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Abstract

For a long time, the menace of corruption and fraud in public procurement in Kenya has been a major source for debate. The problem has passed on from one government to the next but no serious effort has been put in place to fighting the vice. This study sought to examine the role of e-procurement practices in fighting fraud and corruption in public procurement. Institutional theory on corruption was used to inform the study. The study used a desk study review methodology where relevant empirical literature was reviewed to identify main themes. A critical review of empirical literature was conducted to establish e-procurement practices in fighting fraud and corruption in public procurement. The study concluded that e-Procurement can be used as a gatekeeper for all bidders in ensuring that they follows the ‘rules’ as stipulated in the system. Transparent eProcurement practices is able to stop any political and economic forces from interfering with procurement processes. E-Procurement helps to safeguard many public officials through its transparent and efficient system. It can be used as a ‘barrier’ to avoid unnecessary demands and interference from people with a vested interest. e-Procurement is also useful in dealing with intertwined relationship between public and private organizations. As public procurement is governed by the Public Procurement and Disposal Act 2015 (PPDA), which make reference mainly to the manual procurement process, the study recommended that there is need to amend the Act accordingly to factor the e-procurement processes. This can be supplemented by an e-procurement manual/guide and other procurement documents in electronic form availed to the process owners for reference. The Government should implement stiff penalties for breaches to procurement requirements and capacity strengthening of procurement practitioners on adherence to procurement regulations. There is need for instituting proper records management tools for

public procuring entities and more robust mechanisms should be implemented in e-procurement to enhance its functionalities at all the stages of the public procurement cycle.

Keywords: *E-Procurement, Fraud, Corruption & Public Procurement.*

1.0 Introduction

The basic principle of the government procurement is straightforward: to acquire the right item at the right time with the right price. The process should be open, objective and transparent. However, corruption and fraud in public procurement processes leads to problems such as lack of accountability and transparency, lack of political control and auditing, weak professionalization of the bureaucracy and many more. To overcome these concerns relating to corruption and fraud in the government procurement, information and communication technology (ICT) can play an important role to reduce corruption and fraud by promoting good governance (Bertot, Jaeger & Grimes, 2010), enhancing relationships between government employees and citizens tracking activities, monitoring and controlling the government employees and reducing potentiality of corrupt behaviors. ICT enabled technology especially public e-procurement plays an important role for minimizing the risk of corruption and fraud in public procurement processes. Many developing and developed countries governments are keen to implement public e-procurement technology in such a way, as to enhance transparency and accountability in government procurement processes.

This study aims to provide insights on how its implementation can be used as a tool to mitigate public procurement fraud and corruption in Kenya by desk study review methodology in the field of e-procurement studies.

1.1 Background of the Study

Concerns about fraud and corruption in public procurement have been of practical significance because of massive public spending and deficiencies among various public organizations (Caulfield, 2014). In many countries, public procurement has devoted a large share of public funds to procure necessary goods, services and works to deliver public services. For instance, the World Bank reports the value of 10,838 contracts prior review as of February 2014 to be US\$12.8 billion in various regions of the world (World Bank, 2014). This includes Africa (US\$3.5billion), East Asia and the Pacific (US\$2.2 billion), Europe and Central Asia (US\$2.9 billion), Latin America and Caribbean (US\$1.3 billion), Middle East and North America (US\$0.3 billion), and South Asia (US\$2.6 billion). Following this, ADB (2014) reported that procurement fraud and corruption has

created long-term business opportunities between state officials and businesses. Such opportunities result to a wide range of activities: bribery and kickback for financial gains and incentive payments, bid rigging and collusive bidding, falsified amounts and many others. The World Economic Forum provided the frequency rates of bribery in public procurement in various countries in 2005: OECD (15%), East Asia (58%), South Asia (70%), Sub-Saharan Africa (60%), former Soviet Union (50%) and Latin America (58%) (OECD, 2008). As fraud and corruption in public procurement has affected many government contracts, transparent and accountable procurement practices are needed so as to prevent fraud and corruption and promote integrity. The introduction of e-Government and e-Procurement, which aims to provide efficient evaluation of bidding in a faceless environment and with less human contact, is seen as a ‘tool’ to mitigate public procurement fraud and corruption (Neupane *et al.*, 2014, Roman, 2013).

The emergence of information and communication technology (ICT) has made Electronic Government (E-Government) a platform which can increase efficiency and effectiveness of the public-sector service delivery. The technological push for implementing e-Government results in transforming public organizations and it promotes collaboration between business agents and the government. According to Mansor (2008), the need for the implementation of e-Procurement in Kenya is driven from the ICT’s evolution in order to: ensure continuous supply of products and services, achieve best value for money contracts, encourage local industries growth, encourage technology of transfer and encourage use of alternative sources. As a result, e-Procurement is introduced to facilitate the acquisition of works, supplies and services for both government and suppliers in an online environment (Vaidya *et al.*, 2016). The adoption of e-Procurement can provide more accountability and transparency in government procurement. E-Procurement is assumed to mitigate fraud and corruption in public procurement by decreasing the chances of committing fraud and corruption at every level of the procurement system by using ICT (Neupane *et al.*, 2012). There is, however, limited investigation on how e-Procurement can reduce fraudulent activities within the procurement life cycle.

1.2 Statement of the Problem

Public procurement plays a pivotal role in the economic development of any country. In Kenya, it is the means through which government spends revenue raised annually, for the implementation of public service delivery. However, fraud and corruption have become widespread problem in

procurement in Kenya. To a very big extent the impact of procurement fraud and corruption to public procurement performance cannot be substantiated. The World Bank had estimated that roughly \$1.5 trillion in public contract awards are influenced by corruption and fraud, and that the volume of bribes exchanging hands for public sector procurement alone, estimate to about US\$ 200 billion per year (EACC, 2017). Kenyan public procurement is subject to rampant corruption and fraud and bribery. Companies report that bribes and irregular payments are highly common in the process of awarding public contracts (GCR, 2016-2017). Tendering fraud and corruption is the fastest growing economic crime in Kenya: One in every three company's reports experiencing fraud and corruption in procurement during the past two years (PwC, 2017). This study sought to provide insights on how implementation of eProcurement practices can be used as a tool to mitigate public procurement fraud and corruption in Kenya.

1.3 Objectives of the Study

- i. To identify the various eProcurement practices used in public procurement.
- ii. To establish how E-procurement practices are used in fighting fraud and corruption in public procurement.

1.4 Research Questions

- i. What are the various eProcurement practices used in public procurement?
- ii. How does E-procurement practices facilitate fighting fraud and corruption in public procurement?

2.0 Literature Review

2.1 Theoretical Framework

2.1.1 Institutional Theory

This is the old approach used in checking public procurement elements (Luhmann, 2010). Scott (2004) states 3 institution pillars as regulatory, normative and cultural cognitive. Each pillar addressed different issue such as use of rules, laws and sanctions that is regulatory pillar as enforcement mechanism to be complied with. Scott (2004) advances that institutes are consists of regulative elements and cultural cognitive comprised of regulative elements with associated activities and resources that give human significance. Institutional theory is relevant as it asserts that if organizations complied with the public procurement regulations then they would be assured of competition in bids, transparent processes, and professional approach in procurement process.

2.2 Empirical Review

2.2.1 Types of eProcurement Practices

Various types of e-procurement system exist. They have been stated in brief below (Neupane *et al.*, 2012):

- i. E-informing: It involves gathering and distributing purchasing information both from and to internal and external parties using internet technology (De Boer, Harink & Heijboer, 2012).
- ii. E-sourcing: It basically focuses on searching for new suppliers for various categories of products (Fuks, Kawa & Wiczerzycki, 2009).
- iii. E-tendering: It is the process where suppliers are requested to send information and prices regarding a product or service on an online platform (Betts *et al.*, 2016).
- iv. E-reverse auctioning: It is an auction conducted over the internet, where emphasis is laid on the price or goods of the services offered (Carter *et al.*, 2018).
- v. e-MRO and Web based ERP: It is the process involving creation and approval of purchasing requisitions, placing of purchase orders and receiving the goods or services ordered via a software system based on internet technology. eMRO deals with indirect items (MRO) , web based ERP deals with product related items.
- vi. E-ordering: It refers to the usage of internet for smooth and easy purchasing process. The digital stage is also used for ordering (requisitioning), approving the order, order receipt and final payment (Reunis, Santema & Harink, 2016).
- vii. E-markets: These serve as internet platforms where the component suppliers and purchasers can interact and conduct the procurement process (Block & Neumann, 2008).
- viii. E-intelligence: It refers to a management that has built in tools for spend analysis (Eakin, 2003).
- ix. E-contract management: It refers to the use of ICT in improving the contracting process of companies by enhancing the effectivity and efficiency of the whole process (Angelov & Grefen, 2008).

2.2.2 E-procurement as an Anti-corruption Tool

The use of ICT in government departments has transformed many public services (Aman & Kasimin, 2011). The development of ICT has inspired the implementation of e-Government in the public office. The implementation of e-Government in various government departments has had an impact on increasing public service delivery. Scholars have provided evidence on the use of the internet in speeding up public services (NAO, 2014, Yusoff *et al.*, 2010), in creating opportunities for cost reduction (Roman, 2013), and in promoting transparency and accountability (Bertot *et al.*, 2010, Krishnan *et al.*, 2013). Generally, the implementation of ICT in government purchasing using e-Procurement has been widely applied to procure goods and services (McCue and Roman, 2012).

E-Procurement involves procuring goods or services via electronic means (Sun *et al.*, 2012). Jonsson *et al.* (2011) and Gamal Aboelmaged (2010) suggest that the digitalization of the procurement system is aimed at the reduction of costs, a higher market transparency and a better coordination and collaboration. Moreover Gardenal (2013) illustrated that e-Procurement can be used to measure organizational performance. Within this context, the adoption of the e-Procurement platform engages procurement activities by employing ICT at all levels of the procurement cycle including selection of sellers, control over ordering supplies, purchasing, payment, receipts and reviews after procurement process in the electronic marketplace. Thus, the mechanism of e-Procurement, which increases transparency and accountability for many government contracts, has to some extent been designed with the aim of curbing fraud and corruption activities.

The complexity of the procurement system in the pre-contract, contract and post-contract phase makes it vulnerable to fraud and corruption (Heggstad *et al.*, 2010). Inevitably, the process of rewarding a contract is influenced by the power relations of political and economic institutions whose aim is to sustain the status quo (Sargiacomo *et al.*, 2015, World Bank, 2013). Sargiacomo *et al.* (2015), in particular, revealed that corruption in Italian government procurement is due to prevailing political and economic forces. Another study by Neu *et al.* (2015) showed that politics interfere with the processes of government procurement because of the key role that senior politicians, business elites, and bureaucrats play. Parallel to this, fraud and corruption in public procurement is entrenched with vested interests (Bakre, 2010). At the same time, public

procurement fraud and corruption has to do with the relationship between the state and the private sector. The fact that the interactions between public and private organisations when procuring goods and services are legitimate seems to be just a myth since the relationship of public and private organisations mainly works to secure private interests (Pressey *et al.*, 2014). Because of that, e-Procurement may provide a mechanism for a transparent evaluation and selection of the winner of a government contract and a way to fight dominant power relations, and the influence of vested interests on public-private interactions (Neupane *et al.*, 2014).

The use of online technology for government procurement (e-Procurement) aims to reduce face-to-face interactions and, thus, increase market transparency, build trust, and limit fraud and corruption (Neupane *et al.*, 2014, Vaidya *et al.*, 2006). Neupane *et al.* (2014) listed numerous potential benefits of e-Procurement including, “standardizing and monitoring procurement, increasing transparency, reducing personal discretion in purchasing decisions, enhancing fair competition amongst bidders, avoiding human interference, and maximizing value for money” (p.23). E-Procurement obviously means fewer human interactions. It also enhances competition which helps reduce the amount of personal decisions taken in relation to rewarding government contract. Therefore, e-Procurement is an important tool to reduce the risk of fraud and corruption in public offices.

Public procurement processes have different phases and each phase has a risk of corruption and fraud. Matechak (2012) identified three main phases of procurement process which include procurement planning and budgeting, procurement solicitation, and contract award and performance. Szymanski (2017) proposes the five stages of procurement process: procurement planning and needs assessment, product design and documentation, tender process, contract award and implementation, and accounting and audit. identification of the risk of corruption and fraud came from the lack of transparency, limited access to information, and lack of accountability and control at each stage. Ware *et al.* (2012) view procurement as the four stages of project identification and design: advertising, prequalification, bid document preparation, and submission of bids; bid evaluation, post-qualification and award of contract; and contract performance, administration and supervision.

To overcome these problems, public e-procurement can play an important role for minimizing the risk of corruption and fraud in public procurement process (OECD, 2018). It improves the

transparency and integrity in public service such as tendering, sourcing, ordering, and auctioning. E-procurement has been recognised internationally as an important instrument for checking corruption and fraud and in misuse of power (Sohail & Cavill, 2018). Pictet and Bollinger (2008) pointed out that public e-procurement helps to fight against corruption and fraud by reducing face-to-face interaction where most requests for bribes take place. Shahkooh, Saghaifi & Abdollahi (2018) study concluded that governments are trying to find solutions for reducing corruption and fraud in public agencies. Electronic government is one kind of solution to the problems of corruption and fraud which removes the opportunities for arbitrary actions. It helps to reduce cartels, collusions, and riggings to the bidders where public procurement is politically influenced like Nepal, Bangladesh, Iraq, Sudan, and Myanmar. In many of the corrupt countries, public bids are awarded without fair competition (Thai *et al.* 2005).

Recently many least developed countries have focused on e-procurement systems as a key tool to reduce the corruption and fraud by opening competition in government procurement processes to the public. There are many case studies in developing and developed countries of the use of public e-procurement system for reducing the risk of corruption and fraud. For example, e-procurement systems implemented in Korea (South), Singapore, New Zealand, Denmark, India (Andhra Pradesh), and Mexico are some examples that demonstrate the innovative use of information technology to prevent and control corruption and fraud in public procurement (OECD, 2005).

The most important perceived anti-corruption factors of public e-procurement technology are: real time access procurement information, automation of procurement system, more completion in public tendering, reduces human interference in public tendering, transparency, efficiency, quality, and accountability in public procurement. Developed countries have already implemented and practiced e-procurement in public and private levels. For example, Singapore, Australia, New Zealand, UK, USA, Denmark, and Japan, have already materialized public e-procurement and received many perceived benefits of e-procurement performance in public and private sectors. In the context of developing countries, adoption of e-procurement in government level is in a preliminary stage. Some of the developing countries' governments already have e-procurement and others are in a piloting phase. Some governments have a position of "wait and see" for e-procurement performance.

2.3 Conceptual Framework

A conceptual framework is a road map that the study intends to follow with the aim of looking for answers to the problems raised by the research questions (Orodho, 2012). The conceptual framework is shown in Figure 1.

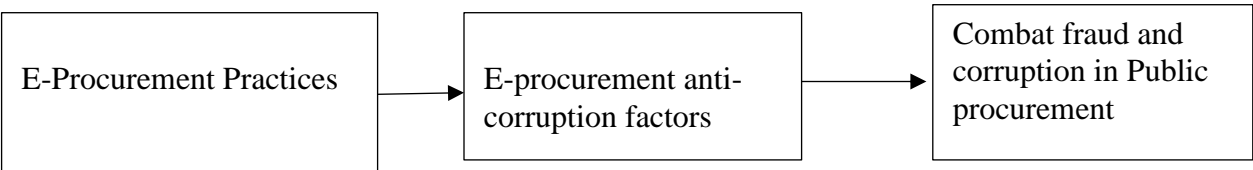


Figure 1: Conceptual Framework

3.0 Research Methodology

The study examined e-procurement practices in fighting fraud and corruption in public procurement. The study used a desk study review methodology where relevant empirical literature was reviewed to identify main themes. A critical review of empirical literature was conducted to establish e-procurement practices in fighting fraud and corruption in public procurement.

4.0 Results and Discussion

The results and findings of this study show how e-Procurement mitigates public procurement fraud in Kenya. The emergent themes showed that e-Procurement: can escape the influence exercised by political and economic forces when rewarding government contracts, manage demands and interference from third parties, and is useful at the nexus of public-private relations. With e-Procurement, the system obliges the bidders to submit all the relevant information. Failing to do so, the system automatically rejects the application, regardless of whoever may favor a particular bidder. Hence, a transparent process of selecting and rejecting the bidder makes it possible to mitigate fraudulent practices within the procurement life cycle.

The ability of e-Procurement process to be unbiased towards certain groups (from political and economic institutions) helps reduce the level of fraud and corruption in government contracts. It is said that fewer interactions with the potential bidders may prevent the bribes and kick-backs, collusive bidding, mispricing, conflict of interest situations and many other fraud and corruption schemes in public procurement (Caulfield, 2014; World Bank, 2013). Lastly, e-Procurement is

able to choose the best value for many contracts for any government projects. eBidding, as one of the beneficial models being developed in the e-Procurement system, provides a different way to procure goods and services with a greater efficiency of the purchasing process.

5.0 Conclusions

The reviewed literature shows that e-Procurement can be used as a gatekeeper for all bidders in ensuring that they follow the 'rules' as stipulated in the system. By using e-Procurement, the bidders must comply with all rules otherwise their application will simply be rejected (Alaweti *et al.*, 2013). The system is not biased; rather it chooses the best value for money contract. Thus, e-Transparent eProcurement practices is able to stop any political and economic forces from interfering with procurement processes. e-Procurement helps to safeguard many public officials through its transparent and efficient system. It can be used as a 'barrier' to avoid unnecessary demands and interference from people with a vested interest. e-Procurement is also useful in dealing with intertwined relationship between public and private organizations. Despite facilitating business to business transactions, e-Procurement does not compromise the way they do business. The system 'demands' and makes it compulsory to the supplier to give proof of their capability to do specialized things for government agencies (e.g. proof of experience, certificates of qualifications). Therefore, businesses cannot simply get away with fraudulent transactions by having connections with the powerful group. The system is clear and unbiased, with fewer human interactions. Therefore, e-Procurement can be used to minimize the risk of public procurement fraud and corruption.

6.0 Recommendations

As public procurement is governed by the Public Procurement and Disposal Act 2015 (PPDA), which make reference mainly to the manual procurement process, there is need to amend the Act accordingly to factor the e-procurement processes. This can be supplemented by an e-procurement manual/guide and other procurement documents in electronic form availed to the process owners for reference. The Government should implement stiff penalties for breaches to procurement requirements and capacity strengthening of procurement practitioners on adherence to procurement regulations. There is need for instituting proper records management tools for public procuring entities and mechanisms that are more robust should be implemented in e-procurement to enhance its functionalities at all the stages of the public procurement cycle

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