International Journal of Economics, Commerce and Management Vol. VI, Issue 9, September 2018 United Kingdom http://ijecm.co.uk/ ISSN 2348 0386

INFLUENCE OF FACILITATION STRATEGY ON IMPLEMENTATION OF DONOR ASSISTED E-HEALTH MANAGEMENT SYSTEMS IN PUBLIC HEALTH FACILITIES IN NAKURU COUNTY, KENYA

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Abstract

Facilitation in management of project is a process of intervention in the working environment to increase productivity and efficiency of the team and to prevent project failure, as such, it is very important to the implementation of large scale projects such as E-Health in the public sectors over large regions such as counties or entire countries. However, facilitating an organization, no matter the size, can be difficult sometimes and quickly become dysfunctional if not done strategically, that is, following strategic management principles. Therefore, the main objective of the study was to analyze the influence of facilitation as a strategy on implementation of donor assisted e-health management systems in Kenya focusing on public health facilities in Nakuru County guided by The Resource based View. The study used descriptive survey research design targeting; 2 health ministries at the national and county levels, 42 public health facilities and 7 NGOs in the County. Out of these the accessible population were 220 persons comprising e-Health program managers and staff. Both purposive and stratified random sampling was used to obtain a sample size of 111 respondents out of which 79 participated in the actual study. Data was collected using questionnaires and analyzed using both descriptive and inferential statistical methods. The findings revealed that facilitation strategy significantly



influenced implementation of e-health management systems in public health facilities in Nakuru County ((β = 0.141, p < 0.05) and could explain up to 22.1% of the variations in e-health implementation in the area. The facilitation strategy helped reduce the implementation gaps occasioned by resource constraints. The study recommends that the e-health system implementers factor in contingency plans for their operations to cover all resource gaps.

Keywords: e-Health Management Systems, Implementation, Facilitation Strategy, Public Health Facility

INTRODUCTION

Achieving universal health care for its citizens is a noble goal for any government from a socioeconomic perspective. As a result, governments together with their development partners and including Non-Governmental Organizations (NGOs) have been committing a substantial amount of funds from their budgets and other resources to meet this goal. Planning to exploit the latest technologies in the healthcare industry is an important strategy for many healthcare organization and governments to enhance healthcare services so as to reduce operations costs. E-health is emerging as one of the most important paradigms of healthcare management due to its significant potential for e-health to deliver cost-effective, quality health care, and spending on e-health systems by governments and development partners. E-Health Management System is a computerized medical record system used to capture, store, and share information among healthcare providers in an organization, supporting the delivery of healthcare services to patients (WHO, 2016). Malunga and Tembo (2017), further, describe e-Health or Health Information Technologies (HIT) as the collective systems that can handle both statistical data processing and clinical applications and can be shared online. Such online health information has become one of the most important information sources for people seeking health information in recent years. E-health allows health organizations to streamline many of their processes and provide services in a more efficient and cost-effective manner.

Consequently, the usage of e-healthcare systems is increasing worldwide (Xiao, Sharman & Rao, 2014). For instance, a survey by the Office for National Statistics reports that 43% of surveyed UK internet users have accessed health related information online and this figure increases to 59% among those aged 24–35 (Office for National Statistics, 2013). In developing countries, mobile phone technologies have improved health outcomes for chronic disease conditions such as diabetes, heart disease and hypertension (Sahu, Grover & Joshi, 2014). Accordingly, several governments in Africa have been rapidly adopting e-health in the last



two decades. The South Africa government cemented the National Health operation by implementing a National Health Act of 2003 to set operating standards for e-Health applications (Ministry of Health South Africa, 2014). The Zambian government has also entrenched e-Health in its National Health Strategic Plan as it seeks to provide the strategic framework for ensuring an efficient, coordinated and well managed health sector by adopting these applications (Malunga&Tembo, 2017). Senafekesh, Tesfahun, Mulusew and Binyam(2014) also explain that despite the challenges being faced in the implementation of e-Health in Ethiopia, the government is still committed to the project embedded in its Fourth Health Sector Development Plan and insists that an e-health system called SmartCare be implemented in major hospitals. Similarly, the Government of Kenya implemented a National E-health Policy to overcome pre and post implementation challenges as quoted in the policy context annex of e-health strategy that seeks to set in motion the process of closing this gap by harnessing e-health for improved healthcare delivery in addition to other ongoing e-government efforts (Government of Kenya, 2011).

However, given the promising results on cost-effectiveness, such interventions are not as widely used as might be expected. There is enough evidence in research that suggests ehealth is still characterized by low adoption in public healthcare management systems (Lieneke et al., 2017; Malunga&Tembo, 2017; Murray, May &Mair, 2010). Several barriers have been identified in the implementation of the e-health system that affect even among those willing to adopt the system. For example, Hage et al., (2013) in their systematic review of various studies on e-Health implementation identified funding and costs, low availability, low accessibility, not fulfilling a demand and poor user friendliness as barriers to implementation of the e-Health system. For example, a study carried out in the Netherlands by Lieneke et al., (2017) found that while health care professionals and patients acknowledge the benefits arising from the implementation and use of eHealth services in daily practice, they were concerned with barriers such as availability, allocation of resources, financial aspects, reliability, security, e-Health system confidence, and the lack of education and training. The key perspectives emerging from the studies carried out so far as having the most significant bearing on e-health implementation success include the technological context, product features, and the user and organizational context. Although previous studies have furthered knowledge by identifying factors thought to influence implementation processes and their outcomes, the underlying mechanisms or strategies at work have not been well characterized or explained (Mair, May,O'Donnell, Finch, Sullivan& Murray, 2012). Further, a review of e-health implementation strategy from a strategic management perspective is seriously lacking in majority of the studies done in this area.



Problem Statement

In Kenya, the National e-Health Policy (2016) recognizes that there are marked disparities in e-Health adoption across geographical and administrative boundaries with the major cities in the country showing more promising adoption rates compared to the rural areas. The same trends can be observed across different counties. Mulwa (2013) found out that in Kenyan hospitals, data is entered manually and is thus bound to human error, misplacement or loss of files, and thus may increase the cases of misdiagnosis of a patient. A study by Chebole (2015) in Nakuru County found that the e-Health systems had been fully adopted by 21% of the implementers and a significant number of medical practitioners still using a hybrid system consisting of both paper and electronic systems. Therefore, it can be deduced that implementation of e-Health is partially successful in the country at best. However, facilitating an organization, no matter the size, can be sometimes difficult and quickly become dysfunctional leading to failure in implementation. Nevertheless, a contextual examination of the effect of facilitation strategy on the implementation of donor assisted e-health management systems is still lacking in existing studies. Therefore, this paper explores the effect of facilitation as a strategy on implementation of donor assisted e-health management systems in Kenya focusing on public health facilities in Nakuru County under the hypothesis;

H01: Facilitation strategy does not significantly influence implementation of donor assisted ehealth management systems in public health facilities in Nakuru County.

LITERATURE REVIEW

Facilitation Strategy and Implementation of E-Health Management Systems

Facilitation is a strategy used very frequently in implementing and managing projects to ensure they have smooth operations processes and ultimately achieve their objectives throughout the implementation cycle (Kerry, 2007). Facilitation in project management means a process of intervention in the working environment to increase productivity and efficiency of the team and to prevent project failure (Grabovski, 2012). This process aims to ensure success in project delivery. It should result in forming a well trained and experienced team committed to the implementation of the approved recommendations. In the context of e-Health implementation, the process of project facilitation comprises the following: funding, including loans, grants, investments and reporting; Analysis, including root cause analysis; Consulting, which also includes presentations, demonstrations, recommendations, and; Overall guidance, which also entails supervision reports.



Facilitation in managing projects favors smooth development of teams. Its benefits to the project environment are as follows: Development of collaborative skills and abilities; Ensures reduced number and cost of outside consultants, and a higher level of commitment to the team goals (Stacy & Ulku, 2012). The role of project facilitator includes a series of duties and responsibilities to favor the development of a team by providing training, analysis, consulting and guidance to team members. It aims to ensure effective problem solving and decision making throughout the implementation life cycle (Mwangi, Namusonge & Sakwa, 2016). According to ICA (2017), facilitating an organization, no matter the size, can be difficult and quickly become dysfunction. To facilitate well requires training, practice, and awareness of the obstacles to success that facilitators may face, as well as knowing how to handle them.

The ICA (2017) recommends that establishing a facilitation framework is critically important. The framework is the architecture of group facilitation— where and how it begins and ends, how it sequences subject areas, and how it handles those subjects. The framework is the foundation for the design, the working document that guides discussion. The framework defines the schedule and provides the facilitator and the organization with boundaries and a procedural roadmap (Houghton, 2012). The design is so important because it enables the facilitator to establish and maintain focus of the implementation areas and the time allotted to each. However, even with an established framework and a working design, facilitators face the possibility of losing control of the process. Implementation can veer from the planned design, and the facilitator must be flexible enough to shift the direction of the implementation. The challenge is integrating the wayward implementation track into the original framework and steering it back to the design while allowing flexibility.

Mwangi et al., (2016) describes facilitating condition as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system. This includes the availability of resources required by the user to use the system, the compatibility of the system with other existing system, necessary knowledge to use the system, help to resolve system difficulties and whether the system is compatible with user's way of performing tasks are some key factors in the model that may influence system acceptability by users (Venkatesh et al., 2003). Therefore, facilitating strategies are enablers that encourage both implementers and end-users to fully adopt a system. Mugo and Nzuki (2014) observe that healthcare facilities in developed countries are being well facilitated to continue implementing electronic medical records management to lower costs and to improve quality of care. For example, in the US, \$1.2 billion grant was unveiled to facilitate adoption of electronic health records in all hospitals by 2014 (Stacy & Ulku, 2012).



With the adoption of electronic medical records, patient information will be electronically captured in any care delivery setting. This is aimed at increasing Health Information Exchanges (HIEs) and eventually maintaining a Nationwide Health Information Network (NHIN), which aims to provide a secure and interoperable health information infrastructure that allows stakeholders, such as physicians, hospitals, payers, state and regional HIEs, federal agencies, and other networks, to exchange health information electronically (Cline, 2012). Closely related to electronic medical records are Personal Health Records (PHR) that have emerged as a way of enabling patients control the access to their health information while empowering them make appropriate health-related decisions (Makori, Musoke & Gilbert, 2013). Using PHRs, patients are able to maintain, update and communicate their personal health information in the way they prefer thereby taking control of their health and in general lifestyles in greater way. For instance, Denmark national PHR service available to any Danish citizen to allows them control who accesses their medical information and how it is accessed is a fine example of a well facilitated and implemented e-health system (Cruicksack, Carl & Jon, 2012).

Other European countries have their own distinctive approach in facilitating the journey towards enabling technologies in healthcare. France is developing the concept of digital hospitals via telemedicine technologies (Currie & Finnegan, 2009). Germany is working on an Electronic Health Card (EHC) which will allow the physicians to check the administrative data of the patient and to write prescriptions on EHC. The EHC will also have voluntary medical functions like the emergency data record and later an electronic patient record that can be checked anywhere using appropriate card readers (Sunyaev, Göttlinger, Mauro, Leimeister & Krcmar, 2009). However, the uptake of these PHR remains low in developed countries with little research having been conducted to explain this low adoption trend (Helmer, Lipprandt, Frenken, Eichelberg & Hein, 2011). Therefore, it is evident that there are still gaps in the facilitation strategies that need to be addressed.

According to Houghton (2012), well facilitated projects have a higher rate of success that those that are not well facilitated. For example, a study by Onyango (2016) on factors determining project implementation of health projects in Gedo Region, Somalia found that adequate financial support for project implementation at World Vision Somalia effective in achieving high levels of implementation since finances are essential in the running of a project initiative in terms of facilitating execution of implementation tasks. Ouma (2012) studied factors affecting the effective implementation of donor funded projects in Kenya Focusing on World Bank Funded Projects in Kenya. The study identified several resource and procedural gaps requiring better facilitation for the implementation of the projects. These were capacity building for staff of the donor agencies; use of local staff to overcome language and other socio-cultural



factors; sensitization and training of beneficiaries; timely auditing of implementing agencies to ensure accountability; timely programme reports from project officers; frequent meetings with key stakeholders; adequate collaboration and networking of all development partners.

Nabwire (2014) examined factors affecting implementation of strategy using Barclays Bank of Kenya as a case study. The study found that the bank has a good organizational structure to be able to facilitate strategy implementation. However, the strategy facilitators did not follow through for feedback after its implementation. This is because once the strategy is implemented there is usually some lapses but there is no one to address these lapses. This leads to lack of ownership in some cases. The IT systems also need to be upgraded so as to sufficiently implement the organization's strategy. This is because once the strategy is implemented there is congestion in the system which makes it slow.

All these studies underscore the need for a better facilitation strategy for systems implementation. These facilitations range from establishing facilitation frameworks to centralization. However, it is evident from the discussions that the effect of the facilitation strategy in the implementation of e-Health management systems in the public domain has not been closely examined in previous studies. Therefore, the present study seeks to examine this aspect in detail.

Resource Based View

The currently dominant view of business strategy resource-based theory or resource-based view (RBV) of organizations is based on the concept of economic rent and the view of the organization as a collection of capabilities. According to Kay (2005), this view of strategy has a coherence and integrative role that places it well ahead of other mechanisms of strategic decision making. According to Barney (1991), this theory formulates the organization to be a bundle of resources. It is these resources and the way that they are combined, which make organizations different from one another. It is considered as taking an inside-out approach while analyzing the firm. This means that the starting point of the analysis is the internal environment of the organization. Barney (1991) further contends that resources are inputs into an organization's production process, such as capital, equipment, the skills of individual employees, patents, finance, and talented managers. Resources are either tangible or intangible in nature. The resource-based view (RBV) offers critical and fundamental insights into why organizations with valuable, rare, inimitable, and well-organized resources may enjoy superior performance.



Moreover, the resource-based view is grounded in the perspective that an organization's internal environment, in terms of its resources and capabilities, is more critical to the determination of strategic action than is the external environment (Camisón, 2005). Instead of focusing on the accumulation of resources necessary to implement the strategy dictated by conditions and constraints in the external environment the resource-based view suggests that an organization's unique resources and capabilities provide the basis for a strategy. The business strategy chosen should allow the organizations to best exploit its core competencies relative to opportunities in the external environment (Robert, 2008). This theory was, therefore, adopted in this research since it focuses on the organization's internal environment and its facilitation capabilities together with the efficient allocation of resources.

RESEARCH METHODOLOGY

Research Design

The study used descriptive survey research design. Since the study sought to obtain descriptive and self-reported information on how certain challenges affect service delivery in a particular devolved unit of government, the descriptive research design enabled the researcher to expose the respondents to a set of standardized questions to allow comparison (Orodho, 2004).

Target Population

The population of interest of this study comprised of the management of the ministry of health (MoH) both at the national and county government level, the management of public health facilities in Nakuru County, ICT staff at the ministries and hospitals and management and staff of NGOs assisting in the implementation of e-Health in the area. Therefore, the study targeted 2 levels health ministries, 42 public health facilities and 7 NGOs (Ministry of Health, 2016) bringing the total accessible population to 220 persons.

Sampling and Sampling Techniques

The study employed the formula proposed by Nassiuma (2000) to calculate the required sample size from the target population of 220, thus;

$$n = \frac{Nc^2}{c^2 + (N-1)e^2}$$

Where, n = sample size, N = population size, c = coefficient of variation (\leq 50%), and e = error margin (\leq 3 %). This formula enables the researchers to minimize the error and enhance stability of the estimates (Nassiuma, 2000). Substituting into the formula:



$$n = \frac{220^* (0.3)^2}{(0.3)^2 + (220 - 1)^* (0.02)^2} = 111.486 \approx 111$$

Thus, a sample size of 111 respondents obtained from the above formula.

Stratified random was used to sample on ICT staff while using purposive sampling on the managers in order to obtain the required sample size. The main factor that was considered in determining sample size is the need to keep it manageable while being representative enough of the entire population under study. The use of the two sampling methods as opposed to other sampling designs was informed by the need for respondent specificity and the need for introducing randomness (Kothari, 2004).

Research Instrumentation

The study used primary data which basically involves creating "new" data (Kombo & Tromp, 2006). The data was based on the perceptions and attitude of the respondents towards the subject of interest to the present study. Therefore, given the nature of data to be collected, the scope of the study, time available and the nature of variables under investigation in the study, questionnaires were the most appropriate data collecting instruments. The study used a structured type questionnaire, containing only closed ended items.

Pilot Test, Validity and Reliability of the Research Instruments

This study used questionnaires after pilot testing them for correctness and accuracy on 15 nonparticipatory respondent sample. Piloting of the questionnaires was done in Kericho County which has similar demographic patterns. The results of the pilot test were used to assess the usability of the questionnaires for the study purposed. The study adopted content validity which to ascertain whether the test items represented the subject content that the study sought to investigate (Mugenda & Mugenda, 2003). As such, in order to ensure that all the items used in the questionnaires were consistent and valid, the instruments were subjected to scrutiny and review by the researcher's supervisors at Kabarak University. The items were rephrased and modified where necessary to avoid ambiguity before being used for data collection.

The researcher used the internal consistency method to check the reliability of the research instruments. This was done by calculating the Cronbach's alpha coefficient for all the sections of the questionnaire from the results of the pilot study. The study established a Cronbach Coefficient instrument reliability $\alpha = 0.891$ which was deemed admissible for the study. A value of 0.7 or below of the Cronbach's alpha coefficient is generally taken to show low



internal consistency, hence, requiring rephrasing or deletion and replacement from the instrument (Cronbach & Azuma 1962).

Data Analysis Techniques and Presentations

Data was analyzed using both descriptive and inferential statistical methods. Descriptive analysis was done using means and standard deviations to describe the basic characteristics of the population. Inferential statistics involved the use of Pearson's Product Moment correlation and linear regression model to determine the nature of the relationship between the variables with the linear regression model assumed to hold under the equation;

$$y_{ii} = b_0 + b_1 x_1 + e$$

Where:

y = Implementation of Donor Assisted E-Health Systems

 b_0 = Model Constant

 $x_1 =$ Facilitation Strategy

 b_1 , the coefficients of the variable to be determined by the model

e = the estimated error with zero mean and a constant variance

ANALYSIS AND DISCUSSIONS OF FINDINGS

Response Rate

Table T. Response Rale	Table	1: Res	sponse	Rate
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Instruments issued	Instruments returned	Percentage response (%)
111	79	71

One hundred and eleven questionnaires were administered to the respondents and seventynine were returned duly filled and useable for the study purposed. This represented 71% response rate. According to Mugenda and Mugenda (2003), a response rate of over 50% is considered acceptable. The instrument response rate resulted from the self-administered method of administration of the instrument.

Facilitation Strategy and Implementation of Donor Assisted E-Health Systems

The first objective of the study was to establish the influence of facilitation strategy on implementation of donor assisted e-health management systems in public health facilities in Nakuru County. The results are summarized in Table 2.



Statement				D	30		р-
	Freq(%)	Freq(%)	Freq(%)	Freq(%)	Freq(%)	χ2	value
We try to ensure there is adequate							
funding throughout the	17(22)	55(70)	5(6)	2(2)	0	67 16	0.000
implementation process by proper	17(22)	55(70)	5(0)	2(3)	0	07.10	0.000
budgeting							
There is adequate resourcing for							
the project to ensure smooth	26(33)	40(51)	7(9)	5(6)	1(1)	71.73	0.000
implementation							
We have a reliable framework for	40/00)	45(53)	0(11)	F(C)	$\Omega(\Omega)$	70.00	0.000
facilitation of our projects	18(23)	45(57)	9(11)	5(0)	2(3)	79.06	0.000
We have built close relationships							
with other stakeholders so as to	04(07)	40(00)	C(0)	0(4)	0	F7 FF	0.000
improve the implementation of our	21(27)	49(62)	6(8)	3(4)	0	57.55	0.000
systems							
We have formed strategic							
partnerships with the donors	34(43)	34(43)	7(9)	4(5)	0	56.82	0.000
supporting the project							
Through centralization we are able							
to coordinate all the implementation	23(29)	43(54)	12(15)	1(1)	0	56.25	0.000
activities							
The system maintenance issues	47(00)	40(50)	40(47)	0(0)	4 (4)	404.07	0.000
are always attended to in good time	17(22)	46(58)	13(17)	2(3)	1(1)	134.07	0.000
There is adequate resourcing for the project to ensure smooth implementation We have a reliable framework for facilitation of our projects We have built close relationships with other stakeholders so as to improve the implementation of our systems We have formed strategic partnerships with the donors supporting the project Through centralization we are able to coordinate all the implementation activities The system maintenance issues are always attended to in good time	26(33) 18(23) 21(27) 34(43) 23(29) 17(22)	40(51) 45(57) 49(62) 34(43) 43(54) 46(58)	7(9) 9(11) 6(8) 7(9) 12(15) 13(17)	5(6) 5(6) 3(4) 4(5) 1(1) 2(3)	1(1) 2(3) 0 0 0 1(1)	 71.73 79.06 57.55 56.82 56.25 134.07 	0.000 0.000 0.000 0.000

The results in Table 2 suggest that efforts were made by the implementing agencies to ensure there was adequate funding throughout the implementation process by proper budgeting (70%). They also ensured that there was adequate resourcing for the project to facilitate smooth implementation (51%). The results also indicate that there was a reliable framework for facilitation of their projects (57%). Most implementing agencies had built close relationships with other stakeholders so as to improve the implementation of their systems (62%). The agencies had also formed strategic partnerships with the donors supporting the project so as to ensure there were no facilitation gaps (43%).

Further, through centralization the agencies had been able to coordinate all the implementation activities (54%). All system maintenance issues were always attended to in good time (58%). From these findings it is evident that three key concepts were undergirding the facilitation strategy; strategic planning, strategic resourcing, centralization and strategic



partnerships (Schaap, 2006). These enabled the project implementers to ensure there were no significant interruptions in the facilitation process during the implementation of the project (Nabwire, 2014). For example, the finding that the facilitation strategy employed a guiding framework underpins the systemic approach that emphasizes inclusion and resourcing of all elements in the organization as espoused in the Systems Theory was critically important (Hannagan, 2002; The ICA (2017). Moreover, Houghton (2012) explains that well facilitated projects have a higher success rate than those that are not well facilitated.

Implementation Status of Donor Assisted E-Health Systems

The study also sought to determine the implementation status of donor assisted e-health management systems in public health facilities in Nakuru County. These results are presented in Table 3.

	SA	A	N	D	SD
Statement	Freq(%)	Freq(%)	Freq(%)	Freq(%)	Freq(%)
The adoption rates for the e-health system are					
increasing in the county	9(11)	21(24)	24(30)	16(20)	12(15)
Our projects implementation costs rarely go beyond	15(10)	10(E1)	15(10)	E(C)	1(E)
what has been budgeted for	15(16)	40(51)	15(19)	5(6)	4(5)
We are able to make maximum use of the resources	04(07)	44(50)	0(14)	C(0)	$\mathcal{O}(\mathcal{O})$
at our disposal when implementing e-Health	21(27)	41(52)	9(11)	6(8)	2(3)
The system is proving reliable in to both	04(07)	40(50)	40(40)	O(2)	4(4)
implementers and users	21(27)	42(53)	13(16)	2(3)	1(1)
We have been able to reduce challenges associated	20(25)	40(54)	44(44)	4(5)	4 (4)
with system downtime	20(25)	43(54)	11(14)	4(5)	1(1)
The implementation of the system has improved its	00/05)	07(45)	40(42)	4 (4)	$\mathcal{O}(4)$
accessibility to all intended users	20(33)	37 (43)	10(13)	1(1)	3(4)
We have been able to achieve our performance	05(22)	22(44)	11(11)	0/11)	$\mathbf{Q}(\mathbf{Q})$
targets	25(32)	32(41)	11(14)	9(11)	2(3)
We still experience several constraints which limit	22(20)	24(42)	7(0)	0(11)	7(0)
our operations	22(20)	34(43)	7(9)	9(11)	7(9)

Table 3: Implementation Status of Donor Assisted E-Health Management Systems

The results in Table 3 suggest that there was considerable uncertainty regarding the adoption rates for the e-health system are increasing in the county (30%). The findings, however, indicate that the projects implementation costs rarely went beyond what has been budgeted for by the



implementers (51%). The implementers were also able to make maximum use of the resources at their disposal when implementing e-Health (52%). Most respondents were also of the view that the system was proving reliable to both implementers and users (53%) as they had been able to reduce challenges associated with system downtime (54%). Moreover, the implementation of the system had improved its accessibility to all intended users (45%).

Other findings also indicate that most system implementers had been able to achieve their performance targets (41%), though, most still experienced several constraints limiting their operations (43%). The findings suggest that universal implementation of e-health management systems had not been attained. This is consistent with the report by the National e-Health Policy (2016) that recognized marked disparities in e-Health adoption across geographical and administrative boundaries. Earlier studies in the country by Mulwa (2013) and Chebole (2015) had also indicated that the implementation of the e-health systems were moving slowly than expected. The findings also imply that the system challenges were inherent on the system design and configuration as opposed to the implementation approaches. They confirm the successes in the implementation of the e-health management system was primarily a result of the resource based view where the project implementers tended to maximize on resources and opportunities available to achieve their objectives (Robert, 2008).

Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate				
.481	0.231	0.221	4.39318				

Table 4. Regression Model Summary

^a Predictors: (Constant), Facilitation Strategy

The results of the linear regression analysis in Table 4 shows that the relationship between the dependent variable and the independent variable had a model correlation coefficient R = 0.481 which was higher than any zero order value in the table. The results further suggest that, on the basis of the adjusted R-Square, the model could explain up to 22.1% of the variations in the implementation variable. This indicates that the model could improve when more variables are incoporated when trying to analyze the effect of strategies used in implementing donor assisted e-health management systems in the area.

It was also salutary to carry out an ANOVA to validate the findings in table 4.9. The results of the ANOVA are summarized in Table 5.



	Sum of				
	Squares	df	Mean Square	F	Sig.
Regression	446.504	1	446.504	23.135	.000b
Residual	1486.104	77	19.3		
Total	1932.608	78			

Table 5: Summary of ANOVA

^a Dependent Variable: E-Health Implementation

^b Predictors: (Constant), Facilitation Strategy

The results of Table 5 indicate that there is a significant difference between means of the variables describing strategies used in implementing donor assisted e-health management systems and the variable describing the implementation status of donor assisted e-health management systems in Nakuru County ($F_{\alpha'} = 23.135 > F_c = 4.00$; $\alpha < 0.05$; df = 1, 77; p < 0.05). This finding confirms the model predicted by Table 4and shows that it is indeed significant. Therefore, in order to determine the structural model postulated for determining the relationship between the independent and dependent variables, the results in Table 6 were used, thus;

Table 6: Linear Regression Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	10.6	4.349		2.438	0.017
Facilitation Strategy	0.64	0.133	0.481	4.81	0.000

a Dependent Variable: E-Health Implementation

It can be deduced from the findings in Table 6 that Facilitation Strategy ($\beta = 0.141$, p < 0.05) significantly influenced implementation of donor assisted e-health management systems in Nakuru Countyas per the model and that could be predicted by the linear relationship;

Y = 10.6 + 0.64 Facilitation Strategy (FS).

Therefore, with regard to the null hypothesis;

H01: Facilitation strategy does not significantly influence implementation of donor assisted ehealth management systems in public health facilities in Nakuru County.

It is evident From the beta values in Table 6, that there was a significant relationship (β = 0.141, p < 0.05) between the two variables and, therefore, we fail to accept the null hypothesis and adopt the view that facilitation strategy significantly influenced implementation of donor assisted e-health management systems in public health facilities in Nakuru County.



This finding agree with Onyango (2016) whose findings on factors determining project implementation of health projects in Gedo Region, Somalia found that adequate financial support for project implementation at World Vision Somalia effective in achieving high levels of implementation. The finding also echoes that of Nabwire (2014) who found that a good project facilitation framework was essential in overcoming implementation lapses because once the strategies were implemented there were usually some lapses, however, there was usually no one dedicated to address these lapses.

CONCLUSIONS

Based on the results of the study, it can be concluded that Facilitation strategy as carried out by the implementing agencies had a strong influence on the implementation of donor assisted ehealth management systems in public health facilities in Nakuru County. This strategy helped reduce the implementation gaps occasioned by resource constraints. The strong and positive relationship between the facilitation and implementation variables was also indicative of the much emphasis that the donors and implementers had put on facilitation to overcome implementation gaps and ensure the system was fully operational.

RECOMMENDATIONS

The study, therefore, recommends that;

- 1. The implementers of the system need to factor in contingency plans for their operations as this will go a long way in ensuring that the resource gaps during project implementation were further reduced.
- 2. There is also need for the e-health implementers to adopt more effective budgeting techniques that would go a long way in ensuring adequate resource availability.
- 3. The implementers need to have a county specific framework for facilitating the e-health project. This will enable the implementers to closely monitor the resources of the project at a closer level and identify resource gaps that can be addressed at the local level

SCOPE FOR FUTURE STUDIES

As this is already a decided policy path by the government, e-health is meant to stay for the foreseeable future, more studies need to be done to aid in strengthening the policy initiatives. As such, it is recommended that studies be done on challenges affecting the facilitation of ehealth programs and also on the strategic effect of donor partnerships with County Governments in Kenya on implementation of e-health programs.



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