INFLUENCE OF COMPUTERIZATION OF RECORDS IN ENHANCING GOVERNANCE IN HOMA BAY COUNTY HEADQUARTERS, KENYA

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ABSTRACT

Computerization of records within the government offices has contributed to efficiency in records management. The current paper investigated the influence of computerization of records in enhancing governance in Homa Bay County Headquarters, Kenya. The target population was 306 employees from ICT, audit, procurement, accounts and human resource departments. Stratified sampling was used to classify employees into strata. The researcher used Yamane Formula and simple random sampling to obtain sample size of 174 respondents. Data collection instruments for the study were questionnaires and interview schedules. Both validity and reliability were determined. Quantitative data was analyzed by use of frequencies and means while qualitative data was thematically analyzed. The study found out that trained IT personnel had maintained complete and up-to-date flow of information, had put in place passwords as security measures to control unauthorized access to information in the system, were capable of creating electronic records that are readily identifiable, retrievable and accessible. However, the county had employed inadequate employees with skills and knowledge in computer systems and this had resulted in outsourcing of contractors. The study concluded that computerization of records management is essential in support of governance as it forms a basis for equity in resource distribution. The study recommended that there is need for training of more personnel on computerization of records management to aid in efficiency in governance.

Keywords: Computerization; Records; Governance.

INTRODUCTION

Records management has been recognized globally as a critical tool that provides good ground in enhancing governance in any institution under the assumption that its principles and values are appropriately implemented. In London, Cox and Wallace (2002), recognized that in the modern society records management enhances governance and accountability within the institutions. Katuu, and Ngoepe (2015), emphasized that in order to enhance governance, countries must put in place electronic records management system and training programs for employees handling records. Proper records management leads to authenticity, integrity, accountability and transparency in records that brings confidence in the governance of institutions (Mosweu & Rakemane, 2020).

Millar (2019), argues that good records management infrastructure framework creates a conducive environment for effective management of records that promote information accessibility and dissemination. This was expected to enhance governance within the government sectors leading to transparency and accountability. ISO 15489-1 (2001), policy paper on records management infrastructure framework on the management of public records

emphasized on documentation, maintenance and promulgation of records with an aim of ensuring that records are accurate and reliable to provide a strong foundation in enhancing governance. Griffin and Kawa (2016), argued that where records management infrastructure was not well spelt out, dependency on records as a basis of enhancing governance by the government and citizens would be compromised. Iwhiwhu (2011), study on Nigerian universities records management infrastructure revealed that policies in records management were not available and this compromised information obtained from records. Mnjama and Wamukoya (2007), asserts that well developed records management infrastructure has a positive impact on accountability. Thus, the current paper investigated influence of computerization of records in enhancing governance in Homa Bay County Headquarters, Kenya

LITERATURE REVIEW
Computerization of records is the process of capturing or transforming paper records to digital format. Palmer (2000), argues that records Management Systems acts as control system to ensure that internal and external auditing are reinforced to provide track of any mischief that can undermine organizational good governance. Lowry and Wamukoya (2016), emphasized that records represent major sources of data that contain information on which decisions are derived from within the organization.

Bwalya, Zulu, Grand, & Sebina, (2012), pointed out that adopting current technology in information and records management calls for computerization of records that will make records easily available and ensure free flow of information to enhance governance in an organization. Ngoepe and Ngulube (2013) pointed out that in all administrative cases, government administrators and institution decision making bodies depends a lot on the availability of records. This is why computerized records have become a major tool for enhancing governance.

Hase and Galt (2010), stressed the need for computerized records management practices and programs as they are key important requirement to organizational operations. This is because good records management practices result to organization effectiveness. In the same study, Hase and Galt recognized the importance of ICT as a tool of enhancing organization productivity. The study also pointed out that developing countries have paid little attention to the information management system which has affected integrity of the records in enhancing governance. Terer (2012), observed that there are cases of missing files and lost documents in the public service because most of the records are in paper format. The findings of the study led to various governments in establishing ICT infrastructure that meets internationally agreed records management principles of authenticity and integrity that would enhance governance.

Kassab *et al.,* (2017), observed that electronic records management has had a positive impact in the retrieval of records by employees, thus upgrading organization service delivery. Ambira (2016), observed the need for innovative strategies such as digital approach to make information available to citizens and private sector to judge if records management has enhanced improvement in governance within the counties. Mohamed, Rasheli & Mwagike (2018), in an exploratory study in Tanzania found that computerization of records faces various challenges such as incapacity of personnel handling records, inadequate regulatory institutional policies dealing with security and safety measures that are intended to safeguard the records once computerized.

Adu (2020), in a study conducted in Sub-Saharan Africa pointed that safety measures on accessibility of records once computerized helps in detecting those people whose main objective is to manipulate the system. This has been achieved since records managers are provided with access passwords that can easily help to trace unauthorized individuals and be held accountable for their actions. Yang, Du & Shi (2020), compared traditional records management and electronic records management system in China, and found that ERMS improves the quality of records and increases its life span.

Netshakhuma (2020), looked at strategies on the preservation and digitization of records in institutions during Covid- 19 pandemic lockdown and found that there is still lack of digitization, preservation strategies and online accessibility of records. The main problem was because most data were in paper based format and lack of trained personnel on digital management. Shonhe & Grand (2018), asserts that due to emerging administrative challenges, trained IT personnel have the capability in improving electronic records to remain relevant. Similarly, Bhatia, Douglas & Markus (2020), pointed that trained IT personnel have the ability to manipulate, verify and authenticate digital records. Danlog, Rebujio, De Guzman, Arrieta& Carranza (2017), stated that IT personnel should be able to develop passwords that would eliminate accessibility of information from unauthorized users as well as protecting such information from virus attack.

Luyombya (2010), Mukred and Yusof (2015), suggested in their studies that institutions need to provide enough computers to IT personnel to develop efficient and reliable electronic records management that would enhances governance. Chorley (2017), emphasized that ICT personnel should ensure proper maintenance of electronic records that is likely to increase integrity and accuracy of information to enhance governance. Baron & Thurtson (2016), Kalusopa (2016), Shonhe & Grand (2018), Adu (2020), are on the view that well developed computer network improves the flow of information between various users in an organization as well as improved accountability, accuracy thus reducing records manipulation among the users.

METHODOLOGY
The research was conducted at Homa Bay County Headquarters. The research used descriptive research design and mixed method approach that involves the use of quantitative and qualitative data. Mixed method research design helped the researcher with a deeper understanding on the issues related to records and provided enough ground in explaining records management as the basis of enhancing governance. The target population constituted a total of 306 employees who were directly involved with records management from which a sample size was derived. These departments were records office, ICT, auditing, procurement, accounts and human resource. A sample size of 174 respondents was obtained through the use of Yamane (1987) sample size calculation formula.

The study used stratified sampling technique in classifying employees into six strata namely; Records Officers, ICT, Auditors, Procurement, accounts and Human Resource. Data collection instruments for the study were questionnaires, and interviews used to collect quantitative and qualitative data. The accuracy and authenticity of the research instruments were achieved through pilot. In this study a total of 30 respondents were selected to participate in the pilot study from Uasin-Gishu County which shares similar characteristics as the study area. According to Ursachi, Horodnic & Zait, (2015) a cut-off alpha coefficient of 0.7 is sufficient to prove that the item on scale were consistent and dependable.

Computerization coverage which had 13 items indicated Cronbach alpha value of 0.894 showing that the instrument was reliable.

Quantitative data from the questionnaires were analyzed by aid of Statistical Package for Social Sciences (SPSS V. 23.0) and tabulated in the form of means, frequencies and percentages that were presented in frequency distribution tables. Qualitative data from interviews were analyzed using content analysis. This involved making inferences by systematically and objectively identifying specific characteristics of measure and objectivity of the respondents in answering the questions. The information obtained was thematically classified and arranged as per the objectives of the study before discussions of the findings.

RESULTS

Computerization of records management system has been recognized as one of the approaches in enhancing governance in terms of efficient and accurate records storage, maintenance and retrieval of information. The aim of this paper was to assess computerization of records within different departments in Homa Bay County Headquarters, Kenya. To achieve this, the researcher divided this section into three parts; trained IT personnel, employee's allocated computers and Computer network coverage in offices. The respondents were required to rate their responses using a Likert scale 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree as shown in Table 1, 2 and 3.

Training of IT personnel

Table 1 presents responses of training of IT personnel on computerization of records

Table 1: Employees responses on training of IT personnel on computerization of records

Trained IT Personnel	SD		D		N		A		SA		Mean	Std. Dev
	F	%	F	%	F	%	F	%	F	%		
Trained IT personnel have maintained complete and up to-date flow of information.	1	.8	5	4.1	16	13.0	37	30.1	64	52.0	4.28	0.90
Trained IT personnel are capable in creating electronic records that are readily identifiable, retrievable and accessible.	0.0	0.0	8	6.5	17	13.8	51	41.5	47	38.2	4.11	0.88
Trained IT personnel have installed antivirus and strong rooms to prevent accidental loss or destruction of records stored in the system.	2	1.6	9	7.3	21	17.1	34	27.6	57	46.3	4.10	1.04
Trained IT personnel have put in place passwords as security measures to control accessibility to information.	3	2.4	8	6.5	18	14.6	42	34.1	52	42.3	4.07	1.03
Trained IT personnel conducts regular back-up of electronic records stored in the system	0.0	0.0	12	9.8	25	20.3	34	27.6	52	42.3	4.02	1.01

Table 1 shows that a mean score of 4.28 and standard deviation of 0.90 was obtained on the statement that trained IT personnel have maintained complete and up-to-date flow of information. This showed that majority of the respondents strongly agreed with the statement. The finding was consistent with Cox & Wallace (2002), who pointed out that free flow of information and effective communication among records users will enhance accountability, transparency and efficiency in organization.

Further, in the statement that trained IT personnel have installed antivirus and strong rooms to prevent accidental loss and destruction of records stored in the system, respondents agreed with a mean of 4.10 and standard deviation of 1.04. The finding is in line with a study carried out by Kurt *et al.,* (2017), who pointed out that since records hold vital information, they should be protected from viruses, as well as keeping the servers in strong rooms that can only be accessed by specialized and authorized IT personnel.

In addition, a mean of 4.07 and standard deviation of 1.03 respondents agreed with the statement that trained IT personnel had put in place passwords as security measures to control unauthorized access to information in the system. The finding is consistent with a study conducted by Dunlog *et al.,* (2017), who pointed out that passwords controls mass access to information in the computer systems and servers by unauthorized persons. This helps to eliminate linkages of sensitive information within the organization. Moreover, in a statement that IT personnel conduct regular back-up of electronic records stored in the system, a mean of 4.02 and standard deviation of 1.01 was obtained which showed that most respondents were in agreement. The study is consistent with Keakopa (2011), who emphasized that due to technological changes in information, IT personnel should ensure that electronic records back-up is done regularly for continuous availability and accessibility of information.

Finally, in a statement that trained IT personnel are capable in creating electronic records that are readily identifiable, retrievable and accessible, a mean of 4.11 and standard deviation of 0.89 was obtained showing that majority of the respondents agreed with the statement. The finding of the study is consistent with a study by Shone & Grand (2018), who pointed out that trained IT personnel have the capability in the improvement of electronic records to remain relevant due to emerging administrative challenges. Bhatia, Douglas & Markus (2020), pointed out that trained IT personnel have the ability to manipulate, verify and authenticate digital records.

Employees' Allocation of Computers

The increased production of records by institutions has become a challenge when dealing with paper-based records. With the introduction of computers in records management, institutions are capable to store huge amount of information that can be easily accessed by the public. Table 2 provides responses on employees' allocation of computers.

Table 2: Employees response on computer allocations on computerization of records.

Employees allocated computers	SD		D		N		A		SA		Mean	Std. Dev
	F	%	F	%	F	%	F	%	F	%		
The county hires records management contractors who creates E-records to enhance governance	0.0	0.0	1	0.8	17	13.8	44	35.8	61	49.6	4.34	0.75
E-records management improves work performance in the departments within the county	1	0.8	6	4.9	13	10.6	38	30.9	65	52.8	4.30	0.91
Employees -allocated computers have skill and knowledge on computer system to increase free flow of information to enhance governance	3	2.4	12	9.8	26	21.1	41	33.3	41	33.3	3.85	1.07
Maintenance of electronic records promotes increased confidence amongst the stakeholders	19	15.4	3	2.4	20	16.3	35	28.5	46	37.4	3.70	1.40

Table 2 shows that a mean of 4.34 and standard deviation of 0.75 was obtained on the statement that the county hires records management contractors who creates E-records to enhance governance which clearly shows that majority of respondents strongly agreed. The findings clearly indicate that the county has employed inadequate employees who have skills and knowledge in computer systems and this has resulted to outsourcing of contractors. As a result, Amin *et al.,* (2020), emphasized that the world's information and ideas are new capital where bits and bytes are becoming more important than the physical objects. As a result, dynamic changes in e-environment have been recognized which requires constant monitoring in the computer systems that requires specialized IT personnel to work closely with organization's decision makers to enhance governance.

Additionally, in a statement that E-records management improves work performance in the departments within the county, a mean of 4.30 and standard deviation of 0.91 was obtained which showed that majority of the respondents agreed with the statement. This is consistent with the study by Jackson & Kasam (1998), who observed that good management of electronic records improve accountability and transparency. The finding was also supported by Mutero (2011), who pointed out that records managers and archivists must be involved in the management of e-records for them to achieve effectiveness and efficiency.

Further, in a statement that employees allocated computers have skill and knowledge on computer system, a mean of 3.85 and standard deviation of 1.07 was obtained showing that majority of the respondents agreed with the statement. The findings was supported by Mukred and Yusof (2015), who pointed out that institutions need to provide enough computers to those employees who have skill and knowledge to develop efficient and reliable electronic records management system that enhances governance. In a study by Luyombya (2010), pointed out that organizations with competent employees in the management of computer systems should ensure that such employees are provided with adequate computers to handle electronic records that would prevent loss of data, enhance accountability as well as make information stored in the electronic environment easy to access to enhance governance. Finally, in a statement that maintenance of electronic records promotes increased confidence amongst the stakeholders in the county, respondents agreed with a mean of 3.70 and standard deviation of 1.40. The finding was supported by Chorley (2017), who pointed out that proper maintenance of electronic records increases integrity and accuracy of information. Ngulube (2011), also emphasized that maintenance of electronic records prolongs its lifespan and make records available for future use.

Computer Networks in Offices
The responses on computer network coverage in offices were analyzed and presented in Table 3.

Table 4.3: Employees' Responses on Computer Networks Coverage in Offices

Computer network coverage in offices	SD		D		N		A		SA		Mean	Std Dev
	F	%	F	%	F	%	F	%	F	%		
computer network allows the stakeholders to obtain non-sensitive information through the county website	1	0.8	6	4.9	13	10.6	38	30.9	65	52.8	4.30	0.91
E-records management has led to reduction of revenue misuse	2	1.6	5	4.1	27	22.0	40	32.5	49	39.8	4.05	0.97
Maintenance of electronic records increases information access that enhances governance in the county	0.0	0.0	9	7.3	27	22.0	39	31.7	48	39.0	4.02	0.95
There is adequate computer network coverage in all the departments dealing with e-records	0.0	0.0	18	14.6	18	14.6	37	30.1	50	40.7	3.97	1.07

Table 3 shows that a mean of 4.30 and standard deviation of 0.91 was obtained on the statement that computer network allows the stakeholders to obtain non-sensitive information through the county website, thus majority of the respondents strongly agreed with the statement. The finding is supported by Palma (2000), who pointed out that records management systems ensure control of sensitive information particularly those touching on auditing information. Ngoepe and Ngulube, (2013) pointed out that since institution decision depends a lot on records, sensitivity of information is taken into account by securing them through secretive codes and passwords. Cox and Wallace (2002), Shepherd *et al.,* (2019), emphasized that allowing stakeholders to get access to less sensitive information creates confidence among the records users that would enhance transparency and accountability.

In a statement that e-records management has led to reduction of county revenue misuse, a mean of 4.05 and standard deviation of 0.97 was obtained. Most of the respondents were in agreement with the statement. The finding was supported by various studies Baron and Thurtson (2016), Shonhe and Grand (2018), Adu (2020), who emphasized that e-records have immensely improved accountability, accuracy and reduced information manipulation among the users. This has immensely contributed to most organizations to meet their set goals and objectives towards achieving good governance.

Further, in a statement that Maintenance of electronic records increases information access that enhances governance in the county, mean of 4.02 and standard deviation of 0.95 was achieved showing most respondents agreement. The finding is supported by Lee et al., (2018), who noted that e-records are very significant as it allows records sharing and easy access between the information users. Another study by Netshakhuma (2020), emphasized that once records have been transferred from paper based to electronic based, online accessibility becomes very easier.

Finally, in a statement that there is adequate computer network coverage in all the departments dealing with e-records, a mean of 3.97 and standard deviation of 1.07, was obtained showing that majority of the respondents agreed with the statement. The finding is

backed by Kalusopa (2016), who pointed out that well developed computer network improves the flow of information between the various users in an organization. In addition, Yang, Du & Shi (2020), found that reliable computer network connectivity within the institutions will eliminate manipulation of digital records since the various users can easily detect such acts.

On an interview with heads of departments, the researcher asked the extend the county had automated departments that directly deals with records management.
Respondent (A) put it that:

> *I can say more than 60% of automation has been done but we still expect a lot more to take place concerning ICT to help develop County government by carrying out all its activities digitally.*

The researcher asked the challenges associated with the problem of missing e-records in the system and how the challenge has been addressed.
Respondent (B) answered:

> *I can state that missing e-records could be caused by maybe virus attack, careless deletion and technological obsolescence.*
>
> *On virus attack, the county management concerned with e-platform have ensured regular update of antivirus, careless deletion have been curbed by ensuring all information in the system have been backed up and can be traced, also the provision of security passwords that would minimize this practice. On technology obsolescence, there have been ongoing tracking of e-records and programming.*

The researcher asked how level of awareness and attitude of staff towards good e-records management practices can be rated
Respondent (C) answered:

> *I can say that majority of employee's awareness and attitude towards e-records management is quite impressing. The changing environment of technology in the government sectors has highly contributed to this. They can interact well with computers in the ICT environment.*

The researcher further asked if the county has provided training to employees concerning the benefits of ICT and the contemporary issues arising in the information use and management.
Respondent (D) answered:

> *Trainings are provided on rare occasions and sometimes never. I don't remember the last time I was educated on the benefits of ICT and issues arising with it in the records management. Many times, trainings are planned but fail to commence since the county lack money to facilitate the exercise.*

On whether the county offices always had sufficient and reliable network that eased county operations respondent E answered that;

> *We do have reliable and sufficient network but challenges of net being down are experienced, more especially when a number of users are online. I would rate network coverage in Homa Bay County as average. More improvement on this is still underway.*

The researcher also asked if there are enough computers to all employees dealing with e-records for effective and efficient dissemination of county information. Respondent (F) answered the following:

> *Computers may not be enough to be allocated to all employees dealing with e-records, but at least each department is allocated some to ease information dissemination to enhance governance.*

CONCLUSION AND RECOMMENDATION

Records management, is essential in support of governance as it forms a basis for equity in resource distribution hence fostering confidence among the public. The county management should therefore focus on improving its ICT environment and digitalization of records to increase efficiency on information flow. It was recommended that capacity building can further be enhanced through use of computers, internet, communication technologies (ICT) such as IFMS to promote financial accountability, openness and transparency.

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