

# **Budgeting As A Management Accounting Techniques And Financial Adequacy Among Selected County Governments In Kenya**

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## **Abstract**

Management accounting is the main source of information for allocation of scarce resources within a company. The specific objective of the study was to examine budgeting as a management accounting technique for attaining financial adequacy. The research study was underpinned on theories which included the Agency theory, the Social contract theory, the theory of public expenditure and the Contingency theory of Management Accounting. This study utilized descriptive research design. Structured questionnaires were used as the data collection tools. The target population comprised of 17 CECs, 17 Chief Officers, 41 directors, 334 senior level employees, 2,538 middle level employees and 5,369 lower level employees from 17 county governments. Purposive sampling and simple random sampling techniques were used. Data collection was personal administering of the questionnaires by the researcher, mailing, and phone interviews. Results illustrated that budgeting had statistical significant effect on financial adequacy. It was concluded that when budgeting elements are implemented correctly, then financial adequacy of the selected County Governments would improve drastically. The following recommendations were arrived at: the study guides policy makers such as the National Government and County Government Executive to address financial adequacy using management accounting techniques. Particular focus should not only be on budgeting that was found to have a significant predictive ability to determine the effect of management accounting techniques but also variance analysis and ABC accounting. The study would assist in ensuring that there is efficient and effective allocation and utilization of limited resources by the County Governments through elimination of wastage, elimination of unnecessary expenditure and ensure control of costs to the level planned.

**Keywords:** Compliance Risk Mapping, Audit Quality, Savings and Credit Co-operative Societies

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## **I. Background of The study**

In this study, budgeting refers to the process of formulating a detailed plan for expenditures and revenues for a specific period of time within an organization, and ensuring implementation of the plan as documented while financial adequacy: refers to the ability of an organization, such as a county government to pay for all its financial obligations within a specified period of time. Organizations, public or private across the world utilize limited resources to achieve its goals and objectives. In private organizations, the goals are usually profit making, wealth creation in addition to service provision to the general public. These objectives are funded by the shareholders who include the equity and debt owners and other sources of income. This type of organizations answer to these owners who provide oversight in addition to the capital they provide. The shareholders are expected to earn dividends and grow their wealth (Mitnick, 2013). On the other hand, a government entity has a duty to provide services to the public, IMF (2016). A government entity depends on revenues from taxes raised by state. It is important to note that the taxes raised usually fund both recurrent costs such as wages and development expenditure such as roads and other amenities. The taxes raised are also used to repay the public debts that become due for repayment (PFM, 2012). With these needs, the funds raised are not adequate to pay for all the expenditure needs and with this challenge, management accounting tools useful in controlling costs incurred by the government become a major path of attaining financial adequacy (Horngren *et al.*, 2013).

Management Accounting is the main source of information for allocation of scarce resources within a company (Caplan *et al.*, 2006). It provides information that is important for control of activities and decision

making in an organization. Caplan et al. (2006) define Management Accounting as the process of measuring and reporting information about economic activity within an organization, for use by managers in Planning, performance evaluation and operational control (Caplan *et al.*, 2006).

In the USA, Elizabeth and Waxman (2017) of the Center on Budget and Policy Priorities explain in their Journal that Government entities will face serious budget limitations due to increasing costs especially in Health services and Education. Entities must therefore seek long-term cost control measures. Budget pressures, a constant and regular worry for many governments, are expanding due to rising costs. In 2015, Twenty two (22) USA states spent more than the total revenues collected, Thirty (30) States experienced revenue deficits in the years 2017 and 2018. At the Federal level, the US Government Accountability Office, (GAO), acknowledged that long term fiscal forecasts showed that existing fiscal trajectory was unfeasible. Government Entities in the US have mostly rushed to Hiring curb or stoppage, freeze on payments to service providers, halt on expenditures deemed non-core such as trainings and travels but some of these measures are temporary in nature. Organizations and government agencies must find significant impact on costs for the long term period.

More recently, through the Office of Management and Budget (2020) and the Committee for a Responsible Federal Budget (2020) in the USA, the federal government estimates to spend US\$4.829 trillion between the period October 2020 to September 30,2021. From this budget, it's estimated that US\$378 billion is for interest payment on the national debt. Another US\$2.966 goes to Social services, Nutrition programs and HealthCare while US\$1.485 Trillion goes to defense and Homeland security, Human services, Education and Housing development. Of greater interest is that for the current financial year, expenditure will exceed revenues by US\$966 Billion. This is the budget deficit that has to be funded using debts, which have accumulated to about US\$23 trillion as of 2020. Additional US\$2.1 trillion deficit is expected in 2021 budget. This is expected to decrease economic growth and influence rising of interest costs.

Isabel Ortiz et al (2015) reviewed trends in Austerity measures in more than 187 countries from 2010 to 2020. The paper published by the University of Columbia offers a lot of insights in to the measures that countries have taken to manage public expenditure and other controls. According to the above review, wage bill cuts or caps, subsidy reduction and/or elimination, increase in consumption taxes, pension reforms are the common trends in controlling public expenditure across the Sub Saharan region. At least 30 countries including Burundi, Angola, Senegal, Gabon, Comoros, and Tanzania among others are removing subsidies such as fuel and agricultural subsidies. Gabon and Mauritania eliminated fuel subsidy in 2014. Tanzania increased electricity prices while Burkina Faso increased Butane prices. Food subsidies have been replaced by a more targeted approach such as cash transfers. Ghana increased prices of electricity by 60%. Zambia increased fuel prices by 22% which reduced government expenditure by about 1.2% of Gross Domestic Product.

According to the Comprehensive Public Expenditure Review (2017) by the National Treasury, revenues have not kept pace with the expansion in government spending. Revenues decreased from 19.2% of GDP in 2013/2014 financial year to 18.3% of GDP in 2017/2018. During the same period, expenditure grew on average by 18.3 % with high costs in wages and infrastructural investments. Due to these circumstances, public debt has steadily risen to about 7.1 trillion as of December 2020. Deficit in the 2020/2021 financial year is at 840 Billion. Ambitious projects such as the Standard Gauge Railway, Universal Healthcare, Roads, investments in Electricity, Housing among other projects led to huge budget deficits and eventual borrowing by government hence the higher public debt. Since 2013, the public debt has grown 3 times.

According to the Budget Statement (2019) and 2020, the austerity measures include reduced non-essential spending on travel, hiring freeze, reduced vehicle operation costs, wage bill cuts, reduce expenditure to 23% of GDP, revised tax exemptions, cut down budget deficit, and reduce office operation costs, advertising costs and freeze on bench marking trips. Further, only specialized trainings to be allowed, most trainings to be carried out by the Kenya School of Government. Through staff head counts and biometric registrations, the government hopes to cut wage bill by weeding out ghost workers. There is also a freeze on extension of contracts for retiring staff. A new transport policy rolled out lays emphasis on procurement from local assembly and improvement on fleet management. Pension stands at kshs 86 Billion as of 2019/2020, and the government plans to move its management to Integrated Financial Management System (IFMIS) and roll out a new policy. According to the budget statement, the government would save up to kshs 65 billion.

The World Bank Group in their report titled Kenya Public Expenditure Review 2019, explain that while the government intends to focus on the Big 4 agenda, fiscal consolidation must be given priority. Some of the measures suggested by the World Bank include the following; pay risky contracts promptly to avoid contract costs that are avoidable, improve effectiveness and efficiency in budget execution across the national and county governments, containment of the public wage bill by cleansing the payroll register to ensure that it reflects only the current establishment, ensuring that personal allowances are in the wage base, restricting new hires to critical and technical services such as security. Other measures include containment of transfers to the county governments and improving the capacity of counties to raise own revenue. Improving efficiency by cutting wastages, ensuring value for money in procurement and tightening public finance management systems to seal

leakages.

The World Bank in its analysis (2019), Kenya's debt as at June 2020 was 6.6 Trillion after an increase of 873 Billion and was projected to reach 7.5 Trillion by June 2021. With uncontrolled expenditures in infrastructure, energy investments and social protection coupled with Covid-19 effects, the debt could reach kshs 9.2 trillion by the financial year 2022/2023. Approximately 49% of collected revenues is used to repay debts.

Budget Watch 2021 and The Medium term (2020), by the Parliamentary Budget Office state that the devolution dream may take long to achieve unless efficiency in allocation and utilization of resources is enhanced. Mistakes such as wastage and unnecessary expenditure in travels, trainings, and bench marking trips have contributed to higher costs in the counties. The report states that County Governments must achieve important objectives of public finance such as aggregate expenditure control and operational efficiency.

In Kenya, Musamali et al. (2020) publishing on behalf of the European Union, considers the short term implications of Covid-19 containment measures such as lockdowns on the wider Kenyan economy by taking in to account several factors including government fiscal and spending measures implemented through the Tax Laws (amendment) Act (2020), the spending plan and the economic stimulus program. The study found that the GDP growth would drop from 5.6% to below 1%. This drop was also accompanied by depreciation in the Kenyan Currency, reduction in domestic investment and increase in budget deficit by up to 17.2 Billion Kenya Shillings. Real income also decreased by 7.9% during the period. Decrease in income and the overall spending ability lead to lower demand hence businesses are hurt financially. The study also finds that the above effects would lead to other effects such as decline in government revenue, increase in public spending, increase in deficit and increase in government borrowing to cover the deficit in the budget. Kipkogei (2020) supports the findings of the above study.

#### **STATEMENT OF THE PROBLEM**

According to the Commission for Revenue Allocation (CRA, 2021), Counties have underperformed in collecting own local revenues. The challenge that arises from inadequate exchequer funding and the little local revenue collection is the inability to provide services such as Healthcare, road constructions, basic education, water and housing, and agricultural services, to the citizens. According to various Auditor General's reports for financial years including 2017/2018, 2018/2019, 2019/2020 for various county governments in Kenya, Fraud and wastage are the major hindrances to financial adequacy. During the highlighted periods, the pending bills accumulated by the counties include Nairobi County with up to KES 78 Billion, Mombasa KES 16 Billion, Kiambu 12B, Kwale 10B, Turkana 7B and Kisumu 9B among others. OCOB (2017, 2018, 2019, 2020, 2021). This level of pending bills shows that without effective and efficient use of available resources, sustainability of the County Governments is at stake. To achieve the desired efficiency, effective Management Accounting techniques must be effectively implemented. In addition, the Covid-19 pandemic also hindered the ability of the county governments to collect more revenue and control expenditure to sustainable levels. Previous studies that may address the subject of financial adequacy do not use the management accounting variables examined in this study, neither do they particularly address the county governments.

This study therefore seeks to evaluate Management Accounting practices that particularly relate to control of costs, which can help county governments in Kenya utilize the limited resources available to achieve the objectives of the devolved functions as envisaged in the Constitution of Kenya (2010). The study will also factor in how Covid-19 pandemic has affected the efforts of County governments in controlling costs and the general management of expenditure.

#### **PURPOSE OF THE STUDY**

The purpose of the study was to examine the effect of budgeting as a management accounting techniques and financial adequacy among selected County Governments in Kenya.

#### **THEORETICAL FRAMEWORK**

This study was guided by finance economic, compliance and complexity theories. They are discussed in the following sub thematic areas.

##### **Agency Theory**

The agency theory of organizations expresses the notion that productivity in public service can be enhanced if incentive based employments between different players are undertaken. Principals will most probably attain their planned targets, while agents will have clear goals and assignments. Since its advent in the 1970s, Agency theory has achieved immense influence on the theory and practice of governance and policy.

Principal agent relationship in the public sector can be analyzed from different viewpoints. The principal can be the voters while agents are the elected persons, it can also be the tax payers versus a public or

government entity, an example of this relationship also exists between the central governments and the devolved units. The role of a government entity in management of resources provided by tax payers creates a strong relationship of a principal-agent nature, such that not only do the citizens expect services, the financial aspect of this relationship demands efficient utilization of the limited resources in the course of service delivery.

According to Waterman (1998), principals can demand or even control the actions of their agents through several ways such as participation in approving of budgets, using cost standards for services, and ensuring that costs are comparable with other costs in a competitive environment. In this research study, budgeting is the variable that was considered as a Management Accounting tools that the principal, that is, the citizens in various stakeholder groups, can demand, influence or control, hence participating in management of public expenditures by government entities such as the county governments. A participative and transparent process yields higher levels of accountability hence the principal is able to effectively control the behavior of the agent. Public servants also, as agents of the employer, who is the principal, are guided by the variables of this study and others not under the study to achieve efficiency and aim at financial adequacy.

### **The Theory of Public Expenditure**

This theory was authored by Adams in a publication of the American Economic Association in March, 1895. Professor Henry Adams states that the purpose of a discussion about public expenditure is to discover the meaning of expenditure of a people and therefore arrive at the principles that control appropriations. The author avoids the limitations of only looking at the taxation, instead focuses on the perspective of expenditure. In doing so, the theory considers the extent to which individual's experiences and practices in expenditure management can be relied upon in management of public expenditures. The theory suggests that public income is a part of a social income that the state receives, and as an individual is limited by the amount of income he enjoys, so is the state limited by the income it receives under the given political, social and industrial conditions.

According to Professor Henry (1895), a distribution of public funds across various budget lines is generally influenced by the same considerations as those that influence an individual in private expenditure. The theory also states that as a larger proportion of a poor man's income goes to basics instead of comfort and luxury, so the state would be called upon to spend largely on the core functions of the government instead of non-priority functions. The theory therefore states that similar principles of expenditure management underline the use of public and private resources. As discussed above, management of public costs by a government entity in aiming for financial adequacy should enjoy a similar treatment as that of a private expenditure. The assumption here is that all individuals wish to spend as little as possible on as much as possible on the best products and services desired. This supports the objective of the study anchored on financial efficiency and adequacy.

### **Contingency Theory of Management Accounting**

The contingency theory postulates that no type of organizational structure is universally fit for all organizations. Rather, success of an organization is reliant on a fit or match between many contingent factors such as the environmental dynamics, suitability of the technology, economies and diseconomies of scale, the design of the organizational structure and its management information system. One of the earliest works in management accounting that adopted a contingency theory perspective was Hofstede (1967). He concluded that economic, sociological and technological considerations had a substantial influence on the effective working of budgeting systems.

Ohio State University researchers developed the Contingency theory of management accounting using conclusions from a leadership behavior research they conducted, Nohria & Khurana (2010). The findings concluded that successful management behavior mainly involves developing harmony and inter-personal relations; and establishment of systems, processes and procedures that promotes achievement of goals. The crucial element of the theory is its perspective of organizational behavior in which it explains how contingent factors such as culture, technology, and the outside environment affects how organizations are designed and function, Bastian & Andreas (2012).

Hayes (1977) found that contingencies were the main determinants of organizational effectiveness. He analyzed the suitability of management accounting in measuring the effectiveness of different functional parts in large organizations. The results further concluded that a contingency approach should be applied to management accounting and the necessary evaluation methods should be determined by types of functional units, their inter-relationships extent of environmental influence on their performance.

Application of the Contingency theory in management accounting research has mainly been used to address questions about the match between organizational control and structure; and the impact of such match and fits on organizational performance; and finally, the examination of multiple contingency factors and their effect on organizational design. Critiques of Contingency theory view it as rigid and non-responsive to organizational change and adaptation, Galunic & Eisenhardt (1994). The theory, is often thought to be an

equilibrium theory, in that organizations are viewed as achieving fit and remaining static, ignoring or failing to respond to constantly changing environment.

**EMPIRICAL LITERATURE REVIEW**

Khalifaet al. (2020) studied the use and benefits of management accounting practices in Libyan Oil companies. The purpose of the study was to provide a description of the management accounting practices among the listed companies dealing in Oil. The study found that contemporary management accounting practices were beneficial to oil companies, even more than some traditional management practices. Amanda (2020) did Field studies of operations Managers’ everyday work. The study is about how operations managers have to deal with both the Management Accounting and operational concerns of every day work. The purpose of the study was to explore management accounting practices in the daily or routine work of operations managers. The study found that operations managers gain analytical skills they apply in their work through management accounting which enables them to mobilize resources and stabilize operations.

Kimeli (2017) while investigating management accounting techniques and the effects on financial performance found that organizations that use management accounting techniques improved their return on equity and also developed more innovative financial ways to achieve a better competitive advantage.

Diana and Philmore (2011) did an exploratory study on the Management accounting practices in the manufacturing sector in Barbados. The study established that management accounting practices allows the management of an organization to gather important information for effective decision making. They also established that Budgeting was being used as a planning tool in the planning process and also as control tool within the monitoring process for monitoring and controlling cash flows.

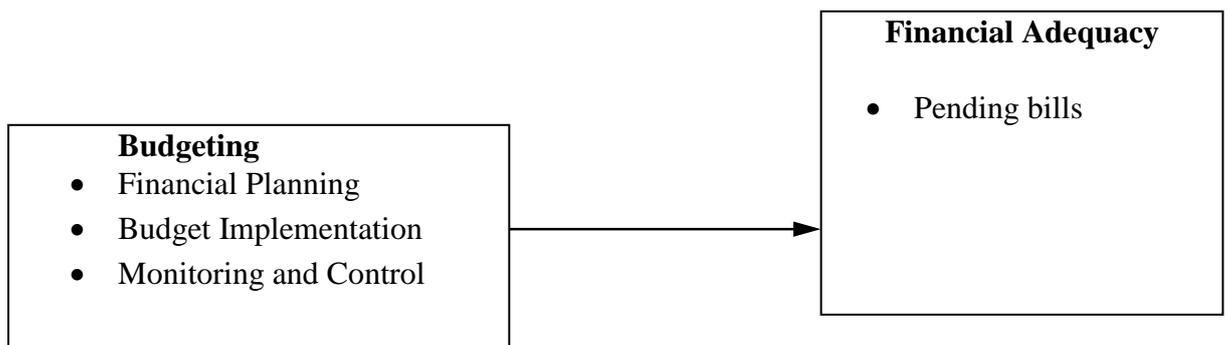
Wong (2018) studied Management accounting strategies for optimal costs. The researchers state that everyday businesses need management accounting tools in order to optimize costs and expand business. The study focused on costing tools and methods and strategic management accounting techniques in small businesses. The study found that costing tools play a major role in success of a business.

Klychovaet al. (2014), in a journal published in the Mediterranean journal of social science reviews the economic importance of budgeting in management accounting systems. The study which focused on Budget efficiency for control purposes in management accounting systems found that budgeting represents the level of business development and enables the management to focus on long term goals, efficient utilization of economic resources, management of business activities and effective decision making. This was a case study that used descriptive analysis and found that budgeting is done within the planning process. Based on long term goals, budgets resolve the issues of economic resource allocation in an organization .A common goal of implementing budgets include establishing operational efficiency, and financial management and efficient operational planning, optimization of resource utilization, effective control and budgetary standards, variance analysis and improving coordination

Klychova et al. (2014), further found that saving and efficiency begin when we start to count spending, as this study looks into cost control ,budgeting therefore is at the heart of controlling costs not just in public but also in private sector. It was further revealed that effective system of planning and budgeting leads to efficient management of financial resources because a budget is synched, both from top and Bottom, with production department as well as other departments for purpose of achieving targeted outcomes.

**CONCEPTUALFRAMEWORK**

**Independentvariable      Dependentvariables**



**Figure 1: Source–Self Conceptualization (2021)**

The independent variable was budgeting which was postulated to affect the financial adequacy of selected county governments, measured through pending bills as evidenced by Controller of Budget and even Auditor General's Reports.

## II. Research Methodology

This study employed explanatory research design. Explanatory research is a research method that explores why something occurs when limited information is available. It can help you increase your understanding of a given topic, ascertain how or why a particular phenomenon is occurring, and predict future occurrences (Fidias, 2006 and Question Pro, 2022).

Target population consisted of 17 CECs, 17 Chief Officers, 41 directors, 334 senior level employees, 2,538 middle level employees and 5,369 lower level employees in the 17 selected County Governments with huge pending bills. Purposive study was employed in this research. Purposive sampling, also known as judgmental, selective, or subjective sampling, is a form of non-probability sampling in which researchers rely on their own judgment when choosing members of the population to participate in their surveys.

Sampling was done on the senior, middle and lower level staff using Slovin's formula (1960):

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

Where: N= the population; n = sample size and E=

Tolerance level of confidence or probability level of  $\alpha=0.05$ ; substituting into the formula.

$$n = \frac{8241}{1 + (8241 \times 0.05^2)}$$

$n = 379.484 \sim 379$  respondents who were randomly sampled from the 8,241 respondents. Proportionate sampling was used to apportion 379 respondents to senior, middle and lower level staff. Proportionate sampling is a sampling strategy (a method for gathering participants for a study) used when the population is composed of several subgroups that are vastly different in number. The number of participants from each subgroup was determined by their number relative to the entire population.

In this study, structured Questionnaires were used to collect primary data from respondents while secondary data was collected using designed tool that captured pending bills. Use of secondary data is very economical and saves time, because it is readily available to the researcher in physical copies and online platforms. Use of both secondary and primary data improves validity and reliability of the study findings. 10% of the targeted respondents (379) was used from Bungoma County Government which translate to 38 respondents, for piloting the Questionnaires.

## III. Research Findings

### Response Rate

A total of 456 questionnaires were distributed to the respondents. Out of this, 77 questionnaires were not returned constituting 16.9%. A total of 379 questionnaires were returned, thus giving a response rate of 83.1% which was acceptable for this study. According to Mugenda and Mugenda (2012), a response rate of 50% is appropriate, and a response rate of more than 70% is exceptional for any academic report study and presentation.

### Descriptive Analysis

**Table 1: Budgeting on Financial Adequacy**

Statement(s)	Min.	Maxi.	Mean	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic
The budget has a long term and short term budget plans	1.0	5.0	3.83	1.422	2.021
The budgets have clear goals and objectives	1.0	5.0	3.90	1.385	1.918
When budgeting, outcomes, goals and objectives are linked to programs and activities	1.0	5.0	3.86	1.437	2.064
The Finance Department puts priorities for the annual budget conference and Committees	1.0	5.0	3.86	1.418	2.011
Finance department prepares budget plans prior to the budget year	1.0	5.0	3.92	1.434	2.072
The Department engages its stakeholders in making key budget decisions	1.0	5.0	3.87	1.383	1.914

The Department conducts regular audit of the estimated and actual budget	1.0	5.0	4.01	1.339	1.794
The Department reviews regularly the implementation of budgetary control measures	1.0	5.0	3.83	1.356	1.839

Valid N (list wise)= 379; mean (%) = 3.89(77.8%); Std. Dev. = 1.40;

This was the independent variable. The study sought to establish the respondents' opinions on the budgeting in relation to financial adequacy among selected County Governments in Kenya. Descriptive results are as shown in Table 4.5. This variable had eight (8) items. The means, standard deviations and variance of the respondents' responses were computed from the five point Likert Scale of Strongly Agreed (SA = 5), Agree (A = 4), Neutral (N = 3), Disagree (D = 2), strongly disagree (SD = 1). The question on whether the the budget had a long term and short term budget plans had a mean of 3.83 with standard deviation of 1.422 and variance of 2.021; results further showed that the budgets had clear goals and objectives with a mean of 3.90 with standard deviation of 1.385, variance of 1.918; The question on whether budgeting, outcomes, goals and objectives were linked to programs and activities had a mean of 3.90 with standard deviation of 1.385 and variance value of 1.918. The respondents were of the views that the Finance Department puts priorities for the annual budget conference and Committees with a mean of 3.86 with standard deviation of 1.418 and variance of 0.818, skewness had statistic value of -1.707 while Kurtosis had statistic value of 2.011. When the respondents were asked whether Finance Department prepares budget plans prior to the budget year had a mean of 3.92 with standard deviation of 1.383 and variance of 1.914; the respondents were of the opinion that the Department engages its stakeholders in making key budget decisions with a mean of 3.87 with standard deviation of 1.363, variance of 1.859; respondents were of the views that the Department conducts regular audit of the estimated and actual budget with a mean of 4.01 with standard deviation of 1.339 and variance of 1.794. Finally in this study construct, the respondents were in agreement that the Department reviews regularly the implementation of budgetary control measures with a mean of 3.83 with standard deviation of 1.356 and variance of 1.839. The respondents gave varied views on the question asked on the budgeting in relation to financial adequacy among selected County Governments in Kenya.

**Financial Adequacy**

This refers to the ability of an organization, such as a county government to pay for all its financial obligations within a specified period of time.

**Table 2: Financial Adequacy**

RAN K	COUNTY	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	TOTAL
1.	NAIROBI	-	64,802,990,000.00	-	78,700,448,753.00	54,318,170,680.00	197,821,609,433.00
2.	MOMBASA	3,945,943,556.00	3,705,500,000.00	4,024,140,000.00	-	4,466,272,428.00	16,141,855,984.00
3.	KIAMBU	920,261,674.00	785,760,000.00	2,526,480,000.00	4,512,119,032.00	3,502,533,931.00	12,247,154,637.00
4.	KWALE	989,891,774.00	1,830,120,000.00	2,663,660,000.00	2,840,220,264.00	2,294,027,929.00	10,617,919,967.00
5.	TURKANA	2,900,000,000.00	633,660,000.00	2,234,430,000.00	276,272,865.00	1,793,477,911.00	7,837,840,776.00
6.	MERU	832,085,866.00	2,000,930,000.00	1,243,360,000.00	1,983,477,409.00	1,006,459,807.00	7,066,313,082.00
7.	EMBU	860,461,725.00	1,278,740,000.00	1,243,360,000.00	1,818,665,357.00	1,816,975,311.00	7,018,202,393.00
8.	KILIFI	819,833,882.00	1,224,710,000.00	1,140,950,000.00	1,135,424,306.00	1,987,974,992.00	6,308,893,180.00
9.	NAROK	1,653,245,753.00	1,725,440,000.00	1,184,050,000.00	472,658,120.00	1,146,791,642.00	6,182,185,515.00
10.	KISUMU	1,792,846,189.00	2,047,600,000.00	742,790,000.00	323,444,548.00	1,008,395,868.00	5,915,076,605.00
11.	TANA RIVER	946,029,550.00	946,030,000.00	1,382,110,000.00	1,157,277,972.00	1,337,982,958.00	5,769,430,480.00
12.	NANDI	813,509,516.00	1,394,230,000.00	1,770,340,000.00	261,064,557.00	772,160,752.00	5,011,304,825.00
13.	KAJIADO	394,050,117.00	769,810,000.00	738,850,000.00	1,512,060,210.00	1,258,689,327.00	4,673,459,654.00
14.	VIHIGA	1,184,810,000.00	1,184,810,000.00	174,760,000.00	1,110,253,637.00	589,908,828.00	4,244,542,465.00
15.	KERICHO	396,766,689.00	1,255,280,000.00	1,627,650,000.00	410,491,725.00	284,759,457.00	3,974,947,871.00

16.	KITUI	-	1,167,090,000.00	936,160,000.00	12,346,768.00	1,089,727,044.00	3,205,323,812.00
17.	MACHAKOS	-	975,460,000.00	559,590,000.00	343,480,604.00	1,231,933,621.00	3,110,464,225.00
18.	BUNGOMA	888,736,791.00	326,390,000.00	233,580,000.00	61,370,304.00	95,265,483.00	1,605,342,578.00

**Source: Office of the Controller of Budget: County Governments Budget Implementation Review report for the FY 22016/2017/2017/2018/2018/2019/2019/2020/2020/2021**

*Scale: 1billion - 3billion =1; 4billion - 5billion =2; 6billion - 7billion = 3; 8billion – 10billion = 4 and 11billion and above = 5*

The Office of the Auditor General and Controller of Budget provides important published data useful for this study for the five financial years: 2016/2017; 2017/2018; 2018/2019; 2019/2020; 2020/2021 as shown in Table 3.

The study sought to determine relationship between budgeting and financial adequacy among selected County Governments in Kenya. It was hypothesized that:

H<sub>01</sub> There is no statistically significant relationship between budgeting and financial adequacy among selected County Governments in Kenya. To test the Hypothesis, the model  $Y = \beta_0 + \beta_1 X_1 + \epsilon$  was fitted. Where Y is the dependant variable (financial adequacy),  $\beta_0$  is the regression coefficient and  $\epsilon$  is an error term. Table 4.11 indicates the model summary for the regression analysis between budgeting and financial adequacy. An R-squared of 0.356 indicates that 35.6% of financial adequacy is explained by changes in budgeting. This implied that other factors which are left out in the model explained 64.4% of financial adequacy.

**Table 3: Model Summary for Budgeting**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.597 <sup>a</sup>	.356	.355	1.1238	.356	208.706	1	377	.000

a. Predictors: (Constant), budgeting

a. Predictors: (Constant), budgeting

b. Dependent Variable: financial adequacy.

Table 4 below shows analysis on variance (ANOVA) showing the regression model between budgeting and financial adequacy.

**Table 4: ANOVA between Budgeting and Financial adequacy**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	263.568	1	263.568	208.706	.000 <sup>b</sup>
	Residual	476.100	377	1.263		
	Total	739.668	378			

a. Dependent Variable: Financial adequacy

b. Predictors: (Constant), Budgeting

a. Dependent Variable: financial adequacy

b. Predictors: (Constant), budgeting

The F test gave a value of  $F(1,377) = 208.706$ ,  $p < 0.05$ , which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that budgeting is a useful predictor of financial adequacy. Table 5 shows that the regression coefficients for the model between budgeting and financial adequacy. Results were statistically positive and significant ( $\beta = 0.863$ ,  $t = 14.447$ ,  $p = 0.000$ ) hence budgeting positively and significantly affects financial adequacy.

**Table 5: Regression Coefficients between Budgeting and Financial adequacy**

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	$\beta$	Std. Error	Beta		
(Constant)	.406	.239		1.697	.090

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Budgeting	.863	.060	.597	14.447	.000
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a. Dependent Variable: financial adequacy

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a. Dependent Variable: financial adequacy

The results from the regression model showed that the model could be used to predict the level at which budgeting affects financial adequacy. The regression model between budgeting and financial adequacy was:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Based on the findings obtained, the model equation was:

$$Y = 0.406 + 0.863X_1$$

Since  $\beta_1$  is significantly different from zero and therefore the null hypothesis was rejected and conclude that there was a significant effect of budgeting on financial adequacy. For every 1 unit increase in budgeting, financial adequacy increases by 0.597 units.

These finding are analogous to those of Klychovaet *al.* (2014) and Deressa (2018). In their study, they found out that budgeting is done within the planning process. Based on long term goals, budgets resolve the issues of economic resource allocation in an organization. A common goal of implementing budgets include establishing operational efficiency, and financial management and efficient operational planning, optimization of resource utilization, effective control and budgetary standards, variance analysis and improving coordination. further they established that saving and efficiency begin when we start to count spending. Kamunge (2016) studied the budget control practices in management of secondary schools in Meru North region in Kenya and found a positive relationship between effective management of schools and budgetary control practices.

#### IV. Summary of The Findings

An R-squared of 0.356 indicates that 35.6% of financial adequacy is explained by changes in budgeting. This implied that other factors which are left out in the model explained 64.4% of financial adequacy. The F test gave a value of  $F(1,377) = 208.706$ ,  $p < 0.05$ , which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that budgeting is a useful predictor of financial adequacy. Results were statistically positive and significant ( $\beta = 0.863$ ,  $t = 14.447$ ,  $p = 0.000$ ) hence budgeting positively and significantly affects financial adequacy. There was a significant effect of budgeting on financial adequacy. For every 1 unit increase in budgeting, financial adequacy increases by 0.597 units.

#### V. Conclusions

For every 1 unit increase in budgeting, financial adequacy increases by 0.597 units. When budgeting elements like clear goals and objectives of the budgets, conducting of regular audit of the estimated and actual budget, putting priorities for the annual budget conference and committees, preparations of budget plans prior to the budget year, engaging its stakeholders in making key budget decisions are implemented correctly, then financial adequacy of the selected County Governments would improve drastically.

#### VI. Recommendations

The study guides policy makers such as the National Government and County Government Executive to address financial adequacy using management accounting techniques. Particular focus should not only be on budgeting that was found to have a significant predictive ability to determine the effect of management accounting techniques but also variance analysis and ABC accounting.

#### SUGGESTIONS FOR FURTHER RESEARCH

Given that the current research focused exclusively on the investigation of the effect of management accounting techniques on financial adequacy among the selected County Governments in Kenya, it was suggested for the study to cover the thirty (30) counties to ascertain if consistent results could be achieved. Secondly, the study focused on the budgeting construct, further study should cover other constructs of management accounting techniques.

#### AUTHOR CONTRIBUTIONS

Joliff Larsen Chonginsought for the study authorization from the relevant government institutions like Graduate School of Kibabii University and National Commission for Science, Technology and Innovation. He developed the study methodology that comprised of research instruments that were used in data collection. He further analyzed, interpreted and discussed the data. He undertook a literature review that included the background information on the study concepts and the theoretical context. He trained and supervised the research assistants as well as coordinated primary data collection. He also coded the collected questionnaires and thereafter undertook data entry and analysis using SPSS software. Dr. Kadian Wanyama Wanyonyi, Dr.

Rashid Fwamba and Dr. Tecla Kirwa ensured that the published article conformed to the journal's formatting guidelines.

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### **CONFLICT OF INTEREST**

The authors declare that there are no conflicts of interest regarding the publication of this Manuscript. In addition, the ethical issues; including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy has been completely observed by the authors.

### **References**

- [1]. Abugalia, M. (2011), "The influence of business environment on the effectiveness of management accounting practices: evidence from Libyan companies", available at: <http://eprints.hud.ac.uk/17509/>.
- [2]. Brennan, N. M., & Solomon, J. (2008). Corporate governance, accountability and mechanisms of accountability: an overview. *Accounting, Auditing & Accountability Journal*, 21(7), 885-906.
- [3]. Brownell P (1982). Participation in the budgeting process: When it works and when it doesn't. *J. Account. Lit.*, 1: 124-153.
- [4]. Brownell P, Hirst MK (1986). Reliance on accounting information, budgetary participation and task uncertainty: Tests of a three-way interaction. *J. Account. Res.*, 24(2): 241-249.
- [5]. Banker RD, Datar SM, Kemerer L (1991). A model to evaluate variables impacting the productivity of software maintenance. *Manage. Sci.*, 37(1): 1-18.
- [6]. Constitution of Kenya (2010).
- [7]. Caplan, D. (2006), "Management Accounting Concepts and Techniques" (2006). Accounting and Law Faculty Books.
- [8]. Chenhall, R. H (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Account. Org. Soc.*, 28(2/3): 127-168.
- [9]. Chenhall, R.H (2006). Theorizing contingencies in management control systems research. *Handbooks Manage. Account. Res.*, 1: 163-205
- [10]. Cooper, D. R., Schindler, P. S., & Sun, J. (2006). *Business research methods* (Vol. 9): McGraw-Hill Irwin New York.
- [11]. Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage publications.
- [12]. Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. New York: Routledge.
- [13]. Donaldson, L. (2001). *The contingency theory of organizations*: Sage.
- [14]. Donaldson, L. (2006). The contingency theory of organizational design: challenges and opportunities. In *Organization Design* (pp. 19-40): Springer
- [15]. Fisher J (1995). Contingency-based research on management control systems: categorization by level of complexity. *J. Account. Lit.*, 14: 24-53.
- [16]. Hayes D (1977). The contingency theory of management accounting. *Account. Rev.*, 52(1): 22-39.
- [17]. Hofstede GH (1967). *The Game of Budget Control*, Tavistock, London. Hofstede GH (1983). The cultural relativity of organizational practices and theories. *J. Int. Bus. Stud.*, 14(2): 75-89
- [18]. Horngren, C., Datar, S. & Rajan, M. (2013). *Cost Accounting: A Managerial Emphasis*. (14th Ed.). London, UK: Pearson Education Ltd.
- [19]. [https://www.researchgate.net/publication/326156499\\_Explored\\_and\\_Critique\\_of\\_Contingency\\_Theory\\_for\\_Management\\_Accounting\\_Research](https://www.researchgate.net/publication/326156499_Explored_and_Critique_of_Contingency_Theory_for_Management_Accounting_Research)
- [20]. Kombo, D. K., & Tromp, D. L. A. (2006). *Proposal and Thesis Writing - An Introduction*. Nairobi: Paulines Publications Africa.
- [21]. Kothari, C. R. (2004). *Research methodology: Methods and techniques*. Nairobi: New Age International.
- [22]. Leruth, Luc and Elisabeth Paul (2006), "A Principal-Agent Theory Approach to Public Expenditure Management Systems in Developing Countries", IMF Working Paper 06/204, International Monetary Fund, Washington DC.
- [23]. Mitnick, B. (2013). Origin of the theory of agency: an account by one of the theory's originators. Retrieved from <https://ssrn.com/abstract=1020378>
- [25]. Mugenda, M., & Mugenda, A. (2003). *Research methods in education: Quantitative and qualitative approach*, Nairobi: Acts press.
- [26]. Mutai, P. (2018). *Effects of Public Financial Management Practices on Performance of County Governments in Kenya*. University of Nairobi, Kenya.
- [27]. Nohria, N., & Khurana, R. (2010). *Handbook of leadership theory and practice*: Harvard Business Press.
- [28]. *Public Finance Management Act*, Republic of Kenya (Government Printer 2012).
- [29]. Reid GC, Smith JA (2000). The impact of contingencies on management accounting system development. *Manage. Account. Res.*, 11(4): 427-450
- [30]. Shank JK (1989). Strategic cost management: New wine or just new bottles. *J. Manage. Account. Res.*, 1: 47-65.
- [31]. Sije, A. O. (2017). *Relationship Between Turnaround Strategies and Performance of Small and Medium Enterprises in Kenya*. Unpublished PhD thesis. Jomo Kenyatta University of Agriculture and Technology. Nairobi.
- [32]. Woodward, J. (1958). *Management and technology*: HM Stationery Off.
- [33]. Woods M (2009). A contingency theory perspective on the risk management control system within Birmingham City Council. *Manage. Account. Res.*, 20(1): 69-81.
- [34]. Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods*. Boston, USA: Cengage Learning