

INFLUENCE OF STAKEHOLDER INVOLVEMENT IN PROJECT PLANNING ON MANAGED EQUIPMENT SERVICES HEALTH PROJECT PERFORMANCE AT SELECTED LEVEL V PUBLIC HOSPITALS IN KENYA

Kelvin Cheruiyot Rotich¹, Dr. Perris Chege²

^{1,2}Department of Management Science, School of Business, Economics and Tourism, Kenyatta University, Kenya

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Abstract: The Managed Equipment Services (MES) health project adopted in 2015 by the Kenyan government has not conclusively solved the challenge of health equipment financing and availing specialized medical care to all citizens in the forty-seven counties. It has faced a myriad of challenges with stakeholders raising many concerns such as non-delivery or late delivery of equipment, cost overruns and idle equipment. Approximately 50 percent of public projects in Kenya perform dismally due to several reasons including inadequate stakeholder participation. Therefore, this study sought to investigate the influence of stakeholder involvement in project planning on managed equipment services health project performance at selected level 5 public hospitals in Kenya. Descriptive survey design was applied. The study was conducted in five selected level V hospital MES projects. A census of all the selected five projects was done with a target population of 90 respondents, encompassing 15 county executive members, 20 hospital administrators and 55 departmental staff heads. Data collection was done using structured questionnaires that were given to participants. Both descriptive and inferential statistics were used with assistance of the SPSS software tool. Descriptive techniques that include standard deviation and mean were used. Pearson Correlation and multiple linear regression were used for inferential techniques. The study found that stakeholder participation in planning of the MES project positively and significantly affected project performance. The study concluded that stakeholder involvement is important in project performance and it should be properly done in project planning, financing, implementation and M & E. The study suggested that stakeholder analysis and participation ought to be done in complex projects undertaken by many stakeholders.

Keywords: Stakeholder Involvement, Project Planning, Project Performance.

1. INTRODUCTION

Healthcare is a critical pillar of development of every nation. The Kenyan government therefore targets to achieve high standards of healthcare by responding to population needs (Kenya Health Policy, 2014-2030). This objective is in conformation with article 43 of the Kenyan constitution which assures every Kenyan access to utmost achievable healthcare and also with global health goals that encompass Sustainable Development Goals (SDGs) as well as Universal Health Coverage (UHC). It is as a result of this aim that the government has embarked on various healthcare projects that include the Managed Equipment Service (MES) project which aimed to avail modern healthcare equipment to all rural county hospitals (Mutua & Wamalwa, 2020).

Globally, health has been a matter of great concern and discussion by universal unifying establishments such as the World Health Organization (WHO). The discussion now is geared towards having quality healthcare that meets international standards in every corner of the world through a global program called Universal Health Coverage (WHO, 2010). This is the motivation for many governments embarking on many health projects (UHC report, 2020). Millar, Eadie and Grant (2013) found out that healthcare is a sector that practically impacts on projects. It is for this aim that project management and healthcare projects need to be intertwined. Suhoen and Passivaara (2015) postulated that current healthcare managers need to have sophisticated management skills so that they can effectively manage healthcare projects.

In Portugal, it was highlighted that healthcare projects are distinct from engineering and other projects. Healthcare projects impact on health of persons in communities and the larger population. This is both at national and local levels of care, ensuring access to good quality, rightful, cost-effective preventive and curative services. As such, it is important for healthcare project performance parameters to be clearly delineated. It recommended further research to establish factors that determine success of health projects and how to optimize them to foster their performance (Santos et al., 2014).

In Turkey, dismal performance of health-related public private partnership projects was noted to be of great concern. A model of assessing them was therefore determined taking several critical success factors into consideration. These factors include financial characteristics, stakeholder participation, procurement processes, effective project management processes, operations management and external environment factors encompassing political environment, economic status, legal framework and convenience of location. This model was therefore recommended to be used in planning, tendering and implementation of projects (Ongel et al., 2021)

In Sub-Saharan Africa, most countries including Kenya cannot finance their healthcare projects fully owing to the large financial burden it comes along with. They are therefore pushed to devise new methods of financing healthcare projects, entering into long-term Public Private Partnerships (PPP) contracts is one of the options for financing health projects (Olotch, 2018).

The Kenyan government through its Health Ministry has also not been left behind in the journey towards achieving universal health coverage. The ingenious MES project was commenced in 2015 with the aim of providing modern equipment and amenities to the entire country under lease terms. This would allow the citizenry to access specialized medical care closer to their area of residence. The project entailed lease of equipment from major global manufacturers who would in turn supply, install, commission, maintain, repair and upgrade and replace equipment. The obligation of the government would be to pay the suppliers an agreed leasing fee annually from its budget (Olotch, 2017). Stakeholders have however highlighted various challenges in the implementation of the project citing poor stakeholder involvement (Parliament of Kenya, Senate MES brief November, 2018).

Performance of projects is the project's propensity to attain its goals while utilizing least resources but also achieving the desired quality. The resources for this context are the overall costs of the project and the time taken (Takim & Akintoye, 2016). Other parameters termed as Key Performance Indicators (KPIs) unique to specific projects that have been identified and can be used to measure project performance include client satisfaction, productivity, people and environment, business performance and health and safety of the project implementers. This was however mainly applicable to construction projects (Ofori-Kuragu et al., 2016).

Stakeholder involvement is the process of interaction among all players in all critical stages of project implementation to ensure project success. It includes provision of critical information to stakeholders and listening to their responses and finally coming up with an all-inclusive and meaningful strategy. Project managers have to be cognizant of this fact and put in place ways in which maximum positive influence of stakeholders is reaped and negative influence is minimized (Hammad, 2013).

The stages of involvement are design and planning, execution and monitoring and evaluation (Maruhi, 2013). Additionally, Muniu (2017) states that there needs to be maintained financing of recurrent expenditure required to sustain the project after external funding has ceased. This therefore calls for involvement of all stakeholders in project financing. The MES method of financing is in such a way that every county contributes annually for the equipment supplied and its maintenance. Some counties however protest that they are not receiving value for the money their residents pay annually (Mutua & Wamalwa, 2020). Olotch (2017) emphasized the importance of incorporating a strategy for sharing issues facing the MES project throughout its lifecycle.

Involvement of stakeholders during the planning phase of a project is important as it is where the project's fine features are presented to all the players. Input from all stakeholders is important as they have the finer details of the project tasks and

challenges expected to be encountered. It can be evaluated by finding out the number of stakeholders involved in planning meetings, number of meetings held and number of stakeholders trained (Nyabera, 2015). It can also be evaluated by assessing the extent of participation of stakeholders in planning the calendar, resources, finances, communication and quality of a project (Maruhi, 2013). This study assessed stakeholder participation in project planning using the degree of stakeholder involvement in infrastructure resource planning, human resource planning and equipment distribution planning. MES project planning needed involvement of the county administration as they are the ones aware of the unique health needs of their constituents. End users also needed to be involved as they are the ones who would interact with the equipment and are aware of the local facility equipment needs (Olotch, 2017). Stakeholder participation during design of projects has a direct impact on its score as shown by Omondi and Kinoti (2020).

In February 2015, Kenya became the first nation in Sub-Saharan Africa to launch an ambitious health project that would avail state of the art equipment to 98 Hospitals across the country- 94 county hospitals and 4 National Referral Hospitals (Parliament of Kenya, Senate MES brief November, 2018). The number of level V hospitals that benefitted from the project are 47, one per county. The government's aim in this was to provide equitable, affordable quality, accessible and uninterrupted healthcare to its citizens regardless of location in the country or financial status (UHC report, 2018).

Managed Equipment Services model of procurement and management of equipment is currently an emerging issue that involves the private and public sector to offer a solution to problems posed by the dynamic healthcare sector. It entails establishment of infrastructure, equipment delivery, installation, repairs, personnel training, procurement, consulting and decommissioning (Malongo & Nzuki, 2015). The cost can then be spread over long periods of time termed as the contract period which eases with repayment of the cost as it is spread over a long period of time. This is particularly important for low resource setups such as in the Sub-Saharan Africa where Kenya is included. It also helps with ensuring that the equipment and technologies used are the latest and in keeping with the appropriate current novelties in a world of rapidly dynamic technological innovations (Giusti et al., 2020).

2. STATEMENT OF THE PROBLEM

The government of Kenya has invested a total of 432,482,160 US dollars in the MES project, the largest ever investment in healthcare equipment in Kenyan history. This project was aimed at offering timely and quality services to citizens in rural hospitals that include medical imaging, dialysis, theater services, ICU services among other specialized healthcare services (Olotch, 2017). However, certain project units have performed poorly when rated in terms of cost efficiency, time of delivery of equipment and satisfaction by stakeholders. There was a myriad of challenges identified in the Kenyan Rift valley counties including Nandi, Uasin Gishu and West Pokot where some of the listed equipment had also not been delivered five years into the project (Mutua & Wamalwa, 2020).

Performance of the MES project was strongly influenced by stakeholder involvement where it was noted that poor engagement led to stakeholder project rejection, expensive renegotiations and law suits against the project (Opudo, 2020). Njogu (2016) also stated that involvement of stakeholders in project stages that include project identification, planning, implementation and M & E affects project's performance. Githinji et al., (2020) studied Kenya Ferry Services projects and how stakeholder participation influences their success. It discovered that it is critical for players to be involved in identification, designing, funding and monitoring of projects. The research was conversely based on a different area concerning Kenya Ferry Services. The same has not been established in health projects and more so in the complex MES health project which requires careful stakeholder involvement as stipulated by Olotch (2017).

Furthermore, factors that impact Non-Governmental Organizations (NGOs) health project performance in Nairobi were identified by Anunda (2016). These included level of funding, involvement of stakeholders, planning and organizational governance. The study however only explored the factors but did not assess the level of direct or indirect influence that some of the factors have on performance of the health projects.

3. LITERATURE REVIEW

Theoretical Literature Review

Stakeholder Theory

Stakeholder theory was first published in Edward Freeman's book "Good Governance: The Stakeholder Approach" in 1984. The idea of treating all parties as equal stakeholders was created from the shareholders' perspective, stating that the company's sole interest and responsibility is to maximize shareholder value. Freeman's book identifies and models stakeholder groups in a company, describes and suggests ways to protect their interests, and who is really important from a

company's point of view. Increased stakeholder value will improve all aspects of business. Stakeholder theory includes the business practices, management ethics, and values of stakeholders involved in a project or organization. The goal is to improve relationships with stakeholders, thereby increasing the effectiveness of the entire project or organization (Datta, 2020).

According to stakeholder theory, the organization's workers, clients, providers, lenders, neighborhood networks, government offices, ideological groups, exchange affiliations, associations and even contenders ought to be viewed as partners since they influence the organization (Freeman & Dmitriev, 2017). A major criticism of stakeholder theory (2019) is that there is simply no balancing the needs and interests of different stakeholders in justice. However, According to Phillips (2007), communication is the most crucial element in successful stakeholder management. This guarantees that all parties involved are kept up to date. As a result, centralized project management in one unified platform, your team and stakeholders can collaborate more effectively to achieve business goals because everyone is always on the same page.

The theory encourages effective feedback, ultimately leading to better outcomes for business owners and stakeholders. For example, when employees are seen as important stakeholders, they are motivated to do better, better work. Treating all project stakeholders, team members, sponsors and managers as key stakeholders can impact results.

Empirical literature review

Atwijukire (2015) in his case study of National Medical Stores and how stakeholder participation influenced performance of public organizations. The case study sampled 142 staff who were interviewed and other given questionnaires. It discovered that there is a noteworthy interlink between participation of players in planning and excellence of the organizations. The study went further to state that success in public bodies could be used to predict and conclude that the institution conducts good stakeholder involvement in its activities. This study however used public institutions as its unit of study and not projects. The setting also is of a Uganda which may be different from the Kenyan setting.

Njogu (2016) carried out a descriptive explorative study investigating stakeholder engagement influence on project performance at a NEMA project in Nairobi County. It targeted 5 programs that randomly selected 70 respondents. It established that project performance was positively influenced by engagement of stakeholders at phases of project conception, planning implementation as well as monitoring. At the planning stage, stakeholders should be involved in activities such as budgeting, personnel role identification and resource allocation. This was tested by assessing whether stakeholders were involved in personnel role identification, project budgeting, identifying what to purchase, fund and material raising, auditing and cultural events. The study however failed to describe the aspect of financing and project costing and how that might influence project performance. It also covered environmental based projects as opposed to this study which examines health projects.

Muete (2019) conducted a descriptive and explorative census study on 125 projects and managers in Nairobi. It assessed practices in project planning and how they influenced construction project success. Conclusions drawn from the study suggested that for project performance, proper planning practices in human, financial, material and time resource have to be done. It was noted that human resource planning contributed to project success. Human resource conducted training is of utmost importance as part of the plan for project success. Project performance was positively correlated with financial resource planning. Proper budget determination is a very crucial factor in ensuring good financial planning. Material resource planning is another important factor for good project performance and it stated that appropriate materials should be provided at the appropriate quality. Lastly, time management was another factor determining project performance and planning should take into consideration each activity duration. Time schedules need to be well outlined during the planning process. However, the study focused on project planning practices in the construction industry. It also interrogated the practice of project planning alone which contrasts with the study which focuses on stakeholder involvement.

In the health sector, Anunda (2016) explored HIV/AIDS projects conducted in Nairobi employing a descriptive study design in 347 projects conducted by NGOs in Nairobi. It identified effective planning as a major factor affecting project performance. The conclusions were similar with Mishra (2012) which concluded that proper planning of health projects is required for them to succeed. It stated that planning helps in seamless project implementation and also in averting ensuing challenges. The study however was on health projects conducted by NGOs whose modus operandi may differ from government projects.

4. RESEARCH METHODOLOGY

Descriptive survey design was applied. The study was conducted in five selected level V hospital MES projects. A census of all the selected five projects was done with a target population of 90 respondents, encompassing 15 county executive members, 20 hospital administrators and 55 departmental staff heads. Data collection was done using structured questionnaires that were given to participants. Both descriptive and inferential statistics were used with assistance of the SPSS software tool. Descriptive techniques that include standard deviation and mean were used. Pearson Correlation and multiple linear regression were used for inferential techniques.

5. FINDINGS

The descriptive statistics results on stakeholder involvement in project planning are presented in Table 1.

Table 1: Stakeholder involvement in project planning

Statement about stakeholders	Agreement					Mean	SD
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree		
Aware of details of MES project before launch	20(25.6)	9(11.5)	6(7.7)	21(26.9)	22(28.2)	3.21	1.59
Attended project planning meeting	18(23.1)	6(7.7)	19(24.4)	16(20.5)	19(24.4)	3.15	1.48
Were involved in choice of equipment	20(25.6)	10(12.8)	20(25.6)	15(19.2)	13(16.7)	2.88	1.42
We involved in choice of facilities to receive equipment	18(23.1)	9(11.5)	23(29.5)	15(19.2)	13(16.7)	2.95	1.39
Were involved in planning of infrastructure needs	15(19.2)	8(10.3)	14(17.9)	27(34.6)	14(17.9)	3.22	1.38
Were involved in planning personnel needs to operate equipment	12(15.4)	5(6.4)	17(21.8)	28(35.9)	16(20.5)	3.40	1.31

The results in table 1 show that a larger fraction of respondents were uncertain about the argument that stakeholders were aware of project details before launch as revealed by mean of 3.21 and standard deviation of 1.59. When asked whether stakeholders attended project meetings, respondents were also uncertain as depicted by mean score of 3.25 and standard deviation of 1.48. Respondents were also uncertain as to whether stakeholders were involved in choice of equipment as depicted by mean score of 2.88 and standard deviation of 1.42. As to whether stakeholders were involved in the choice of facilities where the equipment was to be installed, stakeholders were also neutral in their response as revealed by a mean of 2.95 and standard deviation of 1.39. As to whether stakeholders were involved in planning of infrastructure needs, respondents were also neutral about it as depicted by mean score of 3.22 and standard deviation of 1.38. Respondents agreed to the point that stakeholders were involved in planning for personnel needs to operate the equipment as indicated by a mean score of 3.40 and standard deviation of 1.31.

It can be deduced that there was equivocal participation of players in MES project planning thus resulting in the witnessed project performance in the yardsticks used. This agrees with Njogu (2016) which elucidated that extent of involvement of stakeholders in project planning activities impacts on its performance. It also affirms the postulations of Anunda (2016) and Mishra (2012) who stated that planning is a very critical stage in healthcare project implementation

Inferential Statistics Results

Table 2: Correlation Analysis

		MES project performance	Stakeholder involvement in planning
MES project performance	Pearson correlation	1	
	Sig (2-tailed)		
Stakeholder involvement in planning	Pearson correlation	0.627	1
	Sig (2-tailed)	<0.001	

Study findings from table 2 show that there was a positive correlation between performance of the MES project and stakeholder involvement in planning as shown by a correlation figure of 0.627.

Regression Analysis Results

Table 3: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	0.766 ^a	0.587	0.564	0.4146

The stakeholders' participation in planning explained 56.4 percent of the variability MES health project performance by the adjusted R². Other factors beyond the scope of this study contributed to the remaining 43.6 percent of the MES project performance. The adjusted R-Square value of 0.564 indicated a moderate positive correlation between independent and dependent variable. Roflin & Zulfia (2021) stipulated that an R of 0.41 - 0.6 indicate a moderate positive correlation between variables under question

Table 4: Regression Coefficients

Performance	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% CI
	B	Std. Error	Beta			
(Constant)	4.278	1.727		2.48	0.016	0.836 – 7.720
Planning	0.153	0.123	0.173	1.24	0.221	-0.093 – 0.399

The fitted regression model is of the form:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ becomes:

Performance(Y) = 4.28 + 0.153(Stakeholder Involvement in Planning)₁

From the regression model, the performance of the MES project would be 4.278 if all the independent determinant factors are kept at zero or absent. A positive change in stakeholder participation at planning process contributed to a positive but not noteworthy increase in performance of the MES project performance.

6. CONCLUSIONS

MES project planning is important in providing details of the project to stakeholders, enhancing collaboration for project success and identifying resource needs of the project. The research concluded that there was a moderate linear association between stakeholder involvement in planning and MES project performance. The greater the involvement of stakeholders at planning stage (which included stakeholder; awareness of details of project, attendance of project planning meetings, choice of MES equipment and facilities where the equipment were installed, planning infrastructure needs), the greater the level of project success.

7. RECOMMENDATIONS

Involvement of stakeholders in implementation and M & E had a significant positive impact on project's performance. Strategies need to be put in place to ensure all stakeholders at National and county governments including the end users are involved in those two pertinent stages of the project.

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