

INFLUENCE OF EMPLOYEE COMPETENCE ON THE ADOPTION OF E-PROCUREMENT OF PUBLIC ENTITIES IN KENYA, A CASE OF KISII TOWN

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Abstract: *Across the World e-procurement has gained popularity due to the ever developing technology. Technology has made the world a global village where customers search and order anything they want easily. The purpose of the study was to investigate the factors influencing the adoption of e-procurement in Public entities in Kisii town based on a study scope of Kenya power, national hospital insurance fund and national social security fund organisations. The study objective was to identify the effect of employee competence on the adoption of e-procurement in the Kenya power, National Hospital Insurance Fund (NHIF) and National Social Security Fund (NSSF) as per the case study.*

Methodology: *The study adopted a descriptive case study to discover and measure the relationship among the variables. The target population was 102 respondents who were employees of Kenya power, NHIF and NSSF in Kisii. A census approach was adopted to collect data from the respondents thus a sample size of 102 respondents who work with the firms.*

Findings: *The findings of this study were important to stakeholders in the public entities on matters relating to the adoption of e-procurement with regard to policymaking. The study found that most of the respondents agreed that employee competence affects the adoption of e-procurement in public entities in Kisii to a great extent. Most of them agreed that employee job performance enhances effective adoption of e-procurement, followed by employees are trained regularly to constantly update their technological skills, then employee job performance enhances effective adoption of e-procurement, then employee job evaluation enhances effective adoption of e-procurement and finally that employees are competent with e-procurement practices.*

Keywords: *e-procurement, employee competence, public entities*

INTRODUCTION

1. Background of the study

The procurement department in any organization is a key component in the supply chain system where by it assists in procurement of the needed services and materials by the firm. It is vital for each organization to uphold an effective, efficient and well-organized procurement series to make sure procuring materials and services at correct cost, value and period. Both private and public firms have used manual process to carry out the procurement.

E-procurement is getting more renowned since the type of jobs that it is able to do from reduced lead times and fast communication to the bidders and pertinent customers in the distribution of information. Its capability to improve effectiveness and transparency is making it common and similarly a system that the government

needs to uphold inline with their procurement strategies. The manner in which bidders respond to the bids have allowed the government to accept the dynamic state of the procurement.

In Kenya, the Kenyan Government has been conducting a lot of reforms in the public procurement system since mid1990s upto 2015. The previous reforms have lead to the development of legal framework controlling the conduct of public procurement function (PPOA, 2006).

According to Mauti (2013), Kenya has adopted e-procurement with the following e-procurement practices: online advertisement of tenders, receiving the online submission of proposals for the tenders and shortlisting suppliers online amongst others. The five key achievement aspects acknowledged included workforce and administration commitment to the success of acceptance; consistency of ICT and supplier performance; monitoring performance of e-procurement system; end-user acceptance of e-procurement system and support by administration. The challenges recognized included resistance to change from staffs, lack of e-procurement endorsement by the firm board of directors, the presence of obsolete ICT technologies amongst the organizations that required detailed inspection and maintenances and lack of administrative support.

Mauti et al., (2013) suggested that large scale manufacturers in Nairobi require to include every e-procurement processes in the system; they require to find out means of inspiring staffs to use of e-procurement systems and finding means to address the factors that are critical to the success of e-procurement. This will allow them to improve the acceptance of e-procurement. For any e-procurement initiative to be successful, several factors that a firm should reflect on such as end-user acceptance of new systems to improve the use ability of the present technologies, quality information that will make sure there is accurate data that is given to the recipients, confidence of the site giving out information, security perception of the stored data and the transactions conducted in it.

Employee competence is a very important aspect of every organization in virtually every field. Organizations need to have competent and skilled workers in order to use their resources optimally. This is critically important to IT resources that are largely required in an e-procurement environment. Public entities to employ e-procurement will have to have employees who have the technical know how to use these resources. Competent employees bring intellectual, good leadership, are self-managed and have a better interpersonal relationship. All these serve to improve the organization's overall supply chain performance (Spense & Spenser, 2008).

A study carried out by Makali (2015) on e-procurement and procurement performance in the Kenya Revenue Authority. This study aimed at finding out the adoption of e-procurement, procurement performance evaluation and to establish the contributions of electronic procurement on procurement performance with reference to Kenya Revenue Authority. The study was highly required by the demand to generate data based on the best practices in the public institutions due to increased competition in the environment. The study established that e-procurement flourishes in an environment with competent employees. Considering lead times, the adoption of e-procurement enhances efficiency by enabling the integration of departments and branches. Further, e-procurement contributes greatly towards better communication between the different departments and suppliers thus it helps ensure operational efficiency and effectiveness.

The budgetary allocation refers to the, 'availability of the required budgets for effective implementation of electronic procurement' (Iacovou *et al.*, 2003). Some of the aspects which affect growth of information systems (IS) include;- inadequate technical knowledge, organizational policies and economic expenditures (Cragg., *et al.*, 2006). Inadequate budgetary allocation limits an organization investment in information systems (Dholakia *et al.*, 2002).

Procurement staff must be competent enough to use the applications of software that offers the organization management skills to manage their activities for example, distribution chain and value addition in a company (Beth et al., 2003). This technology is based on databases, which are easily reached on real time foundations. ERP systems perfectly provide the procurement management and the management itself with the opportunity to produce steadfast, consistent, and timely information necessary for attainment of organizational goals.

In 2003, a note in Harvard Business Review indicated that `despite years of process breakthroughs and elegant technology solutions, an agile, adaptive supply chain remains an elusive goal. Maybe it's the people who are getting in the way. (Beth et al., 2003). It is commonly believed that instead of considering the supply chain to be a 50/50 mix of infrastructure and information systems technology, rather any supply chain is more like 45/45/10 mix of human behaviour, systems technology and asset infrastructure (Gattorna, 2006).

Andraski and Novack (1996) indicated that people are " the most important element of the logistics marketing concept." Daugherty et al. (2000) noted: "To take supply chain performance to the next level, companies will have to tap into this human element more intensively. Many companies have pushed hard on technological and infrastructure improvements and investments. The next wave of improvements and investment should center on the people who manage and operate the supply chain." As e-Procurement includes new technologies and changes in traditional procurement approaches, the need to train staff in procurement practices and the use of e-Procurement tools are critical to the success of an e-Procurement initiative (WB, 2003). End-users can realize the immediate benefits of the e-Procurement system once they understand the operational functionalities (CGEC, 2002). This means that training should be given a high priority, alongside the need for public sector agencies to identify the skills required by all those engaged in procurement (ECOM, 2002).

Competency is defined as a capability, ability or an underlying characteristic of an individual, which is casually related to effective or superior performance. For purposes of this study, competency is used to refer to applied knowledge and skills, performance delivery, and the behaviour required to get things done very well (Armstrong and Baron, 1995). Competencies are divided into two categories; technical and behavioural competency. Public procurement professionals have to strive to achieve three competing demands of meeting commercial interests with key themes of value for money, economy, efficiency and effectiveness; the regulatory interests with key themes of competition, transparency, equality and compliance and the social interests whose key themes include public interest, employment concerns, social exclusion, economic development and environment policy (Errigde & McIlroy, 2002). In an effort to attain these demands, organizations constantly look for employees who have skills necessary to deal with the wide variety of tasks faced by purchasing professionals (Monczka et al., 2015). Procurement professionals need a set of flexible skills due to changing local government contexts. No single skill can be adequate to manage the procurement portfolio of great complexity in local government systems. Procurement tasks demand professionals with highlevel strategic, tactical as well as operational skills. These skills should potentially take a broader supply chain multi-disciplinary and integrative approach.

E-procurement lacks an overarching definition and encompasses a wide range of business activities. For example, (Choi and Rungtusanatham, 2001,) state that e-procurement remains a first generation concept aimed at buyers, which should progress into e-sourcing and ultimately into e-collaboration. E-collaboration allows customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Lee, 2006). This facilitates the so-called frictionless procurement paradigm (Brousseau, 2000). This research recognizes the extensive nature of e-procurement and uses the definition provided by (Min and Galle 2003,) where e-procurement is a business-to-business (B2B)

purchasing practice that utilizes electronic procurement to identify potential sources of supply, to purchase goods and service, to transfer payment, and to interact with suppliers. The authors believe that this definition provides the scope to investigate the basic level of e-procurement in the Irish ICT manufacturing sector. The internet has been widely adopted by companies with the aim of improving performances both in internal processes and in processes going beyond their boundaries (Barratt and Rosdahl, 2002).

Despite the fact that business-to-business (B2B) trade has enjoyed a quieter existence online than business-to-consumer (B2C) (Barratt & Rosdahl, 2002) the benefits of e-procurement in a B2B setting are significant (Min and Galle, 2003). Indeed it has been claimed that e-procurement has become the catalyst that allows companies to finally integrate their supply chains from end-to-end, from supplier to the end user, with shared pricing, availability and performance data that allows buyers and suppliers to work to optimum and mutually beneficial prices and schedules (Morris et al, 2000).

Mbeche et al., (2014) argued that skills and knowledge of employees influence the future adoption of a new technology. They further argued that implementing e-procurement necessitates knowledgeable and skilled employees, therefore, the conspicuous lack of such personnel has attributed to delay in e-procurement adoption in most public institutions. Literature has established that there exist a direct correlation between an institution's capacity to explore new technology and its pool of human resources. A feasibility study on implementation of full e-procurement in Tanzania pointed out some key issues including readiness of existing legislative framework, Information and Communication Technologies (ICTs), infrastructure and users (Mchopa, 2015).

For an effective and efficient computer based procurement to be adopted there is the need for the maintenance of employee competence by ensuring that they are trained on related issues so that they can appreciate the legal frameworks and networks of their suppliers in the conduct of their business (Muguro, 2014).

A study by PPA (2012) that was conducted on about 100 major procuring entities found that the principal goal of the reviews has been to help entities develop capacity building programs which enable them better apply the provisions of the Act and the Regulations. Procurement Assessments, on the other hand, have been carried out to check the level of performance of the procurement function in the selected entities to establish their strengths, weaknesses and areas that require assistance and improvement. Furthermore, the Public Procurement Authority recognize that the existing PPA 2005 and PPDR 2006 legal framework in Ghana may not have adequately covered aspects of e-procurement transaction (PPA, 2009). The weakness in this frame work therefore may inhibit the adoption and growth of e-procurement initiatives. Understanding the challenges and limitation of e-procurement adoption in the public sector is important due to complexities of government policies and bureaucracy. Without such understanding, government may not be able to achieve the benefits of e-procurement. These benefits could assist in future planning and adoption of e-procurement.

2. Statement of the Problem

E-procurement has been associated with a lot of benefits to various government institutions. Despite of the tremendous benefits, the uptake of e-procurement in the public sectors has been culturally slow as compared to the private sector. In Kenya, many firms are still struggling to implement various procurement functions which is aimed at enhancing transparency and reducing the duration of undertaking the tendering process and maximizing other available opportunities through reducing unnecessary expenses in the costs incurred because government parastatal employees are faced with challenges of inadequate skills. This study therefore, sought to identify the influence of employee competence on the adoption of e-procurement amongst government parastatals operating in Kisii.

3. Study objective

This study sought to find out the factors influencing the adoption of e-procurement in public entities in Kisii with reference to Kenya Power, National Hospital Insurance Fund and National Social Security Fund with a specific objective to identify the influence of employee competence on the adoption of E-procurement of public entities in Kisii.

RESEARCH METHODOLOGY

4. Research Design

The study adopted a descriptive case study to discover and measure the relationship among the variables. The target population was 102 respondents who were employees of Kenya power, NHIF and NSSF in Kisii. A census approach was adopted to collect data from the respondents thus a sample size of 102 respondents who work with the firms. Primary data was collected using a structured questionnaire; the collected data was analyzed using percentages and frequencies and tables presentations. Regression and content analysis were used. SPSS was also used to analyze the data. This study conducted a pilot test which was used in pretesting and validating the questionnaires. Cronbach’s Alpha methods which focused on determining the internal consistency of the research instrument at the standard of 0.7.

RESEARCH FINDINGS AND DISCUSSION

5. Reliability Analysis

Table 1: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items
Employee competence	0.812	3

The pilot study facilitated determination of the research instruments and questionnaires were used. The pilot test in this study involved dropping of sample questionnaires to the respondents in Kenya Power, NHIF and NSSF in Kisii. The reliability of the research instrument was determined with the aid of Cronbach’s Alpha which measured the internal consistency through finding out if certain items had same scale of measures under the same construct.

According to Gliem & Gliem (2003) it was determined that the Alpha value threshold of 0.7 forms the basis for the study’s benchmark. Cronbach Alpha was determined for every objective which formed a scale. The table above indicates the technological infrastructure which showed the highest reliability ($\alpha= 0.820$), then management involvement had ($\alpha=0. 815$) and employee competency showed ($\alpha=0. 812$). This implies that all four variables were reliable since their reliability values exceeded the set threshold of 0.7.

6. Employee competence

Table 2: Effects of employee competence on e-procurement adoption

Opinion	Frequency	Percentage
Yes	72	73.5
No	26	26.5
Total	98	100

The study focused on determining the assertion that employee competency affect adoption of e-procurement as indicated by 73.5% of the respondents who agreed that employee competency had an effect on e-procurement in public entities in Kisii while 26.5% of the respondents disagreed. This shows that employee competence had an effect on e-procurement in public entities in Kisii.

Table 3: Effect of personal characteristics on e-procurement adoption

Extent	Frequency	Percentage
Very great extent	34	34.7
Great Extent	47	48.0
Moderate extent	12	12.2
Little extent	4	4.1
No extent	1	1.0
Total	98	100

The study focused on establishing the extent to which personal characteristics in employee competence affect e-procurement in public entities. The study results revealed that 48.0% of the respondents indicated to a great extent, 34.7% of the respondents indicated to a very great extent, 12.2% of the respondents indicated to a moderate extent, 4.1% of the respondents indicated to a little extent and 1.0% of the respondents indicated to no extent. This shows that personal characteristics had an effect on the adoption of e-procurement in public entities in Kisii to a great extent.

Table 4: Statements relating to effects of employee competence on e-procurement adoption

Statement	Strongly agree	agree	moderat	Disagree	Strongly disagree	mean	standard deviation
Competent employees with effective computer skills are critically important to IT resources that are largely required in an e-procurement environment.	25	53	16	4	0	1.91	0.25
Public entities to employ e-procurement will have to have employees who have the technical know how to use IT these resources.	28	63	5	2	0	1.71	0.28
Although employee competence differ in different organizations Competent employees bring intellectual, good leadership, are self-managed and have a better interpersonal relationship.	19	61	12	6	0	1.86	0.31

The study sought to find out the extent to which respondents agreed to the statements in regards to employees competence. The study findings indicated that majority of the respondents agreed that public entities to employ

e-procurement will have to have employee with technical know how and application of IT resources as indicated with a mean of 1.71 and a standard of 0.28. Although employee competence differ in different organizations Competent employees bring intellectual, good leadership, are self-managed and have a better interpersonal relationship as indicated with a mean of 1.86 and a standard deviation of 0.31, Competent employees with effective computer skills are critically important to IT resources that are largely required in an e-procurement environment as shown by mean of 1.91 and a standard deviation of 0.25. This study findings collaborated with the results obtained from Spenser (2008) where he noted that competent employees lead to good leadership, self managed and facilitating enhanced interpersonal relationship.

All these serve to improve the organization's overall supply chain performance he further concluded that best practices in the public entities in the highly competitive and globalized environment. His study established that e-procurement flourishes in an environment with competent employees. Considering lead times, the adoption of e-procurement enhances efficiency by enabling the integration of departments and branches.

7. Summary of the findings

From the findings, it was revealed that the study found that most of the respondents agreed that employee competence affects the adoption of e-procurement in public entities in Kisii to a great extent. Most of them agreed that employee job performance enhances effective adoption of e-procurement, followed by employees are trained regularly to constantly update their technological skills, then employee job performance enhances effective adoption of e-procurement, then employee job evaluation enhances effective adoption of e-procurement and finally that employees are competent with e-procurement practices. Regression analysis on the other hand further revealed a coefficient value for employee competence as 0.0495, which implied that holding, management involvement and technological infrastructure constant, a unit increase in employee competence will increase adoption of e-procurement by 0.0495 units.

Based on the results from the analysis of data, this study concluded that employee competence is critical as far as Job performance and evaluation, training, recruitment and having a succession plan for the most competent employees is concerned. Keeping all these in mind will most definitely increase the effective adoption of e-procurement in public entities in Kisii.

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