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E-TENDERING AND PERFORMANCE OF THE COUNTY GOVERNMENT OF KISUMU, KENYA

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ABSTRACT

This study explored on the relationship between e-Tendering practices and performance of Kisumu County Government, Kenya. This study was anchored on different theories; Technological Acceptance Theory, Resource Based Theory and Diffusion Theory. The objective was; Electronic Tendering on performance of the County Government of Kisumu, Kenya. The study employed descriptive research design. The target population of the study was 120 respondents. This was census survey meaning purposive sampling techniques was used. Research instruments were both open and closed ended questionnaire. Data was analyzed with the help of statistical package for social science version 28 and the same to be presented in a form of tables and figures. The study results noted that e-tendering had a positive correlation with performance of Kisumu County. The study concluded that a unit increase in electronic tendering could results to an increase in performance of the county Government of Kisumu; Kenya. The study recommends that County Governments should ensure that all modules from purchasing Requisition, Quotation/tenders, request for proposals, purchasing order approvals and Transmission, contract monitoring, Goods receipt note are embraced. This study recommends that County Governments should embrace supplier management systems which will help them track their entire suppliers and ensure continuous supply of good to user departments. Further, County Governments should adopt E-Tendering as it increases access to many suppliers and reduce time taken to award a contract. The study recommended that in order to achieve maximum benefits of reduced order processing time, reduced costs, reduced human errors and improved delivery, management should enhance electronic system and insist on all orders being processed electronically.

Key Words: E-Tendering, E-Procurement, Performance

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INTRODUCTION

A supply chain is the set of entities that are involved in the design of new products and services, procuring raw materials, transforming them into semi-finished and finished products and delivering them to the end customers. Supply chain management is efficient management of the end-to-end process starting from the design of the product or service to the time when it has been sold, consumed, and finally disposed of by the consumer. This complete process includes product design, procurement, planning and forecasting, production, distribution, fulfillment, and after-sales support (Kim & Shunk, 2003). Supply chain management is a highly-detailed system used by small and large organizations alike to get products to consumers, from obtaining raw materials, manufacturing and delivering the final product to the customer. A well-organized supply chain management system involves optimizing operations functionality to be fast and efficient. Today, more than ever before, supply chain management has become an integral part of business and is essential to any company's success and customer satisfaction. Supply chain management has the power to boost customer service, reduce operating costs and improve the financial standing of a company, but how does this work?

Globally, e-procurement has gained popularity especially with the advent of technology. In United States of America for instance, rapid development of e-procurement was reported in early 2000 just before the recession. By the end of the same year, it was reported that all state functions were maintaining web presence in at least some stage of their procurement processes with some participating in online bidding (Rogers, 2010). In Malaysia, the government at some point issued a statement calling for all suppliers to use the e-procurement system pointed out that Malaysian public sector is going through a rapid change especially as far as adoption of technology is concerned. Adoption of e-government and

particularly e-procurement is inevitable for the government.

In Africa, the concept of e-procurement is just gaining popularity especially in the public sector. To deal with the problems of lack of accountability and transparency in procurement activities in the public sector, Most African countries have resorted to legal reforms and adoption of procurement. Tanzania for instance put into place e-procurement systems to allow e-sharing, e-advertisement, e-submission, e-evaluation, e-contacting, e-payment, e-communication and e-checking and monitoring to ensure all public procurement activities are conducted online (Li & Lin, 2006).

E-Procurement or call as Business to Business network is an online system where organization connected directly to the suppliers in order to buying products and services at the lowest cost as possible. E-Procurement is also one of the ranges of government measures to facilitate the process of purchasing goods online. The business also can give more control, flexibility, automation and able to save time when manual transaction is turned into electronic. Conducting to, E-Procurement allowed buyers to buy goods and services over the usage of internet services in various ways. For example, through online tendering, tenders for contracts are made through online. Another study by Okumu and Bett (2019). states that a five-star hotel in Nairobi City, Kenya also applying e-procurement where its able to reduce in-terms of employee required as well as material that normally used in traditional procurement.

Electronic tender, or e-Tender, is the process of sending and receiving bid tenders using online procurement platforms. E-Tendering makes a huge difference to the procurement process as it offers improved visibility, compliance and decision-making across source-to-pay (S2P) operation. For any e-procurement initiative either in the public sector to be successful, there are a several factors that are critical to its success.

According to Kingori (2013), in an international journal on the adoption of e-procurement in Japan, empirical research, mentions that these factors must be addressed for successful implementation of e-procurement in an organization. The factors include; the users' acceptance of new systems of information. The quality of information that would be obtained, trust in the new systems, perceived risks, skills that staff have and the training they would require, support from the top management at the organization, benefits that would be obtained from implementing the new system and continuous assessment of the benefits, benchmarking and compliance to best practices and factual selection of e-procurement solution Mose et al. (2012) did a research on the impact of e-procurement on the operations of Kenya Commercial Bank (KCB).

The study noted five critical factors that has the greatest impact on e-procurement. These five factors are user acceptance of e-procurement systems, reliability of information technology and supplier performance, top management and employees' commitment to success of adoption, monitoring the performance of e-procurement systems and senior management support to e-procurement implementation process. The study also reveals that in the process of implementing e-procurement, there are challenges including some resistance to change by some of those employees, some managers were not supportive of the new changes thus pulling down the adoption process, there was existence of the old information technology (IT) systems and equipment that was still in use and lack of board approval to using e-procurement system. These challenges have to be overcome, if the organization is to fully implement e-Procurement and maximize its potential.

Mauti (2012), on e-procurement adoption in the South-Coast SMEs', mentions that e-procurement is amongst the most successful applications in many small and medium enterprises business operations as these SMEs seek better quality business processes. The paper confirms that e-procurement has quickly been adopted because of the benefits

that it affords an organization. Some of these benefits include time saving as the goods and services are ordered via a click of a button, this then spares time for the small business owners and operators to concentrate on other matters of the business. It saves costs since an entrepreneur can compare and contrast prices electronically and the best is picked much easily without any hassle (Mogoi & Osoro, 2022).

Another benefit is improved efficiency in the working place afforded by e-procurement; these three are the drivers of implementation of the e-procurement in SMEs.

Mauti (2012), conducted a case study of e-procurement implementation in Malaysian government, she established that a properly implemented e-procurement system helps companies to connect to each other. The e-procurement platforms also link their business processes directly to their suppliers and helps to manage all interactions with other partners in business. In the study one-procurement and procurement performance of supermarkets in Nairobi'. The study stated that adoption of e-procurement is still low as this is a new angle of doing business for supermarkets. Though in the short period that eProcurement platform has been in place, the businesses that had adopted it experienced enhanced cost efficiency through the reduction of wastage like the usage of paper and reduced cost of sourcing for suppliers. The study also noted that efficiency and effectiveness of operation at the work place has been improved due to better communication within the organization. The e-requisitioning, e-tendering and e-sourcing has improved operations at the supermarkets. The study recommends that those policy makers in the ICT sector should encourage retail businesses in the country to exploit information systems for growth. He stated that training and capacity building of staff in procurement practices is a critical factor for successful e-procurement implementation. The staff need to be well trained and equipped so as to be well conversant with the e-procurement systems

(Mogoi & Osoro, 2022). Considering that the success of e-procurement is dependent on the users who are part of the implementation process.

Statement of the Problem

According to Njiru (2008), the government of Kenya considers ICT as a key pillar in implementation of vision 2030 which targets to transform this country into an industrialized nation. As a step to achieving this, the Government moved to set up ICT centers in addition to the laptop project for primary schools. A full ICT board has been set up by the government to spearhead the ICT change in the country which is a positive signal to e-procurement (Ominde et al., 2022). Recently the ministry of Finance with the support of Public Procurement Oversight Authority through the PPAD Acts 2015 came up with a mandate of establishing e-procurement alongside Integrated Financial Management Information Systems (IFMIS) in public sector. The government of Kenya is currently advocating for adoption of e-procurement by all public procuring entities to enhance transparency, effectiveness, accountability and reduction in corruption. Further, it is argued that there is need to have a robust automated procurement system which is interlinked and this will lead to enhanced competitiveness and lowered costs.

According to Nyile et al. (2022), while public procurement is one of the cores functions of the government, it has been and continues to be neglected by academicians and researchers. This creates a knowledge gap making it a challenge for governmental entities, policy-makers, and public procurement professionals to make decisions relating to adoption of new technologies and emerging procurement trends. E-Tendering is one of the reforms that has to be adopted by the government of Kenya to enhance public procurement operations. In ideal conditions, adoption of e-tendering is expected to bring sanity in the procurement operations, reduce costs and enhance efficiency. For many organizations, including public organizations, the objectives of adoption of e-procurement include: enhance

efficiency; improved accountability, transparency and reduced costs (Mogoi & Osoro, 2022).

There have been efforts to ensure that government agencies implement e-tendering, Procurement Regulation (2013) and not long ago, initiatives of implementing e-tendering by the government of Kenya were hailed as a success. The lack of transparency in the manual procurement process has made it impossible for the government and state corporations to realize their objectives leaving e-tendering as the major alternative. According to Ominde et al. (2022), the devolved units in Kenya are now advocating for the suspension of the implementation of e-tendering systems in counties citing its ineffectiveness in service delivery due to lack of the required infrastructure. In view of the conceptual, contextual and geographical differences in various studies, it necessitates for the study on E-Tendering and Performance on the County Government of Kisumu, Kenya.

Study objective

To determine the effect of e-tendering on Performance of Kisumu County, Kenya.

Research Questions

What is the effect of e-tendering on performance of Kisumu County, Kenya?

LITERATURE REVIEW

Theoretical Literature Review;

Technology Acceptance Theory

Technology Acceptance theory is thought to be relevant of this study in order to understand the effect of e-tendering on performance of Kisumu County, Kenya, hence it gives a theoretical background for this study. Technology acceptance theory describes how users come to accept a technology and make use of it. It explains to what extent an employee views the system and believes it will improve the desired work output, and to what extent an employee thinks that using the system will require the least effort. The theory postulates that perceived usefulness entails how users feel in the sense that intended innovations

contributes to making work more effective thereby improving on results, while ease of use as viewed by the employee assesses the efforts made in order to use the new system (McConnell, 2009). The Technology Acceptance Model theory has been used for decades to guide studies aimed at explaining information technology and technology (ICT) usage behavior. The theory delves on analyzing the drivers of potential users to approve or refuse to use the system and predicts users' reaction when using the system. Under, the emphasis is on how much a user views the system to improve the desired work output and the how much the system is easy to use. Harink, Boer and Heijboer (2002), they extended the technology acceptance theory with explanations on the factors that contributes towards the user's belief on ease of use and belief on usefulness. Their model extended the theory based on factors that have an effect on both the degree of impact on performance and ease of using the system. The model reveals that the factors that influence degree of usefulness of a system are; output quality, result oriented image, subjective norm and job relevance. Subjective norm can be moderated by two factors that is; voluntariness and experience. In essence, image can be described as how individual feels after adopting particular technologies. This theory is applicable in the study as user acceptability of the e-procurement is one of the key critical success factors that influence its adoption. Thus, technology acceptance model (TAM) will be applicable as far as this study is concerned (Green, 2004).

Resource Based Theory

Resource Based theory is thought to be relevant of this study in order to understand the effect of e-sourcing on performance of Kisumu County, Kenya, hence it gives a theoretical background for this study. Resource based theory Rogers (1962); the theory presents that innovation is a process that is aimed to improve economic development. According to innovation diffusion theory, innovation is defined as an idea perceived as new by individuals. OECD (1997) cited by Harink, de Boer

and Heijboer (2002) defined innovation as all the scientific, technological, organizational, financial, and commercial activities necessary to create, implement and market new or improved products or processes. Innovation theory brings on board four important elements.

This theory assumes that adopters of innovation are categorized into five; innovators, individuals who want to be the first to try the innovation, Early Adopters, people who represent opinion leaders, Early Majority individuals who need to see evidence that the innovation works before they can adopt it, Late Majority, skeptical individuals who only adopts an innovation after it has been tried by the majority and Laggards, individuals who are very skeptical of change and are the hardest group to involve in the innovation process.

According to resource-based theory, rate of adoption of innovative strategies can be looked at in terms of; relative advantage given to the organization, compatibility, complexity, trial-ability of the new strategies and observability to the stakeholders within the social system. The second factor is communication that lays information and creating and sharing information relating to innovative initiatives in the organization. The third element is time that considers the duration involved in the innovation-decision process. The last element is the social context of the new systems (Croom & Brandon-Jones, 2004). The theory points out that with different levels of operation on e-platform, different levels of performance by way of service delivery are expected. The concepts in this theory are relevant to this study in that e procurement, diffused to different extents among the county governments, is expected to lead to different service delivery levels.

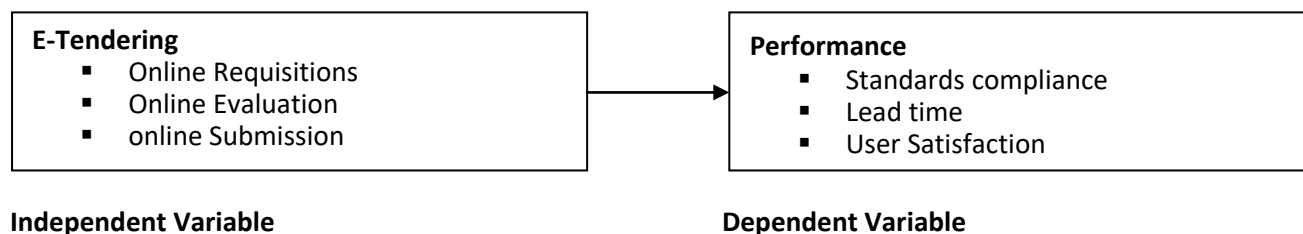
Diffusion Theory

Diffusion theory is thought to be relevant of this study in order to understand the effect of e-ordering on performance of Kisumu County, Kenya, hence it gives a theoretical background for this study. Diffusion theory is not an ideology, but it has been construed ideologically by those who would

argue for a 'trickle down' approach to economic development. For this reason, the theory has been resisted or ignored by some of those who hold more liberal ideologies (Cook, 2000). Diffusion theory does not lead to the conclusion that one must wait for the diffusion of a new product or practice to reach the poorest people, assuming that they will be late adopters regardless of the interventions attempted to reach them. In fact, one can accelerate the rate of adoption in any segment of the population through more intensive and more appropriate communication and outreach. Knowledge is gained largely through the one-way communication of information. Persuasion occurs through the two-way communication of normally-operating social influence in the form of informal, extant local opinion leadership. Together, communication of information and communication of influence represents a dual-process model of inputs (Bandura, 1986) that can result in a ripple of positive adoption decisions among units of adoption such as teachers to try a new practice.

In the preceding scenario, information alone was insufficient to move the individual toward a positive decision or even serious contemplation of innovation costs and benefits when the innovation in question is consequential perceived to have high relevance to the attainment of personal or collective objectives (Green, Gottlieb & Parcel, 1991). Dialogue was the key. Proximity played a role. An innovation can be an idea, knowledge, a belief or social norm, a product or service, a technology or process, even a culture, as long as it is perceived to be new. Innovations are communicated verbally, by one person telling another, and in many other ways such as via magazine advertisements and personal observation. Commonly, we first learn of innovations through impersonal mediated communication channels, but only decide to adopt an innovation for ourselves later, after asking the opinion or observing the behavior of someone whom we know, trust, or consider an expert (Cook, 2000).

Conceptual Framework



Independent Variable

Dependent Variable

Figure 1: Conceptual Framework

METHODOLOGY

Research Design: The study used descriptive research design. It is suitable since it describes the way things and events are in their natural setting. Mugenda and Mugenda (2008) states that a descriptive research design puts things as they are, and is used whenever the data being collected is to describe the phenomena. The research design also possesses enough provisions for protection against bias and maximizes reliability. Creswell (2013) further mentions that to get a full picture of the subject under study, then the investigation must be done in a systematic order. Therefore, descriptive

survey seems to be the best strategy that fulfils the objective of this study.

Target Population: The target population of this study was 120 respondents who comprised the head of procurement, finance and the administration respectively in Kisumu County, Kenya. This was my unit of analysis and my unit of observation was the Sub counties in Kisumu County. According to Kenya Bureau of Statistics (Kisumu County Office, 2014), there are 120 senior officers in the three departments in the said county. This study used a census survey, since the respondents are manageable.

Sample and Sampling Technique: Sampling is a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate the characteristics of the whole population (Kothari, 2011). Sampling means selecting the group that you actually collect data from in your research. For example, if you are researching the opinions of students in your university, you could survey entire population of 120 respondents. In statistics, sampling allows you to test questionnaire about the characteristics of a population (Mugenda & Mugenda, 2008). Sampling was a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate the characteristics of the whole population (Kothari, 2011). This study used purposive random sampling technique, because the respondents have same features, experience, skills and knowledge.

Research Instrument: A Research Instrument is a tool used to collect, measure, and analyze data related to your research interests (Mugenda & Mugenda, 2008). They included questionnaire, interviews, observations, focus group discussion and experiment. The questionnaire was the commonly used instrument for collecting research data from the participants of a study. This study used open and closed ended questionnaire. Open are good because they give respondents freedom of expression and closed give choices to choose from. Pilot Test: A pilot study is the first step of the entire research protocol and was often a smaller-sized study assisting in planning and modification of the main study (Kothari, 2011). More specifically, in large-scale clinical studies, the pilot or small-scale study often precedes the main trial to analyze its validity. 10% (12) of the respondent was tested for reliability and validity. A pilot study to test the validity and reliability of the questionnaire was undertaken. The issues of validity, reliability and generalizability need to be addressed in order for the research findings to be accepted as appropriate. The underlying construct was determined by face

validity test to measure whether the indicators seem to be reasonable.

Data Analysis: Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data (Mugenda & Mugenda, 2008). Data presentation is a process of comparing two or more data sets with visual aids, such as graphs. Using a graph, you can represent how the information relates to other data. This process follows data analysis and helps organize information by visualizing and putting it into a more readable format (Kothari, 2011). This study used statistical package for social sciences (SPSS) version 28 for analysis. Multiple regression formula was applied to analyze the relationship between dependent variable and four independent variables.

$$y = \alpha + \beta_1 X_1 + \varepsilon$$

Where;

Y= Performance of the county government of Kisumu

α =constant

β_1 = parameter estimate

X_1 = E-Tendering

ε is the error of prediction.

FINDINGS AND DISCUSSION

Response Rate

From the questionnaires returned, only 110 out of the 120 expected questionnaires were returned and fully responded to. This shows a 91.6% response rate which is an acceptable percentage based on scholars who have argued variously that a response rate that exceeds 60% is still acceptable and would still answer the questions asked.

Descriptive Statistics for E-Tendering

Descriptive statistics: E-Tendering Practices and performance

To acquire the requisite data for electronic tendering and performance of Kisumu County sought to establish the effect e-tendering on performance of the county government of Kisumu, Kenya. it is clear that majority at 68.3% disagreed

with the statement that their Online advertisement of tenders on supplier's portal. Only 21.7% agreed and 10.0% were neutral. This implies that online advertisement of tenders was conducted on supplier's portal. On whether, Timely Short listing of tenders by the e-procurement system, 61.7% disagreed, 26.6% agreed and 11.7% were neutral. This again suggests Timely Short listing of tenders was done on e-procurement system. When asked if, Availability of Specifications on the county's website, 66.7% disagreed, 21.6% agreed and 11.7% were neutral. Clearly, Availability of Specifications

was done on the county's website. Moreover, when asked if Time Calls for proposals was done on the county's website, 61.7% disagreed, 28.3% agreed and 10.0% were neutral. This shows that Time Calls for proposals was done on the county's website. Finally, the respondents were asked if System have a contract management features set as default into the contract register, 66.7% disagreed, 21.6% agreed and 11.7% were neutral. This again implies that Systems have a contract management features set as default into the contract register.

Inferential statistics

Table 1: Correlation Analysis

		Performance	E- tendering
Performance	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	120	
E-tendering	Pearson Correlation	.668**	1
	Sig. (2-tailed)	.000	
	N	120	120

From the above correlation table, the independent variable (e-tendering) had a positive relationship with performance in Kisumu County Government, e-tendering had ($r=0.668$, $p< 0.00$).

Analysis of linear regression;

Linear influence of E-Tendering on performance

This tested the direct influence E-Tendering on performance. Regression analysis was used to determine the relationship between the independent or predictor variable and a dependent variable.

Therefore, the linear regression equation is;

$$(ii) y = 2.605 + 0.409X_2$$

Where;

y = Performance

X_2 = E-Tendering

CONCLUSIONS AND RECOMMENDATIONS

The first objective sought to determine the effect of e-tendering on Performance of Kisumu County, Kenya. The study results noted that e-tendering had a positive correlation with performance of Kisumu County

The study concluded that a unit increase in electronic tendering could result to an increase in performance of Kisumu County. The study concluded that a unit increase in electronic sourcing could lead to an increase in performance of Kisumu County. The study concluded that a unit increase in electronic ordering leads to an increase in performance of Kisumu County. The study concluded that a unit increase in electronic informing can lead to an increase in performance of Kisumu County.

The study recommends that County Governments should ensure that all modules from purchasing Requisition, Quotation/tenders, request for proposals, purchasing order approvals and Transmission, contract monitoring, Goods receipt note. This will reduce tender processing time, eliminate postal, printing & storage costs, wide supplier base will be achieved and audit trails will be maintained thus reduction of corruption.

This study recommends that County Governments should embrace supplier management systems which will help them track their entire suppliers and ensure continuous supply of good to user

departments. Further, County Governments should adopt e-sourcing as it increases access to many suppliers and reduce time taken to award a contract.

The study recommended that in order to achieve maximum benefits of reduced order processing time, reduced costs, reduced human errors and improved delivery, management should enhance electronic system and insist on all orders being processed electronically.

Areas for further studies

Similar study can be done on other projects using similar variables, though using different methods.

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