

EFFECT OF ORGANIZATIONAL STRUCTURE ON THE IMPLEMENTATION OF KENYA MEDICAL SUPPLIES AUTHORITY PROJECTS IN NAIROBI CITY COUNTY, KENYA

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DOI: <https://doi.org/10.5281/zenodo.15324336>

Published Date: 02-May-2025

Abstract: The examination of project performance indicators has indicated that the project management team at KEMSA has faced significant challenges in achieving milestones, adhering to timelines, and effectively managing risks. A lack of expertise has led to a deterioration in KEMSA's reputation, financial health, and operational effectiveness. Therefore, this study sought to investigate the effect of organizational structure on the implementation of Kenya medical supplies authority projects in Nairobi City County, Kenya. A descriptive research design was utilized. Data were collected from 86 participants in the study from 109 KEMSA employees, health officials and service providers in Nairobi County. The primary method of collecting data was questionnaires. The objective of this study was to determine how organizational structure impacts the effectiveness of the organization. As part of the research, four different projects involving 5-10 percent of the participant population were piloted to ensure the questionnaire items were valid. A variety of theoretical perspectives, including resource-based view theory, institutional theory, contingency theory, and structural empowerment theory, were considered in the analysis. This study utilized a descriptive research design, and the reliability of the questionnaire was assessed using Cronbach's alpha. The quantitative data was analyzed using descriptive statistics, such as mean and standard deviation, presented in tables, graphs, charts, and figures. Multiple regression analysis was used in this study to examine the relationship between the variables. According to the findings, KEMSA implemented projects more efficiently and effectively when it had a strong organizational structure that had positively and significantly influenced project implementation. According to the study, a well-defined structure facilitates clear communication channels, which ensures efficient information flow. It is recommended that roles and responsibilities be clearly defined within the organization in order to encourage accountability and effective decision-making.

Keywords: Organizational Structure, Project implementation.

1. INTRODUCTION

When a project is planned, executed, monitored, and controlled in a structured manner, it can be effectively completed by utilizing recognized project management principles (Rodrigues & Bowers, 2019) to make sure it is completed on time, stays within budget, and meets the desired outcomes. As delineated by Lyneis and Ford (2021), adherence to fundamental project management principles—including the specification of roles and responsibilities, the establishment of project timelines, the definition of milestones, and the conduction of regular status meetings facilitates project teams in maintaining structural organization and concentrating efforts on achieving project objectives. As a result, organizations can substantially enhance their likelihood of completing projects on time, within budget, and to all relevant stakeholders' satisfaction by committing to exemplary project management practices.

Thomas, Cicmil, and George (2020) stated that project implementation involves bringing the project plan to life physically. Resource allocation, progress tracking, and necessary changes are required to complete the project on time and within budget. According to Brown (2022), project management dynamics are correlated with project implementation when the project manager and team successfully apply project management principles and methodologies in order to achieve success. Hence, by skillfully handling project management dynamics, project managers can greatly enhance project implementation and boost the chances of achieving successful results.

The Malaysian government conducts public procurement through three distinct methodologies, which are governed by the Ministry of Finance (MOF) regulations. A number of methods are used (Ministry of Finance Malaysia, 2010): national tenders, direct acquisitions by medical institutions, and national concession agreements with designated sole suppliers. Since October 1978, NPRA has enforced quality control measures for pharmaceutical products within Malaysia. It was established to enforce quality control measures. (Loo, Norkhair, Hsiung, Jabar & Talin, 2019) Before pharmaceuticals or cosmetics are available on the market, the NPRA must register and approve them.

In Malaysia, the National Pharmaceutical Regulatory Authority (NPRA) assumes a pivotal function in the fight against the widespread issue of counterfeit pharmaceuticals. The agency's facilities and infrastructure are equipped to meet the requirements for testing and quality assurance operations. Among the NPRA's key responsibilities is the implementation of medical product licensing and registration. Registration and licensing procedures are essential in ensuring the safety, effectiveness, and quality of pharmaceutical products (Zakuan, Ismail, Ahmad & Markom, 2014).

According to Tanzanian law, the Tanzania Medicines and Medical Devices Authority (TMDA), being the nation's local drug agency for drugs, medical devices, and diagnostic equipment, is charged with regulation of production, importation, distribution, and sale (World Health Organization, 2010). Moreover, TMDA is also charged with ensuring the quality, safety, and efficacy of drugs for human and veterinary use, herbal preparations, and medical devices. Additionally, it ensures that premises to be used for the storage, sale, and manufacturing of TMDA-regulated products are adequately registered with the TMDA and issued the right Premises Registration Certificate and commercial license (Baldeh, Millard & Pollock, 2023).

It is the National Drug Authority (NDA) that regulates pharmaceutical products in Uganda, as per the National Drug Policy and Authority Act. Apart from the licensing of pharmacies, distributors, and regional manufacturers of pharmaceuticals, the NDA regulates the importation, exportation, and marketing of pharmaceuticals. To ensure quality healthcare and to facilitate the appropriate use of medicines, the NDA guarantees that all Ugandans have uninterrupted access to essential, effective, and affordable pharmaceutical commodities (Uganda Ministry of Health, 2020).

Being the only public sector supplier of medical supplies to Kenya, the Kenya Medical Supplies Authority (KEMSA) has the responsibility of building an integrated network of institutions dedicated to drug and medical supply distribution, packaging, and storage for health facilities. Moreover, it works with or in partnership with county governments to undertake services in drug and medical supply distribution, warehousing, and procurement. In addition, it collects data systematically and reports on the utilization and pricing of the medical resources to healthcare facilities to local and national governments. The stakeholders may seek information on any other area of supply system functioning and status, including the existing situation in regards to inventory management and pricing. Pharmacy and medical supply chain management is delivered to and maintained by KEMSA in partnership with County Governments (KEMSA 2020).

Worley and Doolen (2018) assert that the organizational structure fundamentally dictates the configuration of teams, the flow of communication, The way decisions are made and resources are distributed can greatly affect whether a project succeeds or fails. Elezaj, Morina, and Kuqi (2020) also require that the organizational structure establishes the standard by which the projects are organized and operated within an organization. Organizations hence need to critically examine their structural arrangements and implement changes where necessary to ensure effective project completion.

KEMSA is a state-owned company that is charged with acquiring, holding, and distributing drugs and medical supplies in Kenya. Its mandate involves a series of important functions, including procurement of the public health programs, management of the strategic stockpile, and distribution of the essential health packages to national referral hospitals. By ensuring the availability of Health Products and Technologies in public health facilities nationwide, KEMSA is a strategic and critical contributor to the realization of the national agenda, including Universal Health Coverage (KEMSA, 2023). KEMSA is Kenya's only source of medical supplies. For KEMSA to achieve its objectives, a number of things must be put into account, including procurement procedures in healthcare institutions, poor communication among stakeholders, and lack of optimal use of technological interventions (Bunyal, Njoroge & Kimemia, 2023).

KEMSA was established by the KEMSA Act of 2013 and is operated under the Ministry of Health. KEMSA has been re-certified twice every two years after achieving the ISO 9001:2008 Certification in 2010. The re-certification cycle of KEMSA is currently in progress. The Enterprise Resource Planning system provides for the automation of all business processes in KEMSA. There are some other automated systems, including the KEMSA e-mobile service and the Logistics Management Information System (LMIS). Decentralization of the government by the country necessitates the business model of KEMSA; hence, there has been devolution of the health function to the county levels. The process enables the Authority to handle an independent supply chain. KEMSA's business model has been established to cater for the organization's decentralized system of governance in an attempt to offer medical supplies to public health facilities. In order to guarantee the uninterrupted provision of medical supplies to public health facilities (KEMSA, 2023), KEMSA has established structures and mechanisms.

2. STATEMENT OF THE PROBLEM

The Kenya Medical Supplies Authorities (KEMSA) are responsible for providing medical supplies across Kenya, particularly in Nairobi City County, where the majority of the population resides. Although KEMSA has statutory mandate to provide medical services to Nairobi City County, it continues to face challenges in executing its projects. One of the biggest challenges is the mismatch between the demand for and availability of medical supplies. Previous recent statistical reports drawn by the Ministry of Health describe that Nairobi City County is always in deficit of much-needed medical commodities, hence causing interruptions in medical services and further deteriorating the quality of patient treatment. Such a need and availability discrepancy incurs a fundamental flaw in KEMSA's project implementation plans for the county.

Current facts indicate that the majority of the projects done by KEMSA have not been well-executed. Only 30% of the 50 projects initiated in the recent past were completed within the stated time and monetary constraints. The remaining 70% had their timelines extended, budget, and quality compromised, leading to disappointing the stakeholders as well as losing resources. A performance review of project indicators indicated that KEMSA's project management team has failed to achieve milestones, maintain timelines, and manage risks properly. This ineptitude has adversely affected the reputation, financial viability, and operational effectiveness of the organization. Successful project execution at KEMSA in the future demands a viable project management plan, a better accountability system, and a more robust oversight framework. Inability to implement these measures may critically compromise the capacity of the organization to deliver healthcare services and realize strategic objectives.

There has been empirical research on project realization and project management dynamics in numerous fields. For instance, Osome (2020) revealed that government approval, the involvement of stakeholders, project feasibility, and monitoring had a significant effect on Kisumu County market project realization. This research noted a gap in contexts. As well, Theuri (2023) demonstrated how project management dynamics positively influenced project performance at Kenya Electricity Generating Company, but found a contextual gap. Khisa and Mutuku (2023) investigated critical success factors and performance of completed construction projects at National Social Security Fund, Nairobi City County, Kenya and revealed that client variations, financial availability and construction disputes are statistically significant determinants affecting performance of NSSF construction projects. However, the study present a conceptual gap. Therefore, this study sought to investigate the effect of organizational structure on the implementation of Kenya medical supplies authority projects in Nairobi City County, Kenya.

3. LITERATURE REVIEW

Theoretical Literature Review

Structural Empowerment Theory

Structural empowerment theory, developed by Rosabeth Moss Kanter in 2000, addresses the processes through which organizational and system structures can facilitate employee empowerment and empower employees to apply their highest potential and contribute positively towards organizational effectiveness. As has been argued by Kanter (2000), this theoretical framework is centered on the significance of providing employees with access to resources, information, support, and developmental opportunities in a bid to enhance their feelings of autonomy, competence, and power in the work environment. Leadership forms the platform on which one should build a setting that empowers employees and supports them. Organizational culture is among the variables that determine employee empowerment. It is crucial to create a work environment that allows employees to thrive and contribute to the organization in order to accentuate how important it is to create a work environment that will allow them to do so.

In KEMSA, the structural empowerment theory is central in project implementation. It focuses on the significance of developing a facilitative workplace in which employees are provided with the required resources, information, and support essential for their achievement. This theoretical perspective ensures that employees possess the authority, access to information, and required resources needed to efficiently undertake medical supply projects. Apart from that, it creates a culture of innovation, communication, and collaboration among the organizational workforce. Overall, the application of structural empowerment theory can create improved project management, optimum utilization of resources, and improved delivery of healthcare services to society.

Empirical Literature Review

Based on Taylor Nelson's performance in the UK, Woods conducted a comprehensive study in 2016 to examine how organizational design impacts project performance. A total of 113 field participants, primarily project management professionals, were surveyed for a deeper understanding of the subject matter. In an effort to get a representative sample, 80 participants were chosen by employing stratified random sampling for research. Organizational design appears to be a key factor in the success of a project, according to research findings.

Using electronic project monitoring information systems in the context of organizational structure, Mburugu, Mulwa, and Kyalo (2016) conducted a study in Kenya's public tertiary institutions. A questionnaire was sent to 30 tertiary institutions, and 162 employees were sampled using stratified random sampling to form the sample. Using regression analysis, a 0.05 confidence level was used to test the null hypothesis. Statistically significant relationships were determined between Kenya's public tertiary institutions' organizational structure and the proper utilization of electronic project monitoring information systems. However, focusing on activities in Kenya's public higher education system can create a contextual constraint.

Aga Limited was used as a case study in his organizational structure and project performance work, as per Aniagyei (2011). Data was gathered and analyzed using both qualitative and quantitative methods. An inductive case study method was used. Purposive sample techniques and convenience sampling were utilized in picking a cross-section of employees from different corporate departments. Interviews and surveys were the main data collection methods. Crosstab analysis was used to examine the researched relationship. The study found that AGA Ltd-Obuasi's organizational structure was mechanistic, which was in agreement with the operations of projects on a weak matrix structure, which is typical of its kind. However, the use of an inductive case study method can create a methodological limitation to the research.

4. RESEARCH METHODOLOGY

A descriptive research design was utilized. Data were collected from 86 participants in the study from 109 KEMSA employees, health officials and service providers in Nairobi County. The primary method of collecting data was questionnaires. The objective of this study was to determine how organizational structure impacts the effectiveness of the organization. As part of the research, four different projects involving 5-10 percent of the participant population were piloted to ensure the questionnaire items were valid. A variety of theoretical perspectives, including resource-based view theory, institutional theory, contingency theory, and structural empowerment theory, were considered in the analysis. This study utilized a descriptive research design, and the reliability of the questionnaire was assessed using Cronbach's alpha. The quantitative data was analyzed using descriptive statistics, such as mean and standard deviation, presented in tables, graphs, charts, and figures. Multiple regression analysis was used in this study to examine the relationship between the variables.

5. FINDINGS

The descriptive statistics results on organizational structure are presented in Table 1.

Table 1: Organizational Structure

Statement	M	SD
The organization structure of KEMSA is clearly defined.	4.58	0.42
Decision-making process in KEMSA are efficient and well-communicated throughout the organization	3.78	1.22
There is clear chain of command within KEMSA	4.63	0.37
Communication flows effectively across different levels of the organization	3.96	1.04
The organizational structure supports flexibility and adaptability to changes in the external environment.	4.29	0.71
Average Score	4.25	0.75

The values in Table 1 record a total mean score of 4.25 that also shows high consensus among the respondents that suggests they believe the organizational structure plays a significant role in determining project results. The consideration that the overall standard deviation is also very low at 0.75 continues to lend support to this claim because it suggests the respondents' opinions are highly concentrated around the mean. This supports previous research by Mburugu, Mulwa, and Kyalo (2016) whose research had sought to determine how Kenya's public tertiary public sector institutions implemented electronic project monitoring information systems in the organizational structure. The study determined statistically significant correlation between Kenya's public tertiary institutions' organizational structure and effective integration of electronic project monitoring information systems.

All respondents were in consensus that organizational structure of KEMSA is correctly set ($M=4.58$, $SD=0.42$) and that there is a well-established chain of command ($M=4.63$, $SD=0.37$). The high mean scores in both instances point towards clear understanding of roles and responsibilities by the employees. Low standard deviations indicate that there is a consensus for such perceptions, pointing towards effectiveness of organizational design of KEMSA. Furthermore, the high level of consensus is a reflection of how important these traits are in developing a positive work environment. This is in agreement with Aniagyei (2011), who carried out a large study on organizational structure and project performance. The research found that the organizational structure at AGA Ltd-Obuasi was mechanistic, which aligns with the kind of projects being operated under weak matrix structure, typical of its family.

The participants agreed with the assertions that there is a high level of decision-making process efficiency in the Kenya Medical Supplies Authority (KEMSA) and effective communication within the organization with a mean of 3.78 and standard deviation of 1.22. This indicates that the employees strongly view the decision-making processes to be efficient and responsive, enabling timely and well-informed decisions that are suitable for the organization as a whole. The effectiveness of communication at KEMSA is also presented by a mean of 3.96 and standard deviation of 1.04, signifying effective communication across levels within the organization. For the sake of convenience in working together, ensure all the team members are equally positioned in terms of the organization's goals and objectives, and minimize possibilities of miscommunication or misinterpretation likely to compromise working effectiveness, there has to be effective communication. Aside from these traits, the KEMSA organization is structured in a way that facilitates flexibility and adaptability to environmental changes, as indicated by a mean score of 4.29 and a standard deviation of 0.71. This high ranking equates to a high organizational capability to spin and shift strategy as a reaction to new threats or opportunities, and this is absolutely vital in rapidly evolving environments such as medical supplies and healthcare services.

These findings are consistent with Worley and Doolen (2018) research results on KEMSA's performance in operation and compliance in maintaining a communicative and responsive organizational culture. The outcome is also consistent with Woods (2016) who had undertaken extensive research on the influence of organizational structure on project performance, with emphasis on Taylor Nelson in the UK. The findings of the study were that there was a strong correlation between organizational structure and successful projects.

Regression Analysis Results

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.897 ^a	.805	.678	0.0274

This model shows key statistical indicators regarding the Kenya Medical Supplies Authority's (KEMSA) project execution. As indicated by the R value of 0.897, successful project execution is strongly correlated with organizational structure. Improvements in these areas are likely to enhance project effectiveness. Based on the R square value of 0.805, these factors explain 80.5% of variance in project execution, highlighting their relevance. As a result, the adjusted R square value of 0.678 (67.8%) indicates that even when the number of predictors is taken into account, a significant portion of variance remains explained. For 32.2% of the implementation of the project, other variables were not studied. As a result of the model's standard error of 0.0274, its predictions match actual data closely, thus adding to its credibility.

Table 3: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.596	0.215		2.772	0.002
	Organizational structure	0.758	0.304	0.0541	2.493	0.003

The data presented in Table 3 shows that if the organizational structure remain unchanged, the execution of Kenya Medical Supplies Authority projects in Nairobi City County, Kenya would be at 0.596. The regression coefficients suggest that enhancements in organizational structure would lead to improvements in the execution of Kenya Medical Supplies Authority projects in Nairobi City County, Kenya by 0.758.

The resulting regression equation is expressed as follows;

$$Y = 0.596 + 0.758X_1 + 0.791X_2 + \epsilon$$

Where Y= Project implementation

X₁= Organizational structure

ε- Error term

The relationship between organizational structure and project implementation is positively correlated, as reflected by the beta value of 0.0541. This suggests that enhancements in the effectiveness or clarity of the organizational structure are likely to lead to an increase in project implementation success. The significance value of 0.003 indicates a high level of confidence that the observed effect is not due to random chance, confirming that this relationship is statistically substantial. These findings align with a study conducted by Mburugu, Mulwa, and Kyalo (2016), which identified a significant connection between the effective execution of electronic project monitoring information systems and the organizational structure of public tertiary institutions in Kenya.

6. CONCLUSIONS

The study finds that a clearly defined structure makes sure that information flows smoothly from department to department by effective channels of communication. Organizational hierarchy affects decision-making; central structure can hasten decisions but can result in bottlenecks, while decentralized structure can provide greater authority to lower-level managers but can result in inconsistencies. The structure is also pivotal in the distribution of resources to various projects, as an effective structure guarantees that projects receive the necessary human, financial, and material resources to ensure their success. Organization structure with defined roles and responsibilities improves accountability.

7. RECOMMENDATIONS

The study advises the organization to establish roles and responsibilities for accountability and effective decision-making. Repeated training of workers in project management skills such as planning, execution, monitoring, and evaluation must be conducted. Well-defined communication procedures within the organization must be established to provide information and interdepartmental collaboration. Channels of feedback should be put in place to provide feedback to stakeholders and beneficiaries to aid project changes and enhancements. Innovation and creativity should be encouraged in the organizational culture to allow employees to come up with new ideas and solutions. The study also suggests that the organization partner with private sector organizations to jointly finance projects, share resources, and share expertise, for example, with pharmaceutical companies, logistics providers, and technology suppliers.

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