



**STRATEGIC RESOURCE ALLOCATION AND PERFORMANCE OF PUBLIC HEALTH REFERRAL FACILITIES IN  
MOMBASA COUNTY**

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**ABSTRACT**

*Resource allocation has been a challenge to many organizations. Essentially, to realize any success it would mean getting it right at the onset otherwise many government owned facilities are faced with low performance. The study was set out to examine the influence of strategic resource allocation and performance of public health facilities in Mombasa County. The study was guided by resource allocation theory, performance improvement theory and resource dependency theory. The population for this study was therefore 5 public health facilities in Mombasa County. The study found out that strategic human resource allocation, strategic financial resources allocation, strategic technological resource allocation and strategic medical resource allocation influences performance of public health referral facilities in Mombasa County. The study recommends that the management of health facilities should practice fair allocation of strategic human resource allocation, strategic financial resource allocation, Strategic Technological allocation and medical resource allocation in order to increase the performance of public health referral facilities in Mombasa County.*

**Key Word:** Allocation, Resources, Financial, Human Resource, Performance, Technology

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## INTRODUCTION

Organizational performance is generally defined as regular measurement of outcomes and results, which generates reliable data on effectiveness and efficiency of programs, (Kaplan & Norton, 2016). There are five specific types of measures that have been identified and usually applied. Input: resources used to conduct activities and provide services. Activity: individual tasks funded by projects or programs. Output: products and services. Outcome: represents a specific result a program intended to achieve. Organisational Performance can be measured through graphic rating scales; 360degree feedback; self- evaluation; management by objectives (MBO) or checklists (Denton, 2017).

Organisational Performance measures can be grouped into two basic types: those that relate to results (outputs or outcomes such as competitiveness or financial performance) and those that focus on determinants of the results (inputs such as quality, flexibility, resource utilization, and innovation). This suggests that performance framework can be built around the concepts of results and determinants (Gunasekaran, 2019). Measurement central to quality improvements defines what is done by hospitals and compare that with original plans to identify areas of improvement. Healthcare performance measurements are aggregated, quantified and analyzed data on a particular healthcare-related activity. Their purpose is to identify opportunities for reducing costs, improving quality of care and increasing efficiency of care delivery (Parkin, 2017). Three performance indicators used to measure organizational performance in this study, were; number of referrals, bed occupancy and quality of services.

Organizational performance encompasses three specific areas of firm outcomes; financial performance (profits, return on assets, return on investment, etc.), market performance (sales, market share, etc.) and shareholder return (total shareholder return, economic value added, etc.)

(Divenney, 2015). Organisational Performance is the ultimate dependent variable of interest.

Resource allocation, also known as resource scheduling recognizes and assigns resources for a specific period to various activities (Mario, 2016). These activities can be either project or non-project work such as administration, support, operation and others. Resources can be either fully or partially available. Therefore, resource managers must take resource availability into account while allocating them to the projects. Resource allocation is essential in organizations as it allows managers to plan and prepare for project implementation or achieving goals (Ilesanmi, 2017). As asserted by Tappin (2017), resource allocation practices help firms prepare proactively and address issues with a more long term view. They enable a company to initiate influence instead of just responding to situations. Some of the benefits of resource allocation practice include empowering teams, prevent burnout and ensure engagement performance. In this case resource allocation is not only an essential resource management process, it is also a critical lever for growth and success (Tappin, 2017).

Gutterman, (2017), notes that the relationship between resource allocation and performance of firms may be mitigated to some extent by a contextual factor relating to the firm, including among other things, societal culture. They believe that organizational processes relating to planning and decision-making have an impact on societal culture. In USA there are similarities in resource allocation practice in firms which have been found in developed economies. It is also noted that resource allocation probably is able to gain traction in various states because there are relatively few barriers to the dissemination of knowledge elements of resource allocation practice, (Lambert & Ouedraogo, 2018).

From South African perspective Imosili (2018), asserts that using the right resource allocation process, a firm can drive better resource utilization, employee satisfaction, and retention

simultaneously. Imosili (2018) states that the ability to allocate the right combination of resources across multiple, complex engagements requires in-depth and up-to-date knowledge of the skills, capacity, and availability of your resources.

In Nigeria, Owolabi and Makinde (2019) opines that the ability of a firm to respond appropriately to the variable that affect operations in an organization is dependent on the effectiveness of its resource allocation practices. Fubara (2018) asserts that, informal strategic planning practices in Nigeria outperforms the formal strategic planning practices. Firms that adopt a culture that stresses lower levels of employee participation in formulating strategies and executing them separates thinkers from actors.

In Kenya, it is not uncommon for unexpected changes to occur or for an engagement to suddenly require additional resources (Mohajan, 2017). This shows that resource allocation practices should be embraced to help business managers to know what they have, where they are going, and how to manage uncertainties in the business environment. Desai (2017) opines that one of the biggest opportunities for optimizing resource allocation is to assess your resources across the widest pool of what is available. In Kenya, according to Wilson (2017), study has revealed that resource allocation should be encouraged to enable businesses to identify causes and solutions to problems, to understand the operating environment, to define the purpose of the business and environment and to clarify ambitions, values and resources of business.

### **Statement of the Problem**

According to Kenya Health Sector Strategic Plan, KHSSP, (2018-2023), there has been a decline in health facility performance as shown by health facility trend of death statistics between the years, 2016 to 2020. In the year 2016: communicable/infectious diseases-58.6%, non-communicable diseases - 37.1%, injuries and other causes- 4.3%. In the year 2017: communicable/infectious diseases – 60.7%, non-communicable diseases – 35.4%, injuries and other

– 4.0%. In the year 2018: communicable/infectious diseases - 53.2%, non-communicable diseases – 41.0%, injuries and other – 5.9%. In the year 2019: communicable/infectious diseases – 51.4%, non-communicable diseases – 42.0%, injuries and other 6.6%. In the year 2020: communicable/infectious diseases – 50.1%, non-infectious diseases 42.8%, injuries and other 7.1%. According to KHSSP (2018 – 2023), majority of deaths are caused by communicable/infectious diseases, however the trend is declining, while non-communicable and injuries is gradually increasing. The trend shows a dismal performance improvement in the public health sector.

The above statistics explains the death rate in referral facilities which shows dismal performance at an increasing rate.

### **Study Objectives**

The general objective of this study was to establish the influence of strategic resource allocation on performance of public health facilities in Mombasa County. The study was guided by the following specific objectives:

- To determine the influence of strategic human resource allocation on performance of public health facility in Mombasa County.
- To establish the influence of strategic financial resource allocation on performance of public health facility in Mombasa County.
- To examine the influence of strategic technological resource allocation on performance of public health facility in Mombasa County.
- To assess the influence of medical resource allocation performance of public health facility in Mombasa County.

The study tested the following null hypotheses;

- **H<sub>01</sub>:** Strategic human resource allocation has no significant influence on performance of public healthcare facility in Mombasa County.

- **H<sub>01</sub>:** Strategic financial resource allocation has no significant influence on performance of public healthcare facility in Mombasa County.
- **H<sub>03</sub>:** Strategic technological resource allocation has no significant influence on performance of public healthcare facility in Mombasa County.
- **H<sub>04</sub>:** Medical resource allocation has no significant influence on performance of public healthcare facility in Mombasa County.

## LITERATURE REVIEW

### Theoretical Review

This study was anchored on the resource allocation theory, the performance improvement theory and the resource dependency theory.

### Resource Allocation Theory

Resource allocation theories assume that organizations have a limited pool of resources, and that resources allocated to one function or structure cannot be used for another one (Witzel, 2018). Resource allocation is a systematic process where by an organization determines how best to apportion its factors of production between the various productive activities in which it wishes to engage. Resource allocation is a pressing issue because resources expended on one issue cannot be expended on another. Although much has been written about resource allocation issues, there has been less discussion about how resource allocation affects public health facilities. Sometimes resource allocation decisions focus on the immediate payoff of reducing risks from a specific area, whereas other

resource allocation decisions affect the infrastructure needed to respond to health risks over time (Brower 2018). The resource allocation theory is anchored to the study as it would provide a guide on how its practice can improve performance in public health facilities.

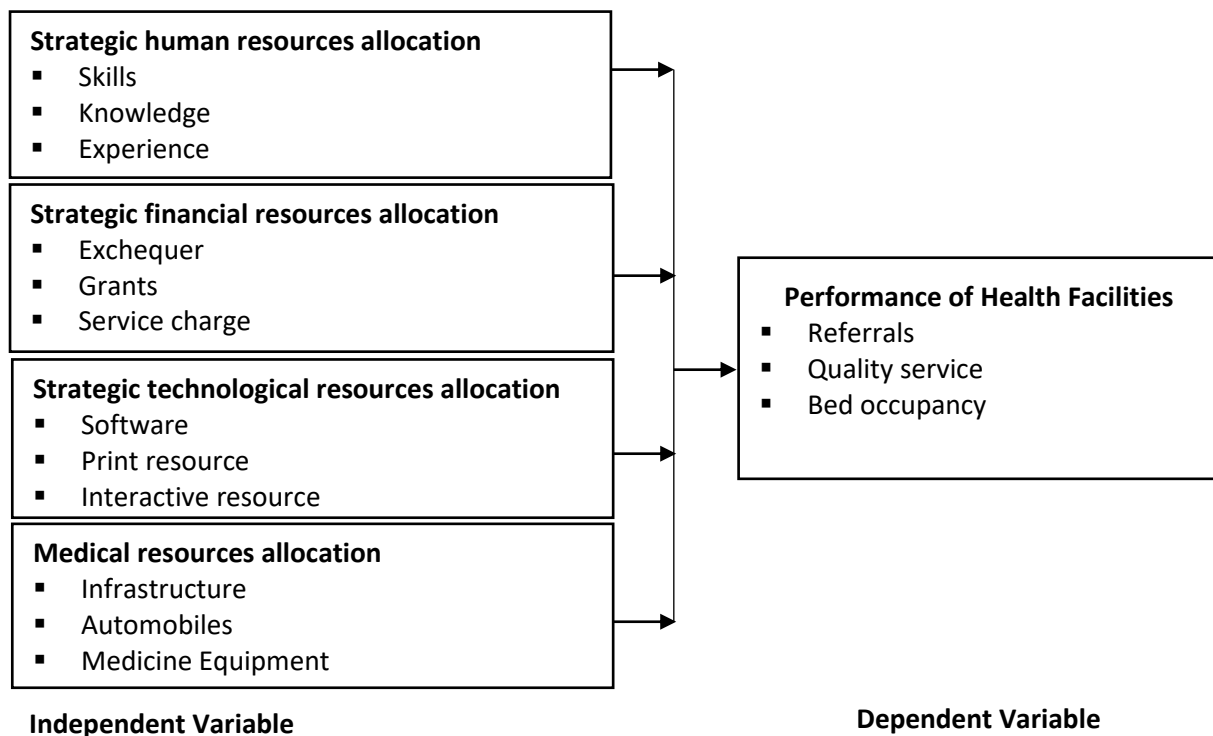
### Performance Improvement Theory

Performance theory originates from a variety of fields, but is most associated with the work of Victor Turner in 1988 and Richard Schechner in 1985. Turner, (1988), asserts that the individual goals established by an employee play an important role in motivating him for superior performance. Theorists like Peggy Phelan, Jose Esteban, Rebecca Schneider and others have been equally influential in both performance and other related fields of study (Elger, 2016).

### Resource Dependency Theory

Resource dependency theory examines the relationship between organizations and the resources they need to operate (Jeffrey, 2021). Resources can take many shapes or forms, including raw materials, workers, and even funding. If one company maintains the majority of a resource, then another company will become dependent on it in order to operate, creating a symbiotic relationship. Too much dependency creates uncertainty, which leaves organizations subject to risk of external control. External control may be imposed by the government or other organizations and can have a significant effect on operations, such as funding or personnel policy (Werner, 2017).

## Conceptual Framework



**Figure 1: Conceptual Framework**

### Review of Literature on Study Variables

This section looks into the existing literature on the influence of strategic human resources, strategic financial resources, strategic technological resources and medical resources on public health facilities in Mombasa County.

### Strategic Human Resources Allocation

Human resources play a key role in every organization because they have a great impact on its performance and the achievement of its goals. Human resources define company culture and company culture cannot be replicated, (Pandit, 2020). People not only acquire knowledge and skills by education but also by experience. A major concern about considering people as a resource is that people should not be treated like another resource or as a simple factor of production that can be easily interchanged, but with respect and dignity. Human resources is the division of a business that is charged with finding, screening, recruiting, and training job applicants, as well as administering employee-benefit programs. Human

resources plays a key role in helping organizations deal with a fast-changing business environment and a greater demand for quality employees in the 21<sup>st</sup> century.

Today the presence of human resource department and human resource managers is essential for any organization, regardless of its size (Nordin, 2019). An HR department is nowadays necessary to enable the proper functioning of any company. Additionally, it is the only department that manages and ensures the well-being of the people that make the organization. Furthermore, they are also integral in times of emergency. It is their job to manage the employees shifts and make sure employees feel supported and are working well from home (Nordin & Ahnuar, 2018). Skills refer to the abilities and capacities a person possesses and enable them to perform a specific job, Mango (2017). On this basis, every professional is unique as is his or her contribution to the team and to the department, Lehner (2017).

### **Strategic Financial Resources Allocation**

Financial resources are the funds at the disposal of an organization and intended for the implementation of the current costs and expenses for expanded reproduction, fulfilment of financial obligations and economic incentives for employees (Cote, 2020). It may also be referred to as the resources from which the organization obtain the funds it needs to finance their investments, capital and current activities (Tomaney, 2016). Exchequer funding: According to County Allocation of Revenue Act, the State disburses funds to its organizations to sustain development projects. Disbursement of funds is the most important aspect of project implementation. It is on this basis that scheduled project activities are translated into measurable outputs in the execution of the project objective by the project implementation unit, New Constitution 2010, Article 35(3).

### **Strategic Technological Resources Allocation**

Technological resources mean any and all technologies that produce, manipulate, store, communicate, or disseminate information. These resources include but are not limited to, wired and wireless data, video, and voice networks, computers for processing information, and other devices for storing and archiving information (Prachi, 2019). Technology resources shall not be used in any manner which impairs its effective operations or the rights of other technology users (Steiner, 2019). It can be used to protect financial data, confidential executive decisions and other proprietary information that leads to competitive advantages. In other words, technology helps businesses keep their ideas away from their competitors (Hartman, 2019). The process of technology allocation has an important role to play in the organization's success.

### **Medical Resources Allocation**

Medical resources are understood as every machine or apparatus that uses one or a combination of electrical, electronic, or mechanical means for prevention, diagnosis, treatment, and rehabilitation in health services, (Brinkerhoff, 2021). According to

essential requirements, every maintenance unit must comply by planning the needs of spare parts and consumables, having the internal administrative forms to control the maintenance activities, having inventory of spare parts and materials for urgent maintenance, maintaining an updated inventory of spare parts and tools required for service work among others.

### **Performance of Public Health Facilities**

Organizational performance is generally defined as regular measurement of outcomes and results, which generates reliable data on effectiveness and efficiency of programs, (Kaplan, & Norton, 2018). There are five specific types of measures that have been identified and usually applied: input; resources used to conduct activities and provide services; activity, individual tasks funded by projects or programs; output, products and services; outcome; represents a specific result a program intended to achieve. Performance can be measured through graphic rating scales; 360-degree feedback; self- evaluation; management by objectives (MBO) or checklists, (Denton,2017). Performance measures can be grouped into two basic types: those that relate to results (outputs or outcomes such as competitiveness or financial performance) and those that focus on determinants of the results (inputs such as quality, flexibility, resource utilization, and innovation). This suggests that performance framework can be built around the concepts of results and determinants, (Gunasekaran, 2019). Organizational performance in hospitals is mainly examined through its capacity to deliver high-quality clinical care at minimum cost (Chawla & Govindaraj, 2017). The indicators of hospital performance include bed turnover rate, the average patients admitted in a bed per year and efficiency (HIQA, 2013).

### **METHODOLOGY**

The study adopted a descriptive research design to establish the influence of resource allocation and performance of health facilities in Mombasa County. The target population 85 senior managers which included public health directors,

administrators, and program officers in the County Government of Mombasa. Yamane's (1967) formula was used to generate a sample size of 70 which was proportionately selected. Primary data was collected using a structured questionnaire which were administered to the employees through drop and pick method. Data was analysed using the Statistical Package for Social Sciences (SPSS) version 26. The multiple linear regression model was adopted as shown below.

$$y = \beta\theta + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \varepsilon$$

Where; y = Performance

$\beta\theta$  = Constant

X1 = Strategic human resource allocation

X2 = Strategic financial resource allocation

X3 = Strategic technological resource allocation

X4 = Medical resources allocation

$\beta_1$  to  $\beta_4$ = Regression coefficients

$\varepsilon$  = the estimated error of the regression model

Descriptive results on average indicated that, the respondents agreed that strategic human resources allocation, strategic financial resources allocation, strategic technological resources allocation and medical resources allocation strongly influences performance of referral public health care facilities in Mombasa County

Correlation results revealed a positive and significant correlation strategic human resources allocation, strategic financial resources allocation, strategic between technological resources allocation and medical resources allocation and performance of public health referral facilities in Mombasa County.

**Table 1: Correlation Coefficient**

		SHS	SFS	STR	MRA	Performance
Strategic human resources	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	61				
Strategic financial resources	Pearson Correlation	.510**	1			
	Sig. (2-tailed)	.000				
	N	61	61			
Strategic technological resources	Pearson Correlation	.422**	.337**	1		
	Sig. (2-tailed)	.000	.000			
	N	61	61	61		
Medical resources allocation	Pearson Correlation	.814**	.229**	.384**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	61	61	61	61	
Performance	Pearson Correlation	.505**	.589**	.432**	.496	1
	Sig. (2-tailed)	.001	.000	.000	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Multiple Linear Regression Results

The researcher analysed the data using multiple linear regression method and the results are reported below.

**Table 2: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.674 <sup>a</sup>	.454	.397	1.5278

a. Predictors: (Constant), Strategic human resources, Strategic financial resources, Strategic technological resources, Medical resources allocation

b. Dependent Variable: Performance



The model summary ( $R^2 = 0.454$ ) indicated that independent variables explain 45.4 per cent change in performance of public health facilities in

Mombasa county, while the remaining 54.6% are un-modelled determinants.

**Table 3: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.893	4	.973	11.583	.000 <sup>b</sup>
	Residual	4.676	56	.084		
	Total	8.569	60			

a. Dependent Variable: Performance

b. Predictors: (Constant), Strategic human resources, Strategic financial resources, Strategic technological resources, Medical resources allocation

The ANOVA showed a significant P-value ( $P=0.000$ ) concluding that the model was statistically significant in explaining the relationship between

strategic resource allocation and performance of public health facilities in Mombasa county.

**Table 4: Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.594	.988		3.637	.000
Strategic human resources	.498	.207	.279	2.405	.000
Strategic financial resources	.524	.311	.123	2.684	0.042
Strategic technological resources	.419	.171	.698	2.450	.000
Medical resources allocation	.487	.196	.115	2.484	.002

a. Dependent Variable: Performance

The multiple regression results indicated that strategic human resources allocation, strategic financial resources allocation, strategic technological resources allocation and medical resources allocation had a positive significant relationship with performance of public referral health care facilities in Mombasa County. An increase in any of these four variables would lead to an increase in the performance of public referral health care facilities in Mombasa County. The derived model was as follows;

$$Y = 3.594 + 0.498X_1 + 0.524X_2 + 0.419X_3 + 0.487X_4$$

### CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, the study concluded that;

- Strategic human resources allocation has a positive significant influence on performance of public health referral facilities in Mombasa County.

- Strategic financial resources allocation has a positive significant influence on performance of public health referral facilities in Mombasa County.
- Strategic technological resources allocation has a positive significant influence on performance of public health referral facilities in Mombasa County.
- Strategic medical resources allocation has a positive significant influence on performance of public health referral facilities in Mombasa County.

The study recommended that;

- The management of public referral health facilities should practice fair allocation of strategic human resources to increase on the performance of public health referral facilities in Mombasa County.
- The management of public referral health facilities should practice fair allocation of

strategic financial resources to increase on the performance of public health referral facilities in Mombasa County.

- The management of public referral health facilities should practice fair allocation of strategic technological resources to increase on

the performance of public health referral facilities in Mombasa County.

- The management of public referral health facilities should practice fair allocation of strategic medical resources to increase on the performance of public health referral facilities in Mombasa County.

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