INFLUENCE OF EMPLOYEE COMPETENCE ON THE IMPLEMENTATION OF ELECTRONIC PROCUREMENT IN THE SELECTED COUNTY GOVERNMENTS IN KENYA

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ABSTRACT

In the recent competitive and dynamic business environment, there has been greater recognition of the need for public sector organizations to harness innovative technologies in order to enhance efficiency and cost savings throughout the institutions. In Kenya, the Government introduced an electronic procurement system with the aim of promoting openness and accountability in the use of public money. Despite these efforts by the national government and the benefits of e-procurement, the system has not been fully implemented by the county governments. This study therefore, assessed the influence of employee competence on the implementation of e-procurement by county governments in Kenya. Descriptive research design was used and the target population was the 47 county governments in Kenya. A sample of 5 county governments was used in the study. The sample was selected using simple random sampling technique. A questionnaire was used to collect primary data from the sampled population. In order to determine the validity and reliability of the questionnaire, pretesting of the research instruments was conducted. To establish the validity of the research instrument, content validity was used while internal consistency method was used to determine the reliability. The data collected was analyzed using statistical package for social sciences. The data was analyzed through descriptive statistics and presented through percentages, means, standard deviations and frequencies. The study found that employee competence has a significant positive influence on the implementation of e-procurement in county governments. County governments should therefore train staff on the use of e-procurement tools in order to enhance the implementation of e-procurement. The institutions should also employ qualified staff and avail them with electronic procurement manual to guide on e-procurement processes and assist in the implementation of e procurement.

Key Words: *employee competence, e-procurement, county governments*

INTRODUCTION

Public procurement approaches and processes have been under review over many years with the aim of improving efficiency and cost savings. With the development of information and communication technology, institutions have been forced to move their operations from traditional systems to e-procurement in order to sustain themselves (Oporo, 2014). An increasing number of government agencies are embracing e-procurement solutions in order to reap the benefits that firms in the private sector have already achieved (Panayiotou, Gayialis & Tatsiopoulos, 2014). Therefore, e-procurement is no longer an afterthought but a necessity for any institution due to the dynamic and competitive business environment (Wangui, 2013).

The concept of e-procurement in Africa is just gaining popularity in the public sector. E-government initiatives in Sub-Saharan African countries seem to be far from reaching realization

and attaining the purpose for which they are undertaken due to several challenges and stumbling blocks (Mutula, 2008).The implementation of e-government initiatives in Sub-Saharan African countries have in most cases been failures. Heeks (2006) observed that 35% of e-government projects in developing countries are total failures, 50% are partial failures, while the remaining 15% are successes.

In Kenya, the government made it compulsory for procurement of all public goods, works and services to be done through online platforms. Furthermore, a directive was issued to county governments to conduct all procurement and finance operations online (National Treasury, 2016). Integrated financial management information system (IFMIS) was introduced by the government and rolled out in all the 47 counties. The system was intended to enhance governance by offering real time financial information thus improving accountability and transparency (United States Agency of International Development, 2008). Despite the benefits of e-procurement such as quicker transaction times, lower costs and better supplier integration (Kheng & Al-Hawamdeh, 2006), its implementation in Kenya is still very low (Gunasekaran & Ngai, 2010).

Employee Competence

The implementation of e-procurement comes with a number of challenges which can be categorized into institutional and economic-legal challenges (United Nations, 2011). One of the institutional factors that affect the implementation of e-procurement is employee competence and capacity. End-user training and uptake is positively associated with successful implementation of an e-procurement initiative. As e-procurement entails new technologies, it is necessary for changes in how tasks are done in an institution from the traditional approaches to new procurement approaches. Staff should therefore be trained on the use of e-procurement tools and practices in order to implement e-procurement successfully. The users can achieve immediate benefits of e-procurement once they comprehend the operational functionalities (Hardy & Williams, 2011). The staffs of an organization need to acquire the necessary skills that can enable them to operate effectively and efficiently while using the new e-procurement system. Inadequately trained staff may not own the e-procurement system and thus contribute to failure. The success of e-procurement initiative depends on users making use of the new process and system (Mose, 2012).

Implementation of Electronic Procurement System

Successful implementation of e-procurement system enables an institution to enjoy the benefits the system can offer. Despite the great benefits of e-procurement technologies, their implementation is still at early stages in many government institutions (Aboelmaged, 2010). Information systems literature defines implementation as an effort beginning with the first thought of developing a system and not ending until the project is completed or abandoned (Vaidya et al., 2009). However, Chan and Ngai (2007) stated that information systems

implementation is best described as a process of organizational change that extends over a considerable period of time.

Implementation of e-procurement is an elaborate process and requires transformation and restructuring of government procurement structures (Australia, 2005). The process requires electronic systems for demand estimation, budgets, sourcing, ordering and supply monitoring. Introduction of e-procurement in an organization is associated with increased efficiency, lower transactional costs, reduced corruption and enhanced control and monitoring of public procurement process (Hunja 2011).

Employee Competence and Implementation of E-procurement

Implementation of e-procurement in public procurement requires resources and specialized skills. In addition, the process requires a well-coordinated change management systems and training program. It is also important to put into place practices, processes and systems for the implementation of e-procurement (Vaidya *et al*., 2009). The development and implementation of electronic commerce models such as e-procurement portal in an institution is a challenge that goes beyond a mere technological functionality (Turban *et al.*, 2006). Implementing of a new technology needs skill and knowledge to operate. Organization whose employees have the necessary skills and technical knowledge are more likely to implement e-government applications (Lin, Lee & Lee, 2005). Unfortunately, many technology based products and services never reach their full potential, and some are simply rejected (Burton-Jones & Hubona, 2006). Failed investments in technology may not only cause financial losses, but also lead to dissatisfaction among employees (Venkatesh, 2000).

E-procurement in County Governments

The public sector organizations use e-procurement to achieve benefits that include efficiency, cost savings, improved transparency and reduce unethical practices like corruption in procurement services by eliminating interaction with suppliers (Archer, 2005). The public financial reform management strategy paper recommended automation as well as integration of key government functions in Kenya such as the human resources payroll, accounting, procurement and budgeting citing transparency, better financial management and easier reporting as some of the benefits (National Treasury, 2016).

In Kenya, integrated financial management information system (IFMIS) department within the national treasury is mandated to designing, spearheading and managing the integrated financial management information system all government agencies (National Treasury, 2016). IFMIS was developed in 1998 and its deployment to the counties began in 2012. The system is used for budgeting, accounting, auditing and reporting. The system also has e-procurement module that fully automates the procurement and payment process (National Treasury, 2016). Despite the deployment of the system to the counties, its full potential implementation has not been realized.

STATEMENT OF THE PROBLEM

In the recent times, there has been greater recognition of the need for public sector organizations to harness innovative technologies to enhance greater efficiency and cost savings throughout their organizations. In Kenya, the Government introduced an electronic procurement system e-procurement with the aim of promoting openness and accountability in the use of public money. The Launch of the system was followed by continuous sensitization and IFMIS Academy has also offered training to the users in order to enhance technical proficiency. Despite these efforts by the National Government and the benefits of E-procurement, the system has not been fully implemented by the County Governments. This has raised concerns in the national treasury as to why the County Governments have not implemented the system (National Treasury, 2016).

Studies have been conducted on e-procurement both locally and internationally. Benders, Batenburg and Van der Blonk (2006) conducted a study on e-procurement implementation by European firms. The study concluded that there exist country differences in e-procurement implementation. Locally, Orori (2011) studied factors that influence the introduction of e-procurement on retail industry in Kenya and found that there is a lot of resistance to change. Kangogo and Gakure (2013) found that private entities have successfully embraced the use of e-procurement technology. There is minimal studies done to establish the influencing of employee competence on e-procurement implementation in county governments in Kenya and this formed the basis of this study. The study intended to assess the influence of employee competence on the implementation of e-procurement by County Governments in Kenya.

GENERAL OBJECTIVE

The objective of the study was to determine the influence of employee competence on the implementation of e-procurement in the selected county governments in Kenya.

THEORETICAL REVIEW

There are several theories that can explain the issues influencing the implementation of a new idea in an organization. The study was guided by diffusion of innovation theory and technology acceptance theory.

Diffusion of Innovation Theory

The theory was advanced by Rogers in 1962. It explains how, over time, an idea gains momentum and diffuses through a social system or specific population. The end result of this is that people adopt a new behavior, product or idea. This means that the person does some tasks differently than what they did previously. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation (Rogers, 2003). As e-procurement includes changes in traditional procurement approaches and new technologies, the need to train staff in the use of e-procurement tools and procurement practices are critical to the success of an e-procurement initiative.

Technology Acceptance Model

This model was introduced by Davis in 1993. According to this theory, emerging technologies cannot improve organizational effectiveness and performance if the change has not been accepted by the users. Implementation of any innovation especially information technology requires investment in computer based tools to support decision making, planning and communication. It is therefore very critical that the systems are specified on organizational preference and logic. It is also necessary to understand that people may resist technological changes.

An institution should strive to understand why people resist changes and the possible ways through which such issues can be resolved. Everyone involved must therefore be informed on their roles and empowered to perform the respective roles (Kamel, 2014). However, this theory is a subjective measure and unreliable in measuring actual use of the system. This is because the time period between innovation and implementation could be full of uncertainties and other factors may arise during the process.

CONCEPTUAL FRAMEWORK

In this study, the dependent variable is the implementation of e-procurement while the independent variable is employee competence as shown in Figure 1.

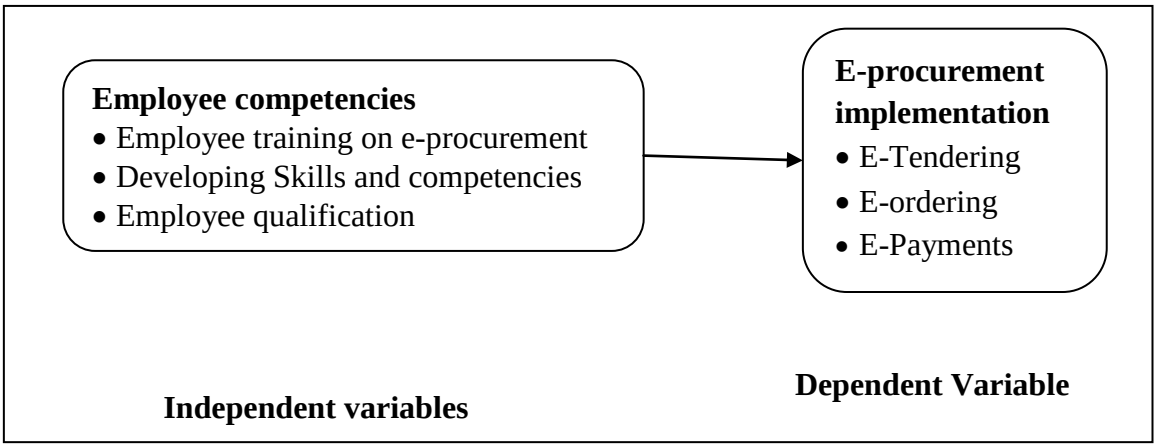

Figure 1: Conceptual framework on the influence of employee competence on the implementation of e-procurement by county governments in Kenya

EMPIRICAL REVIEW

Vaidya *et al.* (2009) conducted a study on critical factors that influence e-procurement implementation success in the public sector. The study found that despite the efforts put by the governments through reforms towards adoption of e-procurement, adoption of e-procurement still remains a major challenge for many procurement functions. Nah and Delgado (2006) conducted a study on critical success factors for enterprise resource planning implementation and

upgrade. The finding of the study revealed that implementation of enterprise resource planning requires appropriate technical skill.

A research conducted by United Nations (2011) on transparency and efficiency in public service delivery revealed that implementation of e-procurement itself is not a guarantee for success in the procurement operations. The study noted that a number of e-procurement programs fail because of lack of employee competency. Lewis (2004) conducted a study on essentials of e-sourcing. The study revealed that e-sourcing can be used as a tool to reduce process time, generate sourcing savings and to drive incremental revenues. The study further found that implementation of e-sourcing is affected by staff training and other stakeholders where possible.

A study by Aman and Kasimin (2011) on e-procurement implementation: a case study of Malaysia Government was carried out in order to understand the challenges of e-procurement implementation in the Government sector and the efforts taken to overcome the challenges. Findings shows that challenges of e-procurement implementation in Government sector were not only related to software integration, data management and roll-out strategy, but also to information technology skills. Findings show the importance of creating an IT facilities Centre in rural areas and working closely with a third-party vendor for users' training and skills development. Orina (2013) did a study on e-procurement readiness factors in Kenya's public sector to determine the extent of e-procurement levels in public institutions in Kenya. The results indicated that staff skills and procurement policies impacted the readiness of e-procurement in public institutions.

RESEARCH METHODOLOGY

Research Design

This study adopted a cross-sectional descriptive research design to determine the influence of institutional factors on the implementation of e-procurement by county governments in Kenya.

Target Population

The target population for this study was the county governments in Kenya. This are the devolved system of governance in Kenya divided into forty seven (47) counties. A sample of five counties was selected for the study.

Sampling Technique and Sample Size

The study used simple random sampling technique to select five counties to be used in the study. This technique was chosen since each county would have equal chance of being selected. The sample was ten percent of the population which was appropriate since samples of about 10% of a population can give good reliability (Blumberg, Cooper, & Schindler, 2014). The sampling was also appropriate since it is not feasible to involve the entire population under study.

Purposive sampling was used to select the respondents from the five counties who were the heads of procurement, finance, ICT, stores, human resource and head of audit department. The heads of these departments were chosen because the departments are involved in the implementation of e-procurement and thus they will provide the relevant information required for the study. The questionnaires were then administered to six respondents from each county government thus a total of 30 questionnaires were administered in the study.

Data Collection Instruments

Primary and secondary data was used in this study. Primary data was collected by use of a self-administered questionnaire. The questionnaire was designed to have both open- ended and closed-ended questions. The secondary data was obtained from journals, county government websites, national treasury website and libraries.

Data Collection Procedures

A questionnaire was administered to respondents who were the heads of procurement, ICT, finance, stores, human resources and head of audit department in each county government. Six questionnaires were therefore administered in each county and a total of thirty questionnaires were administered to all the sampled counties. The questionnaire were administered using drop and pick method.

RESEARCH RESULTS

Response Rate

The study targeted 30 sample respondents who were the heads of procurement, finance, ICT, stores, human resource and head of audit department in six counties. All the questionnaires administered to the respondents were filled and collected from the respondents which represents 100% response rate.

Influence of Employee Competencies on the implementation of e-procurement

The objective of this study was to assess the influence of employee competence on the implementation of e-procurement by county governments in Kenya. The respondents were therefore requested to indicate the extent to which they agreed with various statements about the influence of employee competencies on the implementation of e-procurement. The results are depicted in Table 1.

Table 1: Influence of Employee Competencies on the implementation of e-procurement

Statement	5 strongly agree	4 Agree	3 Neither agree nor Disagree	2 Disagree	1 Strongly Disagree	Mean	Std. Dev
Training of staff on the use of e-procurement tools enhances the implementation of e-procurement	52.8%	27.8%	2.8%	0%	16.7%	4.00	1.454
Employing qualified staff facilitates the implementation of e-procurement	52.8%	30.6%	5.6%	5.6%	5.6%	4.19	1.141
Electronic procurement manual within the organization to guide on e-procurement processes boosts its implementation	41.7%	44.4%	0.0%	2.8%	11.1%	4.13	1.253

The findings indicate that majority (80%) of the respondents concurred that training of staff on the use of e-procurement tools enhances the implementation of e-procurement (mean = 4.00, std = 1.454). Similarly, majority (83%) of the respondents agreed that employing qualified staff facilitates the implementation of e-procurement (mean = 4.19, std = 1.141). Most (86%) of the respondents also agreed that electronic procurement manual within the organization to guide on e-procurement processes boosts its implementation (mean = 4.13, std = 1.253).

The findings suggest that in order to implement e-procurement successfully, an organization needs to train its members of staff in order to acquire the necessary skills to operate and use the e-procurement system. The organization can also employ qualified staff for instance those with ICT and e-procurement knowledge and experience in e-procurement to supplement the existing staff and bring new knowledge and techniques that will be shared with others in order to enhance full implementation of the system. The organization can also develop an e-procurement manual to enable staff to refer in case of need as they carry on their operations to supplement the training.

Change Management Program

The study sought to find out if the respondents had undergone any change management program. The results indicated that 56% of the respondents had attended change management program while 44% had not attended the program. This shows that most of the respondents have the knowledge of implementing new programs in an organization and thus they can provide the information required by the study.

IFMIS E-procurement Training

The study examined if the respondents had been trained on IFMIS e-procurement. The results inindicated that 67% of the respondents had been trained while 33% had not been trained. This shows that majority of the respondents had been trained and thus they can provide relevant information on the implementation of e-procurement sought by the study. It also implies that the findings in the study represents the views of staff who have been trained on e-procurement.

Correlation between Employee Competence and E-procurement Implementation in County Governments

The study conducted correlation analysis in order to ascertain the relationship and the strength of associations between employee competence and e-procurement implementation in county governments.

Table 2: Correlation between Employee Competence and E-procurement Implementation in County Governments

		E-Procurement Implementationn
Employee Competence	Pearson Correlation	.606**
	Sig. (2-tailed)	.000
	N	30

**. Correlation is significant at the 0.01 level (2-tailed).

The results in table 2 shows that there was a positive significant linear relationship between employee competence and e-procurement implementation in county governments ($r = 0.606$, $p<0.05$). This implies that having employees who have been trained on the use of e-procurement will enhance the implementation of e-procurement in county governments. These findings are in agreement with a study by Hardy and Williams (2011) which asserted that as e-procurement comprises of changes in procurement approaches and new technologies, the need to train staff in the use of e-procurement tools and procurement practices are critical to the success of an e-procurement initiative. End-users can realize the benefits of e-procurement system once they comprehend the operational functionalities.

CONCLUSIONS

Training of staff on the use of e-procurement tools enhances the implementation of e-procurement. An organization therefore needs to train its members of staff in order to acquire the necessary skills to operate and use the e-procurement system. Similarly, Employing qualified staff and availing electronic procurement manual within the organization to guide them on e-procurement processes will boost the implementation of e procurement. E-procurement manual will enable staff to refer in case of need as they carry on their operations to supplement the training.

RECOMMENDATIONS

Based on the findings, the study recommends that county governments should train staff on the use of e-procurement tools in order to enhance the implementation of e-procurement. The institutions should also employ qualified staff and avail them with electronic procurement manual to guide on e-procurement processes and assist in the implementation of e procurement. In the same vain, county governments should procure infrastructure such as high speed computers and internet services in order to facilitate e-procurement implementation. The organizations should also ensure that it integrates the e-procurement system to the financial management system in order to facilitate e-procurement implementation. Similarly, the institution should also establish an information and communication technology section with competent staff in order to provide technical support during the implementation of e-procurement.

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