
Influence of Strategic Organizational Practices on the Performance of Electronic Procurement in Tana River County Government, Kenya

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ABSTRACT: *Electronic procurement systems have proven themselves within various government organizations as an effective tool for instituting procurement reforms and establishing a fully transparent and open procurement environment. There has been growing interest in adopting of various strategic organizational practices for the purpose of improving the performance of electronic procurement in both private and public sector. The main objective of this study was to assess the influence of Strategic Organizational practices on the performance of electronic procurement in Tana River County Government, Kenya. The specific objectives of this study were; to establish the influence of Information Communication Technology infrastructure on the performance of electronic procurement in Tana River County Government, Kenya; to establish the influence of the employees' Information Technology competency on the performance of electronic procurement in Tana River County Government, Kenya to establish the influence of public procurement regulations on the performance of electronic procurement in Tana River County Government, Kenya and finally to establish the influence of managerial commitment on the performance of electronic procurement in Tana River County Government, Kenya. The study used a descriptive research design to obtain information from the selected respondents on the current status of the phenomena under investigation. The study was carried out in Tana River County in Kenya. The sample size of 116 representing 30% of the total population of 385 drawn from Procurement department staff, Accounts Department Staff, ICT department staff, Administrative Officers, and Prequalified Contractors and Suppliers. The respondents were purposively selected to participate in the study because they were the leading implementers of Strategic Organizational practices. The researcher used a questionnaire as a tool for data collection in the study. These entailed both primary data and secondary data. Preliminary data was collected from the sampled respondents, while Secondary data was collected from textbooks, journals, and magazines. The study included quantitative analysis of the data collected to help identify the gap in knowledge related assessment of the influence of Strategic Organizational practices on electronic procurement performance in Tana River County Government, Kenya. Quantitative analysis was done with the help of the Statistical Package for Social Sciences (SPSS) version 23 and was presented through the use of frequency distribution, charts, and tables. The study found that Strategic Organizational practices positively and significantly influenced the performance of Electronic procurement in Tana River County Government, Kenya; ICT infrastructure with ($\beta = 0.307, p < 0.05$); Employees IT Competence with ($\beta = 0.582, p < 0.05$); Public Procurement regulations ($\beta = 0.898, p < 0.05$) and Managerial Commitment ($\beta = 0.427, p < 0.05$).*

KEYWORDS: Strategic Organizational practices, Performance of Electronic Procurement, Public Procurement, Tana River County government

INTRODUCTION

Electronic procurement uses internet-based information and communication technologies to carry out all procurement functions, including; search, sourcing, negotiation, ordering, receipt, and post-purchase review (Mauti, 2013). According to (Mccue Clifford, 2012), e-procurement uses information technology to develop a procurement process responsive to changes in the environment. The public procurement systems in low-and middle-income countries have typically been characterized by spending money in less than transparent and inefficient ways. The application of digital technology and e-procurement offers opportunities for improvements in the public sector. Electronic procurement has been a common theme of many organizations to promote transparency and good governance in procurement for many developed and developing nations.

Electronic Government Procurement (E-GP) applies technology (particularly online technology) to public sector procurement of goods, works, and services, under an efficient, high-quality management framework. It involves harnessing information and communication technology to transform relationships with citizens and businesses and between the arms of the government (Bhatnagar, 2002). According to (PPOA, 2011), e-procurement can strengthen this sensitive, high-value government function's accountability, transparency, efficiency, and effectiveness.

E-procurement systems have proven themselves within various government organizations as an effective tool for instituting procurement reforms and establishing a fully transparent and open procurement environment. As noted in the (Nations, 2011), the business case for implementing an e-procurement system includes the following: First, e-procurement enables significant improvement in transparency. This is made possible through the traceability of all transactions on an online platform. This, in essence, provides an audit trail which is essential for the effective prevention of fraud and corruption. Secondly, electronic procurement enables enhanced value-for-money. This is made possible by enhancing competition through improved accessibility, reducing procurement costs and transaction costs, facilitating online catalog-based purchases, such as framework contracts, improved market intelligence, and resource allocation management.

Thirdly, electronic procurement improves work efficiency by reducing disputes, enabling better enforcement of regulations, reducing procurement time, standardization, and streamlining the procurement process. Several authors, (Coulthard Darryl, 2001) and (Vaidya Kishor, 2006), contend that e-procurement systems allow governments to apply standard procurement processes across institutions, using appropriate monitoring and management controls to delegate more responsibility to the individual procuring entities. The proper implementation of standard procedures and controls improves the work efficiency within procuring entities. It reduces procurement times by providing users with electronic tools and environments to support their tasks. The importance of public procurement in terms of size relative to World GDP and World trade was enlightened in a report by (OECD, 2001). The report estimated the value of the government procurement market at over 2,000 billion in 1998 and this was equivalent to 7% of the Worlds GDP and 30% of the world's merchandise trade.

For the Middle East and Africa, the magnitude of central procurement purchases ranged between 9 and 13%. This indicates that public procurement is vital within both developed and developing economies. Public sector procurement is large and complex, accounting for between twenty and thirty percent of gross domestic product (Thai, 2000) and traditionally attempts to meet many social and political objectives (Chen Yi, 2013). Researchers (Vaidya Kishor, 2006) have conducted studies on e-procurement. (Coulthard Darryl, 2001), observed that while some authors have noted the practical difficulties in getting the systems operational (Hellman & Joel, 2000), assert that there is virtually no discussion of implementation and management models of e-procurement in the government sector or of the consequences of these models for the government, suppliers, the public or for those whose responsibility it is to implement and manage an e-procurement system.

Ronald (2007) asserts that there are country differences concerning electronic procurement adoption. Firms from countries with low uncertainty avoidance, such as Germany and the UK, are the early adopters of e-procurement, while countries less reluctant to change, such as Spain and France, have lower adoption rates. (Greunen et. al., 2010), also carried out a study on the adoption of regulation-based e-procurement in the Eastern Cape provincial administration and found that measurable benefits of supply chain management have not yet been realized due to generally limited understanding of how supply chain management concept works within a government environment. Introduction of technology in the public procurement system has added a new dimension to the procurement reforms in Ghana. The combination of greater computing power and internet-based communication has given rise to the e-procurement or electronic procurement regimes (Segal Geoffrey, 2001). Studies also show that e-procurement systems can enable governments to monitor the efficiency and effectiveness of procurement and provide more transparency and accountability. However, such systems are only effective when linked to e-governance information (Odago Ogwang Meshack, 2013). (Benon, 2008), contends that e-procurement information system development and implementation is done differently depending on the government and the level of Information Technology (IT) appreciation among the public, especially the providers of government.

These case studies of e-procurement provide information about the potential benefits, impact, and consequences of e-procurement information systems. Korea is seen as a leader implementing a fully integrated e-procurement solution integrated with all other electronic government operations, including financial management systems, company registrations, and tax systems (Kalakota Ravi, 2000). Implementing the Korean KONEPS system was just one of eleven electronic government system initiatives across various institutions to support a fully integrated environment. This includes system support for the distribution and management of digital certificates to ensure the system's authenticity and security and associated security processes. Korea invested millions of dollars over several years. Its system evolved from an electronic tendering system to improve transparency in the procurement process to today's fully integrated e-procurement solution that takes full advantage of the efficiencies an electronic system offers. Though the investment in electronic procurement numbered in the millions and Korea continues to fund millions each year to support system operation and business development activities, the results of the system outweigh the investment with an estimated USD 6 billion economic impact in savings to

government and participating suppliers. Korean KONEPS currently supports over 41,000 public entities, 191,000 registered suppliers, and over \$50 billion in annual procurement activity. It is estimated that in Uganda, the volume of public procurement amounts to about 70 percent of the country's Gross Domestic Product (GDP).

This reveals that a large sum of money is being spent on various goods, services, and works (Country Procurement Assessment Report (CPAR), 2004). It is prudent for the Ugandan government to procure most efficiently and effectively to cut costs and foster transparency. (Ngobe, 2007), opines that the efficient and effective way to do this is by adopting e-procurement. Procurement data storage and information dissemination can be improved by an e-procurement information system implemented on web technology which allows data to be stored electronically. (Ngobe, 2007), opines that since the Internet is penetrating every corner of society, an e-procurement information system can enable the public to access relevant information about public procurement on time and in a correct format at a minimum cost. Providers can access the Procuring Entities' procurement plans and bidding documents through the Internet hence competition among potential providers will increase. Since public procurement is governed by strict laws set up by the government. The writer advises that it is vital that a preliminary review of the existing public procurement process be first carried out, after which a holistic approach in implementing public e-procurement information requirements can be adapted. E-procurement information systems need close communication with the stakeholders like the PDEs, PPDA, providers, and the public. To achieve close contact, e-procurement information systems need to be decentralized so that the closeness of the concerned stakeholders improves the process. Scholar (Mwololo, 2005) noted that despite the lack of a legislative framework, some significant changes had been realized in Kenya's information and communications technology (ICT) sector since the turn of the millennium. A notable achievement is the country's ICT policy document, which was approved by the cabinet in January 2006 (Communications, 2006).

Gitahi (2011) reveals that some organizations in Kenya have successfully adopted the use of e-procurement technology. Nation Media Group through their digital platform commonly known as N-Soko, has enabled their clients to purchase products online. There is also emerging evidence of the slow uptake of the technology despite the benefits that e-procurement offers (Segal Geoffrey, 2001). In the public sector, several models have been tried by different countries to implement e-procurement. These are seller - buyer-centric, e-marketplaces, or third-party. There has been growing interest in adopting e-procurement by private and public sector organizations in the last decade. However, this interest has been with many reservations since e-procurement is a recent phenomenon. According to (Dai Qizhi, 2001) and (Koorn Ronald, 2001), there is no doubt that the Internet in e-Procurement provides several advantages over earlier inter-organizational tools. For example, Electronic Data Interchange has provided automated purchasing transactions between buyers and their suppliers since it was launched in the 1960s. Enterprise Resource Planning (ERP) followed in the 1970s, and then came the commercial use of the Internet in the 1980s. This was followed by the universal application of the World Wide Web in the 1990s.

Michael (2001) asserts that using the Internet in isolation reduces the chances of businesses achieving e-commerce success. Elizabeth and Daniel (2002), Conferred that the extent of such

integration affected the benefits to businesses. It was noted that it has increased levels of integration resulted directly in increased benefits to businesses. From 1997, a trend emerged: Internet-based businesses moved away from storefronts, content websites, search engines, shopping malls, and incentive-and web-presence-based sites to more sophisticated e-commerce websites. Many firms started developing their websites. However, in Africa, some businesses resisted this trend and preferred to focus on more traditional methods to conduct business (L. C. , 1998). Ssewanyan (2007) examined the extent of adoption and usage of ICT on one hundred and ten firms in Uganda with respect to the contribution of ICT to the firm. The study illustrated that most respondents strongly agree that electronic services provide increased savings, increased efficiency, improved service delivery, low transaction costs, and enhanced market performance to the organization that invests in IT systems. The results further revealed that firms in developing countries' electronic services adoption and usage follow the same pattern as in developed countries. They only differ in the level of use and adoption.

In Kenya, e-procurement is at the early adoption stage and has been attributed to the astronomical costs involved in setting up the infrastructure and the skill gap in the labor market (Oke, 2006). ICT is considered a critical pillar in the success of vision 2030 by the government of Kenya, which aims to transform the country into an industrialized nation by the year 2030. The government has set the ICT board to spearhead the ICT revolution in the country, which is a positive signal for e-procurement. The high costs of slow speeds low, bandwidth capacity, and satellite connections have delayed the adoption of e-procurement. However, through their massive financial capacity, some companies have been able to gain a competitive advantage in getting connected early enough. The landing of the high capacity and high-speed fiber optic cable in the country made many companies embrace technology. The cable is expected to boost the efficiency of the Internet, making e-procurement a reality (PPOA, 2009). Through the ministry of finance, the government has also initiated an e-procurement project whose aim is to have an e-procurement system implemented in a few selected ministries before a full rollout to other government departments.

Tana River county service department has been increasing tremendously and, as a result, has led to increased transactions. This has resulted in rapid technological changes in the electronic service industry. To cope with the growth in customer population, there has been a need to determine the optimal capacity and quality to meet the short-term and long-term county requirements. The paradigm is shifting, and Tana River County can move quickly to respond to this change and gain market share, as well as reduce customer churn, by enhancing the experience of customers who now expect anytime electronic services connectivity (PCs and Internet) is very widespread in businesses of all sizes. Tana River County is determined to foster appropriate business environments for e-business and ICT uptake and target programs to overcome market failures to the extent that they are needed in particular areas (e.g., skill formation, specialized information). It has adopted an e-procurement system in transacting business with their customers and in so doing it expects to gain customer confidence and customer satisfaction.

Specific Objectives of the Study

- i. To establish the influence of Information Communication Technology infrastructure on the performance of electronic procurement in Tana River County Government, Kenya
- ii. To establish the influence of the employees' Information technology Competence on the performance of electronic procurement in Tana River County Government, Kenya
- iii. To establish the influence of public procurement regulations on the performance of electronic procurement in Tana River County Government, Kenya
- iv. To establish the influence of managerial commitment on the performance of electronic procurement in Tana River County Government, Kenya

2.0 Literature Review

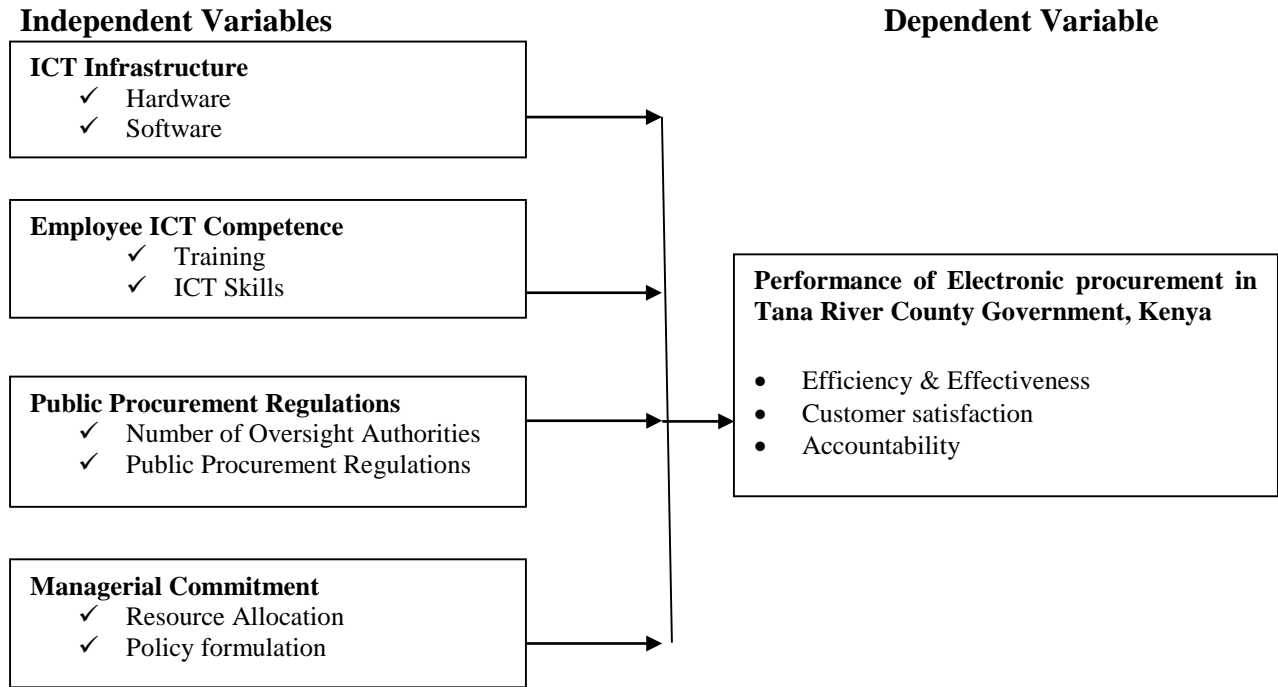
The study adopted the following theories; Disruptive Innovation Theory, Innovation Diffusion Theory and Technology Acceptance Theory

Conceptual Frame work

Chandran, (2004), defines a conceptual framework as a logically developed, described, and elaborated network of interrelationships among variables deemed integral to the dynamics of the investigated situation. The major function of a conceptual framework is to position the researcher in relation to the research. It states the researcher's ideological position from their agreement or disagreement with the current discussion and issues.

The following framework depicts the relationship between hypothesized factors that influence the Electronic Procurement Performance of Public entities in Kenya. The study's independent variables will be budgetary allocation, Top Management Support, staff competence, and IT Infrastructure. The dependent variable which is Performance of Electronic Procurement in Tana River County Government, Kenya

Figure 1: The Conceptual framework



Source: Researcher (2022)

Influence of Information Communication Technology Infrastructure on the Performance of Electronic Procurement in Tana River County Government, Kenya

Implementation of electronic procurement usually involves using advanced communication technologies such as email and the Internet. Having an online presence creates critical new methods of procurement for public procuring entities. Procuring entities have the role of developing e-procurement platforms in which stakeholders in the procurement department can sign in (Henriksen, 2005). Information Communication Technologies consists of a combination of hardware and software technologies. Hardware components are important for knowledge management systems because they have the role of platform for the software and transfer of knowledge. Some of the hardware requirements include personal computers or workstations to facilitate access to knowledge, servers for high traffic for the organization to be in-network, open architecture for interoperability in distributed media, mass media-rich in applications that need an integrated digital network of services, and high-speed optic fiber to offer access to public network email letter to the address provided at the site" and "the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners, and employees.

Rusek (2006), opine that technology has offered more opportunities for organizations through the digitalization of data and information which provides the opportunity for improved efficiency in

the administrative processes for both public and private sectors procuring units. Anti-Hype (2001a) cited user adoption as an essential factor in successful electronic procurement deployment. Lin (2000) opine that the importance of web content management and content rationalization as significant issues for e-procurement operations. They noted that constantly changing prices, specifications, and account details across the (online) supply base caused substantial problems in maintaining supplier catalogs. In addition, the way an item is described (item coding) is significant data management issue for electronic procurement. Macmanus, (2002) examined the implementation rate in the US sector, remarking that motivation for implementation was based on expectations of lower purchase prices, reduced transaction and process costs, and increased transaction speed. She also noted that the implementation of e-procurement had led to an increased debate about some of the fundamental principles behind public sector procurement, including 'lower bid wins.' Liao (2003) documented the challenges for e-procurement implementation in changing established procurement processes and practices. It highlighted the significance of 'human deficiencies and faults (i.e., corruption and inefficiency) in the implementation process.

Lin & Hsieh (2000) also claim that material code proliferation within ERP systems has posed similar challenges for the management of IS infrastructure. The extent to which the procurement system can integrate effectively with other IS, particularly production planning & control and finance systems is a significant causal determinant of the efficiency and effectiveness of a procurement implementation both with the customer's information infrastructure and in its links with suppliers (Subramaniam, 2002). Ngai, Chau and Chan, (2011) asserts that Information Technology improves operational and executive skills and competencies frameworks. It's is an auxiliary in accomplishing upper hand market edge via improved communication with clients (Roberts & Grover, 2012).

Influence of Employee ICT Competence on the Performance of Electronic Procurement in Tana River County Government, Kenya

According to Adelman (2000), Information Technology (IT) is the acquisition, processing, storage, and dissemination of vocal, pictorial, textual, and numerical information by a microelectronic-based combination of computing and telecommunication. The human capacity in using Information Technology (IT) may play a vital role in implementing e-procurement in public procuring entities. Employees must understand how to use ICT and how it will change the way they do business. Lancioni,(2000) asserts that Information communication Technology in procurement improve employees productivity, increase real time response, influence achievement of lean procurement, enhance procurement service delivery and improve procurement efficiency attaining overall organizational performance. Russel (2004) opines that the presence or absence of adequate skills or knowledge may end up having devastating consequences on procurement goals. There is a need to ensure that all individuals within an organization possess adequate skills and competence through training and induction processes.

Information technology is essentially specialized knowledge, skills, and tools in its simplest and most complex forms. There is a general feeling of helplessness among many employees in procuring entities due to their inability to use appropriate technology to further the goals of their

organizations, and this makes the majority of them shun away from implementing e-procurement due to the uncompetitive nature of procuring entities; employees may be reluctant to innovativeness that is usually witnessed in private institutions. This obstacle is more prominent for advanced ICT such as e-commerce, procure-to-pay IFMIS, and ERP software than basic ICT such as phone lines and fax. Macmanus (2002) opine that training is important where there is lack of competencies. The absence of motivation in many public procurement officers is one of the main reasons any new projects, new tools like e-Procurement, IFMIS, or any change are hardly implemented and hence there is need to improve the already existing bureaucratic standards in public institutions for the success of electronic procurement performance. Sivin-Kachala (1998) showed that people's perception of technology rarely brings the best out of many employees in public organizations. Banda (2009) opine that skills and training are needed to be equipped to procurement officers at all level of management where if possible greater emphasizes must be done to improve their competence.

Influence of Public procurement Regulations on the Performance of Electronic Procurement in Tana River County Government, Kenya

Public procurement rules depend on the country's legal setting and purchase players among them the government, public agency and other players. Procurement policies and regulations have been used to stimulate innovation and entrepreneurship, as well as social outcomes such as racial and gender equality (Charles, 2007). West (1999), states that international agreements on public tendering and procurement aim to regulate goods, services, and trade opportunities between public procurement entities and private organizations across different countries. Public procurement processes promoted by the World Trade Organization (WTO) and by the Organization for Economic Cooperation and Development (OECD) or financed by international agencies such as the World Bank or the European Bank for Reconstruction and Development must guarantee a public-private approach that avoids unnecessary trade restrictions, uses internationally harmonized measures, recognizes the equivalence of the other country's regulatory standards and applies principles of transparency and competitiveness.

In Kenya, the processes of procurement are controlled by Public Procurement Oversight Authority (PPOA). The Authority is mandated with the responsibility of ensuring that procurement procedures established under the Act are complied with; Monitoring the procurement system and reporting on its overall functioning; initiating public procurement policy; assisting in the implementation and operation of the public procurement system by preparing and distributing manuals and standard tender documents; providing advice and assistance to procuring entities and develop; promote and support training and professional development of staff involved in procurement contends (Andersen,2004).

The regulations for public procurement are contained in the Public Procurement and Disposal Act 2005; the Act ensures that public organizations maximize economy and efficiency, promote competition and ensure that competitors are treated fairly, promote the integrity and fairness of those procedures, increase transparency and accountability in those procedures, increase public confidence in those procedures and facilitate promotion of local industry and economic

development An Assessment of public procurement in Kenya by PPOA (2009) showed that there was low stakeholder awareness of web-based procurement information system. Although the PPOA is well aware of the benefits of digitalization of the procurement system, the implementation level of e-procurement in public procuring entities is still low. The public procurement and disposal Act (2005) (Kenya, 2005) has indicated guidelines under which public procuring entities should undertake their tendering process, undertake disposal of public property, and the whole procurement process. Williams (2003) asserts that the current legal framework in public procurement provides for a fully decentralized procurement process, leaving the full responsibility of undertaking Procurements to the tender committee and procurement unit at the level of the individual entity. This decentralization of decision-making authority represents a milestone in the implementation of e-procurement.

Influence of Managerial Commitment on the Performance of Electronic Procurement in Tana River County Government, Kenya

Implementation of electronic procurement which is associated with change requires managers to commit themselves to realize the importance of their employees in making the adoption a success. Organizational managers are required to adopt change management strategies that will make electronic procurement transformation process success. One way managers in organizations can reveal a commitment to change is to have change management team structures (Yildirim, 2000). Andersen (2004), change management structures outline the relationship between the project team and the change management team. The key in developing the strategy is to be specific and make an informed decision when assigning the change management responsibility and resources Organization for Economic Co-operation and Development, (2009).

Most major electronic procurement initiatives should be driven by top management. It's not unusual for a Chief Executive Officers (CEO) to be directly involved in the early stages of the process. One often unexpected demand of implementing an e-procurement strategy is the requirement for new management techniques and specialized skills among the organization's management team (Thomas, 2008). Managerial commitment towards electronic procurement implementation depends on the style of leadership adopted by many managers. Kippis (2007), asserts most African organization managers perhaps because of societal norms and expectations emphasize bureaucratic practices with total reliance on rules and regulations that workers obey without questioning or offering constructive criticism. Managers' attitude towards employees, to hinder employees from being innovative or adaptive to a change idea hence affect them from shifting from manual procurement to e-procurement that could benefit the organizations.

Bureaucratic practices usually create a very cold and impersonal organizational climate where workers in such organizations behave like robots and it hinders the attainment of organizational goals. The impersonal and legalistic environment according to (Kippis, 2007), alienates workers from both their job and organization. A study by (Howell, 1975) on Liberian workers showed a considerable similarity exists in employees' work goals around the world and that national differences regarding job-related objectives were not as significant as people thought. The findings of these studies indicate that human needs are universal. For workers to be motivated in

adopting new ideas in an organization, organizational managers must show commitment to motivate the workforce and improve the quality of work life. This will ease the implementation of new technologies such as e-procurement within the working fraternity

RESEARCH METHODOLOGY

Research Design

The study used a descriptive research design to obtain information from the selected respondents on the current status of the phenomena under investigation. A descriptive approach describes data and characteristics about the population or phenomena being studied. Mugenda & Mugenda, (2012), descriptive research aims to determine and report the way things are. It helped establish the current status of the population under study. Kothari (2012) posits that descriptive research design is important because it deal with protection of bias and maximized reliability which is the same issue which has been explained Gall, (1996) noted that descriptive design is intended to produce statistical information about aspects of a study that interest policymakers.

Target Population

A population is an entire group of individuals, events, or objects having common characteristics that conform to a given specification (Mugenda & Mugenda, 2012). A population is the complete set of cases from which a sample is taken (Taherdoost, 2016). Kumar (2011) defines Target population as those individuals who provide information required to answer questions and or test hypotheses of the study. The target population for this study was 385 respondents drawn from Section Heads; Procurement Department; Accounts Department; ICT department; Prequalified Suppliers & Contractors and Administrative Staff within Tana River County Government, Kenya. See table 1.

Table 1: Target Population

Category	Target Population
Human Resource Department	20
Procurement Department	50
Accounts Department	65
ICT Department	80
Prequalified Suppliers & Contractors	100
Administrative Staff	70
Total	385

Source: HR Department, Tana River County Government, (2022)

Sample and Sampling Procedure

The study used stratified sampling to select the respondents to participate in the study and then purposively sampling respondents from various strata's based on whom he thought was appropriate for the study (Chandran, 2004). Kothari (2012) posits that stratified sampling is used when a population of the study from which sample has been drawn does not constitute a homogeneous group. This is used primarily when a limited number of people have expertise in the

area being researched. The sample size of 116, representing 30%, was selected from the total population of 385. According to Mugenda and Mugenda (2012) a minimum of 10-30% of the target population needs to be included in the sample when dealing with heterogeneous sample.

Table 2: Sample Size

Category	Population	Sample Size
Human Resource Department	20	6
Procurement Department	50	15
Accounts Department	65	20
ICT Department	80	24
Prequalified Suppliers & Contractors	100	30
Administrative Staff	70	21
Total	385	116

Source: Tana River County Government, HR (2022)

Data Collection Method

A questionnaire was used as an instrument of data collection in this study. According to (Orotho, 2005), the questionnaire is an instrument used to gather data which allows measurement for and against a particular view point. (Chandran, 2004), asserts that questionnaires provide a high degree of data standardization and adoption of generalized information amongst any population. All the questions aimed to establish the influence of ICT infrastructure, employee population. All the questions aimed to establish the influence of ICT infrastructure, employee ICT competence, Public Procurement Regulations and management commitment on the Performance of Electronic Procurement in Tana River County Government, Kenya

Validity and Reliability of Research Instrument

Julie (2005) asserts that reliability is the degree of consistency and stability of results gotten from the data tested. Lyndsay (2009) opine that, a test is reliable when it gives the same result repeatedly under the same conditions. In this study, reliability was tested using the internal consistency method that is estimated using Cronbach's alpha. Reliability coefficients of 0.70 or higher are considered adequate (Alvesson & Skoldberg, 2017) and this is the threshold that was used by this study. To obtain the validity of the research instrument, content validity was employed, which measures the degree to which the test items represent the domain or universe of the trait being measured. The researcher then obtained a group of items that represented the content of the trait or property to be measured. Items were randomly chosen from the content that was accurately described in the information in all areas. Piloting was done in Lamu County government and their responses were analysed to determine if they meet the objectives and research questions of the study. The pilot study helped improve the validity of the instruments.

DATA ANALYSIS AND DISCUSSION**Influence of ICT Infrastructure on the Performance of Electronic Procurement in Tana River County Government, Kenya**

Respondents were given a set of questions to ascertain their perception on the Influence of ICT Infrastructure on performance of Electronic procurement, The responses were to be provided in form of Likert scale that ranged between 1 and 5, 1 being the lowest (Strongly disagree) and 5 being the highest (Strongly agree). The table below shows the respective responses from the respondents.

Table 3: Influence of ICT Infrastructure on the Performance of Electronic Procurement in Tana River County Government, Kenya

Statement	Mean	Std. Deviation
There is latest ICT Infrastructure in my departments	4.635	0.4352
High speed ICT gadgets have helped to improve service delivery.	4.3655	0.5596
My department has enough ICT Infrastructure supporting electronic procurement	4.2964	0.4362
There is policy regulations guiding the use of ICT infrastructure	3.3557	0.1463
Overall Mean	4.1631	0.3943

Source: Research Data (2022)

The above responses were obtained after running the means and standard deviation analysis of the responses. From the analysis in table 3, Majority of respondents with (overall mean= 4.1631, S.D=0.3943) agreed that ICT Infrastructure influence the Performance of Electronic Procurement in Tana River County Government, Kenya. The respondents agreed that there were latest ICT Infrastructure in their departments with (mean= 4.635, S.D=0.4352); High speed ICT gadgets have helped to improve service delivery with (mean= 4.3655, S.D=0.5596); their department had enough ICT Infrastructure supporting electronic procurement with (mean= 4.2964, S.D=0.4362) and finally they were neutral on whether there was policy regulations guiding the use of ICT infrastructure with (mean= 3.3557, S.D=0.1463) significantly influence the Performance of Electronic Procurement in Tana River County Government.

Table 4: Correlation between ICT Infrastructure and Performance of Electronic Procurement in Tana River County Government, Kenya

Correlations		ICT Infrastructure	Performance of Electronic Procurement
ICT Infrastructure	Pearson Correlation	1	.307
	Sig. (2-tailed)		
	N	96	96
Performance of Electronic Procurement	Pearson Correlation	.307	1
	Sig. (2-tailed)	.025	
	N	96	96

Source: researcher (2022)

From the results shown on the table 4 above, it is clear that there is a positive correlation between the Performance of Electronic Procurement in Tana River County Government and ICT Infrastructure with a correlation coefficient $r= 0.307$ and a level of significance at $p=0.025 \leq 0.05$ implying ICT Infrastructure influence the Performance of Electronic Procurement in Tana River County Government

Table 5: Regression analysis for ICT infrastructure and Performance of Electronic Procurement in Tana River County Government, Kenya

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.562	.536		8.512	.000
ICT infrastructure	.161	.151	.307	1.063	.025

a. Dependent Variable: Performance of Electronic procurement

Source: researcher (2022)

An association between ICT Infrastructure and Performance of Electronic procurement was established through regression analysis as shown in table 5. The data findings analyzed shows that there is linear relationship between ICT infrastructure and Performance of Electronic Procurement in Tana River County Government, Kenya with ($\beta=0.307$) and a level of significance at $p=0.025 \leq 0.05$. Taking all components (ICT Infrastructure) constant at zero, the Performance of Electronic Procurement in Tana River County Government realized would be **4.562**. The linear relationship will be $Y = 4.562 + 0.161 X_1 + \epsilon$. and Y= Performance of Electronic Procurement in Tana River County Government.

Influence of Employee's ICT Competence on the Performance of Electronic Procurement in Tana River County Government, Kenya

In order to assess the influence of Employee's ICT Competence on the Performance of Electronic Procurement in Tana River County Government, Kenya, the respondents were asked a series of questions on their perception on the above subject matter. The responses were to be provided in form of Likert scale that ranged between 1 and 5, 1 being the lowest (Strongly disagree) and 5 being the highest (Strongly agree). The table below shows the respective responses from the respondents

Table 6: Influence of Employee's ICT Competence on the Performance of Electronic Procurement in Tana River County Government, Kenya

Statement	Mean	Std. Deviation
Majority of employees are ICT trained	3.98	1.109
There is frequent training on the use of ICT tools in procurement	4.35	1.263
Procurement staff with ICT skills are given priority in employment	3.35	1.263
Staff Competency level in ICT affect use of e-procurement	3.82	1.142
Overall Mean	3.876	1.194

Source: Research Data (2022)

Based on table 6 above Majority of respondents with (overall mean= 3.749, S.D=1.194) agreed that Employee's ICT Competence significantly influence the Performance of Electronic Procurement in Tana River County Government, Kenya. Majority of respondents agreed that there is frequent training on the use of ICT tools in procurement with (mean= 4.35, S.D=1.263); Majority of employees are ICT trained with (mean= 3.98, S.D=1.109); Staff Competency level in ICT affect use of e-procurement with (mean= 3.82, S.D=1.142) and finally majority of respondents agreed that Procurement staff with ICT skills are given priority in employment with (mean= 3.35, S.D=1.262)

Table 7: Correlation between Employee's ICT competence and Performance of Electronic Procurement in Tana River County Government, Kenya

Correlations		Employees Competence	IT Performance of Electronic Procurement
Employees ICT Competence	Pearson Correlation	1	.582*
	Sig. (2-tailed)		.023
	N	96	96
Performance of Electronic Procurement	Pearson Correlation	.582*	1
	Sig. (2-tailed)	.023	
	N	96	96

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Researcher (2022)

From table 7, Pearson's product moment correlation that was performed to explain the strength of the association between Performance of Electronic Procurement and employees' ICT competence, the researcher ascertained there is positive and statistically significant correlation between the study variables with ($r = 0.582$) and a level of significance at $p = 0.023 \leq 0.05$

Table 7: Regression analysis for employees ICT Competence and Performance of Electronic Procurement in Tana River County Government, Kenya

Coefficients ^a		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.770	.308		15.49	.000
	Employees IT Competence	.230	.089	.582	2.583	.023

a. Dependent Variable: Performance of Electronic Procurement

Source: Researcher (2022)

As shown in table 7, the regression analysis reveals that there is positive linear relationship between Employees ICT Competence and Performance of Electronic Procurement in Tana River County Government, Kenya with ($\beta = 0.582$). The analysis describes the proportion of variance in the dependent variable (Performance of Electronic Procurement) that is described by the independent variable (Employees ICT Competence). The regression was used to learn more about the relationship between a dependent or criterion variable and independent or predictor variables.

Taking all components (Employees ICT Competence) constant at zero, the Performance of Electronic Procurement in Tana River County Government realized would be 4.770. The data findings analyzed also shows that taking the independent variable at zero, a unit increase in Public procurement regulation lead to a **0.230** increase in e-procurement performance. The linear relationship will be $Y = 4.770 + 0.230 X_2 + \epsilon$. And Y= Performance of Electronic Procurement in Tana River County Government.

Influence of Public Procurement Regulations on the Performance of Electronic Procurement in Tana River County Government, Kenya

In an effort to find out how Public Procurement Regulations Influence Performance of Electronic Procurement in Tana River County Government, Kenya, respondents were required to answer a number of questions on what they thought were influence of Performance of Electronic Procurement. The responses were to be provided in form of Likert scale that ranged between 1 and 5, 1 being the lowest (Strongly disagree) and 5 being the highest (Strongly agree). The table 8 below shows the respective responses from the respondents.

Table 8: Influence of Public Procurement Regulations on the Performance of Electronic Procurement in Tana River County Government, Kenya

Statement	Mean	Std. Deviation
PPOA regulations are strictly followed in our organization	4.167	1.50
Implementation of PPDA regulations of 2005 contributes to Performance of Electronic Procurement	3.922	1.454
Procurement regulations in my organization is integrated with other government policies	3.933	0.991
There is proper interpretation of public procurement regulations	4.909	.7168
Overall Mean		4.233
1.145		

Source: Research data (2022)

From the table 8, Majority of respondents with (overall mean= 4.233, S.D=1.145) agreed that Public Procurement Regulations influence the Performance of Electronic Procurement in Tana River County Government, Kenya. Majority of respondents agreed that PPOA regulations are strictly followed in their organization with (mean= 4.167, S.D=1.50); Majority of respondents said Implementation of PPDA regulations of 2005 contributes to Performance of Electronic Procurement with (mean= 3.922, S.D=1.454); Majority responded that Procurement regulations in their organization is integrated with other government policies with (mean= 3.933, S.D=0.991) and finally majority of them strongly agreed that there is proper interpretation of public procurement regulations with (mean= 4.909, S.D=0.7168)

Table 9: Correlation for Public Procurement Regulation and Performance of Electronic Procurement in Tana River County Government, Kenya

Correlations			Public Procurement Regulations	Performance of Electronic Procurement
Public Procurement Regulations	Pearson Correlation	1		.898**
	Sig. (2-tailed)			.000
	N		96	96
Performance of Electronic Procurement	Pearson Correlation	.898**		1
	Sig. (2-tailed)	.000		
	N	96		96

** . Correlation is significant at the 0.05 level (2-tailed).

Source: Researcher (2022)

The researcher investigated the correlation between the study variables using Pearson's product moment correlation (r) as shown in the table 9. According to the analyzed data, that there is positive and statistically significant correlation between Public Procurement Regulations and the Performance of Electronic Procurement in Tana River County Government, Kenya with (r =0.898) and a level of significance at $p=0.000 \leq 0.05$

Table 10: Regression analysis for Procurement Regulation and Performance of Electronic Procurement in Tana River County Government, Kenya

Coefficients^a		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.429	.218		11.136	.000
	Public procurement regulations	.425	.058	.898	7.346	.000

Dependent Variable: Performance of Electronic Procurement

Source: Researcher (2022)

To establish the association between Public procurement regulations and Performance of Electronic Procurement, the researcher used regression analysis as shown in the table 10. Public procurement regulations with ($\beta =0.898$, $p < 0.05$) has the strongest relationship with the Performance of Electronic Procurement in Tana River County Government, Kenya

Taking all components (Public procurement regulations) constant at zero, the Performance of Electronic Procurement in Tana River County Government, Kenya would be 2.249 and a unit increase in Public procurement regulation lead to a 0.425 increase in Performance of Electronic Procurement in Tana River County Government, Kenya.

Linear regression equation is given as $Y = 2.429 + .425X_2 + \epsilon$

Influence of Managerial Commitment on the Performance of Electronic Procurement in Tana River County Government, Kenya

In order to understand the influence of managerial commitment on the Performance of Electronic Procurement in Tana River County Government, Kenya, the respondents were given a set of questions to ascertain their views. The responses were to be provided in form of Likert scale that ranged between 1 and 5, 1 being the lowest (Strongly disagree) and 5 being the highest (Strongly agree). The table 11 below shows the respective responses from the respondents.

Table 11: Influence of Managerial Commitment on the Performance of Electronic Procurement in Tana River County Government, Kenya

Statement	Mean	Std. Deviation
The management has embraced ICT in the procurement processes	4.163	0.878
Management have provided enough resources in support of e-procurement	3.92	0.943
Management enforces procurement policies and regulations	4.031	0.943
There is adequate professional support from the management	4.25	0.739
Overall Mean	4.091	0.876

Source: Research Data (2022)

From the table 11, Majority of respondents with (overall mean= 4.091, S.D=0.876) agreed that Managerial commitment influence the Performance of Electronic Procurement in Tana River County Government, Kenya. The respondents agreed that the management has embraced ICT in the procurement processes with (mean= 4.163, S.D=0.878); Management have provided enough resources in support of e-procurement with (mean= 3.92, S.D=0.943); Management enforces procurement policies and regulations with (mean= 4.031, S.D=0.943) and finally there being adequate professional support from the management with (mean= 4.250, S.D=0.739) significantly influence the Performance of Electronic Procurement in Tana River County Government.

Table 12: Correlation for Managerial Commitment and Performance of Electronic Procurement in Tana River County Government, Kenya

Correlations		Managerial commitment	Performance of Electronic Procurement
Managerial commitment	Pearson Correlation	1	.427
	Sig. (2-tailed)		.013
	N	96	96
Performance of Electronic Procurement	Pearson Correlation	.427	1
	Sig. (2-tailed)	.013	
	N	96	96

Source: Research Data (2022)

The correlation analysis conducted to ascertain the level of association between the variables Managerial commitment and Performance of Electronic Procurement. From the analyzed data as shown in table 12, there is positive and statistically significant correlation between Managerial commitment and the Performance of Electronic Procurement in Tana River County Government, Kenya with ($r = 0.427$) and a level of significance at $p = 0.013 \leq 0.05$

Table 13: Regression analysis for Managerial Commitment and Performance of Electronic Procurement in Tana River County Government, Kenya

Coefficients^a					
Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	.662	1.964		.337	.741
Managerial commitment	.801	.471	.427	1.702	.013

a. Dependent Variable: Performance of Electronic Procurement

Source: Research Data (2022)

From the analyzed results in table 15, Managerial commitment with ($\beta = 0.427$, $p < 0.05$) and has significant and moderate positive correlation with the Performance of Electronic Procurement in Tana River County Government, Kenya. A unit increase in managerial commitment lead to a 0.801 increase in Performance of Electronic Procurement in Tana River County Government, Kenya. Linear regression equation is given as $Y = 2.429 + .801X_4 + \epsilon$.

Performance of Electronic Procurement in Tana River County Government, Kenya

The study set out to ascertain the perception of respondents on performance of electronic procurement in Tana River County Government, Kenya, the respondents used a Likert's scale of 1 to 5 in the questionnaire where 1= Strongly Disagree (SD) to 5= Strongly Agree (SA). The results were summarized in table 14 below.

Table 14: Respondents perception on the Performance of Electronic Procurement in Tana River County Government, Kenya

Statement	Mean	Std. Deviation
Procurement processes in my County are efficient and effective	3.988	1.218
Customer satisfaction levels have improved in my County	4.143	1.01
Accountability levels in procurement process has improved	4.095	1.30
Overall Mean	4.075	1.176

Source: Research Data (2022)

From the table 14, Majority of respondents with (overall mean= 4.075, S.D=1.176) agreed that there is an improvement in the Performance of Electronic Procurement in Tana River County Government, Kenya. The respondents agreed that the Procurement processes in their County are efficient and effective with (mean= 3.988, S.D=1.218); Customer satisfaction levels have

improved in their County with (mean= 4.143, S.D=1.01) and finally Accountability levels in procurement process has improved with (mean= 4.095, S.D=1.30)

Correlation Analysis of Strategic Organizational practices on the performance of Electronic procurement in Tana River County

A two tailed spearman's rho correlation coefficient analysis was carried out to the influence of Strategic Organizational practices on the performance of Electronic procurement in Tana River County.

Table 15: Correlation Coefficient of Independent variables and Performance of Electronic Procurement in Tana River County Government, Kenya

Variables	Pearson's Correlation	Sig. 2 tailed
ICT infrastructure	0.307	0.025
Employee's IT Competence	0.582	0.023
Procurement regulation	0.898	0.000
Managerial commitment	0.427	0.013

Source: Research Data (2022)

As shown in the table 15 above, there is significant and positive correlation between the independent variables and the dependent variable. ICT infrastructure had a positive and statistically significant correlation with ($r=0.307$, $p< 0.05$); Employee's IT Competence had a positive and statistically significant correlation with ($r=0.582$, $p< 0.05$); Public procurement regulations had a positive and statistically significant correlation with ($r=0.898$, $p< 0.05$) and finally correlation analysis showed that Managerial commitment had correlation coefficient ($r=0.427$, $p<0.005$) which was positive and statistically significant

Multiple Regression Analysis

The researcher set out to conduct regression analysis based on the many portions of the study that contributed to Performance of Electronic Procurement in Tana River County Government, Kenya. The table 16 below shows the association between the various variables and Performance of Electronic Procurement in Tana River County.

Table 16: Model Summary for Performance of Electronic Procurement in Tana River County Government, Kenya

Model	R	R square	Adjusted R Square	Std. Error of Estimate
1	0.82 (a)	.75	.404	.127

Predictors: (Constant), Managerial Commitment, Employees IT Competence, ICT infrastructure, Public procurement Regulation

Source: Researcher (2022)

From the analysis in the table 16, $R^2 = 0.75$ for the four independent variables that include Managerial Commitment, Employees IT Competence, ICT infrastructure and Public procurement Regulation. This implies that the predictor variables explained 75 percent variations in the

dependent variable and also the multiple regression coefficient (R) for all independent variables $r = 0.82$, it shows that the independent variables had a strong positive influence the Performance of Electronic Procurement in Tana River County Government, Kenya.

Table 17: Coefficients^a for Performance of Electronic Procurement in Tana River County Government, Kenya

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
(Constant)	1.518	.000		1.398	.00
ICT infrastructure	0.276	.000	0.307	3.576	.00
Employees IT Competence	0.068	.000	0.582	1.454	.00
Public Procurement regulations	0.555	.000	0.898	6.814	.00
Managerial Commitment	0.073	.000	0.427	2.710	.00

a. Dependent Variable: Performance of Electronic Procurement

Source: Research Data (2022)

From the table 20, The study concluded that Strategic Organizational practices positively significantly influenced the performance of Electronic procurement in Tana River County Government, Kenya. with; ICT infrastructure with ($\beta = 0.307$, $p < 0.05$); Employees IT

Competence with ($\beta = 0.582$, $p < 0.05$); Public Procurement regulations ($\beta = 0.898$, $p < 0.05$) and Managerial Commitment ($\beta = 0.427$, $p < 0.05$).

Based on analysis in Table 20 as shown above the linear regression model $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ Where; Y = performance of Electronic procurement of Electronic Procurement in Tana River County Government $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \epsilon$ = Coefficient of performance of Electronic procurement of Electronic Procurement in Tana River County Government; X_1 = ICT infrastructure; X_2 = Employees IT Competence, X_3 = Public Procurement regulations and X_4 = Managerial Commitment will be given as;

$$Y = 1.518 + 0.276X_1 + 0.068X_2 + 0.555X_3 + 0.073X_4 + \epsilon.$$

5.0 Summary of the findings.

The summary of the findings were discussed based on the research objectives

Influence of ICT Infrastructure on performance of Electronic procurement in Tana River County

From the descriptive analysis, Majority of respondents with (overall mean= 4.1631, S.D=0.3943) agreed that ICT Infrastructure influence the Performance of Electronic Procurement in Tana River County Government, Kenya. The respondents agreed that there were latest ICT Infrastructure in their departments with (mean= 4.635, S.D=0.4352); High speed ICT gadgets have helped to

improve service delivery with (mean= 4.3655, S.D=0.5596); their department had enough ICT Infrastructure supporting electronic procurement with (mean= 4.2964, S.D=0.4362) and finally they were neutral on whether there was policy regulations guiding the use of ICT infrastructure with (mean= 3.3557, S.D=0.1463) significantly influence the Performance of Electronic Procurement in Tana River County Government. The correlation analysis showed that there is a positive correlation between the Performance of Electronic Procurement in Tana River County Government and ICT Infrastructure with a correlation coefficient $r= 0.307$ and a level of significance at $p=0.025 \leq 0.05$ implying ICT Infrastructure influence the Performance of Electronic Procurement in Tana River County Government. This was supported by regression analysis that showed that there was linear relationship between ICT infrastructure and Performance of Electronic Procurement in Tana River County Government, Kenya with ($\beta=0.307$) and a level of significance at $p=0.025 \leq 0.05$

Influence of Employees IT Competence on performance of Electronic procurement in Tana River County

The descriptive analysis revealed that Majority of respondents with (overall mean= 3.749, S.D=1.194) agreed that Employee's IT Competence significantly influence the Performance of Electronic Procurement in Tana River County Government, Kenya. Majority of respondents agreed that there is frequent training on the use of ICT tools in procurement with (mean= 4.35, S.D=1.263); Majority of employees are ICT trained with (mean= 3.98, S.D=1.109); Staff Competency level in ICT affect use of e-procurement with (mean= 3.82, S.D=1.142) and finally majority of respondents agreed that Procurement staff with ICT skills are given priority in employment with (mean= 3.35, S.D=1.262).

Pearson's product moment correlation showed that there was positive and statistically significant correlation between the study variables with ($r =0.582$) and a level of significance at $p=0.023 \leq 0.05$ while regression analysis confirmed that there is linear relationship between Employees IT Competence and Performance of Electronic Procurement in Tana River County Government, Kenya with ($\beta=0.582$) at significance level of $p=0.023 \leq 0.05$.

Influence of Public Procurement regulation on performance of Electronic procurement in Tana River County

Correlation analysis results also indicates that there is positive and statistically significant correlation between Public Procurement Regulations and the Performance of Electronic Procurement in Tana River County Government, Kenya with ($r =0.898$) and a level of significance at $p=0.000 \leq 0.05$.

Descriptive analysis show that Majority of respondents with (overall mean= 4.233, S.D=1.145) agreed that Public Procurement Regulations influence the Performance of Electronic Procurement in Tana River County Government, Kenya. Majority of respondents agreed that PPOA regulations are strictly followed in their organization with (mean= 4.167, S.D=1.50); Majority of respondents said Implementation of PPDA regulations of 2005 contributes to Performance of Electronic

Procurement with (mean= 3.922, S.D=1.454); Majority responded that Procurement regulations in their organization is integrated with other government policies with (mean= 3.933, S.D=0.991) and finally majority of them strongly agreed that there is proper interpretation of public procurement regulations with (mean= 4.909, S.D=0.7168)

Regression analysis also showed that Public procurement regulations with ($\beta = 0.898$, $p < 0.05$) has the strongest linear relationship with the Performance of Electronic Procurement in Tana River County Government, Kenya

Influence of managerial Commitment on Performance of Electronic procurement in Tana River County

Managerial commitment is a very important component of organizational growth and performance enhancement. Descriptive analysis showed that Majority of respondents with (overall mean= 4.091, S.D=0.876) agreed that Managerial commitment influence the Performance of Electronic Procurement in Tana River County Government, Kenya. The respondents agreed that the management has embraced ICT in the procurement processes with (mean= 4.163, S.D=0.878); Management have provided enough resources in support of e-procurement with (mean= 3.92, S.D=0.943); Management enforces procurement policies and regulations with (mean= 4.031, S.D=0.943) and finally there being adequate professional support from the management with (mean= 4.250, S.D=0.739) significantly influence the Performance of Electronic Procurement in Tana River County Government.

Correlation analysis revealed that there was a positive and statistically significant correlation between Managerial commitment and the Performance of Electronic Procurement in Tana River County Government, Kenya with ($r = 0.427$) and a level of significance at $p = 0.013 \leq 0.05$. Regression analysis indicated that Managerial commitment with ($\beta = 0.427$, $p < 0.05$) and has significant and moderate positive correlation with the Performance of Electronic Procurement in Tana River County Government,

CONCLUSION

The regression analysis showed that the four independent variables that include Managerial Commitment, Employees IT Competence, ICT infrastructure and Public procurement Regulation explained 75 percent variations in the dependent variable with $R^2 = 0.75$. The multiple regression coefficient (R) for all independent variables was $r = 0.82$ which implied that the independent variables had a strong positive influence the Performance of Electronic Procurement in Tana River County Government. Strategic Organizational practices positively significantly influenced the performance of Electronic procurement in Tana River County Government, Kenya. with; ICT infrastructure with ($\beta = 0.307$, $p < 0.05$); Employees IT Competence with ($\beta = 0.582$, $p < 0.05$); Public Procurement regulations ($\beta = 0.898$, $p < 0.05$) and Managerial Commitment ($\beta = 0.427$, $p < 0.05$).

Recommendations

The study recommends that the County government of Tana River and other Public organization to adopt and implement the Strategic organizational practices that enhances performance of electronic procurement that include: ICT Infrastructure, Employee's IT Competency, Public procurement Regulations, and Managerial Commitment. They should ensure that staffs are well trained with ICT skills and they should be given enough ICT resources to perform their work. Management commitment is very important in ensuring realization of high performance in electronic performance. Policies and regulations should be put in place to strengthen the use of electronic procurement in the public sector.

References

- Adelman, C. (2000). *A Parallel Postsecondary Universe: The Certification System in Information Technology*. Jessup, MD: Education Publications Center (ED Pubs) U.S. Department of education.
- AfriCOG. (2016). Factors Influencing Procurement Practices in Government Ministries in Kenya. *The Journal of Strategic Business and Change Management*, 5(2), 2033 - 2059.
- Alexander. (2019). *Procurement Planning and Accountability in County Governments*.
- Alpar P., O. S. (2005). Legal Requirements and Modeling of Processes in e-Government. *The Electronic Journal of e-Government Vol.3 Issue 3*, 107-116.
- Amos, E. &. (2018). An analysis of the relation between employee-organization value congruence and employee attitudes. *Journal of Psychology*, 1(2), 620-632.
- Andersen, K. V. (2004). *E-government and Public Sector Process Rebuilding*. Kluwer Academic Publishers.
- Andreanne, L. (2007). *Intellectual Property Rights and Innovation around the World: Evidence from Panel Data*. Berlin, Germany: Institute for Economic Research.
- Athumani., N. (2015). *Assessment of effectiveness of tendering Process in the public sector, the case of ministry Of health and social welfare*. Dar es Salaam-Tanzania: Mzumbe University.
- Augustine, A. N. (2019). Effect of inventory management on organizational effectiveness. *European Management Journal*,, 3(8), 52-70.
- Barahona Carlos Juan, E. M. (2012). The Disruptive Innovation Theory Applied to National Implementations of E-procurement. *Electronic Journal of e-Government Volume 10 Issue 2* , 1-13.
- Basheka, B. C. (2020). Determinants of unethical public procurement in local government systems of Uganda. *International Journal of Procurement Management*, 3(1), 81-94.
- Beatrice, N. A. (2014). Factors influencing effectiveness in Tendering process in public sector, The case of Nyeri County , Kenya. *Journal of Business Management*, 1(2).

- Benon, B. C. (2008). Procurement planning and accountability of local government procurement systems in developing countries: evidence from uganda. *Journal of Public Procurement*.
- Bhatnagar, S. (2002, June 01). E-government: Lessons from Implementation in Developing Countries. *Regional Development Dialogue*, Vol.24, pp. 164-174.
- Caldwell, N. R. (2019). Procuring complex performance in construction: London Heathrow Terminal 5 and private finance initiative Hospital. *Journal of purchasing and supply management*, 28-41.
- Caroline, C. (2018). The effectiveness of Procurement Practices on Performance of County Governments in Kenya: A Study of Kericho County Government. Kisii University Unpublished Master in Procurement project, 12-22.
- Chandran, E. (2004). *Research Methods: A Quantitative Approach with Illustrations from Christian Ministries*. Nairobi: Daystar University.
- Chandrasekar Subramaniam, M. J. (2002). The Effects of Process Characteristics on the Value of B2B E-Procurement. *International Journal of Electronic Commerce*. Vol. 6 (4), 19-40.
- Chen Yi, H. R. (2013). *History of the Tether Concept and Tether Missions: A Review*. Hindawi Publishing Corporation.
- Christopher, C. (2020). *Logistics and supply chain management: strategies for reducing cost and improving service*. London: Financial Times Pitman Publishing.
- Communications, M. o. (2006). *National Information and Communications Technology (ICT) Policy*. The Republic of Kenya.
- Cooper D. R., S. P. (2008). *Business Research Methods (10th Edition)*. Boston: Mcgraw.Hill International Edition.
- Coulthard Darryl, C. T. (2001). *Electronic Procurement in Government: More Complicated than Just Good Business*. The 9th European Conference on Information Systems, (pp. 1-11). Melbourne, Australia.
- Country Procurement Assessment Report (CPAR,2004). *Operational Quality and Knowledge services Africa Region*.
- Croom & Johnston. (2013). The Impact of User-Perceived e-Procurement Quality on System and Contract Compliance. *International Journal of Operations & Production Management*, 274-296.
- Dai Qizhi, K. J. (2001). *Business Models for Internet-Based E-Procurement Systems and B2B Electronic Markets: An Exploratory Assessment*. System Sciences, 2001. Proceedings of the 34th Annual Hawaii International Conference. IEEE.
- Daniel, E. (2003). An Exploration of the Inside-Out Model: E-commerce Integration in UK SMEs. *Journal of Small Business and Enterprise Development*, 233-249.

- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems : theory and results. Unpublished PhD Dissertation. Massachusetts Institute of Technology.
- Davis, M. J. (2014). Procurement practices influencing service delivery: A case study of Kenya Power. *European Journal of Logistics Purchasing and Supply Chain Management*, 79-92.
- Elizabeth M. Daniel, D. J. (2002). An Exploratory Comparison of Electronic Commerce Adoption in Large and Small Enterprises. *Journal of Information Technology*.
- Everett, R. (1997). *History Of Communication Study* .
- Everett, R. M. (1962). *Diffusion of Innovations*. New York: The Free Press.
- Federico, T. (2001, February). Public Procurement, Market Integration, and Income Inequalities. *Review of International Economics* Volume 9, Issue 1, pp. 29-41.
- Fishbein M., A. I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Engelwood Cliffs, New Jersey: Prentice-Hall.
- Freeman, E. (1999). *Strategic Management: A Stakeholder Approach*. Boston: Pitman Publishing.
- Gall, M. D. (1996). *Educational research: An introduction*, 6th ed. White Plains, New York: Longman Publishers.
- Gitahi, L. (2011). Exceptional Customer Relationship is the Key to Our Success. *Nation Builder Newsletter*.
- Government., K. C. (2022). Current Status of employees in County. Kilifi.
- Greunen Darelle Van, H. M. (2010). Implementation of regulation-based e-procurement in the Eastern Cape provincial administration. *African Journal of Business Management* 4(17).
- Group, A. (2001a). *Best Practices in e-Procurement: The Abridged Report*. Boston: Aberdeen Group .
- Group, A. (2001b). *E-procurement: Don't Believe the Anti-Hype*. Boston: Aberdeen Group.
- Hellman S. Joel, J. G. (2000, April). Measuring Governance, Corruption, and State Capture. *Policy Research Working Paper*, pp. 1-50.
- Henriksen Helle Zinner, V. M. (2005). E-Procurement Adoption in the Danish Public Sector: The Influence of Economic and Political Rationality. *Scandinavian Journal of Information Systems*.
- Hill, C. (2017). Stakeholder-Agency Theory. *Journal of Management Studies*, 29(2), 131-154.
- IDC. (2003). *Easing into the Tub: Results of the 2002 Procurement Manager Survey*. IDC.
- Jay Sivin-Kachala, E. R. (1998). *The Effectiveness of Technology in Schools, '90-'97*. Report. Washington, DC.: Software Publishers Association.

-
- Johnston., C. &. (2014). The Impact of User-Perceived e-Procurement Quality on System and Contract Compliance. *International Journal of Operations & Production Management*, 274-296.
- Juliana, A. M. (2013). Effectiveness of Procurement Planning on Service Delivery in public sector: A case study of Tanga City Council. Tanga: University of Daresalam .
- Juliana, A. M. (2020). Effectiveness of procurement planning on service delivery in public sector: A case study of Tanga city council. Tanga: University of Dar .
- Kabaj, O. (2019). *The Challenges of African Development*. London: Oxford University Press.
- Kakwezi, &. N. (2020). Procurement Processes and Performance Efficiency and Kenya. . University of Nairobi Unpublished MBA Project,, 30-33.
- Karanja, M. &. (2018). Influence of procurement practices on organization performance in the private sector in Kenya: A case study of Guaranty Trust Bank Kenya Ltd. *International Journal of Business & Law Research*;, 3(2), 44-60.
- Kenard. (2017). Sustainable procurement , Commercial Management , Shaping and Change. Ed *Journal of Public Procurement*., 28-37.
- Kenya. (2005). *Public Procurement and Disposal Act 2005*. The Republic of Kenya.
- Kenya, R. o. (2014). *The Public Procurement and Asset Disposal Bill, 2014*. The Republic of Kenya.
- Kiage. (2013). Factors Affecting Procurement Performance. A case of Ministry of Energy. *International Journal of Business and Commerce*, 3(1), 54-70.
- Kimani, W. (2019). Factors Influencing Procurement Practices in Public Secondary Schools in Mathiyoa . Nairobi: University of Nairobi Unpublished MBA Project .
- Kiruja, B. (2014). *Procurement Methods and Procurement Planning Among Paratats under National Treasury*.
- Koorn Ronald, S. D. (2001). *e-Procurement and Online Marketplaces*.
- Kothari, C. R. (2004). *Research Methodology: Methods & Techniques*. . New Delhi India:: New Age International Publishers.
- Lewa, P. (2017). *Management and Organization of Public Procurement in Kenya: A review of Proposed Changes*. Nairobi: IPAR.
- Liao S-H., C. C.-H.-B.-L. (2003). A Web-Based Architecture For Implementing Electronic Procurement in Military Organisations. *Technovation*, Vol 23(6), 521-532.
- Lin B., H. C.-T. (2000). Online Procurement: Implementation and Managerial Implications. *Human Systems Management* Vol.19, 105-110.
- Lisa, I. (2010). Conceptual Framework. *Journal of Management and Organization*, 19(7), 702-706.
- Lysons, K. &. (2013). *Purchasing and Supplies Chain Management*.

- Macmanus, S. A. (2002). Understanding the incremental nature of e-procurement implementation at the state and local levels; *Journal of Public Procurement*, 1-22.
- Mauti James, N. J. (2013). The critical success factors and challenges in e-procurement adoption among large scale manufacturing firms in Nairobi, Kenya. *European Scientific Journal*, 1-27.
- Mccue Clifford, R. A. (2012). E-Procurement: Myth or Reality. *Journal of Public Procurement*.
- Michael, P. (2001). Strategic Planning: Strategy and the Internet. *Havard Business Review*.
- Mugenda O.M, M. A. (2012). Research methods: Quantitative and qualitative approaches. Nairobi: ACTS Press.
- Mugenda, O. M. (2013). Research Methods: Qualitative and Quantitative Approaches. Nairobi: ACTS Press.
- Mwololo, T. (2005). At the Crossroads: ICT Policy Making in East Africa . East African Educational Publishers Ltd.
- Nations, U. (2011). E-Procurement: Towards Transparency and Efficiency in Public Service Delivery. New York: United Nations.
- Ngobe, J. (2007). E-procurement: improving management of public procurement in Uganda's Central Government . Makerere University.
- Nichols, P. (2012). Regulating Transnational Bribery in Times of Globalization and Fragmentation. . *The Yale Journal of Internal law*,, 257-304.
- Ocharo, K. J. (2019). Factors affecting procurement performance: A case of Ministry of Energy . *International Journal of Business and Commerce*, 54-70.
- Ochieng, F. (2015). Factors Influencing Management of public Projects A Case of Kericho County. *International Journal of Science and Technology*, 2(1).
- Odago Ogwang Meshack, D. A. (2013). FACTORS AFFECTING EFFECTIVE IMPLEMENTATION OF E-PROCUREMENT IN COUNTY GOVERNMENTS: A CASE STUDY OF KAJIADO COUNTY, KENYA. *International Journal of Business & Law Research* 1(1):94-109, 1-16.
- OECD. (2001). OECD Annual Report. Paris: OECD Publishing.
- OECD. (2007). Managing Across Levels of Government . Sustainable development : OECD policy approaches for the 21st century, 1-58.
- Ogolla, &. K. (2018). Project Planning and Implimentation in County Governments. Nairobi.
- Ogwel, T. I. (2020). Factors Influencing Performance of Public Procurement Function in Tranzoia County Kenya. *International Journal of Recent Research in Commerce Economy and Management*, 3(2), 56-70.

- Oke, S. C.-O. (2006). Application of Fuzzy Logic Control Model to Gantt Charting Preventive Maintenance Scheduling. *International Journal of Quality & Reliability Management*, 441-445.
- Ouko. (2009). The role of e-marketplaces in supply chain management. *Industrial Marketing Management*, 22-43.
- Parasuraman, A. B. (2016). The behavioural consequences of service quality, *Financial Times*, Procurement policy manual (2009). IT Procurement planning quality, *Financial Times*, Procurement policy manual (2019). IT Procurement planning and strategic sourcing . Virginia: Virginia information technologies Agency Sass.
- Patrick, O. J. (2018). Factors Affecting Procurement Planning In Public Secondary Schools in Kenya: A Case Study of Secondary Schools in Migori County. *Imperial Journal of Interdisciplinary Research (IJIR)*, 326 - 338.
- Pedro Howell, J. S. (1975). Research Note: Cultural And Situational Determinants Of Job Satisfaction Among Management In Liberia. *Journal of Management Studies*, 225-227.
- Pillary, S. (2017). *Corruption – the Challenge to Good Governance: a South African Perspective*, Melbourne, Australia.
- PPDA. (2005). *Public Procurement and Disposal Act (2005)*. Nairobi: Government Press.
- PPDA. (2015). *Public Procurement and Assest Disposal Act (2015)*. Nairobi: Nairobi Government Press.
- PPOA. (2009). *PUBLIC PROCUREMENT AND DISPOSAL GENERAL MANUAL*. Public Procurement Oversight Authority.
- PPOA. (2011). *PPOA Circular No.2*. Public Procurement Oversight Authority.
- Raymond, J. (2018). Benchmarking in public Procurement. . *An International Journal*, 782 - 793.
- Republic of Kenya.,. (2017). *Public Procurement, Regulations*. Nairobi: Government Press.
- Ronald, B. (2007). E-procurement adoption by European firms: A quantitative analysis. *Journal of Purchasing and Supply Management*, 182-192.
- Rono, T. K. (2017). Effects of Procurement Practices on Organizational Performance in Public Sector: A case of East African Portland Cement Company Ltd. *International Journal of Business and Commerce*, 48-61.
- Rotich. (2019). *Effect of Professionalism on Procurement performance*. Nairobi: University of Nairobi Unpublished Thesis.
- Segal Geoffrey, T. D. (2001, February 01). *Electronic Procurement: How Technology is Changing Government Purchasing*. Retrieved from Reason Foundation: <https://reason.org/e-brief/electronic-procurement/>

-
- Sherif, K. (2014). ICT4D – Case of the Information Society in Africa. A Proposed Article Submitted for Review for Possible Publication. Encyclopedia of Information Science and Technology.
- Shileswa, E. A. (2017). Effect of Procurement Practices on Procurement Performance of Public Sugar Manufacturing Firms in Western Kenya. *International Journal of Mngement Research & Review*, 7(4), 25-39.
- Shirley Taylor, P. A. (1995). *Understanding Information Technology Usage: A Test of Competing Models*. Ontario, Canada: Institute for Operations Research and the Management Sciences.
- Sollish, F. &. (2018). *The procurement and supply managers' desk reference* (2nd Ed. ed.). New Jersey: Wiley & Sons.
- Ssewanyana M., J. B. (2007). Adoption and usage of ICT in developing countries: Case of Ugandan firms. *International Journal of Education and Development using information and Communication Technology (IJEDICT)*, 1-59.
- Taherdoost, H. (2016). *Sampling Methods in Research Methodology; How to*. *International Journal of Academic Research in Management (IJARM)* Vol 5, No. 2.
- Thai Khi V., G. R. (2000). Government procurement: past and current developments. *Journal of Public Budgeting, Accounting & Financial Management*, 231-247.
- Thai, K. V. (2018). *International Handbook of Public Procurement*. . Ontario, Canada;: CRC Press.
- Thomas, P. (2008). *Cross-Cultural Management: Essential Concepts*. Thousand Oaks, CA: Sage Publications.
- Thomson. (2017). *Introduction To Supply chain Management: Analysis Strategy, planning*. . *Journal Purchasing and Supply Management*.
- Thuo, K. X. (2009). *Information technology in supply chains: the value of IT-enabled resources under competition*. Wisconsin, USA.
- Trochim W.K. (2016). *Research Methods Knowledge Base*. Retrieved from www.dissertation-statistics.com/instrument-validity.html on 9th January 2022 at 18:36PM.
- Vaidya Kishor, S. A. (2006). Critical factors that influence e-procurement implementation success in the public sector. *Journal of public procurement, volume 6, issues 1 & 3, 70-99*.
- Waddell, S. (2019). *Complementary Resource : the win win rationale for partnership with NGOs*.
- Wanyonyi, &. M. (2015). Factors Affecting Performance of Procurement Functioning Among Public Technical Training Institutions in Kisumu County , Kenya. *International Journal of Economics , Commerce and Management*, 3(5), 58-76.
- West, G. B. (1999). *Teaching and Technology in Higher Education: Changes and Challenges*. *Adult Learning* Vol. 10 (4), 16-18.
- Williams, P. E. (2003). Roles and Competencies for Distance Education Programs in Higher Education Institutions. *American Journal of Distance Education* 17(1), 45-57.

Yildirim, S. (2000). Effects of an Educational Computing Course on Preservice and Inservice Teachers. *Journal of Research on Computing in Education* 32(4).