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*Budget Utilization and Performance of County
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Budget Utilization and Performance of County Governments in Nyanza Region, Kenya

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Abstract

This study is sort to investigate the effect of budget utilization on the performance of county governments in Nyanza region in Kenya. The study adopted a descriptive survey design targeting the counties of Siaya, Kisumu, Migori, Homabay, Kisii and Nyamira. Secondary data from the Office of the Controller of Budget and Office of the Auditor General covering a period of 6 financial years 2015/2016 to 2020/2021 was used. The study used descriptive statistics to collect, analyze and regress the data. The regressed data was run on the SPSS to find various models in regression. The result was then presented in form of tables, pie charts, lines graphs and interpretations done. The study made conclusions that spending on development expenditure had a positive impact on service delivery while under spending on development expenditure negatively affected service delivery. The study recommends that counties enhance their revenues. Deficit in revenue budgets have affected the expenditure on development projects.

Keywords: Budget Utilization, County Governments, Performance

Introduction

Background of the Study

Budget utilization has been an issue of priority concern in the performance of any organization. Budget utilization entails the percentage of a project's total financial plan that has been expended. It is a measure of how much money has been spent on a project relative to the total amount that was allocated for the project (Bessie, 2016). The strategy is important because it can help to measure the percentage of a project's budget that has been spent. In this context, regional governments in Kenya have been mandated with various functions and responsibilities as stipulated in the constitution. They are allocated funds through the national government to help them perform their duties. However, there have been reports of poor utilization of these funds, which has led to underperformance by some county governments. As Modlin and La Shonda (2012) found out, when funds are not used efficiently, it can lead to a number of problems such as lower economic growth, higher levels of debt, and others.

Through the analysis of stewardship theory, financial managers are obliged to be responsive in their duties since they are considered stewards of the resources entrusted to them by the citizens of Kenya. The theory suggests that managers have to use these resources to benefit the owners and residents of specific regions. The stewardship theory is based on the idea of agency, which states that there is a separation of ownership and control in a business. The business owners are the principals, while the managers are the agents. Thus,

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the agency relationship gives rise to a conflict of interest between the principals and agents, as the agents may not always act in ways that are in the best interests of the principals. Equally important agency theory states that there is an inherent conflict of interest between the agent and the principle. Whereas the agent is typically motivated by self-interest, the principal is interested in maximizing value for shareholders. Thus, the conflict can result in the agent engaging in activities that are not in the best interests of the principal, such as taking excessive risks or shirking responsibilities. Thus, the theory has important implications for corporate governance, as it can help explain why certain shareholder rights exist, such as the right to vote on directors or approve major transactions. Therefore, the theories are relevant because they mandate county leaders to be responsive in their spending and ensure that budgets are utilized effectively.

Therefore, the application of stewardship and agency theories are vital in addressing budgeting problems in county governments in Kenya. The Office of the Controller of Budget (OCoB) has outlined seven issues that have continuously interfered with effective budget utilization by counties i.e. underperformance in Own Source Revenue (OSR), weak budgetary control and spending of revenue at source, low expenditure on development budget, high expenditure on personnel emoluments, huge pending bills which negatively affect the business community, a huge wage bill, delay in disbursement of funds from the national treasury, and delay in submission of financial and non-financial reports to the OCoB which affected timely preparations on revenue budget utilization. Budget utilization is one of the key performance indicators in the public sector because it is a measure of how well government funds are being used to achieve desired outcomes. Oyier (2017) found that improper budget utilization strategies, government officials may become corrupt, and hence use the funds for personal gain instead of for public purposes.

Utilization of the Budget

A budget is a list of expenses with predetermined estimates for a given time period. County governments base their budgets on tax collections, up to and including 5% of which may be used to cover any shortfall. Kenya's budget usage is limited due to difficulties, due to the fact that the vast majority of the funds granted is not used and are instead returned to the national treasury (Andrew, 2018). Legal framework restrictions cause the procurement processes to be cumbersome, which extends the allotted time for controlling the budget timeframes (Hao et al., 2022). The medium-term expenditure framework (MTEFs), makes sure that national plans and programs are compatible with public spending projects within a specific coherent medium-term macroeconomic and fiscal set frameworks, may be impacted by the inclusion of expenditures.

In order to guarantee that choices are made properly and that pertinent budget items are covered, the established budgets ask for regular consultations (Andrew, 2018). Poor results are produced and no money is used for expenditures due to duplicate costing and improper budgeting execution.

Budgets that have been approved cover one fiscal year, or the first of the two running years to the last day of the 12-month period (1 July to 31 June). The appropriations are made in a way that balances all economic needs for effective service delivery. The effectiveness of any approved budget depend on the review by the Parliamentary Finance Committees and National Treasury fiscal teams, who collaborate to deliver reallocations if some sectors require greater funding for use (Andrew, 2018). The assigned funds are rigorously adhered to since any misappropriations could result in some indirect sanctions by making sure the call for accountability is broad.

According to the Constitution, the Auditor General is responsible for conducting audits, monitoring the Republic's improprieties and financial mismanagement, and making recommendations for their rehabilitation (Omollo, 2018). The office has a responsibility to continuously audit all public sectors spending as well as that of the federal, state, and local governments. It is also required to provide an annual report for the general public. The relevant institutions must explain any anomalies in the financial accounts, including resource consumption, as some budget lines have financial inclusion in converted resources to capital (Omollo, 2018).

It is impossible for the national and county governments to avoid doing so since the Kenyan Constitution requires that social and economic groups participate in the budgeting process. As a result, public, corporate, and government relationships are strengthened and awareness is increased. Additionally, it increases understanding of the importance or main factors considered by the appropriate Government (s) armed (Omollo, 2018). The inclusion of social working groups ensures that the essential sectorial areas are covered for financing to support global indicators or promote growth while providing budgeting and utilization with additional outside input (Andrew, 2018). By giving aid or donor cash to some industries, including health and education, this aids in financing the deficit. However, the utilization is checked more carefully than during internal government checks and audits because it can be stopped at any time if improper fund usage is found.

Regarding fund disbursement criteria, it is evident that the National Treasury has devised a set of Economic Criteria that will guide the disbursement of funds to the county governments. The criteria are based on the ability of the counties to mobilize revenue, manage public finances and undertake priority development projects (Omollo, 2018). Thus, the critical points of the Economic Criteria are as follows. To begin with, the counties must have a functional revenue collection system. Besides, the counties must demonstrate sound financial management practices. Likewise, the counties must have a track record of implementing development projects. Equally important, the counties must demonstrate the capacity to borrow funds and repay loans. Notably, the Fund disbursements criterion to the Kenyan counties is anchored on the Social Inclusion Criteria which captures two critical aspects. The first is that social service delivery should be inclusive of all Kenyans. The second is that social service beneficiaries should be determined by their need and not their political affiliation. All in all, the Fund management is keen to ensure that these core values are upheld in selecting projects and eventual fund disbursements.

In this case, the national Government and county budgets are under the control of the office of the controller of budgets. The office of the Controller of Budgets oversees the budgets in national Government and counties to ensure there are restricted appropriations without taking into account necessary equity, despite the fact that the separate arms of the Government primarily do approvals through a series of reciprocal engagements (CBK, 2021). According to the constitution, the office was established to offer oversight and control over the budget when the appropriate branches of government seek external funding or borrow money to cover deficits. The office is crucial in bench making the unutilized and used funds with the quantity required for facilitation in order to play to the usage. As bureaucratic procedures are involved and slow the usage, many sets for use are repaid to the National Treasury for financing for the next year. As a result, budget utilization in Kenya has never seen consistent progress (CBK, 2021). This hinders project growth and implementation and encourages greater improprieties by governments that might need to spend without adhering to the necessary legal milestones (Omollo, 2018). This happens frequently when budgeted items are purchased for project implementation. It creates openings for reallocations that might not have been justified by a budget line's overly high use.

Concerning the budget priorities, it is evident that Kenyan counties' most common budget priorities are infrastructure development, employment creation, and agriculture. Yet, in some cases, funds have been diverted to non-essential items, such as luxury cars and overseas travel. According to Andrew (2018), the

lack of financial planning at the county level is primarily to blame for failing to implement key development projects. Thus, County governments need to do a better job. In the same note, it is crucial that County Governments in Kenya effectively allocate their recurrent and development funds to achieve the intended goals. A recent Institute of Economic Affairs study showed a significant variation in how counties spend their funds. While some counties allocate a large proportion of their funds to development, others focus more on recurrent expenditure. This is not ideal, as it can lead to stagnation and a lack of progress. Therefore, county governments must ensure that their recurrent and development funds are used in the most effective way possible. This will enable them to improve the lives of their citizens and promote sustainable development of prioritizing spending to ensure that essential services are delivered to their citizens.

Although the mandate of approving county budgets rests with the county assemblies, it is evident that the budget approval process in the Kenyan counties is often fraught with political interference and corruption. For instance, in one study, researchers found that nearly half of all county budgets were rejected by the county assembly, often for political reasons (Muthomi & Thurmaier, 2021). Another study found that county assembly members often demand kickbacks and bribes to approve budgets (Mose 2021). This has led to widespread mistrust of the budget approval process and a lack of confidence among citizens in the ability of their local government to manage resources effectively.

Financial Performance

Financial performance is defined as the measure of how organizations use their assets in order to generate income. Profit making organizations and not for Profit Organizations (NPO) has indicators they use to measure their performance. Financial statements, financial ratios, balance score card, budget absorption levels and project completion status are some of indicators that are used to measure performance. Government entities measure performance use budget absorption level and status of completed projects. Government agencies have budget allocations to enable them finance both recurrent and development projects within their jurisdictions. However, reports indicate that most of them have not been able to utilize their budgets fully and that a large portion of the recurrent expenditure goes into salaries and wages (Mathenge, Shavulimo, and Kiama, 2017).

The financial performance of any organization reflects the monetary results of the expenditures made or commitments made in a variety of sectorial considerations determined by local county governments subject

to national government policies and other related content included in the relevant national targets or vision items (Ho, 2018). From various angles of quantifiable elements equaled into ratios for thorough comprehension, the increase of decreased County progress can be shown. The County Government's (CG) financial performance can be evaluated by comparing monitoring and assessment reports with cost-benefit analyses of completed projects, foreign direct investments, infrastructure growth, audit requests from the Auditor General, and other clear indicators (CBK, 2020.). An organization may have more obligations to meet than positively reached aims, which may require less cost incurrence, if its recurring expenses are on the rise. A county's improved infrastructure may signal financial responsibility if it has immediate or anticipated reflected significance (Omollo, 2018). However, the rise in license requests and business expansions may indicate a fair and sustainable environment for county regions that welcome economic investment. It is a characteristic of financial growth in relation to performance.

Regarding the budget absorption rates, Moses et al. (2021) found that there could be several factors at play, such as the capacity of county governments to implement projects, the level of corruption, or the availability of resources. In this regard, one way to improve budget absorption rates would be to increase the capacity of county governments to implement projects. This could be done through training and capacity-building initiatives. Another way to improve the budget absorption rate is to enhance transparency and accountability measures. Thus, improving budget absorption rates in Kenyan counties is essential for ensuring that county governments can use the funding to improve the lives of residents effectively. By investigating the factors contributing to variation in budget absorption rates and implementing measures to improve budget absorption, there is a need to ensure that Kenyan counties can generate the most of their resources.

County Governments in Kenya

County governments were envisioned as political governance entities for devolved territories in order to carry out significant decentralized duties formerly performed by the national government. The units were established through article 6 (1) of the 2010 constitution, changes that meant to devolve power from the central government to 47 newly created counties. It also aimed to promote economic development, improve representation and accountability, as well as to reduce ethnic tensions. Besides, the functions of devolved governments in Kenya are to provide services such as water, sanitation, health care, housing, and education; to manage land and natural resources; to develop infrastructure, and to promote economic development. The counties are headed by the county governor; they are mandated to collect local revenue within their

boundaries through a single bank account held in commercial banks and a revenue fund at the Central Bank of Kenya (CBK). Counties are eligible for a 15% stake of revenue from the national treasury. They are in turn required to provide services to the citizens of Kenya at the devolved level. The County Assembly is a legislative office created by the Constitution of Kenya (2010) to provide an oversight role to counties.

Although the county governments have contributed significantly to the development of the country, the authorities have been accused of misappropriation of funds, hence failing to meet their intended targets. As Kimani (2017) found out, Kenya's county governments have been experiencing challenges in budget utilization. The challenges include weak absorptive capacity, a challenge that has hindered counties from fully utilizing their budgets, leading to underdevelopment. In response to these problems, the counties of Kisii, Nyamira, Migori, Homabay and Siaya have taken several measures to improve the utilization of their budget. These measures include establishing a County Budget Office (CBO) in each county, which is responsible for budget planning and execution. The CBOs are expected to help county governments identify priority projects and track expenditure. In addition, the National Treasury has introduced a new Integrated Financial Management System (IFMS) that will help improve financial management and control at the county level. The OCoB, (2016) has also recommended the establishment of County Budget Economic Forums (CBEF), and improvement in the absorption of development budget.

Despite these measures, budget utilization remains a challenge in Kenya's counties due to weak institutions, corruption, and political interference (Muthomi and Thurmaier, 2021). Budget utilization in the counties of Kisii, Nyamira, Migori, Homabay and Siaya can be improved by having institutional reforms in place and capacity building of the budget implementation team (Kimani, 2017). There is need for increased transparency and accountability when using public funds. Thus, it is in this backdrop that the study endeavors to establish the effects of budget utilization in the development of county governments.

Research Problem

The issue of budget utilization is significant problem in most counties in Kenya. The Government of Kenya has been allocating funds to the 47 counties in the country every year since 2013. The amount of money given to each county is based on its population and is meant to be used for development purposes. However, there has been a lot of criticism over the years about the way these funds are being used, with many critics saying that they are not being used effectively and that this is leading to underdevelopment in most counties.

As a result, there are many areas of the country that are underdeveloped and lack the necessary infrastructure. This is often due to poor utilization of funds by the Kenyan government.

To respond to the problem, scholars have provided contradictory view points on the causes of poor budget utilization in the Kenyan counties. On the one hand, Ngigi and Busolo (2019) found out that underdevelopment in Kenyan counties tend to result from poor coordination between national and local governments, whereby there is duplication of services and a lack of cooperation between counties, which ultimately leads to a waste of resources. In the same note, Kimani (2017) found that lack of proper planning leads to wastage of resources. This is because when funds are embezzled, they are not available to finance development projects. As a result, service delivery suffers, which ultimately, negatively affects the lives of citizens. In this regard, Ho (2018) advocates for the need for enhanced transparency and accountability when handling public resources.

On the other hand, Muthomi and Thurmaier, (2021) indicate that underdevelopment in Kenyan counties is caused by poor budget utilization. According to the authors, there are several reasons for the existence of poor utilization of funds. One possibility is that county governments do not have sufficient capacity to properly plan and manage development projects. Another possibility is that there is corruption involved, with county officials pocketing some of the money instead of using it for its intended purpose. In this regard, Muthomi and Thurmaier (2021) found that too often funds meant for development projects are siphoned off by corrupt officials. This means that the money never reaches its intended destination, and the project never gets completed. Whatever the reasons, it is clear that something needs to be done in order to improve the situation and ensure that Kenyan counties are able to develop properly. Above all, Nyandiko (2020) argue that Kenyan counties are underdeveloped because of lack of capacity among staffs. According to the author, many county officials do not have the skills or knowledge necessary to effectively manage county resources. As a result, they are unable to properly utilize the funds at their disposal, leading to underdevelopment. In the same note, the Office of the Controller of Budget (OCoB) has outlined several issues that have continuously interfered with effective budget utilization by counties of Nyamira, Kisii, Homabay, Migori, Siaya and Kisumu i.e. underperformance in Own Source Revenue (OSR), weak budgetary control and spending of revenue at source, low expenditure on development budget, high expenditure on personnel emoluments, huge pending bills which negatively affect the business community, a huge wage bill and delay in submission of financial and non-financial reports to the OCoB which affected

timely preparations on revenue budget utilization. However, despite the scholars generally identifying and recommending on the effect of budget utilizations on performance of county governance in Kenya, no studies have been conducted with respect to Nyanza Region Counties. Nyanza region counties have been in opposition since the inception of counties. Also, counties in Nyanza region have been performing dismally with respect to budget utilization. Therefore, the knowledge gap raises the question: How will budget utilization affect the Performance of County Governments in Nyanza Region?

Research Objective

The objective of the study was to analyse the relationship between Budget Utilization and Performance of County Governments in Nyanza Region, Kenya.

Literature Review

The section reviews the activity-based budgeting theory and stewardship perspective discussed in the same order as they are relevant in the study paper in connection of how the respective counties place account their revenues and expenditure.

Activity-Based Budgeting Theory

Activity-Based Budgeting (ABB) is a tool that can be used to help organizations better understand the costs of their activities and make more informed decisions about how to allocate resources. The theory behind ABB is that by understanding the cost of each activity, organizations can make more informed decisions about where to allocate resources and how to improve efficiency. As Cardoso (2014) indicates, ABB is a managerial accounting technique that identifies the activities that a company performs and uses this information to formulate a budget. This type of budgeting allocates resources based on the amount of activity that an organization undertakes, rather than allocating resources equally across all departments.

The ABB model is relevant because it can be used in counties to create a more accurate budget. Counties are cost centres since they were devolved to deliver services to the people. Costs incurred by counties are development in nature of building of roads and recurrent costs like salaries. The theory behind ABB is that every organization has certain activities that need to be funded in order to function. These activities can be divided into three categories: direct costs, indirect costs, and overhead costs (Cardoso, 2014). Direct costs are those that are directly related to the production of goods or services, such as materials, labor, and

shipping. Indirect costs are those that are not directly related to the production of goods or services, but are necessary for the operation of the business, such as rent, utilities, and insurance (Cardoş, 2014). Lastly, overhead costs are those that are not essential for the operation of the business, but may be helpful in reducing expenses or increasing profits, such as advertising and marketing. Therefore, the ABB can be used to create a more accurate budget by allocating funds based on the actual activities that will be taking place within the counties. This method of budgeting can help counties to better control their finances and avoid overspending on unnecessary items. Additionally, ABB can also help counties to save money by identifying areas where expenses can be reduced.

Stewardship Theory

The stewardship theory of accounting states that managers are entrusted with the resources of the company and have a duty to use them in the best interests of the owners (Davis et al. 2018). This theory is based on the concept of agency, which says that there is a relationship between principals (such as shareholders) and agents (such as managers) in which the agents act on behalf of the principals. Under this theory, managers are accountable to shareholders for their actions (Keay, 2017). They are expected to use company resources wisely and in a way that will create value for shareholders. There are several benefits of using the stewardship theory when making business decisions. First, it helps ensure that managers are acting in the best interests of shareholders. Second, it provides a framework for making decisions that take into account both short-term and long-term implications. Finally, it can help foster transparency and communication between management and shareholders. Thus, in the context of county governments, it is evident that the County Executive Committee Member (CECM) Finance is the steward of the resources entrusted to them by the citizenry. In this case, the CECM have a duty to act in the best interests of the residents, and that they should not use county resources for their own personal gain.

Empirical Review

The budget utilization and tax issues in the USA are a complex and controversial topic. The US federal government has a large budget, and it is responsible for spending that money wisely. Unfortunately, there is often disagreement about how to best utilize the budget, and this can lead to tax issues. There are many different opinions on how the budget should be spent, and there is no easy answer. However, it is important to have a basic understanding of the budget process and the tax system in order to make informed decisions about your own finances. The United States federal government spending - particularly on social welfare and defense - has been a controversial topic for many years. The US budget process is complicated, with

various laws and procedures in place that determine how money is allocated. One of the main issues with budgeting in the US is the 'sequester' system. This system was put in place in 2011 as a way of reducing government spending. It works by automatically making across-the-board cuts to all federal programs if Congress fails to agree on a budget. This can cause problems as some programs may be more important than others, and so the sequester system has been criticized by some as being an arbitrary way of making cuts. Another issue with US budgeting is that tax revenue is not always sufficient to cover all of the government's expenses. This can lead to deficits, which needs to be covered by borrowing money. The US national debt - the total amount of money that the government owes - is currently around \$22 trillion (Abuselidze, 2012). This is a huge amount of money, and it is one of the main reasons why budgeting in the US is such a difficult task.

The politics of taxation in Ghana has been a contentious issue for many years now. The country's tax system is highly centralized and the government has been accused of using it as a tool to further its own political agenda. This has led to a lot of public outcry, particularly from the business community. The government has responded by saying that it is working to improve the tax system and make it more efficient. However, there is still a lot of work to be done in this area. In Ghana, taxation is divided into two main categories: direct and indirect taxes. Direct taxes are levied on individuals and businesses, while indirect taxes are levied on goods and services. The main indirect tax in Ghana is the Value Added Tax (VAT), which is applied to all goods and services at a rate of 17.5% (Abdulai and Sackeyfio, 2022). VAT was introduced in 1998 and was increased to 18% in 2007 (Abuselidze, 2012). There are also other indirect taxes such as customs duty, Excise duty, and import VAT. These are all levied on imported goods. Direct taxes in Ghana include income tax, capital gains tax, property tax, and inheritance tax. Income tax is. Thus, in Ghana, the politics of taxation has been a contentious issue for many years now. This is because tax is seen as an important tool for development and as such, the government has been accused of not doing enough to collect taxes. The current tax system in Ghana is quite regressive and it is estimated that only about 15% of the population pays taxes (Abdulai and Sackeyfio, 2022). This means that the burden of taxation falls disproportionately on the poor and middle class. There have been calls for a more progressive tax system where those who can afford to pay more taxes do so. However, successive governments have failed to implement such a system due to political pressure from the rich and powerful. Accountability is another key issue when it comes to taxation in Ghana. The lack of transparency and accountability in the use of tax revenue has led to widespread corruption and mismanagement of public funds. This has resulted in low

levels of development and poverty despite high levels of taxation. As a result, there is a need for greater transparency and accountability in the management of tax revenue in Ghana.

Apiyo and Mburu (2014) in studying the challenges affecting the collection of taxes and budget utilization in Nairobi County found that the county has in the recent past faced a number of challenges that have affected the collection of taxes and budget utilization. These include; inadequate data on which to base tax decisions. Besides, it faced issues with the lack of coordination between the county and national government agencies as well as lack of clarity on the roles and responsibilities of different government agencies. Lack of capacity to effectively collect taxes and limited use of technology in tax administration has been a major problem. The Office of the Controller of Budget (OCoB), (2021) outlined general issues that have continuously hindered general utilization of budget by counties i.e. underperformance in Own Source Revenue (OSR), weak budgetary control and spending of revenue at source, low expenditure on development budget, high expenditure on personnel emoluments, huge pending bills which negatively affect the business community, a huge wage bill and delay in submission of financial and non-financial reports to the OCoB which affected timely preparations on revenue budget utilization.

Besides, Musyoka (2017) conducted a study to establish the challenges affecting budget utilization in Kakamega County. According to the study, lack of capacity to carry out budget preparations, lack of coordination among government departments and agencies and weaknesses in the accounting and financial management systems are significant issues affecting budget utilization in the county. Likewise, lack of transparency and accountability in the use of public funds, corruption and mismanagement of public funds are other impediments found by the study. Additionally, Oyier (2017) found that there are a number of factors that are linked to improper budget utilizations among county governments. First and foremost, corruption has been cited as among the causes of the problem. When government officials are corrupt, they often divert funds away from where they are needed most and into their own pockets (Kenno et al., 2018). Another reason is that government regulations or bureaucracy may make it difficult to use the funds in an efficient way. Another reason for poor fund utilization is simply mismanagement, whereby in some cases government officials may be deliberately siphoning off funds, but they may not be using them in the most effective way possible. This can happen due to a lack of experience or training, or simply because there are too many bureaucracy and red tape involved in spending government money (Modlin and La Shonda, 2012). Whatever the reason, it often leads to loss of public funds and the end return is poor service delivery. Thus,

the critical analysis of budgeting utilization programs in Kisii, Nyamira, Siaya, Homabay, Migori and Kisumu counties is significant in ascertaining the role of budget utilization in enhancing development in the regions.

Conceptual Framework

The conceptual framework demonstrates the variables in the study. The dependent variable is the Financial Performance measured by budget absorption while Development expenditure and recurrent expenditure represent the independent variable. The variables will be measured mathematically and analyzed in chapter 3. It's expected that there will be a positive correlation between utilization of the counties' development expenditure and own source revenue allocation with the inclusion of effective service delivery.

Independent variables

Utilization of County Budget

- Under spending on development projects
- Over spending on recurrent expenditure
- Under performance in local revenue
- Releases from the exchequer

Dependent Variables

Financial performance measured by Effective Service Delivery measured by:

- Absorption rate of the development and recurrent budget
- Percentage of completed projects

Figure 2.1 Conceptual model

Methodology

The researchers used descriptive research design to collect and analyze data. Kothari, (2004) has described the descriptive research as one that includes survey and facts finding to describe the affairs as they presently exist. Descriptive research is used to determine and report things the way they are i.e. characteristics, attitude, values and behavior. Mugenda and Mugenda, (2003). A descriptive survey was a suitable research method as data was collected from the counties of Siaya, Migori, Homabay, Kisii, Nyamira and Kisumu and was used to demonstrate the effect of budget utilization on performance of the said counties. The

researchers targets the six counties of the defiant Nyanza Province i.e. Kisii, Nyamira, Homabay, Migori, Siaya and Kisumu Counties. The study used secondary data available from the Office of the Controller of Budget (OCoB) for six years between FY 2015/2016 to FY 2020/2021 classified as annual reports. Likewise, the research used data from County audit reports by the Auditor General, Books, Commission on Revenue Allocation (CRA) advisories, National government reports, KNBS, dissertations, journals and others. Particularly, the researcher sought relevant information concerning budget utilization on the development projects, and recurrent programs in the counties.

After data collection process was complete, the data was grouped, coded, and analyzed. This involved computing descriptive statistics (measures of central tendencies and variations) which obtained a general overview of the data. The budget utilization parameters i.e. under spending on Development projects, and over spending on recurrent expenditure were classified into high usage, medium usage and low usage. Under performance in local revenue was classified into high performance, medium performance and low performance, whereas the releases from exchequer were classified into high releases, medium releases and no releases. Financial Performance was then matched to effective service delivery to ascertain whether utilization of budget influence financial performance. Apart from the descriptive statistics used to establish the base summary for the different points of interest, the researchers used Analysis of Variance (ANOVA - a statistical tool to compare variances across different group means) to ascertain whether there are differences across counties in terms of the percentage of exchequer releases to the budget proposed by the counties. Also, the same was done to investigate if there was any difference across counties relative to the percentage of expenditure to exchequer release.

Additionally, Pearson Product Coefficient was used to analyze if relationship of the aforementioned percentages exist across different financial years. On the other hand, linear regression was used to quantify how much of the revenue collected causes a change in the amount of exchequer issue. The model was of the form: $\text{Exchequer issue} = a + b * \text{Revenue collected}$, where a, is the intercept and b is the slope. The intercept is the value of the exchequer issue when the revenue collected is zero. The slope is the amount by which the exchequer issue changes for every unit increase in the revenue collected. The data was summarized into frequencies and percentages and the findings was presented using tables, charts, and graphs, and explanations given and then the results were interpreted, conclusions, and recommendations made.

Data Analysis and Presentation of Results

Overview of Digital Banking Status in Commercial Banks in Kenya

The section sort to investigate the status of digital status within commercial banks in Kenya for the duration 2019 to 2022. The study focused on mobile money subscriptions, average value of daily transactions, ATM network and agency banking for the commercial banks in Kenya. The study established that use of mobile money has been rising between from year to year for the period under review. From the statistics, it is indicated that mobile money has continuously been on an upwards trajectory as indicated in Figure 4.1 below. The 2022 CBK report indicates that the number of active mobile money subscribers increased by more than 0.6 million from 2021 to 2022 due to excitement about new technologies the fuel the utilization of cell phones in financial services. From the figure 4.1 below, the number of mobile money subscribers who were active increased from 29m in 2019 to 32m in 2020 to 35m and to 39m in 2022. Much growth can be observed in 2020 where which can be associated with the outbreak of COVID-19 pandemic that called for the adoption of cashes transactions.

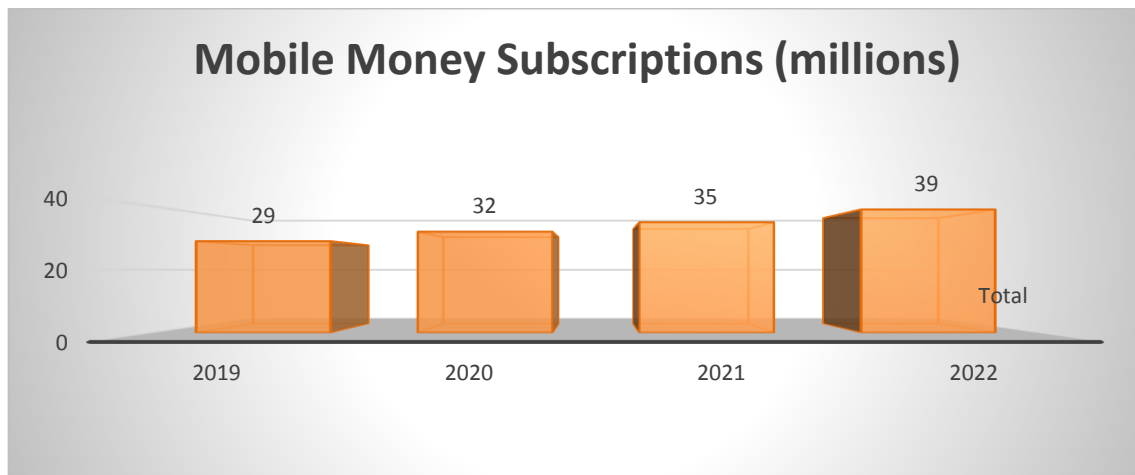


Figure 1: Mobile Money Subscriptions

The study also sought to analyze the average value of the daily transactions via mobile money platforms among the commercial banks in Kenya between 2019 and 2022. Figure 4.2 below indicates that growth in the average value of the daily mobile money transactions. As reported by the CBK 2022 report. From the figure, it can be observed that the much growth is also observed in 2020 as fuelled by outbreak of COVID-19 pandemic.

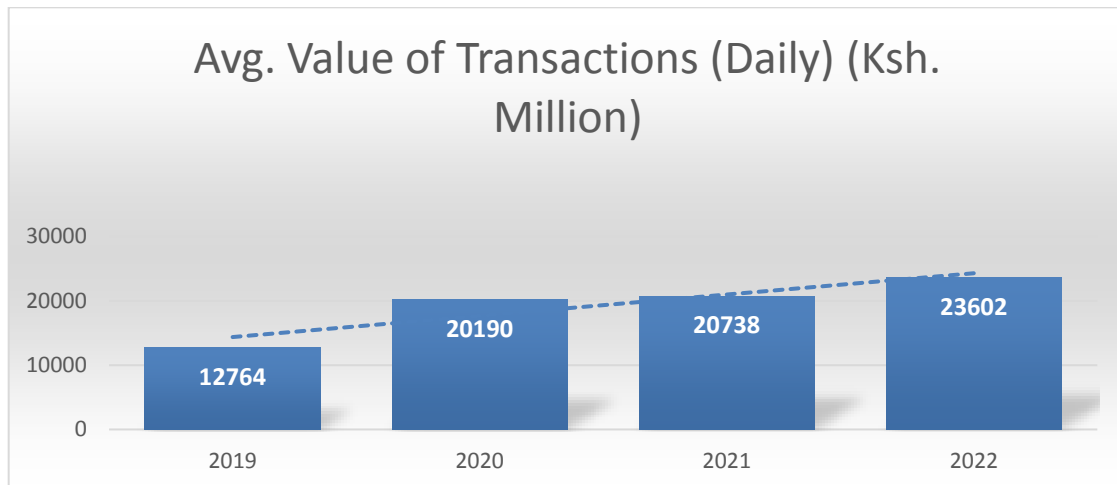


Figure 2 Average Value of Mobile Money Transactions

The study also examined the trends in the number of ATM machines for commercial banks in Kenya from 2019 to 2022. From the Figure 4.3 below, it can be observed that the total number of ATM machines has been declining from 2,459 machines in 2019 to 2,412 machines in 2020 to 2,366 machines to 2021 and 2,301 machines in 2022. The observed decline is much associated with adoption of agency, mobile and digital banking in the banking industry as reported by the CBK 2022 report

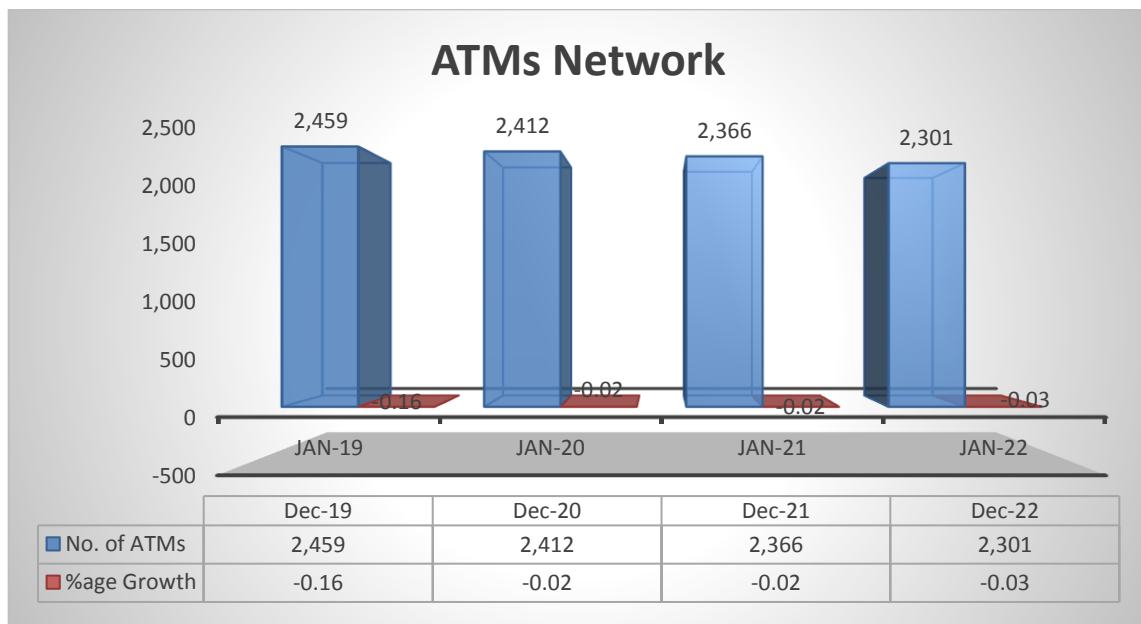


Figure 3: ATM Network

The study established that in an effort to ensure financial services are delivered through agency model of banking increased throughout the period under investigation. From the CBK report, it is observed that 21 commercial banks and 5 microfinance banks had contracts with at least 82,780 agents, this value had increased from 78,371 agents in 2021. The increase was majorly linked with the growth in confidence of customers in bank agents. The figure below represents the growth in active number of mobile money agents.

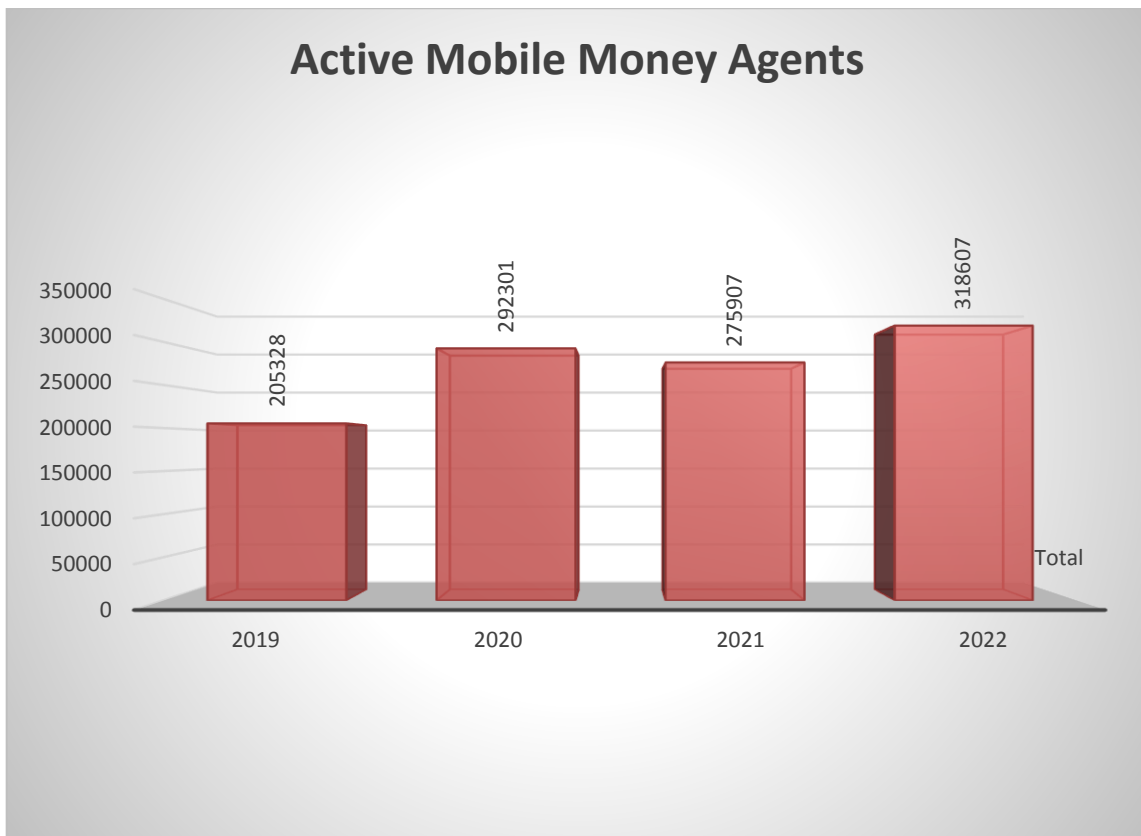


Figure 4: Active Mobile Money Agents

Descriptive Statistics

Table 1 shows the descriptive statistics of the data collected with regards to mobile money banking, ATM banking, Agency banking, online banking and ROA. From the table below, it can be observed that the mean growth in mobile banking transactions for 2019-2022 period stood at 42.38% with a standard deviation of 4.85%. Based on the mean it means the average percentage growth rate in the mobile banking transactions stood at 42.38% this mean growth recorded a standard deviation of 4.85% up and below the mean meaning that 68% of the percentage growth in mobile transactions lied

between 37.53% to 47.23%. The percentage growth rate in the mobile banking transactions had a median of 42.5, this indicates that half of commercial banks under study recorded a growth rate below 42.5 while the other half had growth rates above 42.5 in mobile banking. The most frequent growth rate in mobile banking transactions among the listed commercial banks was 42.5% as shown by the mode in table 1. According to the kurtosis and skewness figures in table 1 is indicate that the mobile banking transactions growth rate was negatively skewed and highly peaked. The minimum growth rate in mobile banking was observed to be 24% while the maximum growth rate was observed to be 50% giving a range of 26%. With regards to ATM banking transactions, the mean growth rate for 2019-2022 period stood at -1.261%, with a standard deviation of 11.218. Based on the mean it means the average percentage growth rate in the ATM banking transactions stood at -1.261% this mean growth recorded a standard deviation of 1.691% up and below the mean meaning that 68% of the percentage growth in mobile transactions lied between -2.952% to 0.43%. The percentage growth rate in the ATM banking transactions had a median of 0.000, this indicates that half of commercial banks under study recorded a growth rate below 0.000 while the other half had growth rates above 0.000 in ATM banking transaction. The most frequent growth rate in ATM banking transactions was observed to 0% indicated by the modal value in table 4.1 below. From the Kurtosis and Skewness figures, the data distribution for the growth in ATM banking transactions was normally distributed but highly peaked. The minimum growth rate in ATM banking was observed to be -24.7% while the maximum growth rate was observed to be 28% giving a range of 52.7%. With regards to the agency banking, the mean growth rate stood at 12.311 with a standard deviation of 22.703 and a median of 1.000. Based on the mean it means the average percentage growth rate in agency banking transactions stood at 12.311% this mean growth recorded a standard deviation of 22.703% up and below the mean meaning that 68% of the percentage growth in mobile transactions lied between -10.392 % to 35.014%. The percentage growth rate in the ATM banking transactions had a median of 1.000, this indicates that half of commercial banks under study recorded a growth rate below 1.000 while the other half had growth rates above 1.000 in agency banking transactions. The most frequent growth rate in agency banking was observed to 0.000% as shown by the mode in table 4.1 below while the kurtosis and skewness figures indicate that the distribution was positively skewed and highly peaked. The minimum growth in the agency banking transactions was observed to be 0 while the maximum observation was 82% giving a range of 82%.

Online banking transactions recorded a mean growth rate of 44.448% for the listed banks with a standard deviation of 57.38% and a median of 15.500. Based on the mean it means the average percentage growth rate in online banking transactions stood at 44.45% this average growth recorded a standard deviation of 57.383% up and below the mean meaning that 68% of the percentage growth in mobile transactions lied between -12.93% to 101.83%. This observation also indicates that there was much variations in the online banking transactions. The percentage growth rate in the online banking transactions had a median of 15.500, this indicates that half of commercial banks under study recorded a growth rate below 15.500 while the other half had growth rates above 15.500 in online banking transactions. The most frequent growth rate among the listed banks was 12.000% as indicated by the mode in table 1. From the kurtosis and skewness figures, this data distribution was positively skewed and highly peaked. The minimum growth in online banking was recorded at 0 while the maximum growth rate in online banking transactions stood at 212% giving a range of 212%.

Table 1: Summary of Descriptive Statistics.

Statistic	Mobile banking	ATM banking	Agency banking	Online banking	ROA
Mean	42.377	-1.261	12.311	44.448	2.632
Standard Error	0.731	1.691	3.423	8.651	0.274
Median	42.500	0.000	1.000	15.500	3.105
Mode	42.500	0.000	0.000	12.000	4.700
Standard Deviation	4.850	11.218	22.703	57.383	1.819
Sample Variance	23.524	125.841	515.422	3292.768	3.308
Kurtosis	6.712	0.632	3.364	1.397	-0.353
Skewness	-2.375	0.007	2.057	1.553	-0.684
Range	26	52.7	82	212	6.87
Minimum	24	-24.7	0	0	-1.77
Maximum	50	28	82	212	5.1
Sum	1864.6	-55.5	541.7	1955.7	115.82
Count	44	44	44	44	44

According to the table, the average ROA for the listed banks between 2019-2022 periods stood at 2.632 with a standards deviation of 1.819 and a median of 3.105. The most frequent ROA observed was 4.700 as indicated by the mode in table 4.1 below. Based on the mean it means the average ROA for the commercial banks under study, was 2.632% this average growth recorded a standard deviation of 1.819% up and below the mean meaning that 68% of the percentage growth in mobile transactions lied between 0.819% to 4.451%. This observation also indicates that there was less variations in the ROA for the sampled commercial banks. The ROA figures had a median of 3.105, this indicates that half of commercial banks under study recorded a ROA below 3.105 while the other half had growth rates above 3.105 for the 2019 to 2022 financial years. The maximum ROA observed was 5.1 while the minimum was -1.77 translating into a range of 6.87. The kurtosis and skewness figures were all negative indicating that this distribution was negatively skewed and lowly peaked.

Correlation Analysis

The correlation analysis focuses on addressing the link between the response and the predictor variables in this case the financial performance for listed banks as measured by ROA being the dependent variable, while the digital banking being the independent variables. The measure also looks into the correlation amongst the predictor variables to address the aspect of multi-collinearity. Table 2 below indicates the summary of correlation coefficients between predictor variables and response variable as well as among the predictor variables.

Table 2: Correlation Analysis

	Mobile banking	ATM banking	Agency banking	Online banking	ROA
Mobile banking	1				
ATM banking	-0.329	1			
Agency banking	0.180	-0.389	1		
Online banking	0.262	-0.456	0.958	1	
ROA	0.325	-0.132	0.414	0.425	1

From the table above, it was observed that the ROA positively correlated with mobile banking to low extent with a correlation coefficient of 0.325, ROA related negatively with ATM banking with a correlation coefficient of -0.132 while related positively with agency banking and online banking with correlation

coefficients of 0.414 and 0.425 respectively. Amongst the independent variables, strong correlation was only observed between online banking and agency banking with a correlation coefficient of 0.958.

Regression Analysis

The section presents the summary statistics, ANOVA and correlation coefficients as shown in table 3. The excel output presented in table 4.3 show the regression statistics comprising majorly of total number of observations, the standard error, adjusted R squared, the R squared as well the multiple R value.

Table 3: Summary Statistics

Regression Statistics	
Multiple R	0.500
R Square	0.250
Adjusted R Square	0.173
Standard Error	1.654
Observations	44

From the above output table, the Multiple R value represents the correlation coefficient for the overall regression model. This value ranges between -1 and +1. The close to -1 this value is, the perfect negative the relationship and vice versa. The correlation coefficient given above is 0.5 which indicates there is a moderate positive correlation between digital banking and financial performance of listed commercial banks in Kenya. The R squared value is the coefficient of regression. It measures the percentage of changes in the response variable explained by the changes in predictor variable(s). The correlation coefficient obtained above is 0.25 meaning 25% of the variances in listed banks` ROA clears up changes in digital banking.

Table 4 ANOVA

	df	SS	MS	F	Significance F
Regression	4	35.613	8.903	3.256	0.021
Residual	39	106.630	2.734		
Total	43	142.243			

The significant F value in the ANOVA table above measures the significance of the regression model thus its reliability in making future predictions. For the above model the significance F- value is 0.021 this is below 5% at 95% confidence level. The regression model so obtained is therefore statistically

insignificant. The table 5 presents the regression coefficients which can be used to establish the multiple linear regression model linking digital banking to financial performance of listed commercial banks in Kenya.

Table 5: Regression Coefficients

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.940	0.695	1.352	0.184
Mobile banking	0.038	0.021	1.836	0.04
ATM banking	0.022	0.026	0.850	0.400
Agency banking	0.019	0.040	0.472	0.640
Online banking	0.006	0.017	0.354	0.725

From the above table, the following regression equation can be established;

From the above table 5 the P-values 0.184, 0.04, 0.400, 0.64 and 0.725 for the intercept, mobile banking, ATM banking, agency banking and Online banking respectively. For any predictor variable to statistically significant at 5% significance level, then its P-Value should be less than 5%. From the observed P-values only mobile banking had a statistically significant impact on ROA. $ROA = 0.940 + 0.038 \text{ Mobile Banking} + 0.022 \text{ ATM Banking} + 0.019 \text{ Agency Banking} + 0.006 \text{ Online Banking}$. From the above regression equation, when the digital banking variables are held constant, the value of ROA for the listed commercial banks stands at 0.940. However, a unit rise in mobile banking rise the ROA by 0.038, a unit growth in ATM banking increases the ROA by 0.022, a unit rise in agency banking increases the ROA by 0.019 while a unit increase in online banking increases the ROA by 0.006. The P-values measures the significance of each of the predictor variable in influencing the response variable. From the above table 4.4, only mobile banking has been found to be statistically significant in influencing the value of ROA for the listed commercial banks. Therefore, the adjusted regression model is

$$ROA = 0.038 \text{ Mobile Banking}$$

Results and Discussion

Table 1 shows the aggregate financial data covering personal emoluments (PE) of the 6 counties over the six financial years. They include the exchequer releases, recurrent budgets, and the expenditure covering the mentioned aspect. Ideally, recurrent budget for personal emoluments in this context is the part of county government budget that is allocated to cover the salaries and wages of the county governments' workforce (Daisy, 2021). This is usually the largest component of a county government budget accounting for a higher percentage of the total expenditure.

Table 1: Personal Emolument Summary

Exchequer Issue Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	5,961,120,553.83	4,960,985,138.50	4,522,511,071.67	3,997,688,799.17	3,063,437,016.33	3,640,237,845.50
Median	5,705,093,140.50	5,669,987,176.00	4,535,400,000.00	4,274,530,000.00	3,425,135,000.00	3,677,405,000.00
Standard Deviation	902,552,865.84	2,360,383,255.40	657,320,551.45	907,246,320.56	1,617,168,392.46	702,332,889.78
Sample Variance	814,601,675,635,150,000.00	5,571,409,112,379,590,000.00	432,070,307,364,540,000.00	823,095,886,167,740,000.00	2,615,233,609,581,630,000.00	493,271,488,062,797,000.00
Range	2,371,362,958.00	6,593,110,000.00	1,681,803,430.00	2,061,792,128.00	4,586,590,000.00	1,696,982,304.00
Minimum	4,917,967,042.00	559,930,000.00	3,647,976,570.00	2,822,707,872.00	0.00	2,833,977,696.00
Maximum	7,289,330,000.00	7,153,040,000.00	5,329,780,000.00	4,884,500,000.00	4,586,590,000.00	4,530,960,000.00
Sum	35,766,723,323.00	29,765,910,831.00	27,135,066,430.00	23,986,132,795.00	18,380,622,098.00	21,841,427,073.00
Recurrent Budget Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	6,379,530,242.67	5,874,047,019.67	4,494,246,134.17	4,237,456,756.67	3,731,628,667.17	3,739,409,409.67
Median	5,970,120,000.00	5,917,285,000.00	4,417,945,117.50	4,397,725,000.00	3,549,560,908.50	3,820,660,000.00
Standard Deviation	1,147,749,659.13	923,091,957.95	649,396,561.76	1,065,136,142.31	716,046,590.16	739,150,469.52
Sample Variance	1,317,329,280,028,790,000.00	852,098,762,836,253,000.00	421,715,894,428,031,000.00	1,134,515,001,658,010,000.00	512,722,719,276,522,000.00	546,343,416,592,653,000.00
Range	2,652,294,826.00	2,361,917,151.00	1,773,383,430.00	2,560,052,412.00	1,735,340,000.00	1,855,812,066.00
Minimum	5,361,125,174.00	4,884,512,849.00	3,581,046,570.00	2,909,787,588.00	3,093,260,000.00	2,856,817,934.00
Maximum	8,013,420,000.00	7,246,430,000.00	5,354,430,000.00	5,469,840,000.00	4,828,600,000.00	4,712,630,000.00
Sum	38,277,181,456.00	35,244,282,118.00	26,965,476,805.00	25,424,740,540.00	22,389,772,003.00	22,436,456,458.00
Expenditure Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	4,629,690,787.33	3,955,158,623.67	3,114,209,100.00	2,742,849,439.67	2,611,860,841.67	2,410,457,510.50
Median	4,833,455,970.00	3,656,936,026.50	3,004,133,353.00	2,839,782,581.50	2,758,435,073.50	2,487,356,232.50
Standard Deviation	665,513,345.80	747,457,711.67	557,564,731.27	325,016,066.16	489,333,144.52	399,722,110.21
Sample Variance	442,908,013,444,448,000.00	558,693,030,731,746,000.00	310,878,429,558,286,000.00	105,635,443,262,731,000.00	239,446,926,325,755,000.00	159,777,765,388,814,000.00
Range	1,863,447,728.00	1,897,686,895.00	1,496,791,294.00	896,191,868.00	1,284,617,328.00	1,069,114,323.00
Minimum	3,564,678,554.00	3,286,388,028.00	2,582,898,378.00	2,149,768,244.00	1,852,727,649.00	1,682,079,805.00
Maximum	5,428,126,282.00	5,184,074,923.00	4,079,689,672.00	3,045,960,112.00	3,137,344,977.00	2,751,194,128.00
Sum	27,778,144,724.00	23,730,951,742.00	18,685,254,600.00	16,457,096,638.00	15,671,165,050.00	14,462,745,063.00

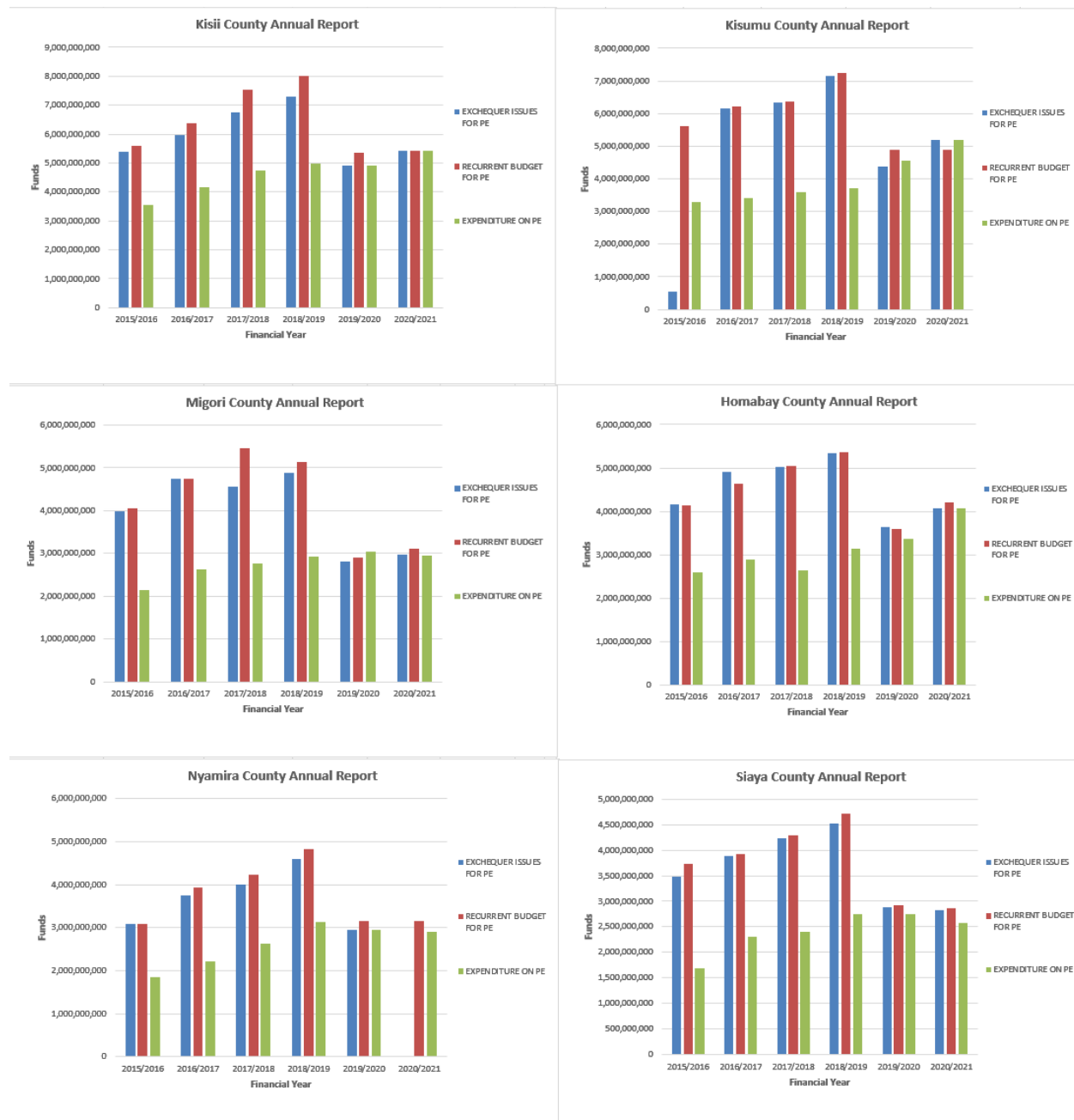
For the six - financial year period, based on the annual reports of 2015/2016 to 2020/2021, Kisii County, the county with the largest budget for PEs, received a total of KES 35.8 Billion in terms of the exchequer releases from the national government. The county had a budget of KES 38.3 billion over the same period and had a total expenditure of KES 27.8 billion on PEs. On yearly average, the county had an exchequer issue of 5.96 ± 0.90 Billion, recurrent budget of 6.38 ± 1.15 Billion, and expenditure of 4.63 ± 0.67 Billion. The highest amount they received from the government was 7.29 Billion in the financial year 2018/2019.

Kisumu received the second largest sum in terms of the exchequer release spanning KES 29.8 billion followed by Homabay County at KES 27.1 Billion, Migori County at KES 24.0 billion, and Siaya County

at 21.8 Billion, and lastly Nyamira County with the least budget of KES 18.4 Billion. The remaining five counties had yearly average exchequer releases ranging from KES 3.1 Billion (Nyamira County) to KES 5.96 Billion (Kisumu County). The yearly average budget ranged between KES 3.7 Billion (Nyamira County) to KES 5.87 Billion (Kisumu County). In terms of the yearly average expenditure, the second largest expenditure after Kisii county was Kisumu with KES 3.96 Billion, Homabay: KES 3.11 Billion, Migori: KES 2.74 Billion, Nyamira: KES 2.61 Billion, and lastly Siaya which spent KES 2.41 Billion.

Those summaries show that, Nyamira County had the least budget and the exchequer releases, Siaya County had the least expenditure on PE's while Kisii County had largest budget. The actual county yearly financial data for PEs are envisaged in Figure 1.

Figure 1: PEs County Yearly Financial Data



Operational and Maintenance (O&M)

The financial data for the operational and maintenance was limited because the recurrent budget and exchequer release data for the first four financial years was not available. Whereas the expenditure data for all the six financial years was available, as such, Table 2 shows summaries for exchequer release and the budget data for the FYs 2019/2020 and 2020/2021 while the expenditure data shows the data for all the six

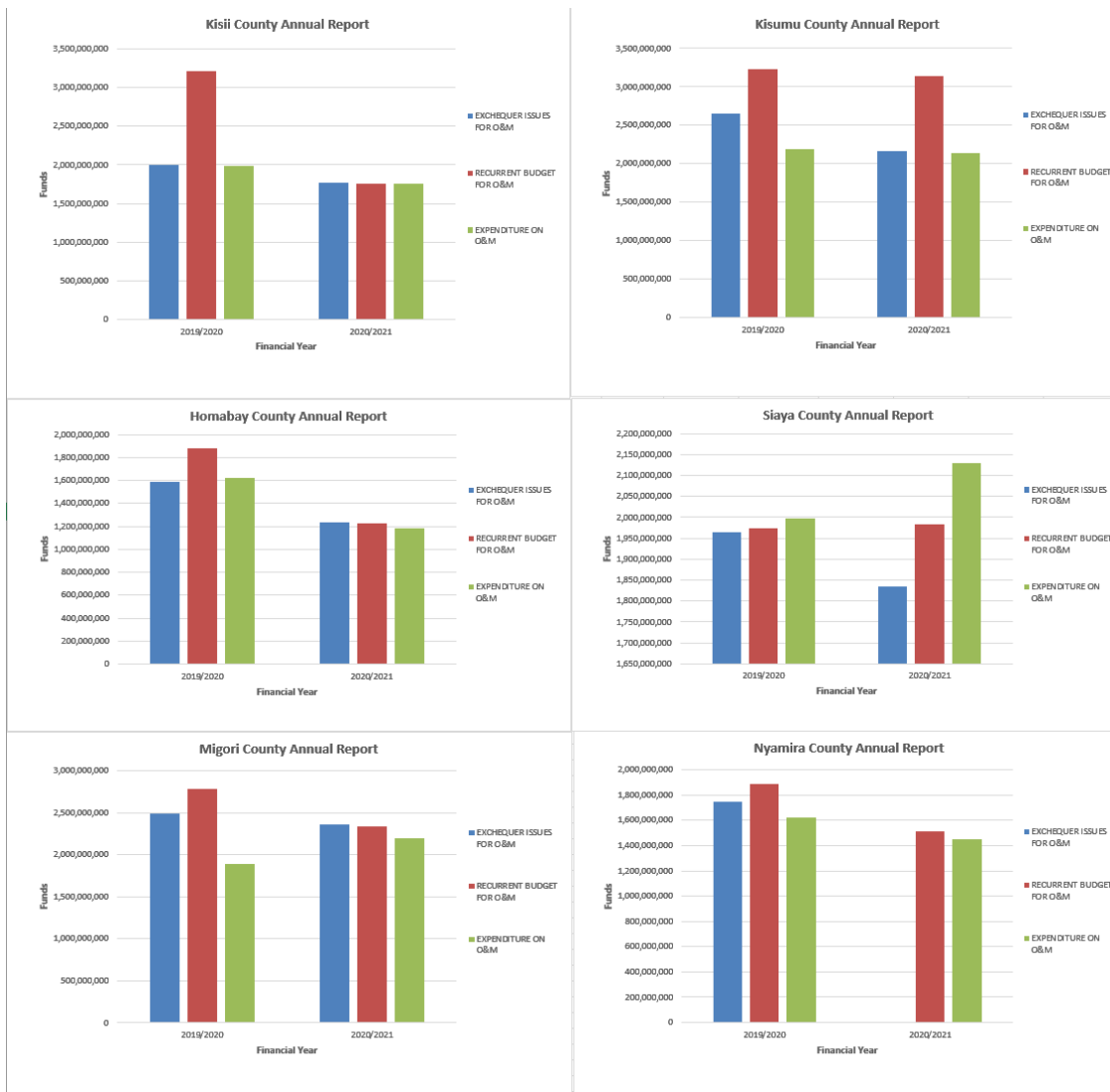
financial years. On the other hand, Figure 2 shows the actual county financial data for the two financial years.

Table 2: O&M Summary

Exchequer Issue Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	1,885,812,821.50	2,409,116,040.00	1,411,865,137.50	2,423,005,591.50	873,604,169.50	1,898,896,851.00
Median	1,885,812,821.50	2,409,116,040.00	1,411,865,137.50	2,423,005,591.50	873,604,169.50	1,898,896,851.00
Standard Deviation	156,964,706.68	344,860,357.00	245,734,563.89	93,751,050.43	1,235,462,864.65	91,320,141.06
Sample Variance	24,637,919,142,967,300.00	118,928,665,832,985,000.00	60,385,475,891,224,600.00	8,789,259,456,088,020.00	1,526,368,489,935,570,000.00	8,339,368,162,588,560.00
Range	221,981,617.00	487,706,194.00	347,521,153.00	132,584,007.00	1,747,208,339.00	129,146,182.00
Minimum	1,774,822,013.00	2,165,262,943.00	1,238,104,561.00	2,356,713,588.00	0.00	1,834,323,760.00
Maximum	1,996,803,630.00	2,652,969,137.00	1,585,625,714.00	2,489,297,595.00	1,747,208,339.00	1,963,469,942.00
Sum	3,771,625,643.00	4,818,232,080.00	2,823,730,275.00	4,846,011,183.00	1,747,208,339.00	3,797,793,702.00
Recurrent Budget Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	2,484,232,595.50	3,184,095,943.00	1,554,716,763.50	2,563,071,013.00	1,698,214,713.00	1,978,594,572.00
Median	2,484,232,595.50	3,184,095,943.00	1,554,716,763.50	2,563,071,013.00	1,698,214,713.00	1,978,594,572.00
Standard Deviation	1,029,821,890.94	61,055,030.37	458,952,411.62	315,969,399.45	263,469,864.75	7,943,395.75
Sample Variance	1,060,533,127,064,980,000.00	3,727,716,733,450,950.00	210,637,316,133,863,000.00	99,836,661,390,102,000.00	69,416,369,629,127,700.00	63,097,536,030,482.00
Range	1,456,388,085.00	86,344,852.00	649,056,725.00	446,848,210.00	372,602,656.00	11,233,658.00
Minimum	1,756,038,553.00	3,140,923,517.00	1,230,188,401.00	2,339,646,908.00	1,511,913,385.00	1,972,977,743.00
Maximum	3,212,426,638.00	3,227,268,369.00	1,879,245,126.00	2,786,495,118.00	1,884,516,041.00	1,984,211,401.00
Sum	4,968,465,191.00	6,368,191,886.00	3,109,433,527.00	5,126,142,026.00	3,396,429,426.00	3,957,189,144.00
Expenditure Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	1,939,185,323.33	1,876,710,966.50	1,426,386,689.83	1,655,232,467.50	1,331,133,418.33	1,599,326,206.33
Median	1,880,730,365.00	2,067,485,658.50	1,431,017,234.00	1,602,758,311.50	1,323,633,697.50	1,597,597,232.50
Standard Deviation	197,676,252.78	385,756,863.04	171,511,806.33	341,519,036.84	193,255,698.76	449,694,187.85
Sample Variance	39,075,900,912,949,900.00	148,808,357,381,189,000.00	29,416,299,709,184,400.00	116,635,252,522,779,000.00	37,347,765,103,754,400.00	202,224,862,589,739,000.00
Range	550,159,694.00	871,423,910.00	442,232,286.00	882,048,418.00	542,899,864.00	1,192,523,331.00
Minimum	1,756,038,553.00	1,324,899,748.00	1,182,881,967.00	1,314,873,334.00	1,081,415,972.00	936,112,944.00
Maximum	2,306,198,247.00	2,196,323,658.00	1,625,114,253.00	2,196,921,752.00	1,624,315,836.00	2,128,636,275.00
Sum	11,635,111,940.00	11,260,265,799.00	8,558,320,139.00	9,931,394,805.00	7,986,800,510.00	9,595,957,238.00

The average annual O&M exchequer release for the 6 counties ranges from KES 0.88 ± 1.24 Billion (Nyamira County) to KES 2.41±0.344 Billion (Kisumu County). The total exchequer release for the two financial years ranges from KES 1.75 Billion to KES 4.82 Billion for Nyamira and Kisumu respectively. Kisumu had three times as much as the exchequer release for Nyamira County. Consequently, the least average O&M budget was KES 1.6±0.26 Billion (Homabay County) and the highest O&M budget was KES 3.2±0.06 Billion (Kisumu County).

Figure 2: O&M FY 2019/2020 and 2020/2021 Data



The largest yearly average O&M expenditure was seen in Kisii County with an average of KES 1.94±0.2 Billion followed by Kisumu County, KES 1.88±0.39 Billion. The county with least operational and maintenance expenditure was Nyamira County with a yearly average of KES 1.33±0.19 Billion. The O&M total expenditures over the six FYs in billion Kenyan Shillings are; 11.64, 11.26, 9.93, 9.60, 8.56, and 7.99 for Kisii, Kisumu, Migori, Siaya, Homabay, and Nyamira counties respectively.

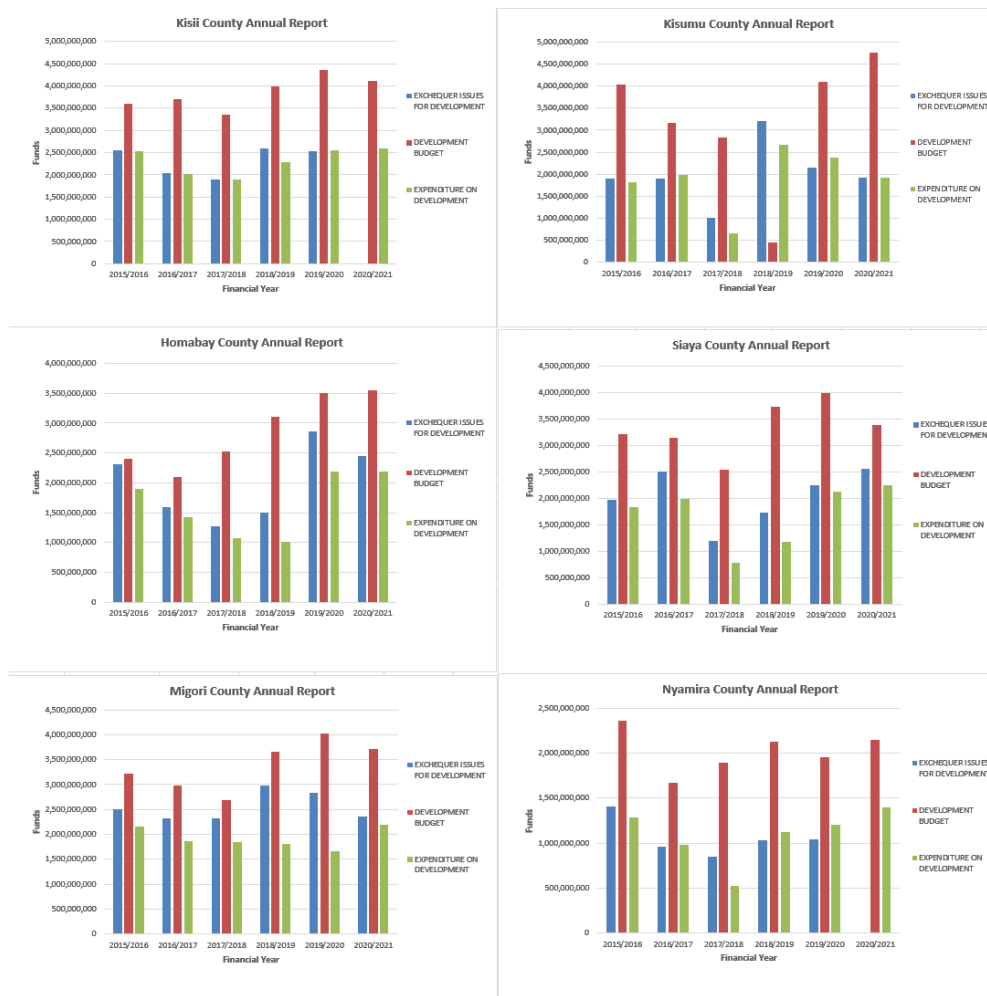
Development

Table 3: Development Funds Summary

Exchequer Issue Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	1,935,301,064.67	2,018,521,692.17	1,997,870,217.83	2,555,028,206.33	879,385,436.83	2,033,211,889.33
Median	2,285,618,194.00	1,919,828,003.50	1,953,800,000.00	2,432,468,090.00	994,085,000.00	2,105,347,664.00
Standard Deviation	993,232,349.31	703,678,995.81	631,786,035.77	282,487,207.67	469,358,477.72	519,141,809.45
Sample Variance	986,510,499,714,018,000.00	495,164,129,145,350,000.00	399,153,594,997,587,000.00	79,799,022,499,015,900.00	220,297,380,609,755,000.00	269,508,218,315,461,000.00
Range	2,601,620,000.00	2,195,590,000.00	1,587,487,695.00	650,670,000.00	1,401,210,000.00	1,371,486,008.00
Minimum	0.00	1,015,660,000.00	1,270,250,000.00	2,325,270,000.00	0.00	1,195,440,000.00
Maximum	2,601,620,000.00	3,211,250,000.00	2,857,737,695.00	2,975,940,000.00	1,401,210,000.00	2,566,926,008.00
Sum	11,611,806,388.00	12,111,130,153.00	11,987,221,307.00	15,330,169,238.00	5,276,312,621.00	12,199,271,336.00
Development Budget Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	3,854,959,085.33	3,223,323,352.50	2,866,565,162.67	3,383,550,616.33	2,024,403,822.50	3,335,802,217.67
Median	3,853,395,000.00	3,599,135,000.00	2,816,390,000.00	3,441,265,000.00	2,043,489,452.00	3,301,077,824.50
Standard Deviation	362,875,629.68	1,518,173,996.05	611,054,332.77	501,987,822.68	238,314,891.86	499,093,730.76
Sample Variance	131,678,722,613,254,000.00	2,304,852,282,294,650,000.00	373,387,397,600,767,000.00	251,991,774,114,551,000.00	56,793,987,681,012,100.00	249,094,552,085,479,000.00
Range	988,931,149.00	4,292,809,385.00	1,454,623,975.00	1,333,983,869.00	686,400,000.00	1,435,867,657.00
Minimum	3,363,080,000.00	462,110,000.00	2,098,070,000.00	2,697,060,000.00	1,670,900,000.00	2,546,290,000.00
Maximum	4,352,011,149.00	4,754,919,385.00	3,552,693,975.00	4,031,043,869.00	2,357,300,000.00	3,982,157,657.00
Sum	23,129,754,512.00	19,339,940,115.00	17,199,390,976.00	20,301,303,698.00	12,146,422,935.00	20,014,813,306.00
Expenditure Summary Statistics of the Annual Report						
	<i>Kisii County</i>	<i>Kisumu County</i>	<i>Homabay County</i>	<i>Migori County</i>	<i>Nyamira County</i>	<i>Siaya County</i>
Mean	2,313,506,149.00	1,911,168,659.00	1,632,982,752.17	1,923,133,664.33	1,085,490,387.83	1,690,048,205.33
Median	2,413,097,690.00	1,956,744,270.00	1,660,313,789.00	1,859,301,380.50	1,161,883,762.50	1,909,219,546.00
Standard Deviation	297,925,915.53	686,802,220.08	537,261,110.98	205,880,864.57	308,148,680.29	583,149,607.78
Sample Variance	88,759,851,143,356,400.00	471,697,289,502,487,000.00	288,649,501,374,327,000.00	42,386,930,397,779,100.00	94,955,609,165,520,900.00	340,063,465,056,381,000.00
Range	693,876,271.00	2,006,347,931.00	1,183,076,427.00	527,326,577.00	870,493,554.00	1,468,193,270.00
Minimum	1,901,230,116.00	669,364,540.00	1,011,124,450.00	1,662,822,547.00	527,664,500.00	777,574,939.00
Maximum	2,595,106,387.00	2,675,712,471.00	2,194,200,877.00	2,190,149,124.00	1,398,158,054.00	2,245,768,209.00
Sum	13,881,036,894.00	11,467,011,954.00	9,797,896,513.00	11,538,801,986.00	6,512,942,327.00	10,140,289,232.00

Development is a crucial aspect for every organization (CFI Team, 2023). Consequently, the allocation and management of funds designated for development projects are subjects of massive scrutiny in that how a county utilizes those funds serves as a barometer of a county's performance and its commitment to fostering growth, infrastructure improvement, and the overall well-being of its residents. It signifies the county's dedication to enhancing its socioeconomic landscape, bolstering essential services, and achieving its long-term developmental goals. Thus, the careful oversight and successful execution of development initiatives are key to evaluating the success and effect of each county's governance and administration. Table 3 shows tables of statistical summaries of the development financial data for every county while Figure 3 shows the actual data without any aggregation.

Figure 3: County Development Financial Data



The total exchequer releases from the national government released for development of the county government for the six financial years are as follows; Kisii: KES 11.6 Billion, Kisumu: KES 12.1 Billion, Homabay: KES 11.99 Billion, Migori: KES 15.3 Billion, Siaya: KES 12.2 Billion, and Nyamira: KES 5.3 Billion. The county with the largest average exchequer release for development was Migori with KES 2.55±0.282 Billion and the county with the least average exchequer release was Nyamira with less than a billion on average, KES 0.88±0.47 Billion. This low value might have been affected by missing records in other financial years. Also, the counties had their various budgetary amounts that weren't met by the exchequer releases with Kisii County having the largest development budget of KES 23.1 Billion followed by Siaya County with KES 20.01 Billion. The county that had the least budget was Nyamira with KES 12.1 Billion. In terms of expenditure, Kisii had the highest development expenditure values in both total (KES

13.9 Billion) and average (KES 2.3± Billion). Nyamira County had the least development expenditure with a total of KES 6.5 Billion and yearly average of KES 1.1±0.308 Billion.

Revenue

This section provides statistical summaries of the revenue targets and the revenue collected across the six counties: Kisii, Kisumu, Homabay, Migori, Nyamira, and Siaya. These statistics are extracted from the Annual Report and will later provide useful insights into how each county performed financially. Table 4 shows the aggregate summaries while Figure 4 shows the annual actual revenue data of the six counties altogether for the six FYs. It is worth noting from the visualizations that none of the six counties achieved their target revenues with Kisii visibly performing poorly in revenue collection.

Table 4: Revenue Targets and Revenue Collected Summary

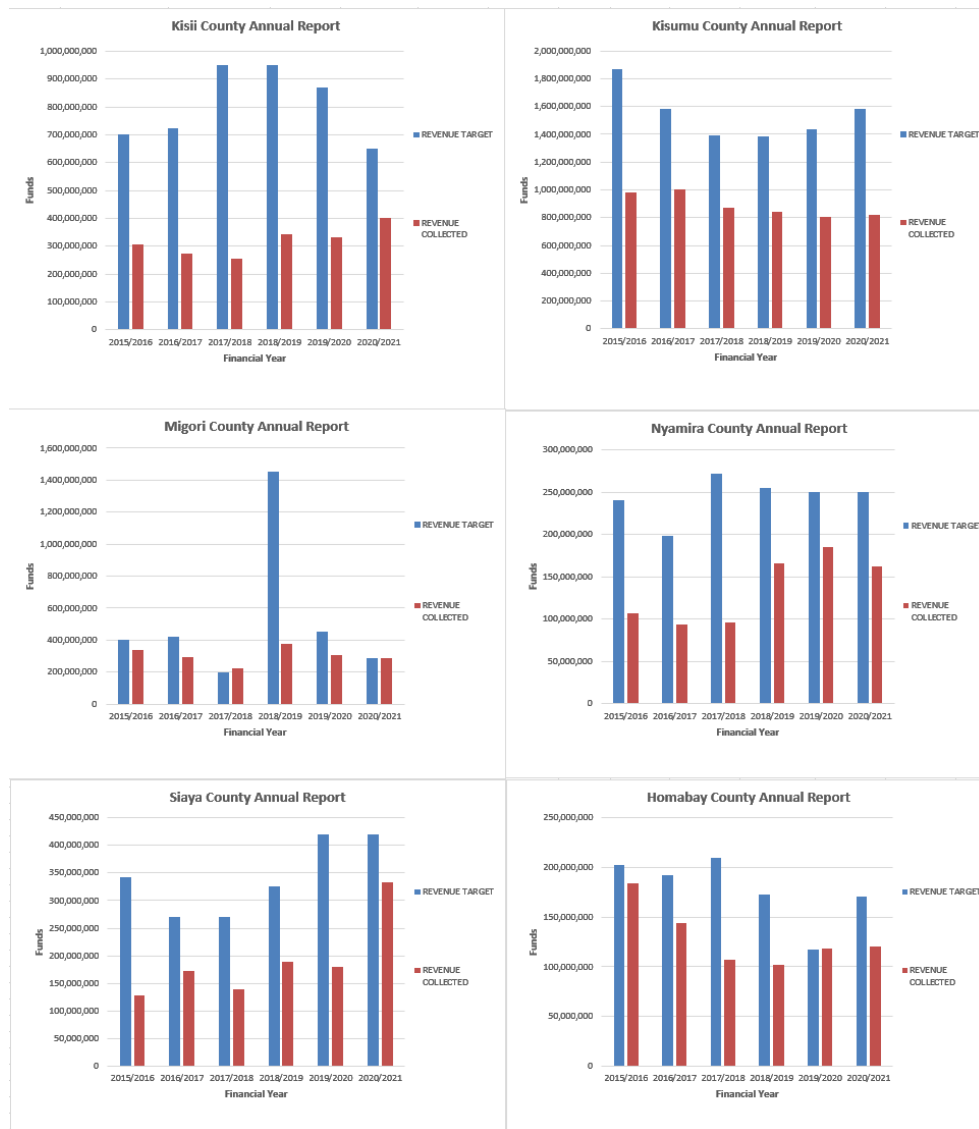
Revenue Target Summary Statistics of the Annual Report						
	Kisii County	Kisumu County	Homabay County	Migori County	Nyamira County	Siaya County
Mean	807,500,000.00	1,541,508,662.00	177,584,328.50	534,604,445.00	244,535,861.67	341,384,987.67
Median	797,500,000.00	1,508,825,355.00	182,579,642.50	410,000,000.00	250,000,000.00	334,154,963.00
Standard Deviation	132,429,226.38	183,060,341.55	33,340,464.63	459,442,655.12	24,972,611.74	67,563,964.46
Sample Variance	17,537,500,000,000.00	33,511,088,646,619,500.00	1,111,586,581,718,930.00	211,087,553,342,548,000.00	623,631,337,351,978.00	4,564,889,293,020,900.00
Range	300,000,000.00	486,019,903.00	92,125,355.00	1,252,626,670.00	74,229,900.00	150,000,000.00
Minimum	650,000,000.00	1,382,567,120.00	117,334,645.00	200,000,000.00	198,230,100.00	270,000,000.00
Maximum	950,000,000.00	1,868,587,023.00	209,460,000.00	1,452,626,670.00	272,460,000.00	420,000,000.00
Sum	4,845,000,000.00	9,249,051,972.00	1,065,505,971.00	3,207,626,670.00	1,467,215,170.00	2,048,309,926.00
Revenue Collected Summary Statistics of the Annual Report						
	Kisii County	Kisumu County	Homabay County	Migori County	Nyamira County	Siaya County
Mean	318,809,766.17	887,883,075.83	129,286,812.67	303,813,987.33	135,233,216.67	190,348,168.67
Median	319,640,406.50	858,859,086.50	119,458,157.00	298,251,875.00	134,922,924.50	176,134,682.00
Standard Deviation	53,210,727.40	83,969,488.45	30,427,078.99	52,088,141.65	40,512,079.46	73,811,136.63
Sample Variance	2,831,381,510,644,990.00	7,050,874,991,267,170.00	925,807,135,923,606.00	2,713,174,500,082,190.00	1,641,228,582,127,840.00	5,448,083,890,048,710.00
Range	146,717,006.00	199,696,639.00	81,797,405.00	153,973,471.00	91,648,662.00	204,951,294.00
Minimum	256,284,854.00	804,347,267.00	101,968,000.00	222,251,290.00	93,920,087.00	127,931,767.00
Maximum	403,001,860.00	1,004,043,906.00	183,765,405.00	376,224,761.00	185,568,749.00	332,883,061.00
Sum	1,912,858,597.00	5,327,298,455.00	775,720,876.00	1,822,883,924.00	811,399,300.00	1,142,089,012.00

From Table 4, we can see that Kisumu County collected the largest amount of revenue over the 6-year period with a total of KES 5.3 Billion averaging about KES 0.887±0.084 Billion per year with an average yearly target of KES 1.541±0.183 Billion. On the other hand Homabay and Nyamira Counties collected the least sums of revenue over the 6-year period with both counties having collected less than a billion; Homabay (Total Revenue Collected: KES 0.775 Billion, Yearly Average: KES 130±30.4 Million) and Nyamira (Total Revenue Collected: KES 0.811 Billion, Yearly Average: KES 135±40.5 Million).

Other counties Kisii, Migori, and Siaya performed as follows; Kisii: (Total Revenue Collected: KES 1.91 Billion, Yearly Average: KES 318±53 Million), Migori: (Total Revenue Collected: KES 1.82 Billion, Yearly Average: KES 303±52.09 Million), and Siaya: (Total Revenue Collected: KES 1.14 Billion, Yearly

Average: KES 190±73.8 Million). However the seemingly low values, they do not actually speak to how the counties performed relative to their targets in terms of revenue collection as it will be later discussed. This is heavily pronounced in Figure 4 below and as earlier mentioned with the dichotomy of Kisii county revenue collection and their respective targets.

Figure 4: Revenue Targets and Revenue Collected



Utilization of County Budgets

The effective utilization and allocation of financial resources is a core aspect of sound fiscal management for any organization or any government entity including the county governments. Under this setup, the prudent management of funds allocated for PEs, O&M and development expenditure is of great importance

in that these three categories affect the performance of the county governments directly rendering them critical focal points for financial oversight and analysis. The findings shed light into understanding the fiscal management of the six county governments over the six financial years by focusing on the percentage of exchequer issued to meet the budgetary constraints and how much of the exchequer releases from the national government was actually spent.

Utilization of Funds in PEs and O&M Expenditure

Figure 5 and Table 5 shows how much of the exchequer was issued relative to the personal emolument and operational and maintenance budget each county had for the six consecutive financial years. Also, the ratio of the expenditure to the exchequer releases made shows how much of the PEs expenditure was accounted for given the exchequer releases. The graphic for O&M was not done since majority of the data were missing and PEs would give a general overview of the same. From the first graph, it is evident that majority of the counties received more than 90% of the exchequer issued to cover their PEs budgets. However, there is an outlier in the visualization where Kisumu County was issued only 9.99 of the total PE budget. This would be categorized as a no release since it is less than the 50% threshold. However, the remaining counties would be categorized as high releases given that majority of them received more than 75% high release threshold for all the six financial years. Homabay County in the FY 2016/2017 & 2019/2020 and Kisumu County in the FY 2020/2021 received more than 100% of their budget in terms of the exchequer releases. This shows that the national government ensured that the counties received a fair share of the fund needed for PEs.

From Table 5, we see that Kisumu County and Kisii County both received medium releases (50% - 75%) for O&M in the financial years 2020/2021 (68.94%) and 2019/2020 (62.16%) respectively. The 0% shows that the data was not provided for those respective financial years.

Table 5: O&M Utility Ratios

EXCEHQUER TO BUDGET RELEASES							
FY	Kisii County	Kisumu County	Homabay County	Migori County	Nyamira County	Siaya County	
2015/2016	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2016/2017	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2017/2018	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2018/2019	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2019/2020	62.16%	82.20%	84.38%	89.33%	92.71%	99.52%	
2020/2021	101.07%	68.94%	100.64%	100.73%	0.00%	92.45%	
EXPENDITURE TO EXCHEQUER RELEASES							
FY	Kisii County	Kisumu County	Homabay County	Migori County	Nyamira County	Siaya County	
2015/2016	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2016/2017	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2017/2018	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2018/2019	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2019/2020	99.61%	82.79%	102.49%	75.98%	92.97%	101.68%	
2020/2021	98.94%	98.76%	95.54%	93.22%	0.00%	116.04%	

Ideally, overspending on recurrent expenditure may be defined as spending more than 100% of the designated funds. High usage, medium usage, and low usage are categorized as spending 100%, 90% - 99%, and < 90% of the designated funds respectively. From the second visualization in Figure 5, we see that majority of the counties had usage between 48% to 70%, classified as low usage for the first 4 financial years except an outlier in Kisumu in the FY 2015/2016 with a staggering 586% which may have been caused by incorrect records in the amount of exchequer releases. The FYs 2019/2020 and 2020/2021 show a significant improvement in the PEs budget usage some (Kisii, Kisumu, Migori, and Nyamira) had a high usage of 100% or more and others (Homabay and Siaya) had more than 90% categorized as medium usage. In general, the counties had low usage on average but this may not be the actual case as the data may have been of low validity.

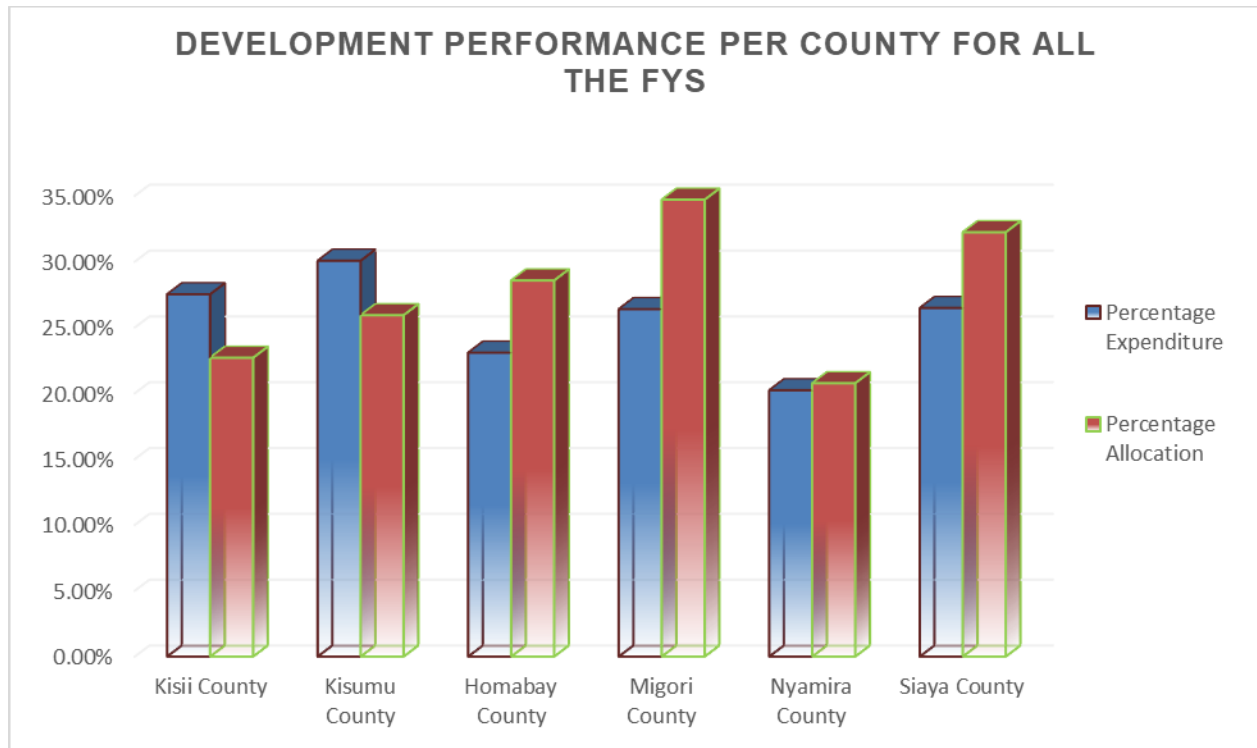
The exchequer release for development was marred with no releases (less than 50% of the budget) and medium releases (between 50% and 75% of the budget). No releases were seen in all the counties except Migori for select financial years (2015/2016, 2017/2018, and 2018/2019). A few high releases were realized in Kisumu County, Homabay County, Migori County, and Siaya County for a few FYs as depicted in table 6.

The usage of development expenditure relative to the exchequer issued saw a fair share of counties with low usage and medium usage across most of the financial years with a few of them achieving high usage. For instance Migori County had very low usage in the Financial years 2018/2019 and 2019/2020 with 60.97% and 58.67% respectively without achieving high usage for the 6 FYs, also Siaya county had relatively low usage. On the other hand, Kisii County performed rather exceptionally compared to other counties with the lowest of its usage at 87.85% and achieving a high usage for both 2018/2017 and 2019/2020 financial years. Other counties that saw high usage include Nyamira and Kisumu.

Service Delivery Measures

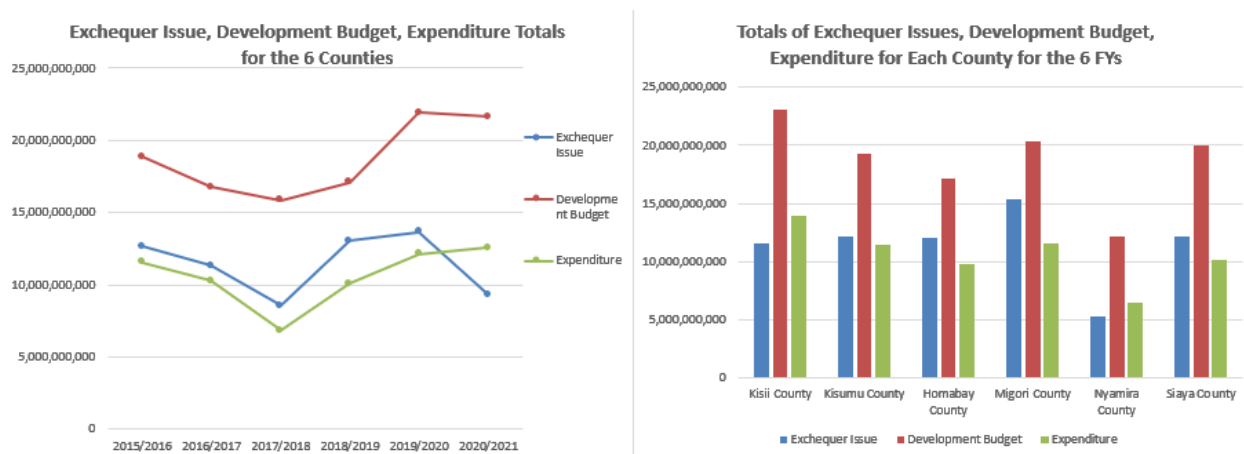
One of the critical aspects of fiscal management within county governments is the allocation and utilization of funds for development projects. In this section, we assess the performance of the Nyanza Region counties in terms of the absorption rate of their development expenditure relative to the total exchequer issued. The total exchequer issued here is the sum of funds allocated to Personal Emoluments, Operational and Maintenance, and Development. We will consider the expenditure efficient if the county's development exchequer issue went into development as a whole. The conception aggregates data for all financial years in every county.

Figure 6: Development Expenditure Efficiency



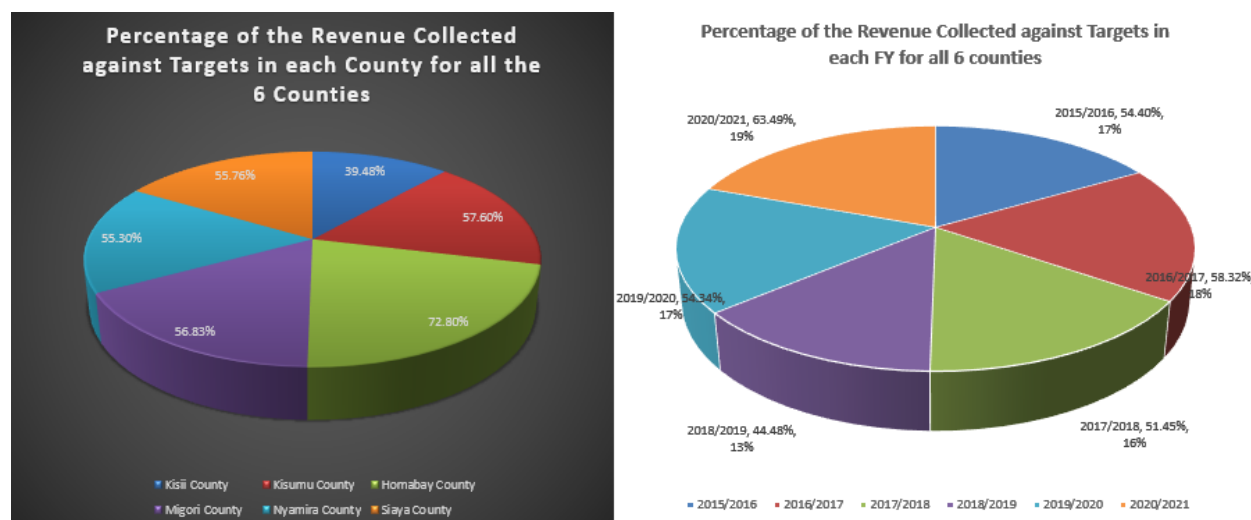
From the figure 6, we can see that Kisii, Kisumu, and Nyamira had a high absorption rate of the development funds having used all their allocations in development projects thus showing signs of good performance. On the other hand, Migori, Siaya, and Homabay had relatively poor absorption rate as their development expenditure fell short of the allocated funds. Consequently, the counties received a small share of the development exchequer issue compared to the budget they had provided to the national government. This can be noted in Figure 7 as none of the total exchequer releases matched their respective budgets. This may have caused counties like Kisumu and Kisii to overspend. Essentially, we can infer that, counties which had high absorption rates were able to deliver their services to its citizens and complete a high percentage of their projects compared to those who underspend their exchequer issues from the national government.

Figure 7: FY Wise and County Wise Development Aggregate



Effective revenue collection is an important aspect of financial management, as it directly influences a county's capacity to fund its operations and development projects. In this section, we assess the revenue performance of the Nyanza Region Counties by examining the percentage of revenue collected in relation to their revenue targets. To evaluate revenue collection efficiency, we calculate the percentage of revenue collected relative to the revenue targets set by each County. Additionally, we will evaluate how all the Counties performed yearly as a single unit of Nyanza region. This metric provides information into the Counties' ability to meet their revenue goals and fund their budgetary requirements. It is evident in Figure 8 that majority of the counties collected more than 50% of revenue targets except Kisii County which collected about 39.48% of its target. The most performing County in terms of revenue collection was Homabay County meeting 72.8% of its target.

Figure 8: Revenue Performance per FY and County



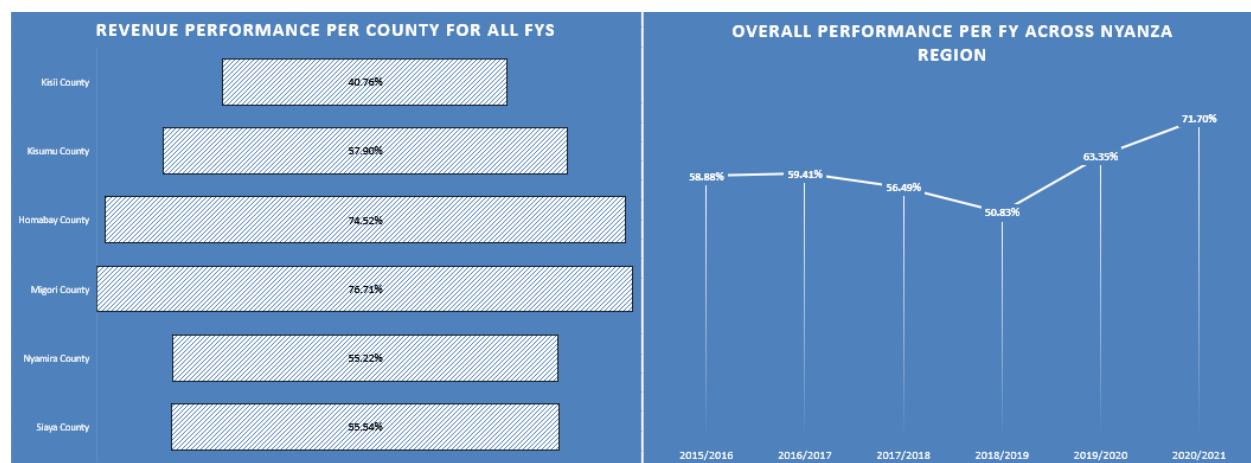
Ideally, there are no universal standard to what would constitute a high, medium, or low performance in revenue collection, however, according to Commission on Revenue Allocation (CRA) Ng’eno (2022), Counties have the potential of collecting up to a total 216 billion annually from their key revenue streams but each county has annual own source revenue potential as highlighted in the table below. The percentage of the revenue collected to each county’s potential has been calculated by multiplying the estimated annual revenue potential by 6 in the computation of % Collected to Potential column.

Table 6: Revenue Performance and Potential

County	Revenue Target	Revenue Collected	% Revenue Collected	Annual Revenue Potential	% Collected to Potential
Kisii County	4,845,000,000	1,912,858,597	39.48%	5,194,000,000	6.14%
Kisumu County	9,249,051,972	5,327,298,455	57.60%	6,667,000,000	13.32%
Homabay County	1,065,505,971	775,720,876	72.80%	3,681,000,000	3.51%
Migori County	3,207,626,670	1,822,883,924	56.83%	3,892,000,000	7.81%
Nyamira County	1,467,215,170	811,399,300	55.30%	3,849,000,000	3.51%
Siaya County	2,048,309,926	1,142,089,012	55.76%	2,703,000,000	7.04%

At 13.32% was the percentage or revenue collected to its revenue potential by Kisumu County being the best performer of all the six counties followed by Migori at 7.81%. Homabay and Nyamira County achieved the least of its potential at 3.51%. Generally, we can say the counties in the Nyanza region performed poorly relative to their revenue potential but performed averagely on meeting their revenue targets. Specifically, Kisii County can be classified as a poor/low performer as it did not meet 50% of its revenue target. Homabay would be classified as a high performer having met more than 70% of its target. Kisumu, Migori, Nyamira, and Siaya’s performance would be classified as medium.

Figure 95: County and Nyanza Region Yearly Performance



The line plot to the right in Figure 9 shows that the 2018/2019 financial year experienced the least revenue performance across Nyanza Region but recovery was seen in the FY 2019/2020 and 2020/2021. Generally, counties that performed relatively well in revenue collection had a higher chance of meeting their budgetary obligations, and had funds to complete their projects. On the other hand, we measured absorption rates and percentages of completed projects by how good the county governments utilized their exchequer issues which is usually connected to the revenue collected, thus, Kisii having used all of its budgetary allocation may have been due to shortage of funds as a result of weakness in revenue collection. But, Nyamira and Kisumu performed fairly well in revenue collection and their absorption rate of the issues from the National Government indicating that it completed majority of its projects thus showing effective service delivery. However, variations in revenue collection efficiency across the Nyanza Region counties may indicate differences in economic activities, tax compliance, and revenue administration. Counties that had high revenue performance demonstrated strong fiscal discipline and effective revenue mobilization strategies thus effective service delivery to its citizens, while counties falling short of revenue targets may need to review their revenue collection methods and explore opportunities for enhancing tax compliance and revenue administration.

Exploring the Relationship between Development Expenditure Efficiency, Revenue Dynamics, and Fiscal Year Trends

This section dive into the intricate interplay between development expenditure efficiency, revenue dynamics, and fiscal year trends within the Nyanza Region counties. The analysis involves several statistical

techniques, including ANOVA, regression analysis, and correlation, to gain a comprehensive understanding of how these factors interact.

Development Expenditure Efficiency across Counties

Table 7: ANOVA – County Wise

Anova: Single Factor						
EXPENDITURE TO EXCHEQUER RELEASES RATIO						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Kisii County	6	4.873622488	0.812270415	0.160707205		
Kisumu County	6	5.603162244	0.933860374	0.026693645		
Homabay County	6	4.897987447	0.816331241	0.006876		
Migori County	6	4.581466709	0.763577785	0.018735859		
Nyamira County	6	4.806134944	0.801022491	0.188806775		
Siaya County	6	4.878824454	0.813137409	0.016028887		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.099360562	5	0.019872112	0.285349142	0.917414123	2.533554548
Within Groups	2.089241863	30	0.069641395			
Total	2.188602425	35				

To discern if certain Counties consistently allocated their resources more efficiently towards development projects, Analysis of Variance was used to ascertain if all the Counties were committed to long term growth and infrastructure development. This involved analyzing the percentage of development expenditure to its exchequer issue. The findings, Table 7, ($F = 1.597$, $df = (5, 30)$, $p = 0.191$) for financial year-wise analysis and, Table 8, ($F = 0.285$, $df = (5, 30)$, $p = 0.917$) for county-wise analysis. Since both p-values are very large compared to the usual 95% ($\alpha = 0.05$) critical level, the research shows that there was significant difference between groups at different financial years and at county level implying no that counties performed at an average development expenditure efficiency of 83.32% of the budget allocated to development.

Table 8: ANOVA - FY Wise

Anova: Single Factor						
EXPENDITURE TO EXCHEQUER RELEASES RATIO						
SUMMARY						
Groups	Count	Sum	Average	Variance		
2015/2016	6	5.48819126	0.914698543	0.004159404		
2016/2017	6	5.533561747	0.922260291	0.011953319		
2017/2018	6	4.58239045	0.763731742	0.022042853		
2018/2019	6	4.766901112	0.794483519	0.031160118		
2019/2020	6	5.574303838	0.92905064	0.046892396		
2020/2021	6	3.69584988	0.61597498	0.229481474		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.46015461	5	0.092030922	1.597345107	0.191117316	2.533554548
Within Groups	1.728447815	30	0.057614927			
Total	2.188602425	35				

Revenue Dynamics and Exchequer Release

Regression analysis was used to examine the association between revenue dynamics and exchequer issue for development projects. Specifically, the research investigated how changes in revenue collected (the independent variable) correlated with variations in the exchequer releases. Revenue had a coefficient of 2.55 and the intercept was 36,184,399,547 suggesting that Counties were likely to receive a total exchequer issue KES 36.2 Billion over the 6-FY period implying an average of KES 6 Billion per year and any additional revenue collected would see a unit change in the exchequer release by 2.55. For instance if Kisumu had collected a total revenue of KES 1.9 Billion over the 6-year period, their expected total exchequer release as a consequence of revenue collection would be KES 47.6 Billion, an average of KES 7.93 Billion per fiscal year. However, those estimates are subject to scrutiny since the metrics of the model, Table 9, ($R^2 = 0.24$, Significance $F = 0.32$, Revenue coef P -value = 0.323) suggests that the model may not be reliable in quantifying the exchequer release from revenue. Overall, this analysis shed light on the counties' capacity to fund development projects in response to fluctuations in revenue.

Table 9: Regression Analysis - Revenue & Exchequer

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.490402373							
R Square	0.240494487							
Adjusted R Square	0.050618109							
Standard Error	8707815305							
Observations	6							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	9.60401E+19	9.60401E+19	1.266584551	0.323365974			
Residual	4	3.03304E+20	7.5826E+19					
Total	5	3.99344E+20						
	<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	36184399547	5700385897	6.347710524	0.003155286	20357591026	52011208067	20357591026	52011208067
Total Revenue Co	2.551675644	2.2672968	1.125426386	0.323365974	-3.743349457	8.846700746	-3.743349457	8.846700746

Development Expenditure Efficiency over Time

Correlation analysis was conducted to ascertain the consistency of development expenditure efficiency across fiscal years. This examination allowed the study to determine if counties maintain a consistent approach to allocating funds for development projects over time. A positive correlation would suggest a stable approach, while a negative or weak correlation may indicate varying strategies in different fiscal years. The findings are shown in Table 10.

Table 10: FY Fiscal Correlation

Correlation Between FY: EXPENDITURE TO EXCHEQUER RELEASES RATIO						
	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
2015/2016	1					
2016/2017	0.513889318	1				
2017/2018	0.06753826	-0.028823766	1			
2018/2019	0.496954015	0.826890892	-0.213726315	1		
2019/2020	0.703781704	0.785321599	-0.3676846	0.84057819	1	
2020/2021	-0.469525674	-0.520795935	-0.27725754	-0.798417423	-0.508605978	1

The fiscal year 2019/2020 had a strong correlation with preceding years 2015/2016 ($r = 0.70$), 2016/2017 ($r = 0.78$), and 2018/2019 (0.84). These positive correlations suggest a consistent financial performance trend across these years, signifying that the fiscal decisions and allocation strategies during these periods exhibited a high degree of similarity. Also 2018/2019 had a strong correlation with 2016/2017 ($r = 0.82$)

meaning that these two fiscal years shared a strong resemblance in terms of financial dynamics and resource allocation strategies. However, a stark contrast emerged with the fiscal year 2020/2021, which displayed negative correlations with all other fiscal years, ranging from -0.27 to -0.80. This negative correlation suggests a departure from the financial trends observed in the previous years, signaling potential shifts in fiscal priorities, budget allocation, or economic conditions which could have been caused by the COVID-19 pandemic.

Summary of Findings

In examining the personal emoluments (PE) data for the six counties over the six financial years, it is evident that Kisii County had the largest budget for PEs, receiving a total of KES 35.8 Billion in exchequer releases from the national government, with a budget of KES 38.3 billion and total expenditure of KES 27.8 billion on PEs. This echoes Mathenge et al, (2017) who held that a high number of counties had not been able to wholly utilize their budgets as a large portion of the recurrent expenditure went into salaries and wages. Additionally, this county consistently received substantial exchequer releases, with the highest being 7.29 Billion in the financial year 2018/2019. In contrast, Nyamira County had the smallest budget and expenditure on PEs, and Siaya County had the least expenditure. The operational and maintenance data was limited due to missing recurrent budget and exchequer release data for the first four financial years. However, in the 2019/2020 and 2020/2021 financial years, Kisumu County received the highest exchequer release, while Homabay County had the smallest budget. Kisumu County had the highest O&M expenditure, with Nyamira County having the lowest. Kisumu County received three times as much in exchequer releases compared to Nyamira County.

Revenue

Effective revenue collection is vital for funding county operations and development projects. None of the six counties achieved their revenue targets, with Kisii County notably performing poorly in revenue collection. Kisumu County collected the most revenue over the six-year period, while Homabay and Nyamira Counties collected the least. The counties' performance relative to their revenue potential was generally low, with Kisii County as a poor performer and Homabay as a high performer. The findings is in line with Oyier (2017) found that there are a number of factors that are linked to improper budget utilizations among county governments. First and foremost, corruption has been cited as among the causes of the

problem. When government officials are corrupt, they often divert funds away from where they are needed most and into their own pockets (Kenno et al., 2018).

Kisii, Kisumu, and Nyamira Counties demonstrated a high absorption rate in development expenditure, utilizing all their allocations for development projects. In contrast, Migori, Siaya, and Homabay Counties fell short of utilizing their allocated funds efficiently, receiving a smaller share of the development exchequer issue compared to their budgets. The variance may be supported by Modlin and La Shonda, (2012) for poor fund utilization is simply mismanagement, whereby in some cases government officials may be deliberately siphoning off funds, but they may not be using them in the most effective way possible. This can happen due to a lack of experience or training, or simply because there are too many bureaucracy and red tape involved in spending government money. Regarding the budget absorption rates, Moses et al. (2021) found that there could be several factors at play, such as the capacity of county governments to implement projects, the level of corruption, or the availability of resources. In this regard, one way to improve budget absorption rates would be to increase the capacity of county governments to implement projects.

Most counties collected more than 50% of their revenue targets, except Kisii County, which collected around 39.48% of its target. However, it was notable that counties such as Kisii County's low absorption rate may have been due to lack of funds to complete their projects. Counties that collected a more that 50% of its revenue target, Kisumu and Nyamira, and had high absorption rate may have delivered their services effectively to their citizens. Homabay and Migori County were some of the best performers in terms of revenue collection but had very low absorption rates of their exchequer issues to their development budgets. This implies that they may have failed to deliver their services effectively, thus low percentage of projects completed. On the other hand, when comparing revenue collection to potential, all counties in the Nyanza region performed poorly relative to their revenue potential. The findings are supported by keno et al., (2018). Analysis of Variance (ANOVA) indicated that there was no significant difference in development expenditure efficiency (development budget absorption rates) between counties or across different fiscal years. Counties generally performed at an average development expenditure efficiency of 83.32% of their allocated budgets. Regression analysis suggested that revenue collection had a positive relationship with the exchequer release for development projects. However, the model's reliability in quantifying the exchequer release from revenue was uncertain. Correlation analysis revealed that fiscal years 2015/2016, 2016/2017, and 2018/2019 had a strong positive correlation, indicating a consistent approach to financial

decisions during those years. In contrast, the fiscal year 2020/2021 showed negative correlations with other fiscal years, possibly due to the effects of the COVID-19 pandemic.

Finally, these findings provide valuable prompts into the financial performance and management of the Nyanza Region counties, highlighting areas of efficiency and opportunities for improvement in budget allocation, expenditure, and revenue collection. The finding may be in tandem with Apiyo and Mburu (2014).

Conclusion and Recommendations

With the overarching objective of determining the effects of budget utilization on the performance of Nyanza Region Counties, this study dived into the financial records of six counties over six consecutive fiscal years. Throughout, the aim of the research was to obtain useful information into the fiscal state that shape the development and trajectories of these counties. By examining budget allocations, expenditure patterns, revenue collection, and financial efficiency in terms of absorption rates, we sought to gauge how effectively resources were being harnessed to foster development, infrastructure improvement, and the overall well-being of the residents in the region. Thus, finally, this section consolidates the research's findings, compelling implications, and offer strategic recommendations relative to the analysis.

The analysis of financial data of the six fiscal years across six counties in the Nyanza Region revealed significant variations in budget allocation, expenditure patterns, and revenue performance. Kisii County, for instance, consistently stood out with the largest budget, while Nyamira County had the smallest budget in various categories. Factually, the counties consistently received substantial exchequer releases for personal emoluments (PE) and Operational and Maintenance (O&M) and had the highest budget for those particulars compared to the budget and exchequer releases for development, thus, the expenditures on PEs and O&M remained a significant portion of County budgets. In terms of effective service delivery, Kisii, Kisumu, and Nyamira County performed relatively well thus construing to high percentage of completed projects. However, we underscored that, Kisii may have had a high absorption rate but could have been caused by lack of funds due to low revenue collected, thus we can't fully conclude if its county government delivered services effectively. Counties that collected more than 50% of their revenue with high absorption rates, Kisumu and Nyamira, stood out as the better performers and may have achieved effective service delivery.

Revenue collection efficiency across the Counties varied, with none of them meeting their revenue targets. Kisii County notably underperformed in revenue collection while Homabay County stood out as the best performer in terms of revenue collection efficiency. The allocation of funds for various expenditures was examined, revealing that most counties received substantial exchequer releases for PEs. However, Kisumu County had a unique case of low releases in one financial year. Development expenditure saw varying levels of utilization efficiency. Regression analysis suggested a positive relationship between revenue collection and exchequer releases for development, but the model's reliability was uncertain. Fiscal year trends showed a consistent approach to financial decisions in earlier years, while the fiscal year 2020/2021 exhibited negative correlations, potentially due to the effects of the COVID-19 pandemic. In conclusion, having met the objective of assessing the effect of budget utilization on County performance, we can underscore that, performance in this study was affected by how efficiently the Counties utilized their budgets. From the findings, we conclude with some degree of certainty that budget utilization affected the performance Nyanza region Counties.

Recommendations

The following are the study's recommendations in light of the findings from the research and the objective of the study:

- i. **Enhance Data Accuracy:** Counties should prioritize data accuracy and completeness in financial reporting, particularly for O&M and development expenditure since improving data quality is crucial for robust financial analysis and accountability in the long run.
- ii. **Improve Revenue Collection Strategies:** Counties, particularly Kisii, should focus on enhancing revenue collection strategies to meet revenue targets by exploring innovative revenue-generating avenues and improving on tax compliance thus contributing to this goal.
- iii. **Optimize Budget Allocation:** Counties should review their budget allocation strategies to ensure efficient utilization of funds across various expenditure categories through developing clear guidelines for budget allocation and monitoring to enhance efficiency.
- iv. **Consider External Factors:** Counties need to be prepared for external factors that can affect fiscal performance, such as economic downturns, emergencies, or crises like the COVID-19 pandemic. Building financial resilience through contingency planning is crucial.
- v. **Transparency and Accountability and Periodic Financial Audits:** Counties should prioritize transparency and accountability in financial management which can be achieved by clear reporting

on revenue collection, expenditure, and utilization of development funds thus building public trust and confidence. Also, counties should conduct regular financial audits to ensure compliance with financial regulations and identify areas for improvement.

- vi. **Long-Term Financial Planning:** Finally, counties in conjunction with the Commission on Revenue Allocation should make it a habit of developing long-term financial plans aligned with their development goals to help them set realistic budget targets, revenue targets, efficient resource allocation, and sustained growth.

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