

# Influence of Budgeting on Strategic Plan Implementation at the Narok County Referral Hospital, Kenya

Okombo Moses, Gudda Patrick

Maasai Mara University, Department of Business Management  
Email: moses.okombo@gmail.com, pguddah9@gmail.com

Maurice Ombok

Maasai Mara University, Department of Economics  
Email: ombok.mo@mmarau.ac.ke

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v12-i8/14293> DOI:10.6007/IJARBSS/v12-i8/14293

*Published Date:* 26 August 2022

## Abstract

The study examined the relationship between budgeting and strategic plan implementation at the Narok County Referral Hospital (NCRH). Using a descriptive research design and a sample size of 30, a principal component analysis (PCA) was used to reduce the number of variables in a data set. Correlation analysis showed a positive relationship between dependent variable (strategic plan implementation) and independent variable (budgeting). Formal budgeting and budgetary participation showed a direct moderate positive relationship with availability of resources and professionalism at the hospital. The study concluded that budgetary participation and formal budgeting improves the availability of hospital resources and professionalism. The study recommends improving formal budgeting and budgetary participation at NCRH for successful strategic plan implementation.

**Keywords:** Budgeting, Strategic Plan Implementation, County Referral Hospitals.

## Introduction

Barnat (2014) calls the process of putting a strategic plan into action "strategic plan implementation." This is the part of management where resources are set aside for putting strategies into action. According to a WHO report, 2017, the successful implementation of a strategic plan has led to major improvements in the Turkish health sector. -, the life expectancy at birth went up from 72.5 percent to 76.9 percent. The death rate went down from 64% to 15.4%, among other improvements Denti and Hemlin (2017) contend that for effective successful strategic plan implementation, there is need to have competent staff, resources -finance, culture, policies and execute transformational and organizational change for effective achievement of the desired strategic goals.

Brown (2020) avers that a budget is a company's strategic plan's road map because it helps coordinate the activities of the strategic plan. Brown further noted that the budget is important for improving performance evaluation since it anchors the performance outcomes as managers are expected to compare actual results against the budget. Keng'ara (2014) argues that budget indicates the sources of funds in terms of loans, the government, grant and donations. In Kenya, most public institutions depend on the exchequer.

Corporate Finance Institute (2020) notes that financial control is an organization's processes, policies, and tools for keeping track of and controlling how its money is spent, where it goes, and how it is used. Financial controls are at the heart of any organization's ability to use its resources well and run efficiently. Gathuru (2017) explained that financial control is the phase where financial plans are put into action. The researcher is of the view that control provides feedback and adjustment process that ensure plans are tracked and adjusted and aligned with emerging changes.

GOK (2014) stated that the Public Health Care is responsible for more than 80% of health care. Strategic plans have been an issue as documented over a long period of time since 1999. The ministry of health is currently implementing the third strategic plan. Currently the government aims to implement the universal health care program that was piloted in Kisumu, Nyeri Machakos and Isiolo. If this strategic plan is successfully implemented, the country will be able to reach the goal of the Health Policy for 2014–2030.

Narok County has a plan for development that runs from 2018 to 2023. The Kenya Vision 2030 and the health policy for 2014–2030 were the main sources for the county health sector plan. This plan has been put into action with the help of a budget, an annual plan, and performance contracts. During the 2018–2019 fiscal year (FY), Narok county Health Sector received a disbursement of Ksh. 2,261,922,134 out of a total budget of Ksh. 9,472,053,231. There are many problems in the Narok county health sector, namely high number of deaths among mothers, newborns, and children that could have been prevented. Wanzala (2017) noted that there are 850,920 people living in Narok County, Kenya. Only 6.9% of them live in urban centers, while 93.1 % live in rural areas. This makes the county the second-most rural of Kenya's 47 counties. covering approximately 17,994 square kilometers.

According to the Ministry of Devolution there is one referral hospital in Narok and three sub-county referral hospitals (Kilgoris, Lolgorian, and Ololulunga). These are supplemented by a missionary hospital in Kilgoris -St. Joseph. There are also 40 private clinics, 30 health centers, and 84 dispensaries in the county. Even though all of these health facilities are in place, the health department still has a huge shortage of technical staff. There is one doctor for every 40,000 people, and there is one nurse for every 15,000. In addition to a lack of health personnel staff strikes have also made it hard to get quality and effective service delivery. The department also often runs out of essential medical items required.

### **The Problem**

In an ideal successful health sector strategic plan implementation scenario, clinical and diagnostic services, service delivery, reproductive care, maternal care, adolescent health, number of fully immunized children, stopped and reversed communicable disease infection rates, and reduced exposure to health risk factors are enhanced.

Despite the fact that Narok County has 159 health facilities, the health department has a significant shortage of technical staff, with a doctor-to-population ratio of 1:40,000 and a nurse-to-population ratio of 1:15,000. In addition to human capacity, occasional labor disputes among employed personnel impede health operations. According to the Narok County Integrated Development Plan, the department also experiences frequent stock-outs of essential medical items. According to a study by Wanzala (2017), inadequate health facilities and resources, deplorable working conditions, a heavy workload, and the failure to replace retired staff members are the greatest challenges facing the Narok health sector.

These difficulties in the health sector may be the result of improper budgeting in the health sector. On the basis of this scenario, the study sought to examine the influence of budgeting on strategic plan implementation at the Narok County Referral hospital, Kenya.

### **Research Objective**

To evaluate the relationship between budgeting and the strategic plan implementation at Narok County Referral Hospital, Kenya.

### **A Literature Review and Hypothesis Development**

#### *Budget Theory*

The first authors to further develop the public budget theory in four perspectives in 2004 were Robert W. Smith and Thomas D. Lynch (Koitaba, 2016). The political perspective, where the politician sees the budget process as "a political event held in the political arena primarily for political gain". In this case, it is used by the economist to provide the best information to the managers when making decisions. The accountant's point of view emphasizes the value of accountability in budgeting, analyzing the budgeted amount for actual expenditures, thus describing the "wisdom of the original policy". According to Smith and Lynch, the public manager's perspective on a budget is a political tool to describe the implementation of public policy Cedarville (2019))

This study considered all the four perspectives of budgeting because they are in one way or another contributing to strategic plan implementation with accountant perspective carrying more weight than the other three because it focuses more on control than the other perspectives.

#### **Concept of Budgeting and Strategic Plan Implementation**

Aosa (1997) studied influence of the linkage between strategy and budgeting of implementing strategic decisions in large private companies in Kenya. Budgeting as a variable was measured in terms of Success in strategy implementation and Strategy-budget sequence. The organizational success in strategy, implementation was measured by evaluating strategic decision which had recently been implemented in different companies while strategy-sequence was determined by establishing whether strategies preceded budgets or some other sequence was in place. The finding of the study revealed that there is a higher success score in companies that maintained strategies budget linkage than those that did not.

Qi (2010) studied impact of the budgeting process on performance in small and medium-sized firms in China. The study measured budgeting in terms of its planning process, clarity and difficulty in budgeting goals, level of sophistication, the formal control of budget, the

participation of people in the budgetary making process, size and ownership of the firm. The findings of the study indicated that, formal budgeting process increases the growth in sales and revenues. A budget with clear and difficult goals improves the performance. A budget that is highly sophisticated results in low profit growth in SMEs. A highly formal budgetary control leads to higher growth in profit. High level of budgetary participation leads to a better performance of the management.

Zonatto (2020) investigated the effects of budgetary participation on managerial attitudes, satisfaction, and managerial performance. The study measured involvement of individuals in budget making process, attitudes attributed to the individual thoughts or feelings to behave towards a defined attitudinal object, attitudes towards work activities, the structural or social conditions of work environment and finally the self-assessment scale to identify how budget responsive controllers evaluate their performance. The study found out that Budgetary participation directly and positively influences managerial attitudes toward budgeting, job satisfaction and controllers' performance in budget activities. Managerial attitudes toward budget and job satisfaction mediate the relationship between budgetary participation and managerial performance. Budgetary participation positively influences the level of use of the budget for the purposes of performance evaluation and contributes to the development of budgetary knowledge of managers.

The related studies reviewed indicates that budget participation, budget feedback, budget sophistication, budget control, budget guidelines have not been measured. This study therefore filled this gap by measuring these indicators through enquiring whether various heads of units request or input are sought during budget making process at the NCRH, whether heads of units are involved in budget follow ups, whether proposals by heads of units for budget alteration are taken seriously, whether heads of units are assisted by technical person when preparing budget for the department/Section, whether there is a software for developing budget, whether it is easy to access actual data for the previous year when preparing budget, whether heads of units are informed of departmental adjustments and changes in the periodic budget reports as a feedback mechanism, whether there are clear communication channels about budget performance, whether budget goals are clear and well understood by the heads of units, availability of budget guideline to be used in budget preparation, whether NCRH budget has clear performance indicators that are measurable, whether the differences between budget and actual results are in various units or department are analyzed periodically, whether the management always takes action on identified variance between the budget and actual results. And finally, whether budget performance evaluation reports are prepared periodically and shared with the heads of units. From the foregoing it is hypothesized that:

***Ho: There is no relationship between budgeting and strategic plan implementation at the Narok County Referral Hospital.***

### **Empirical Review**

Aosa (1997) investigated influence of the linkage between strategy and budgeting of implementing strategic decisions in large private companies in Kenya. the results showed that businesses that kept a connection between their strategic planning and financial planning had consistently higher levels of success than those that did not. (p-value = 0.000) The difference

was large enough to warrant statistical attention. 39 out of the 53 businesses that responded to the survey stated that strategies were formulated first, followed by budgets.

With improved formal budgeting, small and medium-sized businesses (SMEs) in China experience higher sales and revenue growth, according to Qi (2010) to determine the impact of a budget process on the performance of small and medium-sized enterprises (SMEs) in China. The purpose of the study was to determine the impact of a budget process on the performance of SMEs in China. Small and medium-sized businesses (SME), the budgetary objectives of which were more specific and demanding, had budgetary performances that were exceptionally high. A very sophisticated budget led to very little increase in profit for small and medium-sized businesses. While small and medium-sized businesses (SMEs) that have more formal budget control have reported very high profit growth, SMEs that have employee participation in budgeting have reported higher managerial performance.

Zonatto conducted research to investigate how participation in the budget affected the attitudes, levels of satisfaction, and levels of performance of executives (2020). The following was discovered as a result of the findings of the study: There was a correlation that was both positive and statistically significant between participation in the budgeting process and managerial performance. There was also a correlation that was both positive and statistically significant between participation in the budgeting process and management's work ethic. There was a correlation between contribution to the budget and satisfaction with one's job that was both significant and positive. The attitudes held by management and level of job satisfaction played a role in mediating the connection between participation in budgeting and the performance of management. According to the findings, the influence of management performance is determined by a combination of factors, including budget participation and management attitudes. The management attitudes of controllers are improved, as is their level of job satisfaction, as a result of their participation in budgeting processes. This has a positive effect, albeit indirect, on the performance of these controllers as managers.

## **Methodology**

The study used a descriptive research design because it had to answer the "what" of the research, as Bhat explained 2021. With the employees of the referral hospital in Narok County as the target population sample frame (HR database), census was used as a sampling method to cover the whole population (Creswell & Miller, 2000; Kothari, 2004; Ritchie & Lewis, 2005). (2003). A three-point Likert scale questionnaire was used to get primary data from 30 heads of departments at the Narok County referral Hospital.

Factor analysis was run to generate variables from the data set. These were then subjected to Chi-Square test to assess the relationship between the budgeting variables and strategic plan implementation variables.

## **Results**

### *Strategic Plan Implementation*

The objective of the study was to determine the relationship between budgeting and strategic plan implementation at Narok County Referral Hospital. Data on various performance indicators of successful strategic plan implementation at the Narok County Referral Hospital were obtained from the heads of departments based on a three-point Likert scale. The responses are presented in table 4.1

Table 4.1

*Provides descriptive statistics on the execution of the strategic plan*

<b>Statements</b>	<b>Low (0-49%)</b>	<b>Medium (50-69%)</b>	<b>High (70-100%)</b>
Completion rate in construction of physical facilities	13(43.3)	16(53.3)	1(3.3)
Completion rate of installation of medical equipment	11(36.7)	14(46.7)	5(16.7)
Availability of drugs prescribed in the hospital pharmacy	9(30.0)	19(63.3)	2(6.7)
Stocking of specialized units with specialized commodities.	10(33.3)	19(63.3)	1(3.3)
Conducting routine training of health workers.	11(36.7)	17(56.7)	2(6.7)
Availability of all health specialists	12(40.0)	16(53.3)	2(6.7)
Availability of emergency services e.g., ambulance	11(36.7)	11(36.7)	8(26.7)

Key: Figures outside the parenthesis are percentages while figures inside the brackets are percentages of raw counts of the total counts

#### **Influence of budgeting on strategic plan implementation at the Narok County referral hospital**

On a three-point Likert scale, respondents were asked whether they agreed, neutral, or disagreed with the given budgeting statements. The descriptive results were presented in Table 4.2.

Table 4.2

*Provides descriptive statistics on budgeting*

Questions	Disagree R (%)	Neutral R (%)	Agree R (%)
My input is sought when preparing budget.	19(63.3)	5(16.7)	62(0.0)
My proposals for budget alteration are taken seriously	27(90.0)	2(6.7)	13(.3)
I use a software for developing budget	279(0.0)	1(3.3)	2(6.7)
Availability of previous year's budget when am preparing budget	25(83.3)	26(.7)	3(10.0)
I am involved in budget follow ups	26(86.7)	1(3.3)	3(10.0)
I am informed of budget adjustments periodic budget reports	258(3.3)	1(3.3)	4(13.3)
There are clear communication channels about budget performance.	24(80.0)	1(3.3)	5(16.7)
Budget goals are clear and well understood	27(90.0)	0(0.0)	3(10.0)
I use NCRH budget guideline when preparing budget	2376.7)	310.0)	413.3)
NCRH budget has clear performance indicators that are measurable.	25(83.3)	2(6.7)	3(10.0)
The differences between budget and actual results are analyzed	24(80.0)	1(3.3)	5(16.7)
Action is taken on variance between the budget and actual results.	21(70.0)	4(13.3)	5(16.7)
Budget performance evaluation reports are periodically shared	21(70.0)	5(16.7)	4(13.3)

Key: *Figures outside the brackets are raw counts while figures inside the brackets are percentages of raw counts of the total counts*

Table 4.2 shows that most Narok County Referral 63.3 percent of department heads say their input is not sought when preparing the budget, while 20% say it is. 17% of Department and Unit Heads were neutral. 27 (90%) of the respondents disagreed that Heads of Departments and Units' budget proposals are taken seriously, while 1 (3%) agreed and 2 (6%) remained neutral. These results agree with Zonatto (2020) that budgetary participation affects managerial attitudes, satisfaction, and performance. This means NCRH's lack of department and unit heads led to poor strategic plan implementation.

The study asked respondents about their ability to get previous year's budget data when preparing for the new fiscal year. 27 (90%) of respondents disagreed, 2 (6.7%) agreed, and 1 (3.3%) was neutral. The majority of respondents (90%) disagreed that they use software to develop budgets, with only 2% agreeing and 3% remaining neutral. The findings agree with Qi (2010) that high-end budgeting yields higher profits. At NCRH, a low-tech budget hinders strategic plan implementation.

Most respondents (26, 86.7%) disagreed that they are involved in budget follow-ups, while 3 (10%) agreed and 1 (3.3%) remained neutral. On whether respondents get periodic feedback on departmental budget adjustments, 24 (80%) disagreed, 4 (13%) agreed, and 1 (3.3%) was neutral. 80.0% of respondents disagreed that there are clear communication channels about budget performance, while 16.7% agreed and 3.3% were neutral. These

findings with Koech (2015) that managers/department heads in budget follow-ups and communicating budget feedback positively affected financial performance in manufacturing industries in Kenya. This means NCRH's strategic plan implementation is medium because not all department/unit heads are involved in budget follow-ups and most aren't given budget feedback to take timely corrective action.

Respondents were asked about budget goals' clarity. 27 (76.7%) disagreed that budget goals are clear and well understood; 3 (10%) agreed. 23 (76.7%) of respondents disagreed that the NCRH uses budget guidelines, while 4 (13.3%) agreed and 3 (10%) remained neutral. These results agree with Qi (2010) that clear budget goals and guidelines affect profit performance. Most NCRH department/unit heads say budget goals are unclear and they don't use budget guidelines when preparing budget. So, NCRH's strategic plan implementation is affected.

Respondents were asked if the NCRH budget has clear, measurable performance indicators. A majority of 25 (83.3%) disagreed, with only 3 (10%) agreeing and 2 (6.7%) neutral. On whether departments analyze the difference between budget and actual results periodically, 24 (80%) disagreed, 5 (16.7%) agreed, and 1 (13.3%) was neutral. Koech (2015) found that companies with clear budget performance indicators had better financial performance than those without. NCRH's strategic plan implementation is moderate because the budget lacks clear performance indicators that are not analyzed periodically.

The study also asked if management always acts on budget versus actual results. Majority of respondents 21(70%) disagreed, with only 5(16.7%) agreeing and 4(3.3%) neutral. The final question asked if respondents receive periodic budget performance evaluation reports. 21 (70%) disagreed, with 4 (13%) agreeing and 5 (16.7%) neutral. These findings agree with Koech (2015) that reporting budget deviations and taking timely corrective actions improve manufacturing companies' financial performance in Kenya. This means that NCRH strategic plan implementation is low because management doesn't always act on variance between budget and actual results.

### **The Factor Analysis**

Analysis of the underlying common dimensions between variables was performed using factor analysis to determine how they relate to one another. Using fewer explanatory constructs allows us to reduce a dataset from a larger set of related variables to a more manageable number of components (Field, 2009).

### **Factor Analysis: Influence of Budgeting on Strategic Plan Implementation at the Narok County Referral Hospital**

Within the SPSS, the extraction method that was utilized was known as principal component analysis (PCA). A rotation was performed using Varimax with Kaiser normalization as the method, and 11 iterations were required for the rotation to converge. An analysis of the Kaiser-Meyer Olkin measure of sampling adequacy revealed that the sample was factorizable with a significance level of  $P < 0.001$  (Chi-Square = 178.165,  $P < 0.001$ ) and that the KMO value was greater than 0.6, as displayed in table 4.3.



Table 4.3

*KMO and Bartlett's Test on budgeting*

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.714
Bartlett's Test of Sphericity	Approx. Chi-Square	178.165
	df	78
	Sig.	0.000

**The Total Variance Explained**

After using the total variance explained as a tool to break down the largest number of factors into a series of progressively more manageable component sets, the findings were as presented in table 4.4.

Table 4.4

*Total Variance Explained table on budgeting*

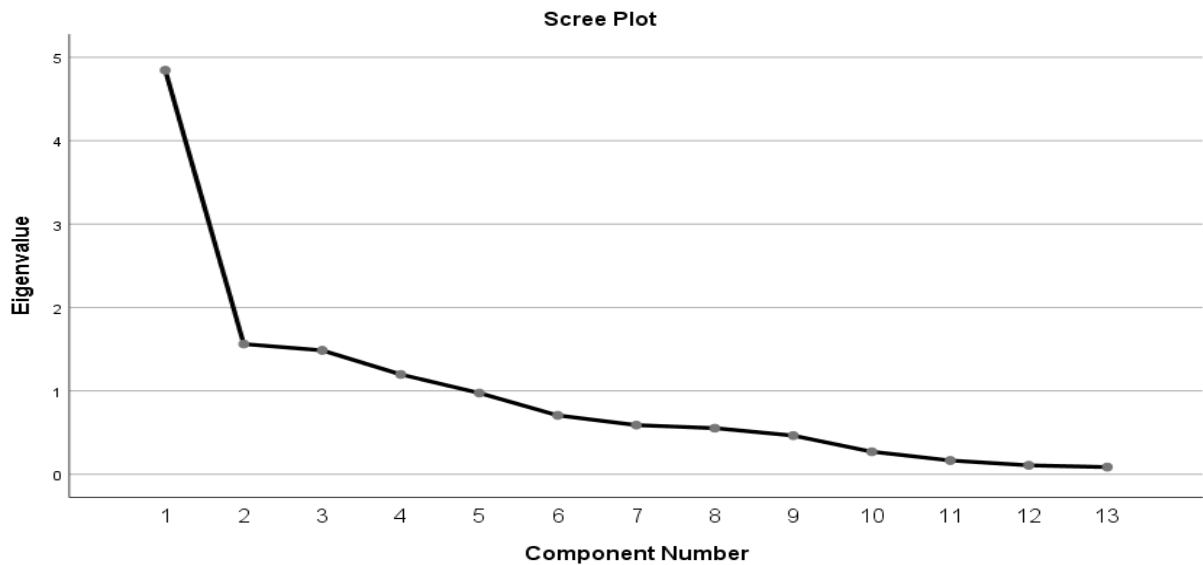
<b>Total Variance Explained</b>						
Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1.	4.844	37.264	37.264	3.146	24.201	24.201
2.	1.562	12.012	49.276	2.887	22.208	46.410
3.	1.486	11.427	60.703	1.571	12.081	58.491
4.	1.197	9.206	69.909	1.484	11.419	69.909
5.	.974	7.492	77.402			
6.	.706	5.428	82.829			
7.	.589	4.533	87.362			
8.	.553	4.251	91.613			
9.	.463	3.564	95.177			
10.	.270	2.075	97.252			
11.	.165	1.267	98.520			
12.	.107	.823	99.342			
13.	.086	.658	100.000			

The total value of the estimated variance is presented in table 4.4, broken down by the items that are used to measure budgeting. According to the table, the level of influence on budgeting that can be measured using 13 items across 4 categories can be calculated to be 69.909 percent. This value meets the requirements because it was higher than the required minimum of sixty percent (Awang, 2012).

**The Scree Plot of Eigen Values**

The scree plot of eigen values was utilized in order to control the number of components that were maintained in the PCA table, and the outcomes are detailed in table 4.5.

Table 4.5  
*Scree plot of eigen values on budgeting*



As can be seen in Table 4.5, it is possible to keep four of the components since the curve begins to bend at component number 4. The components are adequate due to the fact that each of their eigen values is greater than 1 Awang (2012).

#### **Rotated Component Matrix**

In order to determine the factors that were used to measure the components, the rotated component matrix was performed, and the results are presented in table 4.6.

Table 4.6

*Rotated component matrix table on budgeting*

<b>Rotated Component Matrix<sup>a</sup></b>				
	Component			
	1	2	3	4
My input is sought when preparing budget.	.080	.107	.151	.839
My proposals for budget alteration are taken seriously	.522	.336	.053	.555
I use a software for developing budget	.858	.121	.161	.031
I easily get data for previous year's budget when am preparing budget for the new financial year.	.571	.618	-	-
I am involved in budget follow ups	.016	.597	.470	-
I am informed of departmental adjustments and changes in the periodic budget reports as a feedback mechanism.	.066	.622	.384	.039
There are clear communication channels about budget performance.	.204	.757	-	.210
Budget goals are clear and well understood	.079	.791	.111	.275
I use NCRH budget guideline when preparing budget	.617	.626	-	.071
NCRH budget has clear performance indicators that are measurable.	.655	.146	.548	-
The differences between budget and actual results in my department are analyzed periodically.	.735	.047	-	.400
The management always takes action on variance between the budget and actual results.	.623	.086	.152	.119
Budget performance evaluation reports are prepared periodically and shared with me.	.118	-	.835	.270
<b>Extraction Method:</b> Principal Component Analysis.				
<b>Rotation Method:</b> Varimax with Kaiser Normalization.				
a. Rotation converged in 11 iterations.				

The distribution of the items that were received to measure the construct of budgeting is displayed in Table 4.6. In table 4.6, all of the items that had a factor loading that was greater than the minimum limit of 0.5 have been highlighted. These components were renamed as new factors after being reorganized into their respective components and grouped together.

### Renaming Budgeting Components

From Table 4.6, Seven items loaded onto Component 1. The table makes it clear that these seven items all pertain to formal budgeting. These items loads onto: My proposals for budget alteration are taken seriously, I use a software for developing budget, I easily get data for previous year's budget when preparing budget for the new financial year, I use NCRH budget guideline when preparing budget, NCRH budget has clear performance indicators that are measurable, The differences between budget and actual results in my department are analyzed periodically, and The management always takes action when there is a discrepancy between budget and actual results. Therefore, this factor was labeled "Formal Budgeting."

The six items loaded onto the second Component are communication-related. There are clear communication channels regarding budget performance, and the budget goals are well understood. Therefore, this component was labeled "budgetary communication."

The two items loaded into the third component pertain to evaluation and monitoring. The perception monitoring and evaluation factors reported by respondents included: The NCRH budget has clear, measurable performance indicators; and I receive periodic reports on budget performance evaluation. Therefore, these factors were labeled "budgetary monitoring and evaluation."

The two items loaded in component four were associated with people's involvement or participation. The factors reflected the perceptions of respondents regarding their participation in the budgeting process, including: My input is sought when preparing the budget, and my budget amendment proposals are taken seriously. Therefore, these variables were labeled "budgetary participation."

**Factor Analysis on Strategic Plan Implementation at the Narok County Referral Hospital**

Within the SPSS, the extraction method that was utilized was known as principal component analysis (PCA). A rotation was performed using Varimax with Kaiser normalization as the method, and 5 iterations were required for the rotation to converge. An analysis of the Kaiser-Meyer Olkin measure of sampling adequacy revealed that the sample was factorizable with a significance level of  $P < 0.001$  (Chi-Square = 45.730,  $P < 0.001$ ) and that the KMO value was greater than 0.6, as displayed in table 4.7.

Table 4.7

*KMO and Bartlett's Test on strategic plan implementation at the Narok County referral hospital*

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.652
Bartlett's Test of Sphericity	Approx. Chi-Square	45.730
	df	21
	Sig.	0.001

**The Total Variance Explained**

After using the total variance explained as a tool to break down the largest number of factors into a series of progressively more manageable component sets, the findings were as presented in table 4.8.

Table 4.8

Total variance explained on strategic plan implementation at the Narok County referral hospital

Total Variance Explained						
Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.697	38.523	38.523	2.333	33.332	33.332
2	1.276	18.235	56.758	1.518	21.681	55.013
3	1.050	15.007	71.765	1.173	16.752	71.765
4	.696	9.939	81.704			
5	.570	8.149	89.853			
6	.442	6.307	96.160			
7	.269	3.840	100.000			

Extraction Method: Principal Component Analysis.

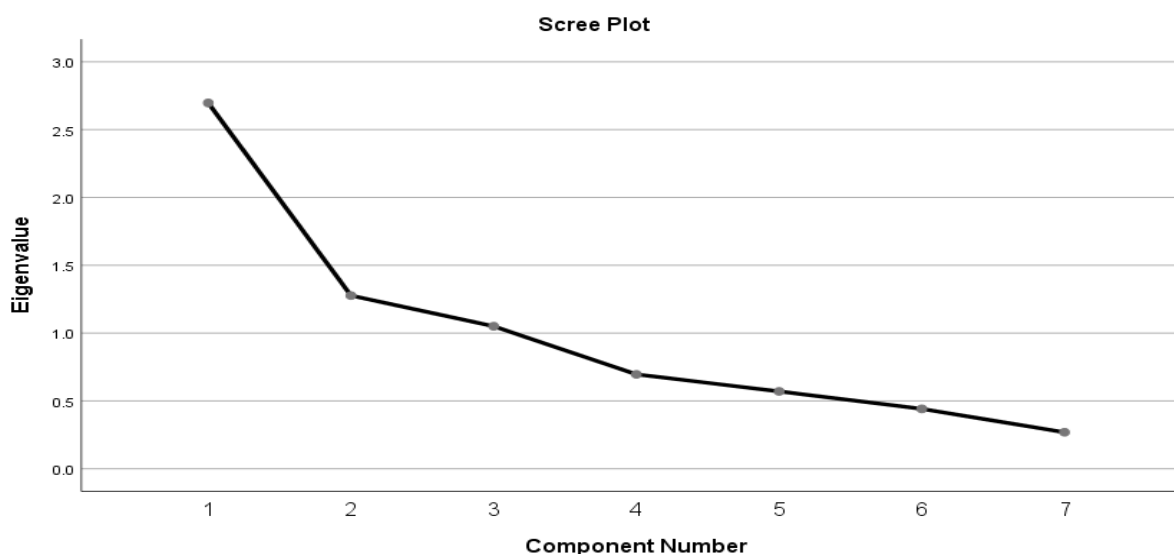
The total value of the variance that was estimated by the items that were used to measure the strategic plan implementation at the NCRH is displayed in Table 4.8. According to what is shown in the reading on table 4.8, the strategic plan implementation at the NCRH measured using 7 items in 3 components can be measured at a percentage of 71.765 percent. This value was adequate because it was higher than the required minimum of sixty percent.

**The Scree Plot of Eigen Values**

The scree plot of eigen values was utilized in order to control the number of components that were maintained in the PCA table, and the outcomes are detailed in table 4.9.

Table 4.9

Scree plot of eigen values on strategic plan implementation at the Narok County referral hospital



The researcher needed to determine the number of components to keep in PCA, and the scree plot was an essential part of that process. Due to the fact that the curve begins to bend at the component number 3, Table 4.9 demonstrates that it is possible to keep three of the components. The components are adequate due to the fact that each of their eigen values is greater than 1.

### Rotated component matrix

In order to determine the items that were used to measure the components, the rotated component matrix was performed, and the results are displayed in table 4.10

Table 4.10

*Rotated factor matrix on strategic plan implementation at then Narok County referral hospital*

<b>Rotated Component Matrix<sup>a</sup></b>			
	Component		
	1	2	3
Completion rate in construction of physical facilities	.777	- .346	.060
Completion rate of installation of medical equipment at the NCRH	.311	.337	- .715
Availability of drugs prescribed in the hospital pharmacy at all times	.833	.248	.045
Stocking of specialized units with specialized commodities.	.746	.286	- .091
Conducting routine training of health workers.	.549	.532	.130
Availability of all health specialists at the NCRH.	.050	.900	- .052
Availability of emergency services e.g., ambulance	.279	.217	.792
<b>Extraction Method:</b> Principal Component Analysis.			
<b>Rotation Method:</b> Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

The distribution of the items that were received to measure the construct of strategic plan implementation at the NCRH is displayed in Table 4.10. In table 4.10, all of the items that had a factor loading that was greater than the minimum limit of 0.5 have been highlighted. These components were renamed as new factors after being reorganized into their respective components and grouped together.

### Renaming of Components on Strategic Plan Implementation at the Narok County Referral Hospital

Component 1 was loaded with the four items. The table clearly shows that these four items are all connected to medical resources in one way or the other. Respondents' perceptions of the availability of medical resources at the Narok County Referral Hospital are influenced by these factors. Construction of physical facilities, availability of prescribed drugs in the hospital pharmacy, stocking of specialized units with specialized commodities, and regular training of health workers are all factors that contribute to the quality of care. As a result, the term "availability of medical resources" was applied to these variables.

Component 2 contains two items that are all about professionalism. Respondents' perceptions of professionalism at the Narok County Referral Hospital are being impacted by

these factors. Routine training of health workers and access to all NCRH specialists are among the factors cited. These factors were referred to as "professionalism availability" as a result.

Component 3's final two items are both service-related. As a result, NCRH patients have a skewed view of the hospital's services. Medical equipment installation at NCRH and availability of emergency services such as an ambulance are among the factors that have been weighted. "Availability of Medical Service Delivery" was the name given to these elements.

**Correlation analysis and hypothesis testing**

The loaded factors were then put through a subsequent analysis that made use of Pearson's correlation in order to determine, with a level of confidence of 95%, the nature of the relationship that holds between the independent and dependent variables.

**Relationship between budgeting and strategic plan implementation**

The objective of the study was to determine whether budgeting has an influence on the implementation of the strategic plan at Narok County Referral Hospital. To achieve this objective, SPSS was used to conduct a correlation analysis between four components from Table 4.10, namely formal budgeting, budgetary communication, budgetary monitoring and evaluation, and budgetary participation, and the three factors of strategic plan implementation. Table 4.11 presents the results of correlation analysis and hypothesis testing.

Table 4.11

*Correlation analysis between budgeting and strategic plan implementation.*

component		Strategic plan Implementation		
		Availability of medical resources	Availability of professionalism	Availability of Medical Service Delivery
Formal Budgeting	Pearson Correlation	.513**	.556**	.132
	Sig. (2-tailed)	.004	.001	.488
	N	30	30	30
Budgetary communication	Pearson Correlation	.328	.339	.244
	Sig. (2-tailed)	.077	.067	.194
	N	30	30	30
Budgetary monitoring and evaluation	Pearson Correlation	.331	.339	.039
	Sig. (2-tailed)	.074	.067	.836
	N	30	30	30
Budgetary participation	Pearson Correlation	.436*	.337	.010
	Sig. (2-tailed)	.016	.069	.958
	N	30	30	30
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

Table 4.11 shows that at the Narok County Referral Hospital, there is a direct moderate positive relationship between formal budgeting and resource availability, as well as availability of professionalism ( $r = 0.513^{**}$ ,  $P = 0.004$ ) and ( $r = 0.556^{**}$ ,  $P = 0.001$ ). This means that as formal budgeting improves, medical resources will become more readily available. The findings are consistent with Qi's (2010) study, which found a link between formal budgeting and strategic plan implementation.

Budgetary participation had a direct moderate positive correlation with medical resource availability ( $r = 0.436^*$ ,  $P = 0.016$ ) and a direct weak positive correlation with professionalism availability ( $r = 0.337$ ,  $P = 0.069$ ). This means that increased budgetary participation will result in more medical resources and professionalism at the NCRH. The findings support Zonatto's (2020) and Wilson's (2021) findings that there is a link between budgetary participation and strategic plan implementation.

The study's hypothesis was *H<sub>0</sub>*: There is no relationship between budgeting and strategic plan implementation at the Narok County referral Hospital. This hypothesis was tested using correlation analysis at a 95% confidence level, based on different components of budgeting versus different components of strategic plan implementation. Different components of budgeting (Formal Budgeting, Budgetary Communication, Budgetary Monitoring and Evaluation, and Budgetary Participation) were compared to different components of strategic plan implementation at the Narok County referral hospital to test the null and alternative hypothesis (Availability of medical resources, Availability of professionalism and Availability of Medical Service Delivery).

Formal budgeting had a significant correlation with availability of medical resources and availability of professionalism ( $p = 0.004$ ,  $p = 0.001$ ), according to the results presented in table 4.11. Budgetary participation also had a significant relationship with medical resource availability ( $p = 0.016$ ,  $P = 0.069$ ). At the Narok County Referral Hospital, different components of budgeting had a significant correlation with different components of strategic plan implementation. The null hypothesis was found to be false, and the alternative hypothesis was found to be true.

### **Conclusions and Policy Implication**

Based on the preceding findings the study concludes that budgeting has a relationship with strategic plan implementation at the Narok County referral hospital as shown by formal budgeting (taking seriously budget alterations proposals by the heads of departments, using software when preparing budget, making available previous year's data on budget when developing the current year's budget, using the NCRH budget guidelines when preparing budget, having in place very clear performance indicators when preparing budget, analyzing budget and actual results and taking action on the variance between the budget and actual results by the NCRH management) and budgetary participation (seeking the input of heads of departments when preparing budget and taking their proposals on budget alterations seriously).

Based on the conclusions, policy should be formulated to enhance active participation of all the hospital stakeholders in budgeting process and to put in place effective budgetary control mechanisms for effective strategic plan implementation.



**References**

- Aosa, E. A. (1997). The Influence of the Linkage Between Strategy and Budgeting of Implementing Strategic Decisions. *Nairobi Journal of Management*, 3(1), 84–91.
- Awang, Z. (2012). Structural equation modeling using AMOS graphic. Penerbit UniversitiTeknologi
- Barnat, R. B. (2014). Strategic Management. *Strategic Management: Formulation and Implementation*.
- Bhat, A. (2021). Descriptive Research: Definition, Characteristics, Methods, Examples and Advantages. *Question Pro*. <https://www.questionpro.com/blog/descriptive-research>.
- Brown, P. (2020). Importance of Financial Budgets in a Company's Strategic Planning. *PB NEWSBLOG*.
- Bruin, B. J. (2020). Principal Components (PCA) and Exploratory Factor Analysis (EFA) with SPSS. *UCLA : Statistical Methods and Data Analytics*. Retrieved March 21, 2022, from <https://stats.oarc.ucla.edu/spss/seminars/efa-spss/>.
- Cedarville University. (2019). Public budgeting [Slides]. Pdf. <https://www.coursehero.com/file/40744275/Public-Budgetingdoc/>
- Corporate Finance Institute. (2020). Financial Controls.
- Creswell, K. J., & Miller, J. E. (2000). *Social science research: Validity of instruments*. New Delhi: Dotcom Publishers.
- Denti, L., & Hemlin, S. (2017). Leadership and Innovation in Organizations: A Systematic Review of factors that mediate the Relationship. *International Journal of Innovation Management*, 16(03).
- Field, A. (2009) *Discovering Statistics Using SPSS*. 3rd Edition, Sage Publications Ltd., London.
- Gathuru E. (2017) *Technical Skills & Financial Control Practices of Maasai Mara Community Support Fund, Kenya* (Masters thesis of Maasai Mara University).
- Hoque, A. S. M. M., &Awang, Z. (2017). Exploratory Factor Analysis of Entrepreneurial Marketing: Scale Development and Validation in the SME context of Bangladesh, *International Social Sciences and Tourism Research Conference*, Terengganu, UniSZA, pp. 20-22.
- Keng'ara, R. (2014). Effect of Funds Disbursement Procedures on Implementation of Donor Projects in Homabay County, Kenya. *Universal Journal of Accounting and Finance* 2, 2(1), 9–23.
- Kothari, C. R. (2004). *Research Methods and Techniques*. New Delhi: New Age International Publishers.
- Ministry of Health. (2015). Overview of the Health System in Kenya (No. 1). Dr. Richard Muga, Dr. Paul Kizito, Mr. Michael Mbayah, Dr. Terry Gakuruh. <https://dhsprogram.com/pubs/pdf/spa8/02chapter2.pdf>.
- Narok County. (2021, November 25). Devolution Knowledge Hub, Ministry of Devolution.
- Narok County. (2021). Devolution Knowledge Hub, Ministry of Devolution.
- Qi, Y. (2010). The impact of the budgeting process on performance in small and medium-sized firms in China. [Doctoral thesis, University of Twente].
- Revelle, W. (2016). How To: Use the psych package for Factor Analysis and data reduction.
- Ritchie, J. N., & Lewis, W. K. (2003). *Social Work Research Methods*. Boston: CU
- WHO. (2007). *Bulletin of the World Health Organization*, 85(1), 8.