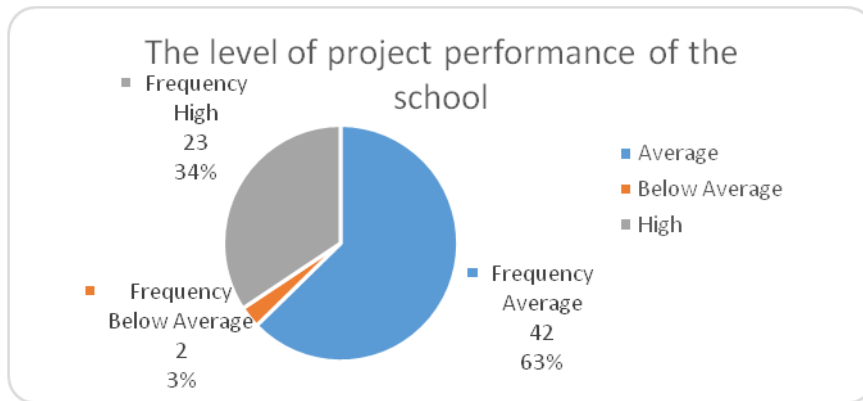


Figure 4.1: Budgetary Control Effectiveness in Management of Schools

In respect to administrative efficiency as a percentage of administrative expense divided by total expenses in the past year, Figure 2 below shows that 28% of the respondents indicated 0-5%. In addition, 22.7% indicated that administrative expense divided by total expenses in the past year was 10-15%. This represented a total of 38 respondents. The program efficiency as a percentage of program expenses divided by total expenses in the past year was recorded as 0-5% (16%) for most schools. This implies that majority of the schools program efficiency as a percentage of program expenses is 0-5%.

It was also evidence from the study that less than half (48%) of the schools executes its projects within the stipulated deadline and the estimated percentage of costs reduction by the school is majorly 0-3% (25.3%).

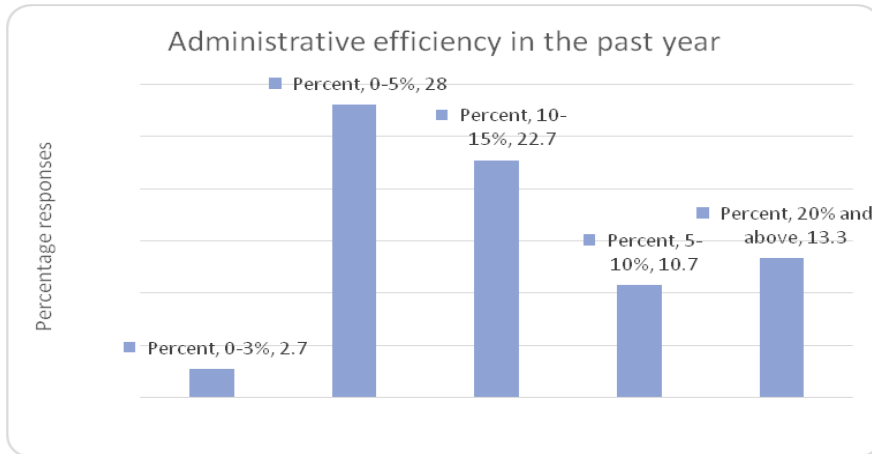


Figure 4.2: Administrative Efficiency

Mwangangi (2006) in a study on factors affecting effectiveness of school board in Makueni noted that in terms of professional orientation out of 13 Board of Governors (BoG) members only 8 had occupation related to education which influenced their effectiveness in the management of the schools. According to the Basic Education Act (2013), during BoG nominations, 57 professional backgrounds of the nominees are not the main criteria as the key objective is to meet the number per category. This is perceived to be a major drawback in the competency of the BoM in the financial management in schools.

4.3 Regression Analysis

Using our study variables as explained in the table 4.1.1, regression analysis was undertaken on the study variables by the use of statistical packages of social sciences (SPSS v21). The following results were obtained.

Table 4.8: Regression Summary

SUMMARY OUTPUT	
<i>Regression Statistics</i>	
Multiple R	0.874992974
R Square	0.765612704
Adjusted R Square	0.752710651
Standard Error	3.558791412
Observations	116

Source: Author (2016)

The summary of the regression statistics show a value of 0.766 for R square. R squared is a statistical measure of how close the data are to the fitted regression line. It is also referred to as coefficient of multiple determinations. An R^2 of 1 show that the data perfectly fits the regression line while on the other hand a value of 0.766 shows that the data fairly fits on the regression line. We have a number of study variables and we therefore use the adjusted R square that gives us a coefficient of determination of 0.753.

Table 4.9: ANOVA TABLE

ANOVA					
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	6	4509.274023	751.5457	59.34038	4.26115E-32
Residual	109	1380.484598	12.665		
Total	115	5889.758621			

Source: Author 2016

The Anova table shows an F Value of 59.34 while the F distribution table, at numerator degree of freedom 6 and denominator degree of freedom of 109, at 95% confidence level gives an F critical of 2.19. This shows that the F calculated is greater than F critical which implies that the regression model is statistically significant in predicting the variables.

Table 4.10: Regression Matrix

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.49418 4621	0.793014 605	0.623 172	0.534 473	- 1.077544 497	2.0659 14	-1.07754	2.06591 4
X1	- 0.26753 39	0.098534 436	- 2.715 13	0.007 705	- 0.462825 94	- 0.0722 4	-0.46283	-0.07224
X2	0.21804 1617	0.062358 271	3.496 595	0.000 683	0.094449 555	0.3416 34	0.09445	0.34163 4
X3	0.20710 0478	0.165330 18	1.252 648	0.213 015	- 0.120578 554	0.5347 8	-0.12058	0.53478
X4	0.10751 8463	0.152513 602	0.704 976	0.482 329	- 0.194758 528	0.4097 95	-0.19476	0.40979 5
X5	0.63711 9952	0.110856 878	5.747 23	8.35E- 08	0.417405 23	0.8568 35	0.41740 5	0.85683 5
X6	0.16891 9295	0.057289 91	2.948 5	0.003 907	0.055372 558	0.2824 66	0.05537 3	0.28246 6

The regression matrix, gives us the values of the coefficient for our model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

The model therefore becomes

$$Y = 0.494 - 0.268X_1 + 0.218X_2 + 0.207X_3 + 0.108X_4 + 0.637X_5 + 0.169X_6$$

Table 4.11 Correlation Matrix

	Y	X1	X2	X3	X4	X5	X6
Y	1						
X1	0.55496355 5	1					
X2	0.78839454 4	0.78393423 5	1				
X3	0.72081474 2	0.71664562 4	0.8170625 5	1			
X4	0.47501106 3	0.54218179 8	0.5053508 5	0.58993797 9	1		
X5	0.82897051 1	0.61352620 4	0.8038574 2	0.72049910 6	0.49770393 6	1	
X6	0.57728941 6	0.49068202 2	0.5259095 7	0.54137285 2	0.35075652 3	0.512573 3	1

The correlation matrix gives the relationship between the variables. From the above table it is clear that the Dependent variable is positively related to the independent variables.

4.4 Interpretation of Findings and Discussions

The researcher finds out that the data gives an adjusted R square of 0.75. The adjusted R square is also known as the coefficient of multiple determinations, and it is adjusted to factor in the other predictors in the model. The value of 0.75 shows the linearity of the data set and how they fit in the line of fit. We therefore conclude that the model is linear in nature and can therefore be expressed in form of a linear equation. Increase in the value of R^2 towards 1, shows that the data becomes more linear while decrease in this value towards 0 shows lack of existence of linearity in the data. Data in such a case can hardly be effectively expressed in a linear model.

The F value obtained of 59.34 is greater than F critical of 2.19, this show that the model is statistically significant and can be used to express the study variables. The P value is far much less than critical level of 0.05 which means we can accept the null hypothesis.

The correlation Matrix shows positive relationship between the study variables. This means that there exist a significant positive relationship between the management of Secondary schools and budgetary control functions. The relationship can be established by the model below

$$Y = 0.494 - 0.268X_1 + 0.218X_2 + 0.207X_3 + 0.108X_4 + 0.637X_5 + 0.169X_6$$

Where

Y= management of educational institutions.

X1 = Planning, this was evaluated by use of a questionnaire by defining the patterns of expenditure and revenue for a project or an activity.

X2 = Monitoring and Control was evaluated using a questionnaire by reviewing reports are prepared frequently and taking appropriate actions where necessary.

X3 = Evaluation was evaluated using a questionnaire by determining the comparisons between the budget allocated and the actual position from budget reports

X4= Adequate availability of financial resources was determined using the questionnaire by determining the amount of financial resources committed to a particular project or activity.

X5= Cost Reduction was evaluated using the percentage of cost reduction in projects.

X6= Performance was evaluated using a questionnaire by determining the time spend in a certain project and the budgetary costs allocation for the project

The study found that management of secondary schools is positively related to planning for budgetary allocation with a positive correlation of 0.55. It is related to monitoring and control of school budgets with a positive correlation of 0.79. The correlation of Management of secondary schools with evaluation of budgetary process was found out to be positive at 0.72, while management and availability of financial resources was also positively correlated at 0.48. The other budgetary control measure of budget cost reduction measures was positively correlated to management at 0.83 and also positively correlated to performance of budgetary process at 0.58

These values show that the correlation of school management with these variables can be placed according to the order of high correlation (near 1). The factor that highly relates with management of secondary schools is measures for cost reduction (X5), followed by Monitoring and control of budgets (X2). The factor that least influences management of secondary schools is availability of financial resources which has a correlation of 0.48.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

The chapter presents the summary of the findings of the study, conclusions and recommendations of the study. The purpose of this study was to investigate the relationship between the variables in budgetary control and management of educational institutions in Meru County. The study was guided by the following specific objective: To establish relationship between the variables in budgetary control and management of educational institutions in public secondary schools in Meru North,

5.2 Summary of the Study

The study established that the management of secondary institutions is positively related to the budgetary control practices by the school. These budgetary control practices influences management in the following order: Cost reduction measures, Monitoring and control of budgets, evaluation of budgetary process, performance of budgetary process, planning for budgetary allocations and availability of financial resources. The researcher established that all these factors are positively related to the management of education institutions and they can be used to determine the level of management of a certain education institution.

In establishing the time period covered by budgets, the study found that majority (65.15%) of schools in Meru County review budget after 1 to 5 years. This figure was evidenced by the fact that budget review increases the level of understanding and evaluating major projects to be given priority, also increase reliability and accountability as it makes the members of the BoM more knowledgeable on various education policies and current trends in management and that it gives one the capacity to handle financial aspects.

Regarding the approximate annual budget revenue, the study found that 55.07% of the secondary schools in Meru County have approximate budget revenue of Ksh. 1,200,000 - 3,600,000 per annum. This was evidenced by the fact that the budget

review is done frequently to updates financial expenditure trends, enables BoM to meet frequently and source for funds and widens the scope of understanding on critical areas in financial management.

On the approximate annual budget revenue, the study found that none of the school budget holders' disagreed that budgets have clear goals and objectives and when budgeting, outcomes, goals and objectives are linked to programs and school activities. This means for schools should plan for budgetary practices in order to control practices in management of secondary schools. This was examined by the extent to which budget control members of the school agreed on that the school has should have a long term and short term budget plans, the budgets have clear goals and objectives, when budgeting, outcomes, goals and objectives are linked to programs and school activities, the school put priorities for the coming annual budget conference and committees and that educational departments prepare budget plans prior to the budget year.

On the Impact of evaluation on budgetary control practices in management of secondary schools, the study found that the school engages its stakeholders in making key budget decisions and the management of the organization review the budget as the respondents strongly agreed at 44% respectively. On the other hand, the respondents agreed that the school review the process of budget allocation at 61% and the schools the management of the organization review the budget at 57.3% are the leading factors that affect the budgetary control practices in management of secondary schools.

In establishing the influence of monitoring and control on budgetary control practices in management of secondary schools, the study found that 28% 0-5%. The program efficiency as a percentage of program expenses divided by total expenses in the past year was recorded as 0-5% (16%) for most schools. It was also evidence from the study that less than half (48%) of the schools executes its projects within the stipulated deadline and the estimated percentage of costs reduction by the school is majorly 0-3% (25.3%).

5.3 Recommendations

The study recommended that budget review should be done as frequently as possible to increase the level of understanding and evaluating major projects to be given

priority, also increase reliability and accountability as it makes the members of the BoM more knowledgeable on various education policies and current trends in management and that it gives one the capacity to handle financial aspects.

The study also recommended that the government through the ministry of education should organize trainings for the members of BoM in secondary schools in Kenya. This will improve their knowledge on financial management. It is also recommended that the trainings should be carried out regularly so as to keep the BoMs up to date with the financial trends.

Both internal and external evaluations should be done regularly to ensure school finances are properly spent towards the achievement of the school's education objectives.

The government should release the funds meant for the schools in good time. This will give the members of BoM easy time in budgeting for the schools in good time and prevent the inconveniencies that may arise due to lack of funds.

The schools administration should ensure that the member nominated as BoMs are well versed with financial management concepts are reliable and have high integrity. The process of nominating BoMs should be transparent and free from manipulations.

5.4 Limitations of the Study

The study was limited firstly, by the difficulty in accessing the initially intended participants due to commitments. Secondly, the responses provided by target respondents, while useful, were carefully given, so that data collection on that score was not very spontaneous. Thirdly, the closed ended questionnaire deprived the study the opportunity to probe some areas of their responses. Fourthly, although interviewed participants were willing to participate, conditions they set limited the phenomenological aspect of data collection in that they deprived the research settings of their naturalistic character.

Finally, principals' responses in most instances seemed to paint a positive picture of budget control and monitoring at their schools. Notwithstanding these limitations and in line with the social constructivist paradigm, the study was able to gain insight into the hidden meanings by delving into data and interpreting the suggestive answers

provided. Furthermore, the study was able to gain valuable insights through cross-comparison among responses of the three participant matrices.

5.5 Recommendations

5.5.1 Policy Recommendations

In light of the findings of this study, the following recommendations to improve and ensure effective budget control and monitoring are suggested: there is need to review and harmonize existing policies on strategic planning in schools. Policies should work towards strengthening of local participation in education service delivery. To better control budget of the secondary schools, there is need for a comprehensive in-service training for all head teachers and BoG adjusting it to new challenges so as to understand and implement strategic plans with limited financial resources. The training should isolate components of financial management, and in this case budget management, monitoring and control would facilitate correct procedures and would eliminate most of the challenges found in this study. For instance, training in the budgeting process would result in realistic budgets that can be implemented properly.

There is need to actively involve all stakeholders in strategic planning as successful school level change will only occur if supported by all stakeholders. School management should seek collaboration with other stakeholders such as NGO, civil society, government and other development agencies that are good at resource mobilization.

The government should release the funds meant for the schools in good time. This will give the members of BoM easy time in budgeting for the schools in good time and prevent the inconveniencies that may arise due to lack of funds. Schools should involve heads of department in monitoring and supervision of the budget, leaving school financial records open for scrutiny by the people in the system to curb on corruption and mismanagement of funds. They can serve as good internal auditors which can be a stepping stone for external auditing.

5.5.2 Suggestions for Further Studies

A study is recommended to evaluate the adoption of technology use and advanced accounting systems in the management of finances in secondary schools. Further studies are also encouraged on the effect of education level of board members

(currently Board of management) on implementation of development plans and their appointment procedure, effect of involvement of deputy principals in the budgeting committee, on development plan, effects of gender of principals on implementation of school development plans and the influence of auditing and reporting on implementation of development plan

REFERENCES

- Badu, D. (2011). An investigation of budgeting and budgetary Control at Ernest chemist, case study. Laurea University of Applied Sciences
- Baker, B. D. & Elmer, D. R. (2009). The politics of off-the-shelf school finance reform. *Educational Policy*, 23(1), 66-105.
- Blumentritt, T. (2006). Integrating strategic management and budgeting, *Journal of Business Strategy*, 27 (6), pp. 73–79.
- Carr, N. (2008). Why communication matters. *American School Board Journal*, 195(8).
- Carolyne, M., Waymire, R., & Renea, T. (2007). An Examination of the Effects of Budgetary Control on Performance: <http://ssrn.com/abstract=1003930>
- Deal, C., Doddier, M., Li, J. & Zhao, C. (2015). The Effects of Teacher Experience on Budget Allocation and Student-Teacher Ratios: An analysis of the effects of teacher experience on student teacher ratios and budget allocation in Oregon School Districts. Unpublished Masters Dissertation, University of Oregon: Oregon
- Education Commission of the States. (2012). *Understanding State School Funding: The first step toward quality reform*. Retrieved from: <http://www.ecs.org/clearinghouse/01/02/86/10286.pdf>.
- Ekanem, E. (2014). Zero-based budgeting as a management tool for effective. *European Journal of Business and Social Sciences*, Vol. 2, No.11, pp 11-19, February 2014. P.P. 11 - 19 URL: <http://www.ejbss.com/recent.aspx> ISSN: 2235 -767X
- Emmanuel, I. (2008). Management control through variance analysis, Published paper University of Mkar, Mkar, Benue State, Nigeria.

- Epstein, J., & McFarlan, W. (2011). Measuring efficiency and effectiveness of a Non Profit's Performance. *Strategic Finance*
- Gacheru, N. (2012). The effect of budgeting process on Budget Variance in NGOs in Kenya. Unpublished MBA Project. University of Nairobi
- Goldstein, L. (2005). College and university budgeting: An Introduction for Faculty and Academic Administrators (3rd.). National Association of College and University Business officers, Washington DC Graduate School of Economics.
- Hanushek, E. A. (2012, March 29). Misplaced optimism and weighted student funding. *Education Next*. Retrieved from <http://educationnext.org/misplaced-optimism-andweighted-funding>.
- Hancock, G. (2009). *Lords of Poverty Masters of Disaster*. London, U.K.: Macmillan London.
- Herath, S. and Indrani, M. W. (2007). Budgeting as a Competitive Advantage; Evidence from Sri Lanka. *Journal of American Academy of Business*, Vol11, Issue pp.79-91.
- Hirst, M. (1987). The Effects of Setting Budget Goals and Task Uncertainty on Performance: A Theoretical Analysis. *The Accounting Review*, 62(4), 774-784.
- Horvath, P., & Seiter, M. (2009). Performance Measurement, *Journal of Accounting*, 69 (3), 393-413.
- Horngren, C.T., Stratton, G.L., Sutton, W.O. & Teall, H.D.(2004). "Management Accounting", 4th ed. Prentice Hall, Toronto, 2004
- Kabiru, I. & Abuh, A. (2013). Relevance of Variance Analysis in Managerial Cost Control. *Journal of Finance and Investment Analysis*, vol. 2, no.1, 2013, 61-67 ISSN: 2241-0998 (print version), 2241-0996(online) Scienpress Ltd, 2013
- Kaplan, S., & Norton, P. (1996). *The Balanced Scorecard: Translating Strategy into Action*. Boston, MA: Harvard Business School Press.
- Kenya National Bureau of Statistics, 2009. Meru North District Multiple Indicator Cluster Survey 2008, Nairobi, Kenya: Kenya National Bureau of Statistics.

- Khyzer, D., Rehman, Z., Noman, S. and Wasim, S. (2011). Impact of zero-based budgeting (ZBB) on employee commitment. Kuwait Chapter of Arabian Journal of Business and Management Review Vol. 1, No.2; October 2011
- Meliano, S. (2011). Survey of management perception on the usefulness of zero based budgeting: evidence from non-governmental organizations in Kenya. Published project University of Nairobi.
- Miles, K. H. & Roza, M. (2006). Understanding student-weighted allocations as a means to greater school resource equity. Peabody Journal of Education, 81(3), 39-62.
- Mohamed, I.F., Evans, K. & Tirimba, O.I. (2015). Analysis of the Effectiveness of Budgetary Control Techniques on Organizational Performance at Dara-Salaam Bank Headquarters in Hargeisa Somaliland. International Journal of Business Management and Economic Research (IJBMER), Vol 6(6), 327-340
- Nambuya, O.B. (2013). School Based Factors Influencing Student's Academic Performance at Kenya Certificate of Secondary Education in Teso South District. Unpublished Masters Dissertation, University of Nairobi: Nairobi
- National Center for Education Statistics. (2009). Financial Accounting for Local and State School Systems: 2009 Edition. Institute for Education Sciences: National Center for Education Statistics. Retrieved from: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009325>.
- Nielsen, S. (2007). School based planning packet, 2006–2007. Seattle, WA: Seattle Public Schools.
- Nyasato, R. (2009). "High Court outlaws 210 districts created by Moi and Kibaki since 1992". The Standard Newspaper Publication
- Non-Governmental Organizations, (2013). National Surveys of NGOs Report. Nairobi: Non-Governmental Organizations Co-ordination.
- Orodho, J. (2003). Essentials of Educational and Social Sciences Research Method. Nairobi: Masola Publishers.
- Otley, T., & Pollanen, R.M. (2000). Budgetary Criteria in Performance Evaluation: A Critical Appraisal Using New Evidence. Accounting, Organization and Society, 25(4/5), 483-496
- Pan, D., Rudo, Z.H., Schneider, C.L., & Smith-Hansen, L. (2003). Examination of Resource Allocation in Education: Connecting Spending to Student Performance. Austin, TX: Southwest Educational Development Laboratory.

- Phyrr, P. (1970). *Zero Base Budgeting: A Practical Management Tool for Evaluating Expenses*. New York: John Wiley.
- Riley, J. (2012). "Budgeting – introduction to Budgets", 24 October 2012, <http://www.tutor2u.net.htm>.
- Robinson, M., & Last, D. (2009). Budgetary Control Model: The Process of Translation. *Accounting, Organization and Society*, 16(5/6), 547-570.
- Salman. T. (2008). Variance analysis as a tool for management control, Published Case Study University of Ilorin, Ilorin, Nigeria
- Sawhill, C., & Williamson, D. (2001). Mission Impossible; Measuring Success in Non-profit Organizations. *Non-profit Management and Leadership*, 11(3)384-385.
- Scott, R. (2005). *Information Processing: Creating Organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Selznick, P. (2008). Foundations of the Theory of Organizations. *American Sociology Review*, 25-35.
- Sharma, P. (2012). Performance Measurement in NGO's. *The Management Accountant*
- Shields, M., & Young, S.M. (1993). Antecedents and consequences of participating budgeting: evidence on the effects of asymmetrical information. *Journal of Management Accounting Research*, 5,265-280.
- Silva, D. & Jayamaha, A. (2012). Budgetary Process and organizational performance of Apparel Industry in Sri Lanka, *Journal of Emerging Trends in Economics and Management Sciences*,3(4):354-360
- Southwest Educational Development Laboratory. (2001). Making education dollars work: Understanding resource allocation. *Insights on Education Policy, Practice, and Research*
- Stiefel, L., Schwartz, A.E., Portas, C., & Kim, D.Y. (2003). School budgeting and school performance: The impact of New York City's performance driven budgeting initiative. *Journal of Education Finance*, 28(3), 403–424.
- Uyar, A., Bilgin, N., "Budgeting practices in the Turkish hospitality industry: An exploratory survey in the Antalya region", *International Journal of Hospitality Management*, 2011, 30, pp.398–408.
- Willis, J. & Miles, K. H. (2010). Budgeting to support student achievement: New strategies for central office. *Voices in Urban Education*, 29, 17-25.

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

To the respondents

Dear Sir/Madam

I am a student at University of Nairobi pursuing a Master of Business Administration degree in Finance. As a requirement of this degree, am undertaking a research study on the Role of Budgetary Control in Management of Educational Institutions: Case Study of Secondary Schools in Meru North Region, Kenya. A questionnaire has been attached addressing seeking to solicit information related to the research topic. The information you provide will be treated with utmost confidentiality and will be used for academic purposes only. Your cooperation will be highly appreciated.

Kindly cooperate.

Yours faithfully,

Samuel N. Kamunge

MBA Candidate

University of Nairobi

APPENDIX II: QUESTIONNAIRE

SECTION A: GENERAL QUESTIONS

Please tick in the appropriate box provided

1. Please indicate, generally, the time period covered by your budgets?

		Key
(a) Less than 1 year	<input type="checkbox"/>	1
(b) 1-5 years	<input type="checkbox"/>	3
(c) 5 and above years	<input type="checkbox"/>	5

2. How often is the budget reviewed?

(a) Annually	<input type="checkbox"/>	1
(b) Monthly	<input type="checkbox"/>	5
(c) Quarterly	<input type="checkbox"/>	3
(d) None	<input type="checkbox"/>	-5

3. What is your approximate annual budget revenue?

(i) KES1,200,000 or less	<input type="checkbox"/>	-5
(ii) KES 1,200,000- KES3,600,000	<input type="checkbox"/>	1
(iii) KES3,600,000-KES 6,000,000	<input type="checkbox"/>	3
(iv) KES 6,000,000 and above	<input type="checkbox"/>	5

PART B: PLANNING

Please tick the following statements by indicating the level of agreement that you agree or disagree with the activities below: Strongly Disagree (i) Disagree (ii) Not sure (iii) Agree (iv) Strongly Agree (v)

RESPONSES	I-5	II0	III1	IV3	V5
4The school has a long term and short term budget plans					
5The budgets have clear goals and objectives					
6When budgeting, outcomes, goals and objectives are linked to programs and school activities					
7The school put priorities for the coming annual budget conference and Committees					
8Educational departments prepare budget plans prior to the budget year					

PART C: EVALUATION

(Please tick the following statements by indicating the level of agreement that you agree or disagree with the activities below: Strongly Disagree (i) Disagree (ii) Not sure (iii) Agree (iv) Strongly Agree (v))

RESPONSES	I-5	II0	III1	IV3	V5
9.How often does the management of the school review the budget					
10.How often does the school review the process of budget allocation					
11The school engages its stakeholders in making key budget decisions					
12The school conducts regular audit of the estimated and actual budget					
13.The management team reviews regularly the implementation of budgetary control measures in the school.					

PART D: MONITORING AND CONTROL

Please tick the following statements by indicating the level of agreement that you agree or disagree with the activities below: Strongly Disagree (i) Disagree (ii) Not sure (iii) Agree (iv) Strongly Agree (v)

RESPONSES	I-5	II0	III1	IV3	V5
14. There exist a budgeting committee that holds budget conferences and meetings regularly to review performance					
15 The school has budget policies that monitors budget spending					
16 Control of the budget activities is done by the departmental heads					
17.The school put priorities for the coming annual budget conference and Committees					
18. The costs of activities and functions of the school are constantly reviewed by the budgeting committee (if any)					
19.The school's budget performance evaluation reports are prepared frequently					
20.The school's budget deviations are reported to budget committees					
21. School heads always take timely corrective actions when adverse variances are reported					
22. There is a regular follow up on budget plans by the budget committee and departmental heads					

APPENDIX III: RESEARCH BUDGET

<u>Description</u>	<u>Cost (Ksh)</u>
Transport	10,000
Internet	5,000.00
Data analysis	6,000.00
Printing 49 pages @ 10	490.00
Reproduction 8 copies @ 100	800.00
Binding 8 copies @ 1000/=	8,000.00
Subtotal	<hr/> 30,330.00
Others:	
Miscellaneous Expenses	5,000.00
Subtotal	<hr/> 5,000.00
GRAND TOTAL	<hr/> 35, 330.00 <hr/>

APPENDIX IV: SCHEDULE OF ACTIVITIES

Tasks	SEPT 2016 (W1)	SEPT 2016(W4)	OCT 2016 (WK 1&2)	OCT 2016 (WK 3)	OCT 2016 (WK4)	NOV 2016
Construction of Questionnaire	√					
Pilot Study		√				
Data collection			√			
Data processing				√		
Report writing and Presentation					√	√
Publishing						

APPENDIX V: SCHOOL SAMPLE SIZE

NO	SECONDARY SCHOOLS IN MERU NORTH REGION
1	K ANTWAMUO DAY SECONDARY
2	MACHUNGULU DAY SECONDARY SCHOOL
3	KK BAITHAI SECONDARY SCHOOL
4	MWERONGUNDU DAY SECONDARY SCHOOL
5	NAATHU SECONDARY SCHOOL
6	A KIONGO SECONDARY SCHOOL
7	KATHANGA SECONDARY SCHOOL
8	THITHA SECONDARY SCHOOL
9	ST. MARY’S-THANKI SECONDARY SCHOOL
10	MUTUATI SECONDARY SCHOOL
11	NTUNENE SECONDARY SCHOOL
12	KAWIRU SECONDARY SCHOOL
13	YAMIRURU DAY SECONDARY SCHOOL
14	MBAYO SECONDARY SCHOOL
15	MIRIKI SECONDARY SCHOOL
16	ST. JAMES-LIMBUKU SECONDARY SCHOOL
17	MUINE SECONDARY SCHOOL
18	NAIRURU SECONDARY SCHOOL
19	ANJALU SECONDARY SCHOOL
20	KAURINE SECONDARY SCHOOL
21	MAUA SECONDARY SCHOOL
22	KILALAI DAY SECONDARY SCHOOL
23	KANGETA MIXED DAY SECONDARY SCHOOL
24	NTURUBA SECONDARY SCHOOL
25	AUKI DAY SECONDARY SCHOOL

26	THAMARE MIXED DAY SECONDARY SCHOOL
27	ANTUBOCHIU SECONDARY SCHOOL
28	KIEGOI SECONDARY SCHOOL
29	MATIANDUI SECONDARY SCHOOL
30	KARUMARU DAY SECONDARY SCHOOL
31	KIRINDINE SECONDARY SCHOOL
32	GITURA DAY SECONDARY SCHOOL
33	ITUMI DAY SECONDARY SCHOOL
34	NTHAMBIRO SECONDARY SCHOOL
35	KINDANI DAY SECONDARY SCHOOL
36	KITHARE DAY SECONDARY SCHOOL
37	MAKULULU DAY SECONDARY SCHOOL
38	MBOONE SECONDARY SCHOOL
39	TIIRA SECONDARY SCHOOL
40	MIORI DAY SECONDARY SCHOOL
41	NTUTI DAY SECONDARY SCHOOL
42	UGOTI SECONDARY SCHOOL
43	NJIA SPECIAL B.P. SCHOOL SECONDARY SCHOOL
44	KATHATHENE DAY SECONDARY SCHOOL
45	AMETHO DAY SECONDARY SCHOOL
46	ANKAMIA DAY SECONDARY SCHOOL
47	IKANA SECONDARY SCHOOL
48	KALIENE SECONDARY SCHOOL
49	KIGUCWA SECONDARY SCHOOL
50	KAILUTHA D.E.B SECONDARY SCHOOL
51	LAILUBA MUXED DAY SECONDARY SCHOOL
52	LUUMA SECONDARY SCHOOL
53	MUKONO SECONDARY SCHOOL
54	MUIRINE SECONDARY SCHOOL

55	MIKINDURI SECONDARY SCHOOL
56	MUTHARA DAY SECONDARY SCHOOL
57	MBARANGA D.E.B SECONDARY SCHOOL
58	NCHUUI SECONDARY SCHOOL
59	NTIRUTU SECONDARY SCHOOL
60	EAPC RUMANTH SECONDARY SCHOOL
61	ST. ANGELAS SECONDARY SCHOOL
62	ST. MASSIMO SECONDARY SCHOOL
63	THUBUKU SECONDARY SCHOOL
64	THUURIA DAY SECONDARY SCHOOL
65	GITHU DAY SECONDARY SCHOOL
66	MCK KIRIENE BOYS P. SCHOOL SECONDARY SCHOOL
67	MIRINE DAY SECONDARY SCHOOL
68	KIANJAI SECONDARY SCHOOL
69	KIMCHIA SECONDARY SCHOOL
70	KITHEO SECONDARY SCHOOL
71	ATWANA SECONDARY SCHOOL
72	ST. FRANCIS ASSISS MURAMBA SECONDARY SCHOOL
73	AKITHI SECONDARY SCHOOL
74	THINYAINE BOYS HIGH SCHOOL
75	LUBUNU MIXED SECONDARY SCHOOL

APPENDIX VI: SCHOOL POPULATION

NO	SECONDARY SCHOOLS IN MERU NORTH REGION
1	THIMBILI DAY SECONDARY SCHOOL
2	KANTWAMUO DAY SECONDARY
3	KIRINDARA DAY SECONDARY SCHOOL
4	MACHUNGULU DAY SECONDARY SCHOOL
5	KK AARU DAY SECONDARY SCHOOL
6	KK BAITHAI SECONDARY SCHOOL
7	KITHETHU DAY SECONDARY SCHOOL
8	MWERONGUNDU DAY SECONDARY SCHOOL
9	KITHELWA DAY SECONDARY SCHOOL
10	NAATHU SECONDARY SCHOOL
11	AKIRANG'ONDU SECONDARY SCHOOL
12	A KIONGO SECONDARY SCHOOL
13	NKAMATHI SECONDARY SCHOOL
14	KATHANGA SECONDARY SCHOOL
15	ATHUAMBUI SECONDARY SCHOOL
16	THITHA SECONDARY SCHOOL
17	MARIRI SECONDARY SCHOOL
18	ST. MARY'S-THANKI SECONDARY SCHOOL
19	NKANDA SECONDARY SCHOOL
20	MUTUATI SECONDARY SCHOOL
21	AMBARU SECONDARY SCHOOL
22	NTUNENE SECONDARY SCHOOL
23	LEETA DAY SECONDARY SCHOOL
24	KAWIRU SECONDARY SCHOOL
25	LINJOKA SECONDARY SCHOOL
26	YAMIRURU DAY SECONDARY SCHOOL
27	KARICHU SECONDARY SCHOOL

28	MBAYO SECONDARY SCHOOL
29	MBURANJIRU SECONDARY SCHOOL
30	MIRIKI SECONDARY SCHOOL
31	TUURU DAY SECONDARY SCHOOL
32	ST. JAMES-LIMBUKU SECONDARY SCHOOL
33	INONO SECONDARY SCHOOL
34	MUINE SECONDARY SCHOOL
35	KAMBOO SECONDARY SCHOOL
36	NAIRURU SECONDARY SCHOOL
37	NGUKWINE SECONDARY SCHOOL
38	ANJALU SECONDARY SCHOOL
39	AKUUNE SECONDARY SCHOOL
40	KAURINE SECONDARY SCHOOL
41	KITHETU SECONDARY SCHOOL
42	MAUA SECONDARY SCHOOL
43	NKINYAGA DAY SECONDARY SCHOOL
44	KILALAI DAY SECONDARY SCHOOL
45	NJIA BOYS SECONDARY SCHOOL
46	KANGETA MIXED DAY SECONDARY SCHOOL
47	KANGETA GIRLS SECONDARY SCHOOL
48	NTURUBA SECONDARY SCHOOL
49	KILIMAMUNGU SECONDARY SCHOOL
50	AUKI DAY SECONDARY SCHOOL
51	KAONGO KAMAU SECONDARY SCHOOL
52	THAMARE MIXED DAY SECONDARY SCHOOL
53	ATHIRU GAITU SECONDARY SCHOOL
54	ANTUBOCHIU SECONDARY SCHOOL
55	ST. RITAS AMWAMBA SECONDARY SCHOOL
56	KIEGOI SECONDARY SCHOOL

57	IGEMBE BOYS SECONDARY SCHOOL
58	MATIANDUI SECONDARY SCHOOL
59	NTUENE SECONDARY SCHOOL
60	KARUMARU DAY SECONDARY SCHOOL
61	NTHARE SECONDARY SCHOOL
62	KIRINDINE SECONDARY SCHOOL
63	BURIERURI BOYS SECONDARY SCHOOL
64	GITURA DAY SECONDARY SCHOOL
65	KIEYA MIXED SECONDARY SCHOOL
66	ITUMI DAY SECONDARY SCHOOL
67	AKUI DAY SECONDARY SCHOOL
68	NTHAMBIRO SECONDARY SCHOOL
69	KANDUBAI MIXED DAY SECONDARY SCHOOL
70	KINDANI DAY SECONDARY SCHOOL
71	KITHARE DAY SECONDARY SCHOOL
72	MAKULULU DAY SECONDARY SCHOOL
73	MBOONE SECONDARY SCHOOL
74	TIIRA SECONDARY SCHOOL
75	MIORI DAY SECONDARY SCHOOL
76	NTUTI DAY SECONDARY SCHOOL
77	UGOTI SECONDARY SCHOOL
78	NJIA SPECIAL B.P. SCHOOL SECONDARY SCHOOL
79	MCK NYAMBENE WESLEY B.P SCHOOL
80	KATHATHENE DAY SECONDARY SCHOOL
81	AKAIGA MIXED DAY SECONDARY SCHOOL
82	AMETHO DAY SECONDARY SCHOOL
83	AMUGAA DAY SECONDARY SCHOOL
84	ANKAMIA DAY SECONDARY SCHOOL
85	ANTUANDURU SECONDARY SCHOOL

86	IKANA SECONDARY SCHOOL
87	IKINDIRO SECONDARY SCHOOL
88	KALIENE SECONDARY SCHOOL
89	KARAMA SECONDARY SCHOOL
80	KIGUCWA SECONDARY SCHOOL
91	KAATHI SECONDARY SCHOOL
92	KAILUTHA D.E.B SECONDARY SCHOOL
93	KINANGARU SECONDARY SCHOOL
94	LAILUBA MUXED DAY SECONDARY SCHOOL
95	LUBUATHIRUA SECONDARY SCHOOL
96	LUUMA SECONDARY SCHOOL
97	MABUURUA SECONDARY SCHOOL
98	MIKONO SECONDARY SCHOOL
99	MUKUIRU SECONDARY SCHOOL
100	MUIRINE SECONDARY SCHOOL
101	MAREGA SECONDARY SCHOOL
102	MIKINDURI SECONDARY SCHOOL
103	MUTENA SECONDARY SCHOOL
104	MUTHARA DAY SECONDARY SCHOOL
105	MWEROKIENI DAY SECONDARY SCHOOL
106	MBARANGA D.E.B SECONDARY SCHOOL
107	MUCIIMUKURU SECONDARY SCHOOL
108	NCHUII SECONDARY SCHOOL
109	NGAGE SECONDARY SCHOOL
110	NTIRUTU SECONDARY SCHOOL
111	NYAMBENE SECONDARY SCHOOL
112	EAPC RUMANTH SECONDARY SCHOOL
113	RWARE SECONDARY SCHOOL
114	ST. ANGELAS SECONDARY SCHOOL

115	ST. CYPRIANS'S BOYS HIGH SCHOOL
116	ST. MASSIMO SECONDARY SCHOOL
117	ST. MARYS MBARANGA SECONDARY SCHOOL
118	THUBUKU SECONDARY SCHOOL
119	THUURI SECONDARY SCHOOL
120	THUURIA DAY SECONDARY SCHOOL
121	GITHU DAY SECONDARY SCHOOL
122	MCK KIRIENE BOYS P. SCHOOL SECONDARY SCHOOL
123	AMETHO B. P. SCHOOL SECONDARY SCHOOL
124	MIRINE DAY SECONDARY SCHOOL
125	MIATHENE BOYS SECONDARY SCHOOL
126	KIANJAI SECONDARY SCHOOL
127	ST. LUKE SECONDARY SCHOOL
128	KIMCHIA SECONDARY SCHOOL
129	KANJALU SECONDARY SCHOOL
130	KITHEO SECONDARY SCHOOL
131	KIBULINE SECONDARY SCHOOL
132	ATWANA SECONDARY SCHOOL
133	URINGU SECONDARY SCHOOL
134	ST. FRANCIS ASSISS MURAMBA SECONDARY SCHOOL
135	MIATHENE MIXED DAY SECONDARY SCHOOL
136	AKITHI SECONDARY SCHOOL
137	KUNENE MIXED DAY SECONDARY SCHOOL
138	THINYAINE BOYS HIGH SCHOOL
139	MUCUUNE MIXED DAY SECONDARY SCHOOL
140	LUBUNU MIXED SECONDARY SCHOOL
141	THAU MIXED SECONDARY SCHOOL
142	ST. JOHN NCHOORO MIXED SECONDARY SCHOOL
143	KIANJAI GIRLS SECONDARY SCHOOL

144	LA IATHURIU MIXED SECONDARY SCHOOL
145	MUTIONJURI MIXED DAY SECONDARY SCHOOL
146	MACHAKU DAY KALIATI DAY SECONDARY SCHOOL
147	KALIATI DAY SECONDARY SCHOOL
148	MITUNTU GIRLS SECONDARY SCHOOL
149	KAAMU MIXED DAY SECONDARY SCHOOL
150	NKANGA SECONDARY SCHOOL
151	MAKANDI MIXED DAY SECONDARY SCHOOL
152	MACHEGENE MIXED DAY SECONDARY SCHOOL
153	THALE DAY SECONDARY SCHOOL
154	MUKULULU DAY SECONDARY SCHOOL
155	KITHILI MIXED DAY SECONDARY SCHOOL
156	URRU DAY SECONDARY SCHOOL
157	KIANJAI CIRCUIT B.P SCHOOL
158	KANJALU B.P SCHOOL
159	NAIRIRI SECONDARY SCHOOL
160	AMWARI SECONDARY SCHOOL