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## Determinants of the Implementation of Healthcare Projects in Kenya: A Case of Coast General Hospital, Mombasa County, Kenya

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### Abstract:

Healthcare projects form part of the most crucial sector of the economies since they lead to the presence of health services. The health care services provisions therefore are life sustaining services and no one given sector of the economy that doesn't depend on health. This makes the healthcare projects very crucial in any given system of governance since they ensure that the essential services like medical drugs and medication are availed to people. However, despite the importance of health care projects in any given country, studies in the less developed countries like Kenya indicates that their implementation is wanting and majority of the citizens lack crucial healthcare services. This is tied to a number of challenges that cut across the internal and external environments. It is against this wanting state of the healthcare projects in the developing countries that this study was carried out. This study was carried out therefore with the aim of examining the determinants of implementation of healthcare projects in Kenya; a case of Coast General Hospital in Mombasa County. The study was guided by four objectives that included: to examine how funding availability influences the implementation of healthcare projects; to assess how community awareness influences the implementation of healthcare projects; to determine how project size influences the implementation of healthcare projects; and to establish how the procurement process influences the implementation of healthcare projects in Kenya; a case of Coast general hospital, Mombasa County. A descriptive research design was used with a target population of 520 and a sample size of 52 respondents. Data was collected using questionnaires and interviews where as statistical package for social sciences (SPSS) was used to analyse the data. Descriptive statics with the mean, standard deviations, frequency tables and percentages were used to present the data. A regression analysis was used to test the hypotheses. In relation to the first objective, results indicated that majority of the respondents strongly agreed that funding availability determined the implementation of healthcare projects in Mombasa County with an average mean of 4.85. Further, majority of the respondents strongly agreed that community awareness had an influence of an average mean of 4.74 as a determinant on the implementation of healthcare projects in Mombasa County. This was further supported by a standard deviation of 0.37. Further, results indicated that: majority of the respondents strongly agreed that project size has a significant influence on the implementation of healthcare projects as indicated by a combined mean of 4.77 and standard deviation of 0.35. Finally, the study findings indicated that majority of the respondents strongly agreed that the procurement process variable determined the implementation of the healthcare project. The study concluded that: adequate funding had the highest determinant on the implementation of healthcare projects; project size, community awareness, and procurement processes influence the implementation of healthcare projects.

**Keywords:** Funding availability, community awareness, project size, procurement process, and implementation of healthcare projects

### 1. Introduction

Health care service provision in the devolved system of governance refer to the various processes undertaken by sub-national governments through which inputs like; finances, human resources, equipment, medical drugs, and other essential supplies are amalgamated to facilitate the delivery of health interventions to the populace. Garg and Agarwal (2014) observe that it is the lack of one or several of these inputs that influences the provision of healthcare in the devolved even at the lowest level; primary care. In Colombia, Balasubramanian, Cohen, Davis, Gunn, Dickinson, Miller and Stange (2015) reported that budget constraints did lead to the introduction of local taxation measures to enhance the financing of human resources for health (HRH) and health infrastructure by local governments. Yang, Kankanhalli, Ng and Lim (2013) reported on challenges of distribution of human resources for health that did adversely influence the implementation of health care projects by regional governments for the provision of health services in Chile.

Almajali, Masa'deh, and Tarhini (2016) reported that issues of financial planning and inadequate local taxation systems coupled with staffing of hospitals did have a negative influence on the implementation process of health care projects and the provision of health services by municipal governments in Peru. In Bolivia, Flottorpet *al.*(2013) reported failure to form partnerships between traditional healers and biomedical staff (doctors and nurses) did adversely influence the implementation of comprehensive health care projects that would have enhanced the provision of health services by departmental governments. Financial challenges emanating from poor allocation from central government that led to bottlenecks of low staffing of HRH greatly influenced the implementation of health care projects that would have witnessed the provision of health services by municipal governments in Nicaragua.

Ram, Corkindale, and Wu (2013) reported that there existed the need for collaborative communities between provincial governments and religious organizations to enhance the implementation process of health care projects that would enhance the provision of health care services in Papua New Guinea. In New Zealand, Ahmad and Cuenca (2013) reported that the involvement of other stakeholders in the form of collaborative governance integrated into community participation did positively influence the implementation of health care projects and the consequent provision of health care services by regional governments in New Zealand. In the Solomon Islands, Russet *al.* (2015) reported that the equitable distribution of human resources for health (HRH) as an important factor in the implementation of public goods among them health care projects that enhanced the provision of health care services by provincial governments.

There have been great challenges in Africa since devolution of the health functions for the implementation of healthcare projects was done. In South Africa, Hendriks, (2013) noted the uneven allocation of finances and the resultant imbalance in health care infrastructure coupled with the consequent uneven distribution of doctors and nurses greatly influenced the implementation of health care projects by provincial governments. Aranda-Jan, Mohutsiwa-Dibe, and Loukanova (2014) reported that insufficient funding and inopportune disbursement of funds from the central government for financing of human resources for health (HRH) coupled with poor and uneven distribution of unqualified human resources and the non-existence of collaborative communities did adversely influence the implementation of health care projects in Tanzania.

Rondinelli (2013) reported that poor distribution HRH and to be specific doctors who were less than nurses posed challenges to local governments in their mission to implement health care projects and provide health care services, mainly in rural Uganda. Barasa, (2014), in Kenya stated the importance of partnerships between civil society and county governments in the implementation of health care projects. Okech, (2016) also reported that budgetary constraints and unequal distribution of human resources for health had adversely influenced the implementation of health care projects by county governments.

According to Ministry of Health (2020), there are 160 privately owned clinics, 22 municipal council-owned, and Government hospitals. The major hospitals include Coast Provincial General Hospital, and the privately-owned Mombasa Hospital, Aga Khan Hospital, and Pandya Memorial Hospital. The Coast Provincial General Hospital serves as a referral level hospital for the other counties in the region and is overwhelmed with work. While the other major health facilities are expensive and out of reach for most people. The government health facilities have few doctors, clinical officers, nurses, clinical officers, and public health officers. The Doctor /patient ratio is about 12:100,000 (MDSP 2005-2010), which among other factors, makes it difficult for the medical personnel to concentrate on early diagnosis of diseases.

### 1.1. Statement of the Problem

The fact that several health facilities have been built under devolution since 2014, improving ambulance services due to the purchase of new ambulance vehicles by county governments, health care still remains a reserve of the privileged. This is proved by the fact that most health care facilities are understaffed, ill-equipped, lack drugs and other medical supplies, they also lack proper basic amenities such as toilets and clean drinking water Chogeand Muturi, (2014). In Mombasa County, despite The Mombasa County Government having allocated KShs. 1.7 billion in the financial year 2015/2016, frequent strikes by health workers coupled by lack of medical supplies have been reported to often paralyze operations at the Mombasa Level 5 hospital and other county health facilities leading to poor delivery of services to patients putting the lives of these patients in danger. Further, despite recent alarming reports of rising cases of cancer, with 15% of those referred to the Kenyatta coming from the study locale, the major county hospitals lack proper equipment for proper diagnosis and treatment (Kimanthi, 2015).The allocation of budget in the years 2018/2019 rose by 97% of the previous year, Hence a total of 3.31Billion according to an analysis of Kenya's budget 2017/2018 report of (2018) However strikes have been experienced.

Several studies have been conducted on factors affecting the implementation of projects. For example, the Waweru (2014) study investigated the challenges of strategy implementation in the world scout bureau-Africa regional office in Nairobi Kenya. The study revealed that technical factors, managerial factors, organizational structures, and factors attributed to donor policies and practices influenced project implementation. Though qualified ICT personnel were in place, it was concluded that they were not directly involved in project management therefore a justification of lack of data management systems experts.

Nekvapilova and Pitas (2016) investigated the factors influencing project management in the public sector. The study indicated that the prospect of learning by doing, in order to reach a higher quality of project outcomes, to mitigate risks. This was a complex process that required experts in the management of the projects. However, this was not the case as consequently, experts were not willing to regularly work as a team. This, therefore, justified a knowledge gap why the study was carried to establish the determinants of implementation of healthcare projects in Mombasa County, with a specific emphasis on the Coast General Hospital.

### 1.2. Objectives of the Study

The study was guided by the following objectives:

- To examine how funding availability influences the implementation of healthcare projects in Kenya; a case of Coast general hospital, Mombasa Count.
- To assess how community awareness influences the implementation of healthcare projects in Kenya; a case of Coast general hospital, Mombasa Count.
- To determine how project size influences the implementation of healthcare projects in Kenya; a case of Coast general hospital, Mombasa Count.
- To establish how the procurement process influences the implementation of healthcare projects in Kenya; a case of Coast general hospital, Mombasa Count.

### 1.3. Research Hypothesis

The study tested the following null hypotheses at 95% level of significance

- H0<sub>1</sub>: There is no Significant Relationship between funding and implementation of healthcare projects
- H0<sub>2</sub>: There is no significant relationship between community awareness and implementation of healthcare projects.
- H0<sub>3</sub>: There is no significant relationship between project size and implementation of healthcare projects.
- H0<sub>4</sub>: There is no significant relationship between the procurement process and the implementation of healthcare projects.

## 2. Literature Review

### 2.1. Theoretical Framework

#### 2.1.1. Community Participation Theory

Community participation theory was developed by Jamal and Getz (1995). Arnstein proposed a ladder of participation. He stated that participation in community activities is influenced by several factors which include the center of power, issues of process and capacity, group leadership, attitude that the participants have towards the project. Jamal and Getz state that in particular, there has been a shift towards understanding participation in terms of the empowerment of individuals and communities. This has stemmed from the growing prominence of the idea of the citizen as consumer, where choice among alternatives is seen as a means of access to power (Abbott, 2013). Under this model, people are expected to be responsible for them and should, therefore, be active in decision-making. This theory applies to this study since community-based project awareness is also influenced by similar factors as proposed by (Jamal & Getz, 1994).

#### 2.1.2. Resource Dependence Theory (RDT)

The resource-based theory was developed by Pfeffer and Salancik, (1978). The theory is based on how the external resources of organizations affect the behavior of the organization. Resource-based theory urges that organizations are dependent on resources, these resources ultimately originate from the environment of organizations, the environment to a considerable extent contains other organizations, the resources one organization needs are thus often in the hand of other organizations, resources are a basis of power, legally independent organizations can, therefore, be dependent on each other (Hillman, Withers & Collins, 2009).

In as much as organizations are inter-dependent, the theory of Resource Dependence needs a closer examination. Its' very weakness lies in its very assertions of dependence (Drees & Heugens, 2013). With changing trends of financial uncertainties, there is a need to lean towards other theories of uncertainties. According to this theory, an organization depends on resources for their survival; therefore, for any organization to achieve sustainability, resources are indispensable (Pfeffer, 2005). For community-based projects to achieve sustainability, resources are important. These resources will come in the form of financial resources – therefore there is a need to involve all the stakeholders in the project for sustainability, other resources are human and land. This theory is important in is study as it explains the important role that funding plays as part of the overall system that makes up a project (Hart, 2013).

#### 2.1.3. Funding Availability and the Implementation of Healthcare Projects

Keng'ara (2014) conducted a study on the effect of funds procedures on the implementation of donor projects in Homabay County, Kenya. The study revealed that there is delayed receipt of funds by projects of up to 15 months with a positive correlation coefficient of 0.689 at 0.000 significance level between suppliers' inability to honor contractual obligations and projects incurring cost overruns. Unresolved audit issues result in donors suspending aid and returning huge unspent funds to Treasury yielded a positive correlation coefficient. Siborurema, Shukla, and Mbera (2012) did an investigation on the effects of project funding on their performance in Rwanda. The project funding factors which had been considered during this research are the project cost estimation, the project technical design, and the project funding policy applicable in Rwanda which influences the project budgeting, these three factors were the research independent variables on one hand, and the project performance which has been measured in a matter of project implementation time and was considered as the dependent variable for this research on the other hand. On analysis of the data, it found that both the cost estimation and technical design interfere with the project's funding policy and affect negatively the scheduled projects implementation time. Regarding the findings, conclusions and good practice-based recommendations were formulated.

According to a study by Nzekwe, Oladejo and Emoh, (2015) funding is a major issue for all projects. Projects suffer from a dearth of funding even after budgetary provisions were made for their funding. This is because the mere fact that a sum of money was budgeted for does not mean that the said amount will be ultimately released for the project, due to other considerations. Funds in many government projects in Africa are limited and are a challenging factor as stated by Price Water House Coopers (2014). In Kenya, the health sector relies heavily on out-of-pocket payments. Government funds are mainly allocated through a historical incremental approach (Chuma and Okungu, 2011). According to studies by Kipngok, Wanyoike and Kemboi (2014) they sought to investigate the critical factors that significantly affect the implementation of geothermal projects. The study concluded that finances are key to the implementation of geothermal projects. The study concluded that funds disbursement by the government influenced the success of projects albeit marginally. Projects require financing to take off but government projects are still influenced by other factors including political interference and this reduces the influence of funding.

#### 2.1.4. Community Awareness and Implementation of Healthcare Projects

In their study Ruiz-Rodríguez *et al.* (2015) found evidence indicating that the awareness of communities in the form of integration of community participation was important in the successful implementation of primary health care (PHC) projects by departmental governments in Colombia. Further, they contend that community participation through the involvement of women's groups was important in the implementation of maternal and child health (MCH) and family planning projects by departmental and municipal governments. Similarly, Sandoval and Cáceres, (2013) found evidence indicating that awareness of communities which integrated community participation in the form of; Community representatives in regional governments health committees and partnerships with private-sector health companies and Non-Governmental Organizations (NGOs) was important in the successful implementation of health care projects by regional governments in Peru. They also noted that the positive influence emanating from this was more pronounced to access health services related to; HIV, Tuberculosis (T.B), and Cancer in the regions of Peru (Sandoval & Cáceres, 2013).

Parliamentary involvement in grassroots projects and community development has been growing in a diverse set of countries, including Kenya, Pakistan, India, Uganda, Bhutan, Jamaica, and Papua New Guinea (Baldwin and Bordoli, 2014). One policy tool for this involvement is Constituency Development Funds (CDFs), which dedicate public money to benefit specific political sub-divisions through allocations and/or spending decisions influenced by their representatives in the national parliament. CDFs resemble the venerable U.S. congressional allocations generally called pork barrel, in national and state level policymaking (Korir, 2013). Gilbert (2013) an expert is very intelligent people, appreciates work self-governance, appreciates agreeable pay, and participates in innovative and mentally difficult work. Professionalism in procurement must be achieved through learning and experience with technical and soft skills. This is part of the motivation to staff and which focuses on the participation leadership concept and focused on people being aware of what governs them.

#### 2.1.5. Project Size and the Implementation of Healthcare Projects

Togar (2014) a project size provides a clear statement of the problem or opportunity and the solution, project outcome, and able develop clear business justification to ensure the project is consistent with the direction, priorities in the Strategic Plan. It enables prepare budget and review with the funding approval authority if applicable document deliverables and significant milestones identify customers, users, and stakeholders. The study involved public projects where initiative organization aspects (suitability and adequacy of its framework such that authority and role pairs, how well-defined its connection with its parent firm is, stability and ability in the company as well as efficient decision making), were identified and the number of projects (number and size of projects), project planning and control as CSFs in such projects was determined Torpet *et al.* (2004).

Maina (2016) did a study that focused on the factors influencing healthcare projects implementation. The case of this study included the AMREF health Africa in the Nairobi region. The study used a semi structured questionnaire with the target population being 700 employees in the organization within Nairobi County. It was a descriptive research in nature and the results indicated that: the size of the project, commitment to maintain projects size and standards among other factors significantly influence the implementation of healthcare projects. The various indicators of project size were also tied to the project purpose, project funding, project location etc.

#### 2.1.6. Procurement Process and the Implementation of Healthcare Project

According to the public procurement act of 2015, the procurement process should be clearly outlined. The first process is budget and planning, followed by receipt of the tender document, advertisement is then advertised and closes on the closing date. A tender opening committee is then appointed to open the tenders, later an independent evaluation committee is appointed for evaluation within 30 days after tender opening. A Procurement representative does an evaluation report based on the findings. Finally, once the report is completed it is forwarded to the head of procurement who then prepares a professional report opinion to the chief officer (Managing director) for approval or rejection (RoK, 2015). Procurement and Supply chain integration are also emerging within the construction industry. This shifts the focus from project-based deliberations with single buyers towards a multi-project perspective on service delivery within larger partnership agreements (Koolwijk *et al.*, 2018; Broft, Badi and Pryke, 2016). Through this increased integration of the client and the supplier organization in service delivery, the supply chain evolves towards an extended enterprise or quasi-firm beyond the scope of individual projects.

According to a study done by Van Bortel, Zijlstra and Gruis, (2013), Dutch housing associations consider partnering in the supply chain an important way to improve their efficiency. The concept of supply chain partnering (SCP) refers to

firms becoming partners in integrated teams, often for a longer-term according to Venselaar and Gruis (2016). An example of this new collaborative approach is the development of a performance-based maintenance framework agreement for a housing block through which maintenance is commissioned to one supplier for some years (Vrijhoef, 2011). According to Verzuh (2015) although considerable developments in procurement have been made in previous decades, for instance, in the form of the centralized procurement systems, Just in Time (JIT) and Total Quality Management (TQM) programs, this has happened for the most part, in economically developed countries. In various economies of developing countries, procurement has not had such a critical effect in the project management industry. According to a study by Araújo, Alencar and Miranda Mota (2017) highlight the importance of suppliers in the success or failure of the project. The selection and evaluation of the performance of the supplier play an essential role in the development of the project.

Several researchers have developed decision charts to investigate the criteria for the selection and success rate of suppliers in terms of time, cost, and quality. Over the years, however, the selection process has become increasingly complex, mainly as a result of the continued proliferation of different procurement methods, the increasing technical complexity of projects (Agarchand and Laishram, 2017), and the need for greater value for money. Therefore, the classic criteria of time, cost, and quality alone are considered very simplistic in the context of a complex project environment and, so, decision frameworks need to be updated (Naoumand Egbu, 2016). The current vision of a project's success is considered multidimensional (Carvalho and Rabechini, 2015) and this comprehensive view should also be considered in a procurement management environment.

## 2.2. Conceptual Framework

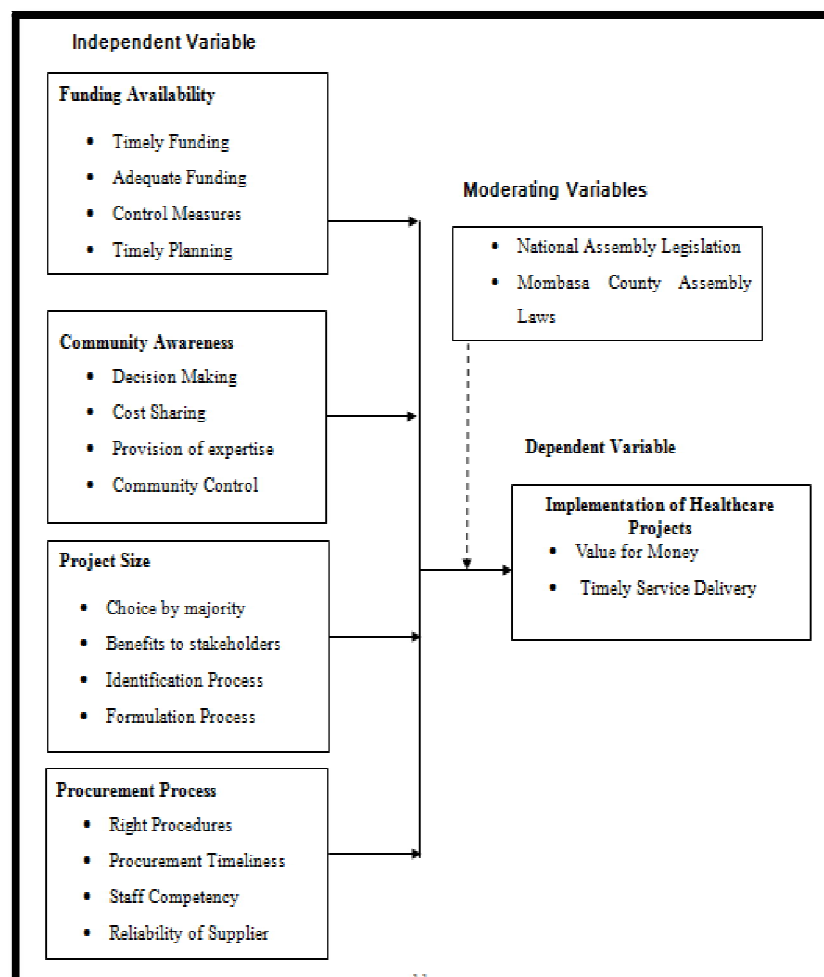


Figure 1: Conceptual Framework

## 3. Research Methodology

The study used a descriptive design. The target population was made up of the various 520 employees and sample size was 52 respondents. The study adopted to stratified random sampling to determine the sample size. For this study, the population was stratified as per position and for each stratum, 20% was being picked to obtain the sample size. According to Creswell and Creswell (2017), the sample size will be deemed ideal if picked from 10-30% of the population from each group. Primary data was collected using a questionnaire design and was administered through the drop and pick technique. As Mellenbergh (2015) stated, questionnaires are appropriate for this kind of study since they will be used to collect information that will not directly observable.

The researcher was given a transmittal letter from the respective department of the school of open e-learning at the University of Nairobi. The letter was then used to seek permission from the respective Mombasa County offices in the

health department. The researcher hired the services of a research assistant who gave support to administering questionnaires to respondents. The administering of questionnaires was done at the place of work of respondents, (Coast General Hospital). The researcher noted the contact information of respondents at the point of dropping questionnaires. A follow up was done using the contact information of respondents. Collected research instruments were coded before entry into statistical software for analysis. Data cleansing was also carried out before coding did commence. The researcher computed descriptive statistics including standard deviations, means, and frequencies. SPSS was used for the analysis of the findings. Descriptive statistics were used as a basis for analysis, presentation, and interpretation of data. Descriptive analysis was done using frequency distribution tables. Hence, the researcher used regression analysis to test the hypothesis with the following model:  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ . Where: Y= The Performance of Projects;  $\beta_0$  = Constant;  $\beta_1 - \beta_4$  = Beta coefficients;  $X_1$ = Funding Availability;  $X_2$ = Community Awareness;  $X_3$ = Project Size;  $X_4$  = Procurement Process;  $\epsilon$  = Error term

## 4. Results and Discussions

### 4.1. Hypothesis Testing

#### 4.1.1. Regression Analysis of Funding Availability and Its Determinant on Implementation of Healthcare Projects

The first objective of the study was to examine how funding availability, determines the implementation of healthcare projects in Mombasa County. To achieve this objective the following hypothesis was formulated and tested.  $H_0$ : There is no significant relationship between funding availability and implementation of healthcare projects. The effects of funding availability were proven by regression analysis with the outcomes tabulated in Tables 4.1, 4.2, and 4.3.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.538 <sup>a</sup>	.289	.269	.74293

Table 1: Funding Availability and its influence on Implementation of Health Projects Model Summary  
a. Predictors: (Constant), Funding Availability

Table 1 shows that the regression model summary. This study model showed a moderate correlation coefficient of 0.538. This result is a clear indication that there is a moderate association between funding availability and the implementation of health projects. This was further enhanced when a coefficient of determination ( $R^2$ ) of 0.289 was realized which indicated that the study independent variable (funding availability) can be able to explain 28.9% of the variability in the dependent variable (health projects implementation), which means funding availability has a moderate impact on the health care projects implementation. An ANOVA of the study model was carried out to investigate further this relationship; the results of the study are presented in Table 2.

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.997	1	.997	1.807	.043 <sup>b</sup>
	Residual	16.558	30	.552		
	Total	17.556	31			

Table 2: Funding Availability and Its Influence on Implementation of Health Projects ANOVA  
a. Dependent Variable: Project Implementation; b. Predictors: (Constant), Funding Availability

Table 2 presents an analysis of variance (ANOVA) to test the variability of funding availability and health care project implementation. The outcomes presented, F-test was 1.807, the p-value =0.043 ( $P < 0.05$ ), and residual of 16.558 which indicates that funding availability is statistically significant in determining the implementation of healthcare projects at 95% confidence level. Therefore, this analysis confirms that the ability of funding availability to influence healthcare projects implementation as observed in the goodness of fit model is statistically significant. Therefore, the study accepts the alternative hypothesis ( $H_1$ ) that there is a significant relationship between funding availability and implementation of healthcare projects. A further regression analysis was done on the relationship; the outcomes are presented in Table 3 shows the regression model coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.195	.980		3.261	.003
	Funding Availability	.334	.249	.238	1.344	.043

Table 3: Funding Availability and Healthcare Projects Implementation Regression Model  
a. Dependent Variable: Project Implementation

From the findings in Table 3, funding availability has an impact on the implementation of healthcare projects in Mombasa county since its relationship is statistically significant ( $p=0.043$ ). The regression model indicates that the

association between project implementation and funding availability is positive with a coefficient of 0.334 and a constant of 3.195. The regression model equation is as:  $Y=3.195 +0.334FA +e$ ; Where: Y if the implementation of healthcare Projects and FA is funding availability.

#### 4.1.2. Regression Analysis of Community Awareness and Its Determinant on Implementation of Healthcare Projects

The second objective of the study was to examine how community awareness, determine the implementation of healthcare projects in Mombasa County. To achieve this objective the following hypothesis was formulated and tested.  $H_0$ : There is no significant relationship between community awareness and the implementation of healthcare projects. The effects of awareness were proven by regression analysis with the outcomes tabulated in Tables 4.4 to 4.6.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.482 <sup>a</sup>	.232	.211	.75022

Table 4: Community Awareness and Implementation of Health Projects Model Summary  
a. Predictors: (Constant), Community Awareness

Table 4 shows the regression model summary. This study model showed a moderate correlation coefficient of 0.482. This result is a clear indication that there is a moderate association between community awareness and the implementation of health projects. This was further enhanced when a coefficient of determination ( $R^2$ ) of 0.232 was realized which indicated that the study independent variable (community awareness) can be able to explain 23.2% of the variability in the dependent variable (health projects implementation), which means community awareness has a moderate impact on the health care projects implementation. An ANOVA of the study model was carried out to investigate further this relationship; the results of the study are presented in Table 4.5.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.671	1	.671	1.192	.047 <sup>b</sup>
	Residual	16.885	30	.563		
	Total	17.556	31			

Table 5: Community Awareness and Implementation of Health Projects ANOVA  
a. Dependent Variable: Project Implementation; b. Predictors: (Constant), Community Awareness

Table 5 presents an analysis of variance (ANOVA) to test the variability of community awareness and health care project implementation. The outcomes presented, F-test was 1.192, the p-value =0.047 ( $P<0.05$ ), and residual of 16.885 which indicates that community awareness is statistically significant in determining the implementation of healthcare projects at 95% confidence level. Therefore, this analysis confirms that the ability of community awareness to influence healthcare projects implementation as observed in the goodness of fit model is statistically significant. Therefore, the study accepts the alternative hypothesis ( $H_1$ ) that there is a significant relationship between community awareness and the implementation of healthcare projects. A further regression analysis was done on the relationship; the outcomes are presented in Table 10 showing the regression model coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.591	.843		4.257	.000
	Community Awareness	.271	.248	.195	1.092	.047

Table 6: Community Awareness and Healthcare Projects Implementation Regression Model  
a. Dependent Variable: Project Implementation

From the findings in Table 4.6, Community awareness has an impact on the implementation of healthcare projects in Mombasa county since its relationship is statistically significant ( $p=0.047$ ). The regression model indicates that the association between Project implementation and community awareness is positive with a coefficient of 0.271 and a constant of 3.591. The regression model equation is as:  $Y=3.591 +0.271CA +e$ ; where: Y if the implementation of healthcare Projects and CA is community awareness.

#### 4.1.3. Regression Analysis of Project Size and the Implementation of Healthcare Projects

The third objective of the study was to examine how project size; determines the implementation of healthcare projects in Mombasa County. To achieve this objective the following hypothesis was formulated and tested.  $H_0$ : There is no significant relationship between project size and implementation of healthcare projects. The effects of awareness were proven by regression analysis with the outcomes tabulated in Tables 4.7, 4.8, and 4.9.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.608 <sup>a</sup>	.369	.348	.60756

Table 7: Project Size and Implementation of Health Projects Model Summary  
a. Predictors: (Constant), Project Size

Table 7 shows the regression model summary. This study model showed a moderate-high correlation coefficient of 0.608. This result is a clear indication that there is a moderate-high association between project size and implementation of health projects. This was further enhanced when a coefficient of determination ( $R^2$ ) of 0.369 was realized which indicated that the study independent variable (project size) can be able to explain 36.9% of the variability in the dependent variable (health projects implementation) which means project size has a moderate impact on the health care projects implementation. An ANOVA of the study model was carried out to investigate further this relationship; the results of the study are presented in Table 8

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.482	1	6.482	17.560	.000 <sup>b</sup>
	Residual	11.074	30	.369		
	Total	17.556	31			

Table 8: Project Size and Implementation of Health Projects ANOVA  
a. Dependent Variable: Project Implementation; b. Predictors: (Constant), Project Size

Table 8 presents an analysis of variance (ANOVA) to test the variability of project size and health care project implementation. The outcomes presented, F-test was 17.560, the p-value =0.000 ( $P < 0.05$ ), and residual of 30 which indicates that project size is statistically significant in determining the implementation of healthcare projects at 95% confidence level. Therefore, this analysis confirms that the ability of project size to influence healthcare projects implementation as observed in the goodness of fit model is statistically significant. Therefore, the study accepts the alternative hypothesis ( $H_1$ ) that there is a significant relationship between project size and implementation of healthcare projects. A further regression analysis was done on the relationship; the outcomes are presented in Table 9 showing the regression model coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.212	.556		3.975	.000
	Project Size	.600	.143	.608	4.190	.000

Table 9: Project Size and Healthcare Projects Implementation Regression Model  
a. Dependent Variable: Project Implementation

From the findings in Table 9, Project size has an impact on the implementation of healthcare projects in Mombasa county since its relationship is statistically significant ( $p=0.000$ ). The regression model indicates that the association between Project implementation and project size is positive with a coefficient of 0.600 and a constant of 2.212. The regression model equation is as;  $Y=2.212 + 0.600PS+e$ ; Where: Y if the implementation of healthcare Projects and PS is Project size.

#### 4.1.4. Regression Analysis of Procurement Process and Its Determinant on Implementation of Healthcare Projects

The fourth objective of the study was to examine how the procurement process; determine the implementation of healthcare projects in Mombasa County. To achieve this objective the following hypothesis was formulated and tested.  $H_0$ : There is no significant relationship between the procurement process and the implementation of healthcare projects. The effects of awareness were proven by regression analysis with the outcomes tabulated in Tables 4.10, 4.11, and 4.12.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.384 <sup>a</sup>	.147	.119	.70648

Table 10: Community Awareness and Implementation of Health Projects Model Summary  
a. Predictors: (Constant), Procurement Process

Table 10 shows the regression model summary. This study model showed a low correlation coefficient of 0.384. This result is a clear indication that there is a low association between the procurement process and the implementation of health projects. This was further enhanced when a coefficient of determination ( $R^2$ ) of 0.147 was realized which indicated that the study independent variable (procurement process) can be able to explain 14.7% of the variability in the dependent variable (healthcare projects implementation), which means procurement process has a low impact on the



health care projects implementation. An ANOVA of the study model was carried out to investigate further this relationship; the results of the study are presented in Table 11.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.582	1	2.582	5.173	.030 <sup>b</sup>
	Residual	14.973	30	.499		
	Total	17.556	31			

Table 11: Procurement Process and Implementation of Health Projects ANOVA

a. Dependent Variable: Project Implementation; b. Predictors: (Constant), Procurement Process

Table 11 presents an analysis of variance (ANOVA) to test the variability of the Procurement process and health care project implementation. The outcomes presented, F-test was 5.173, the p-value =0.030 (P<0.05), and residual of 30 which indicates that the Procurement process is statistically significant in determining the implementation of healthcare projects at 95% confidence level. Therefore, this analysis confirms that the ability of the Procurement process to influence healthcare projects implementation as observed in the goodness of fit model is statistically significant. Therefore, the study accepts the alternative hypothesis (H<sub>1</sub>) that there is a significant relationship between the procurement process and the implementation of healthcare projects. A further regression analysis was done on the relationship; the outcomes are presented in Table 12 showing the regression model coefficients.

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.449	.479		7.205	.000
	Procurement Process	.321	.141	.384	2.274	.030

Table 12: Procurement Process and Healthcare Projects Implementation Regression Model

a. Dependent Variable: Project Implementation

From the findings in Table 12, Procurement Process has an impact on the implementation of healthcare projects in Mombasa county since its relationship is statistically significant (p=0.030). The regression model indicates that the association between Project implementation and project size is positive with a coefficient of 0.321 and a constant of 3.449. The regression model equation is,  $Y=3.449 + 0.321PC+e$ ; where: Y if the implementation of healthcare Projects and PC is the Procurement process.

## 5. Conclusion

On funding availability, the researcher concluded that it has an impact on the implementation of healthcare projects in Mombasa county, Coast general Hospital, since its relationship is statistically significant (p=0.043). Therefore, it is correct to say that funding availability influences the implementation of healthcare projects in Mombasa County's Coast General Hospital. On the project size, it was important to note that, project size variables were highly rated with a composite mean of 4.77 = STV 0.35, thus the researcher concluded that, most responses made were clustered around strongly agreed response on the Likert scale. Therefore, majority of respondents strongly agreed that indeed the size of the project influenced the implementation of healthcare projects. On Community awareness, respondents strongly agreed that Community Awareness had an influence of an average mean of 4.74 as a determinant on the implementation of healthcare projects in Mombasa County's Coast general Hospital. Therefore, it is correct to conclude that, indeed Community awareness has a positive influence on implementation of healthcare projects. As of the procurement process, researcher concluded that the procurement process was a great determinant on implementation of healthcare projects in Coast General Hospital.

## 6. Recommendations

Focusing on the study results, the researcher made the following endorsements; funding availability being one of the most influential determinants for the survival of sustainable implementation of the healthcare projects, should be made available, and properly managed to ensure full support of the implemented healthcare projects. Secondly, community awareness through public participation, community empowerment on proper decision-making processes, cost-sharing, and community control should also be enhanced to ensure the success of the implementation of the healthcare projects. Thirdly, the project size is a vital determinant in terms of project identification and formulation should be taken into consideration. Lastly, the procurement process also being a determinant of implementation of these healthcare projects, the procurement procedures mechanisms should be put in place to help in streamlining the process to minimize risks and irregularities. For instance, competency in staffing, reliability of suppliers, and procurement timelines should be considered for effective implementation of the healthcare projects to be achieved.

## 7. References

- i. Abbott, R.A.,Lourida, I., Rogers, M. et al. (2013).Dissemination and implementation research in dementia care: a systematic scoping review and evidence map.*BMC Geriatr* 17, 147 (2017).  
<https://doi.org/10.1186/s12877-017-0528-y>

- ii. AfriCOG, (2015). Africa Centre for open Governance. Nairobi. Factors Influencing
- iii. Procurement Practices in Government Ministries in Kenya. *The Journal of Strategic Business and Change Management* 5(2),2033-2059
- iv. Agarchand, N., & Laishram, B. (2017). Sustainable infrastructure development challenges through PPP procurement process: Indian perspective. *International Journal of Managing Projects in Business*, 10(3), 642-662
- v. Agu.J.,Effect of Project Management Practices on Project Success in Make-to-Order Manufacturing Organizations. *Indian Journal of Science and Technology*, Vol 9(21)
- vi. Ahmad, M. M., & Cuenca, R. P. (2013).Critical success factors for ERP implementation in SMEs. *Robotics and computer-integrated manufacturing*, 29(3), 104-111.
- vii. Almajali, D. A., Masa'deh, R. E., &Tarhini, A. (2016). Antecedents of ERP systems implementation success: a study on Jordanian healthcare sector. *Journal of Enterprise Information Management*, 29(4), 549-565.
- viii. Aranda-Jan, C. B., Mohutsiwa-Dibe, N., & Loukanova, S. (2014). Systematic review on what works, what does not work, and why of implementation of mobile health (health) projects in Africa. *BMC public health*, 14(1), 188.
- ix. Araújo, M. C. B., Alencar, L. H., & Miranda Mota, C. M. (2017). Project procurement
- x. management: a structured literature review. *International Journal of Project Management*, 35(3), 353-377.
- xi. Avlijaš, S. & Bartlett, W. (2011). *The Political Economy of Decentralization and Regional Policy: Choices and Outcomes*. South European Institute:
- xii. Balasubramanian, B. A., Cohen, et al, (2015). *Learning evaluation: blending quality improvement and implementation research methods to study healthcare innovations*. *Implementation Science*, 10(1), 31.
- xiii. Baldwin & Bordoli, (2014). *Handbook for Construction Planning and Scheduling*,
- xiv. Chichester, UK: John Wiley & Sons.
- xv. Barasa, H. W. (2014). Procurement practices affecting effective public projects implementation in Kenya: a case study of Kenya Civil Aviation Authority. *European Journal of Business and Management*, 6(6), 49-67.
- xvi. Broft, R., Badi, S.M. and Pryke, S. (2016), 'Towards supply chain maturity in construction', *Built Environment Project and Asset Management*, Vol. 6 No. 2, pp. 187-204
- xvii. Caruso, Stephenson, and Leon (2016). Maternal behavior and experience care and access and agency as a determinant of child diarrhoea. *Pan American Journal of Public Health* 28. Pp 429-439 in Lapaz, Bolivia.
- xviii. Carvalho, M. M., & Rabechini Junior, R. (2015). Impact of risk management on project performance: the importance of soft skills. *International Journal of Production Research*, 53(2), 321-340.
- xix. Choge, J. K., & Muturi, W. M. (2014). Factors affecting adherence to cost estimates: A survey of construction projects of Kenya National Highways Authority. *International journal of social Sciences and Entrepreneurship*, 1(11), 689-705.
- xx. Chuma, J., & Okungu, V. (2011). Viewing the Kenyan health system through an equity lens: implications for universal coverage. *International Journal for Equity in Health*, 10(1), 22.
- xxi. Corazzini, L., Cotton, C., & Valbonesi, P. (2015). Donor coordination in project funding: Evidence from a threshold public goods experiment. *Journal of Public Economics*, 128, 16-29.
- xxii. Ettorchi-Tardy, Amina. Levif, M. & Michel, P. (2012). Benchmarking: A Method for Continuous Quality Improvement in Health. *Healthcare Policy Vol.7 No.4, 2012*, pp.101-119.
- xxiii. Farfan, and Lorant (2012). Farfan, M.I, &Lorant, V. (2012). Fiscal decentralization and infant mortality rate: The Colombian case. *Social Science and Medicine* 74, pp.1426-1424:
- xxiv. Farzandipur, M., Jeddi, F. R., & Azimi, E. (2016).Factors Affecting Successful Implementation of Hospital Information Systems. *ActaInformatica Medica: AIM: Journal of the Society for Medical Informatics of Bosnia & Herzegovina: Casopis DrustvaZa MedicinskuInformatikuBiH*, 24(1), 51-5
- xxv. Flottorp, S. A., Oxman, A. D., Krause, M., &Eccles, M. P. (2013). A checklist for identifying determinants of practice: a systematic review and synthesis of frameworks and taxonomies of factors that prevent or enable improvements in healthcare professional practice. *Implementation Science*, 8(1), 35.
- xxvi. Garg, P., &Agarwal, D. (2014). Critical success factors for ERP implementation in a Fortis hospital: an empirical investigation. *Journal of Enterprise Information Management*, 27(4), 402-423.
- xxvii. Gené-Badia, et al., (2012). Spanish Health Care Cuts; penny wise and pound Foolish
- xxviii. *Health Policy Jun;106(1)*; pp 23-28
- xxix. Gilbert. (2013). *Employee Performance Management*.
- xxx. Gitonga, Z. &Keiyoro, P. (2017). Factors influencing the implementation of healthcare projects: The case of Meru County, Kenya. *International Academic Journal of Information Sciences and Project Management*, 2(1), 259-280
- xxxi. Han, S., Capraro, R., &Capraro, M. M. (2015). How science, technology, engineering, and mathematics (STEM) project-based learning (PBL) affects high, middle, and low achievers differently: The impact of student factors on achievement. *International Journal of Science and Mathematics Education*, 13(5), 1089-1113.
- xxxii. Hart, R. A. (2013). Children's participation: The theory and practice of involving young citizens in community development and environmental care. Routledge.
- xxxiii. Hendriks, C. J. (2013). Integrated Financial Management Information Systems: Guidelines for effective implementation by the public sector of South Africa. *South African Journal of Information Management*, 15(1), 1-9.

- xxxiv. Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal of Management*, 35(6), 1404-1427.
- xxxv. Jamal, T. B., & Getz, D. (1995). Collaboration theory and community tourism planning. *Annals of tourism research*, 22(1), 186-204.
- xxxvi. 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(1), 9-23.
- xxxvii. Khim, K., & Annear, P. L. (2013). Strengthening district health service management and delivery through internal contracting: lessons from pilot projects in Cambodia. *Social Science & Medicine*, 96, 241-249. Cambodia
- xxxviii. Kiarie, A. W., & Wanyoike, D. (2016). Determinants of Successful Implementation of Government Funded Projects in Kenya: A Case Study of Integrated Financial Management Information System. *International Journal of Innovative Research & Development* 5(10).
- xxxix. Kipngok, J., Wanyoike, D., & Kemboi, H. (2014). Determinants of Successful Implementation of Geothermal Projects in Kenya: A Survey of Menengai and Olkaria. *International Journal of Science and Research (IJSR) Impact Factor* (2014): 5.611.
- xl. Kothari, (2004). *Research Methodology: An introduction*. In *Research Methodology: Methods and Techniques*. New Delhi: New Age International.
- xli. Korir, (2013). *Factors affecting contractor performance in government ministries in Kenya, a case of ministry of transport and infrastructure* (Unpublished Master's thesis), Jomo Kenyatta University of Agriculture and Technology, Nairobi, Master thesis.
- xlii. Koolwijk, J.S.J., Van Oel, C.J., Wamelink, J.W.F. and Vrijhoef, R. (2018), 'Collaboration and integration in project-based supply chains in the construction industry', *Journal of Management in Engineering*, Vol. 34 No. 3, pp. 1-13.
- xliv. Mahamud, Z., Muchelule, Y., & Ogolla, P. (2019). Factors affecting the implementation of National Government projects in Mvita Constituency of Mombasa County. *The Strategic Journal of Business & Change Management*, 6 (3), 788 - 803
- xlv. Muthoni, S. N. (2015). Factors influencing disbursement of youth enterprise development fund project in Kirinyaga south constituency, Kirinyaga County, Kenya. *Doctoral dissertation, University of Nairobi*.
- xlvi. Musyoka, F. N., Adoyo, M., & Oluoch, M., (2015). Influence of Performance Appraisal on Performance of Health Care Workers in Public Hospitals: A Case of Mbagathi Hospital, Nairobi County. *The Journal of Global Health Care Systems*, pp.2-11
- xlvii. Naoum, S. G., & Egbu, C. (2016). Modern selection criteria for procurement methods in construction: a state-of-the-art literature review and a survey. *International Journal of Managing Projects in Business*, 9(2), 309-336.
- xlviii. Neema Athumani (2012). *Assessment of the effectiveness of tendering Process in the public sector, the case of ministry of health, and social welfare*. Dar es Salaam-Tanzania: Mzumbe University.
- xlix. Nekvapilova, I., & Pitas, J. (2016, June). Factors Affecting Project Management in the Public Sector. *In International Conference Knowledge-Based Organization* (Vol. 22, No. 1, pp. 206-214). De Gruyter Open.
- l. Nyandika, O. F & Ngugi, K. (2014). Influence of Stakeholders' Participation in
- li. Performance of Road Projects at Kenya National Highways Authority. *European Journal of Business Management*, 1 (11), 384-404.
- lii. Nzekwe, J. U., Oladejo, E. I., & Emoh, F. I. (2015). Assessment of Factors Responsible for Successful Project Implementation in Anambra State, Nigeria. *Civil and Environmental Research* 7(8).
- liii. Okello, N. Beevers, L. Douven, wiLeentvaa J. (2009). *The Doing and undoing of Public participation during environmental impact assessment in Kenya* (Assessment and project appraisal 27 (3) 217-226
- lv. Oyalo and Bwisa (2015), Factors that influence the completion of CDF funded projects in
- lvi. Kangundo Constituency, *Strategic Journal of Business & Change management*, 2, (49), 21-36
- lvii. Ramirez, Ruiz, Romero, and Labonté (2015). Comprehensive Primary Health care in south America; context, achievement, and implications. *International Journal for Public health* 27(10); pp 875-1890- Rio de Janeiro, Brazil
- lviii. Ram, J., Corkindale, D., & Wu, M. L. (2013). Implementation of critical success factors (CSFs) for ERP: *Do they contribute to implementation success and post-implementation performance?* *International Journal of Production Economics*, 144(1), 157-174.
- lix. Ramadan, M., & Borgonovi, E. (2015). Performance measurement and management in non-governmental organizations.
- lx. Rondinelli, D. A. (2013). *Development projects as policy experiments: An adaptive approach to development administration*. Routledge.
- lxi. Russ, S. J., Sevdalis, N., Moorthy, K., Mayer, E. K., Rout, S., Caris, J., & Darzi, A. (2015). A qualitative evaluation of the barriers and facilitators toward implementation of the WHO surgical safety checklist across hospitals in England: lessons from the 'Surgical Checklist Implementation Project'. *Annals of Surgery*, 261(1), 81-91.
- lxii. Sandoval, C. & Cáceres, C.F. (2013). Influence of health rights discourses and community organizing on equitable access to health: the case of HIV, tuberculosis, and cancer in Peru. *Globalization and Health* 9:23, pp.2-11:
- lxiii. Shileswa, E. A. (2017). Effect of Procurement Practices on Procurement Performance of Public Sugar Manufacturing Firms in Western Kenya. *International Journal of Management Research & Review*, 7(4).

- lxiv. Siborurema, J. B., Shukla, J., & Mbera, Z. R. (2012). The effects of project funding on their performance in Kigali, Rwanda.
- lxv. Togar, M. S., Alan, C. W. & Ramaswami, S. (2014). *Applying the Theory of Constraints to Supply Chain Collaboration*. *An international journal*, 9 (1), 23-29.
- lxvi. Van Bortel, G., Zijlstra, S., and Gruis, V. (2013). *Research into the effect of government policy on housing associations*, TU Delft, Faculty of Architecture and the Built Environment, Real Estate and Housing, Delft
- lxvii. Venselaar, M. and Gruis, V. (2016), 'Studying intra-organizational dynamics in implementing supply chain partnering: a case study about work floor experiences in a Dutch housing association', *Construction Management and Economics*, Vol. 34 No. 2, pp. 98-109.
- lxviii. Verzuh, E. (2015). *The fast forward MBA in project management*. New York, NY: John Wiley & Sons.
- lxix. Vrijhoef, R. (2011). *Supply Chain Integration in the Building Industry: The Emergence of Integrated and Repetitive Strategies in a Fragmented and Project-Driven Industry*, IOS Press, Amsterdam.
- lxx. Wanyonyi and Muturi (2015). Factors Affecting Performance of Procurement Functioning Among Public Technical Training Institutions in Kisumu County, Kenya. *International Journal of Economics, Commerce, and Management*, 3(5).
- lxxi. Waweru, M. W. (2014). Challenges of strategy implementation in the world scout Bureau-Africa regional office in Nairobi Kenya. *Unpublished MBA Thesis, University of Nairobi*.
- lxxii. Yang, Z., Kankanhalli, A., Ng, B. Y., & Lim, J. T. Y. (2013). Analyzing the enabling factors for the organizational decision to adopt healthcare information systems. *Decision Support Systems*, 55(3), 764-776.