



**FACTORS INFLUENCING THE ADOPTION OF E-PROCUREMENT: A CASE OF GARISSA COUNTY  
GOVERNMENT**

**BILALI JIDDA**

## **FACTORS INFLUENCING THE ADOPTION OF E-PROCUREMENT: A CASE OF GARISSA COUNTY GOVERNMENT**

Bilali J., Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

Bwisa, H., Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

Accepted May 11, 2015

---

### **ABSTRACT**

Public Procurement and Disposal Act 2005 that saw the creation of Public Procurement Oversight Authority which bore the e-government strategy paper 2004.e -procurement was one of the medium term objectives which was to be implemented by June 2007. The government has however dragged the implementation largely due to the new political dispensation. E-procurement systems have proven benefits and its implementation is in line with the current times, the digital era. It was thus in order to establish preparedness of the county government created in the new dispensation. A survey research design was employed in this study. Procurement staff in Garissa County was the target population in this study.

**Key Words:** *Adoption, E-Procurement*

---

## **Background of the study**

Procurement, in any organization accounts for substantial portion of firm's resources and time. In the wake of the competitive environment nowadays, it is important for every organization to maintain an effective and efficient procurement to cut procuring materials and services at the right price, quality and time. For a long time, organizations, both private and public, have used paper work to carry out the procurement process.

E-procurement is becoming more popular because of the sensitivity of jobs that it can. In any organization, procurement is the hot spot for corruption and inefficiencies. Its ability in improving efficiency and transparency is making it popular but also a system that the governments want to embrace in line with their procurement policies.

## **Devolved government**

Kenya enacted a new constitution in 2010 which provided for the establishment of 47 county governments. Each County will have a government consisting of a County Assembly and a County Executive. The main objectives of devolved government include, among others, to promote participation of people in making decisions on issues that affect them at local levels

According to the provisions as enacted, the County governments shall be allocated not less than 15% of all revenue collected by the national government. Marginalized areas will received an additional 0.5% of all the revenue collected by the national government. However, there are fears of devolving wastage and largesse in the county governments, which governors should nip in the bud by developing appropriate systems.

Government ministries also have to determine how the two levels of government will work together for effective implementation of devolution.. In view of the fact that devolution is new, it is necessary to establish new structures especially at the county government level. Procurement is part and parcel of these structuring and therefore the need for planning, which in this case has to be in line with the procurement act already in place.

## **Statement of the Problem**

Public Procurement and Disposal Act 2005 of Kenya saw the creation of Public Procurement Oversight Authority which bore the e-government strategy paper 2004.e - procurement was one of the medium term objectives which was to be implemented by June 2007. The government has however dragged the implementation largely due to the new political dispensation .According to government sources, there are plans to

implement it at county level. This is in line with the new constitution (Article 226), and the Public Finance Management (PFM) Act 2012 (Article 12). The system will be anchored on the integrated financial management system-IFMIS which is an Oracle based Enterprise Resource Planning (ERP) Software. Enterprise Resources Planning (ERP) applications or ERPs, are large-scale computer software and hardware systems that attempt to integrate all data and processes of an organization into a unified system housed in a centralized database which is accessed through a secure network.

E-procurement systems have proven benefits and its implementation is in line with the current times, the digital era. It doesn't matter how long it takes given that the private sector is adopting it. Many organizations especially within the developing economies have not effectively embraced the practice. In Kenya a wide range of organizations are struggling to adopt information and communication technology in their procurement functions despite proven benefits which include enhancing transparency and shortening tender process. The country, due to loopholes in the procurement process has lost money immensely through corruption in the procurement department. This could just be a tip of the iceberg given that the devolved system is still at its infancy. Therefore the question at hand is whether the

implementation of e-procurement which if well done can solve the seal procurement loopholes is on course. This effectively points at the preparedness to embrace technology. This preparedness is three fold, environmental, technological and organizational. Notably, the county government act states that locals will be given precedence in employment and thus effectively locking out experts from "other counties" given this scenario and completely new way of governance, how prepared are the counties? No study so far has been done with regard to the preparedness of the counties the current impulse in the procurement procedures at the counties notwithstanding.

This study sought to assess the preparedness of the counties in the adoption of e- procurement and shall focus on Garissa County in Kenya.

### **Objectives**

The general objective of this study was to investigate the factors influencing the adoption of e-procurement in Garissa County.

### **Specific Objectives**

The specific objectives of the study were:

1. To investigate the organizational factors surrounding the adoption of E-procurement in Garissa County.

2. To explore the environmental factors influencing the adoption of E-procurement in Garissa County.
3. To find out how technical factors affect the adoption of E-procurement in Garissa County.

### **Research Questions**

1. What are the organizational factors surrounding the adoption of E-procurement in Garissa County?
2. What are the environmental factors influencing the adoption of E-procurement in Garissa County?
3. What are the technical factors affecting the adoption of E-procurement in Garissa County?

### **Significance and Justification of the Study**

A good e-procurement system will automatically route requisitions to the right decision makers. This is key in making the procurement process effective in the wake of slow pick up of the county government. The automation of much of the drudgery of a manual purchasing system will free the purchasing department to spend more time in selecting the right suppliers and controlling them effectively. Given these benefits, it would not be critical to assess how counties are prepared and what factors are key the implementation of system. In addition, given

that marginalized counties, like Garissa, will get an additional 0.5% of the allocations, proper management is of cardinal importance. Further, the requirement that the locals shall run the county government, mainly, in marginalized areas like the aforementioned county may prove to be a toll order getting adequate skillful human resource to get system running. It is thus in order to establish the critical success factors that underpin the adoption of e-procurement while assessing the preparedness. This study will benefit the 47 counties across the county in adopting a lean procurement process if the success factors identified will be worked on or addressed.

## **LITERATURE REVIEW**

### **Theoretical Framework**

A review of adoption literature shows the following important models that are widely used in the discussion about (IT) adoption: the Theory of Reasoned Action (TRA) (Fishbein & Ajzen 1975), the Theory of Planned Behavior (TPB) (Ajzen 1991), the Technology Acceptance Model (TAM) (Davis 1989).

According to (Kholoud Al-Qeisi, 2009), the Theory of Reasoned Action (TRA) was the first model used to explain acceptance of

technology. It was based on the assumption that individuals are rational and will make systematic use of the information available to them to take action. It is basically biased towards one's behavior.

Diffusion of innovation (DOI) theory (Everett M. Rogers, 2003), on its part states that individuals have different degrees of willingness to adopt innovations and thus it is generally observed that the portion of the population adopting an innovation is approximately normally distributed over time. This theory provides well developed concepts and a large body of empirical results applicable to the study of technology evaluation, adoption and implementation, as well as tools, both quantitative and qualitative, for assessing the likely rate of diffusion of a technology, and identifies numerous factors that facilitate or hinder technology adoption and implementation (Robert Fichman, 1992). (Elena Karahanna & Detmar Straub, 1999) argued that the theory does not provide evidence on how attitude evolves into accept/reject decisions and how innovation characteristics fit into this process this was affirmed by (Chen, Gillenson, & Sherrell, 2002).

Technology Acceptance Model (TAM), as introduced by (F. Davis, 1989) explains an individual's acceptance of information technology from TRA. Technology Acceptance

Model (TAM) has been the only one which captures the most attention of information systems community. According to (Taylor & Todd, 1995) and (Venkatesh & Davis, 2000), TAM has been extensively used as the foundation for various empirical studies of user technology acceptance and has in some measure added to the realization of users' acceptance of information systems (ICT). A key purpose of TAM is to provide a basis for tracing the impact of external variables on internal beliefs, attitudes, and intentions. It suggests that perceived ease of use (PEOU) or rather degree to which a person believes that using a particular system would be without effort, and perceived usefulness (PU) in other words, the extent to which a person believes that using a particular system would improve his/her job performance are the two most important factors in explaining system use.

The greatest limitation of TRA is that it is only relevant to behavior that is consciously thought out beforehand, therefore Irrational decisions, habitual actions or any behavior that is not consciously considered cannot be explained by this theory.

Of these approaches, the TAM is the most widely cited explaining model for individual adoption.

## Conceptual Framework

This study examined three factors as independent variables that influence project success. In studying the readiness of the county government in embracing this system, available literature organization matters, technological factors and environmental issues that surround adoption of e-procurement were studied. The study is conceptualized as follows:

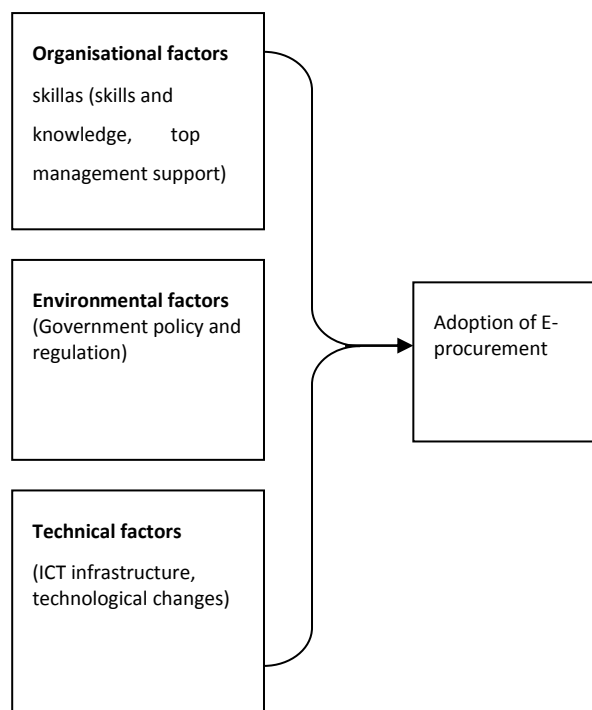


Figure 1: Conceptual framework

### ***E-procurement: types, use and benefits***

E-Procurement is an Internet technology solution facilitating corporate buying using the Internet. Four major e-procurement Internet-based ICT tools are identified (Davila et al, 2003). First, e-procurement software refers to any internet-based software application

(traditional EDI e-procurement systems have also migrated to Internet) that enables employees to purchase goods from approved electronic catalogues in accordance with company buying rules, and captures necessary purchasing data in the process. To achieve that, the software uses protocols to automatically route and move through the necessary approval processes all employees' purchase selections of a good found on a supplier catalogue. Internet market exchanges are called the e-procurement systems that bring together multiple buyers and sellers in one central virtual market space and enable them to buy/sell from each other at a dynamic price. Internet B2B auctions are the third type of e-procurement systems referring to events in which multiple buyers place bids to acquire goods/services at an Internet site, e.g. [hospitalitysupplies.com](http://hospitalitysupplies.com). Last, Internet purchasing consortia gather the purchasing power of many buyers to negotiate more aggressively discounts, e.g. [yassas.com](http://yassas.com) aggregates demand of Greek hospitality operators, while [avendra.com](http://avendra.com) aggregates demand of hotel properties affiliated mainly with three major hotel chains. Within the context of the plastics industry, Boyle & Alwitt (1999) found that the most often cited procurement use of the Internet was for consummating the transaction and the acquisition of technical advice. However, Roth (2001) recently revealed that top performers

conduct more than 20% of their e-procurement transactions online, while they use the Internet for several e-procurement applications such as communicating with vendors, checking vendor price quotes and purchasing from vendors' catalogues. The Internet has also enabled companies to set early warning damage systems, provide information on warranty agreements and assist in vendor negotiation. Future developments of e-procurement systems envisage the enablement of streamlined and seamless supply chains whereby networks of suppliers, manufacturers and retailers would share information for developing collaborative competitive practices such as Collaborative Forecasting, Planning and Replenishment (CFPR) (Folinas et al., 2004). E-procurement can transform the whole purchasing process, as it pervades all the major components of the purchasing process such as: definition of product design/ requirements; production scheduling; suppliers' search/selection; negotiation/ contracting agreements/transactions; supplier evaluation; SCM and collaboration (Lancioni et al. 2003). E-procurement's benefits are widely found in the SCM and e-procurement literature and they are so great, that e-procurement has turned the formerly ignored traditional procurement function into a competitive weapon. Buyers indicated that the conversion from paper-based to e-purchasing resulted in a reduction of 5% to

10% on purchasing price, 25% to 50% reduction at inventory level, a 5-day reduction in cycle time, a US\$77 saving in per requisition administrative cost (Brack, 2000). Major eprocurement benefits include (Min & Galle, 2003; Roth, 2001): Cost savings and subsequent increase in return-on-investment (ROI) resulting from reduced paper transactions, shorter order cycle time and the subsequent inventory reduction due to the speedy transmission of order related information; Just-in-Time inventory and procurement practices; enhancement of supply chain efficiency by providing real-time data regarding product availability, inventory level, shipment status, production requirements; Facilitation of collaborative planning among supply chain partners by sharing data on demand forecasts and production schedules that dictate supply chain activities; Effective linkage of customer demand information to upstream SCM functions, while also facilitating "pull" (demand-driven) SCM operations.

### **Factors influencing successful adoption of e-procurement**

#### **a) Organizational Factors**

The characteristics in the organizational context seem to be the primary focus of many studies in the context of business organizations according to Premkumar (2003). Top management support, firm's size, skills and knowledge and



organization policy are considered to be factors that influence firms' willingness to adopt of E-procurement. Jeyaraj et al. (2006) found that top management support to be one of the best predictors of organizational adoption of IS innovations. Top management can stimulate change by communicating and reinforcing values through an articulated vision for the organization according to Thong (1999). Top management support is critical for creating a supportive climate for the adoption of new technologies Grover et al. (1993)

Budgetary allocation is defined as "the availability of the needed budgets for adoption of e-procurement" Iacovou et al. (1995). Indeed, economic costs, lack of technical knowledge and organization policy are perceived as three of the most important factors that hinder Information System (IS) growth in many organizations Cragg et al. (1993). Small Budgetary allocation express an organization's capital available for IS investment Dholakia et al. (2002). Factor suggested that skills and knowledge of employees influence the future adoption of a new technology in a large extent.

#### **b) Environmental Factors**

Government policy and regulations and external IS support are some of considered to be some of the factors that influence Firms' willingness to adopt E-procurement Systems (EPS).

External IS support refers to the availability of support for implementing and using IS innovations. External IS support has not only been found to be an important determinant of IS success, but also perceived to be positively related to IS innovations' adoption. With the popularity of outsourcing and the growth in third party support, firms are more willing to adopt new IS innovations if they feel there is adequate vendor or third party support it.

A firm's EPS adoption decision may also be influenced by how ready its trading partners along the value chain adopt an EPS, since, for an electronic trade to take place, it is necessary that all trading partners adopt compatible electronic trading systems and provide Internet-enabled services for each other. Furthermore, EPSs may be more appropriate when there is a tight integration with suppliers' systems, which goes beyond the walls of an individual organization .Conversely, a lack of trading partner readiness may hinder EPS adoption. According to Zhu, en al (2002). government policy and regulations are known major facilitators of EPS adoption through subsidies and trading policies.

A review of The second APR of the Kenya Vision 2030 which assesses the progress achieved in the second year of implementation of policy reforms, flagship projects and other programmes at the national and sub-national levels indicated that a number of challenges

were faced during the implementation of the 2009/2010 priority areas. Crucial among them were inadequate budgetary provisions; slow procurement processes; and getting authorization and weak enforcement of rules and regulations.

### **c) Technological factors**

The Kenya Vision 2030 considers infrastructure development as a key enabler of economic, social and political development of the nation (GOK, 2007) while admitting that the country lacks adequate ICT infrastructure (GOK, 2006). The country therefore set out to develop a robust infrastructure. This momentum in infrastructural development includes power, road, rail, air and water transport, Internet backbone across all towns and telecommunications installations among others. The availability of ICT infrastructure is key to accelerated run towards the achievement of an information society status (ITU-WTD, 2003). ICT plays a critical role in the success of e-government projects. It is argued that Arab countries must take actions to increase the penetration of e-government projects to reach the objectives of the Arab world (Ibraheem, 2008).

Technology is an adoption driver, encapsulates IT infrastructure, information security risks and rapid changes of technology. It is an important determinant of IS adoption. The adoption of

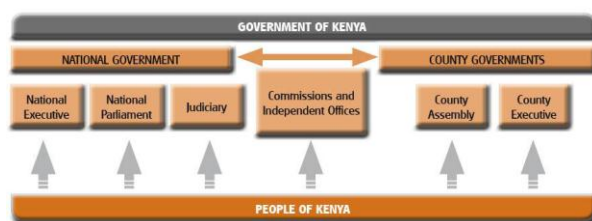
new technologies can bring significant changes to the work practices of businesses and resistance to change is a normal organizational reaction. Therefore, it is important, that the changes are compatible with its infrastructure, values and beliefs. Rapid and revolutionary changes in technology have created an increasingly information-centric global economy, where knowledge has become a key factor in competitiveness. The challenge for many firms today is how to adopt an IT system that can withstand these rapid and evolutionary changes. Rapid changes in technology are defined as “changes that happen suddenly, and that it is difficult to predict how such a new technology would operate. IS innovations that have been seen to withstand the impact of rapid changes in technology in the industry in which a firm operates is more likely to be viewed in a favorable light. Further, According Kiula (2012) The job scale, the level of education, the length of time in public service and the age of the council staff were also found to have a significant linear relationship with ICT penetration and utilization.

### **Devolved system in Kenya**

Devolution is generally defined as a process transfer of political, administrative and fiscal and management powers between central government and lower levels of government

primarily operating at city and region levels (potter, 2001). The key economic rationales for decentralization are well articulated by Musgrave (1959) and Oates (1972). They argue that decentralization may improve governance in public service in public service by improving efficiency of resource allocation. Devolution may increase regional disparities in public spending and economic outcomes Calamai (2009). The highly centralized executive control of public affairs is seen by many as the genesis of country's governance and economic problems.

Below is a structure of the government of Kenya that reflects the devolved government.



**Figure 2: Structure of Government of Kenya**

**Source COK 2010**

The CoK 2010 divides the country into a number of geographic units at the sub-national level. Article 6 (1) and Schedule 1 divide the territory of Kenya into 47 counties. A formal constitutional distribution of governance and development functions of each level of government must have been clearly delineated ensuring some autonomy for each. In the assignment of functions, the principles of

subsidiarity, transferability of functions and the three categories of functions; namely, the exclusive, concurrent and residual functions are observed. Article 186 and Schedule 4 of the CoK 2010 assign functions to the two levels of government.

According to COK 2010, important functions of County Governments

- Policy and legislation
- Establishment and management of county public service
- Preparing county plans
- Preparing Annual Budgets
- Delivery of public Services
- Entering into agreements, receiving grants and loans
- Citizen Participation
- Public Communication and Access to Information
- Civic Education
- Reporting on performance

### **Research gap**

Given the role of the new devolved system of Kenya, it is undisputable that the way the country had been government took a major shift. The country has 47 new “governments” a

situation that calls for replanning albeit in the manner outlined in the various laws governing this devolution. The new system of governance calls for more participation of the people at grassroots, this means business, people, suppliers, have a say in the procurement activities. With the e-procurement system, it would be paramount to evaluate how it is called to be adopted and how ready the new dispensation is for the e-procurement which originally was central governments idea. No research, hitherto, has been done on this subject particularly with regard to organizational, environmental and technological factors that surround the adoption. As indicated in the literature review, only manufacturing firms and organization have been captured in the studies on e-procurement.

## RESEARCH METHODOLOGY

### Study Population and Sample Frame

The study population is the accessible population in which the researcher can apply the conclusions. Procurement staffs in Garissa County were the target population in this study.

This research adopted stratified random sampling. According to Bryman (2008), sampling is the process of selecting a number of individuals for a study in such a way that the individual represents a larger group from which they are selected. It will involve dividing the

population into four significant strata based on management levels and non managerial employees. Mugenda & Mugenda, (2003), recommends that a sample size of more than 30 or at least 10% is usually appropriate for social sciences. The study took 30% of each of the strata population. The study will therefore utilize a sample of 43 using the table below.

**Table 3.2: Sampling Table**

Sections	Population	Sample s
Too management	10	3
Middle level management	40	12
low level management	100	30
Non managerial employees	200	60
<b>Total population</b>	<b>250</b>	<b>105</b>

### Data Collection Instruments

This research utilized both primary and secondary data. For primary data, the researcher used the questionnaires. Data was collected mainly by use of questionnaire method. Questionnaire with both open ended and closed questions were administered. Open ended questions provided for self expression openly and honestly.

The Closed questions made it easier and quicker for the researcher to record responses, compare code and statistically analyze. The

questions according to (Maina, 2012) include all possible answers/prewritten response categories and the respondents are asked to choose among them.

A letter of authorization to collect data was obtained from the School. A close rapport was established between the researcher and the respondents. 'Drop and pick later' technique was used. Questionnaires were distributed to respondents. Secondary data were collected from the library books, annual reports from JKF, journals and publications from research institutions.

Prior to the research, the instrument to be used was subjected to test so as to enhance its validity and reliability.

## **RESEARCH FINDINGS AND DISCUSSION**

The research was conducted on a sample of 105 respondents from the middle, lower level and non-managerial employees in the organization to which questionnaires were administered. However, out of the issued questionnaires, 60 were returned duly filled in making a response rate of 57.14%, which was sufficient generalizing the study findings. From the findings, 63.33 % of the respondents were male and 36.67% were female. This implied that majority of the workers at Garissa County public service are male in various levels of management.

From the findings, most of the respondents (34%) were non managerial staff, 17.% were low level management staff, and 11.4 % were Middle level management while 2.9% were in the Top management.

### **E- Procurement platform**

36.7% of the respondents answered in the affirmative that there procurement was being done electronically. 25% thought otherwise while a big majority (38.3%) was not aware at all. This could imply that the manner in which procurement is done is not well understood by a big majority and probably that e-procurement is not embraced by majority.

### **Integration of e-procurement**

From the findings, it was clear that the e-procurement was integrated as a standalone according to 63.3% of the respondents. 36.7% felt otherwise.

This study sought to know who in the management cadres understood how the e-procurement was implemented. A crosstabulation was done and below were the response:

From the findings, top management seemed to agree that e-procurement was fully adopted as an enterprise resource planning (ERP). For the middle level, 3 out of 4 agreed. However, the

other cadres had a different view more of them disputing that. This could a pointer to lack of adequate involvement or simply low level preparedness by the staff at lower grades of job.

### Organizational preparedness and e-procurement adoption

The study first objective was to assess the organizational preparedness in embracing fully the requirements for a fully functional e-procurement that would achieve the intended as per the procurement policy. Indirectly, it would investigate the organizational factors surrounding the implementation of e-procurement at the county level.

### Organisational preparedness

	Mean	Standard dev.
The management is aware of e-procurement	3.98	0.892
The management is keen to adopt e-procurement	4.35	0.709
The management is keen to commit resources	4.13	0.343

The management belief that e-procurement is merely the "flavor of the month" and will soon be obsolete	1.97	1.314
There is lack of lack of enthusiasm for e-procurement among company officials and/or key stakeholders.	1.92	1.078
Other priorities take precedence over e-procurement	2.9	1.458
Every staff is aware of the e-procurement adoption	3.57	1.345
All staff have once interacted with e-procurement platform	3.83	0.942
The top management is always ready to take staff for trainings on ICT issues	4.07	1.071
Top management is ready to recruit ICT staff to help in facilitating implementation	4.23	0.998
There is adequate financing on the implementation of ICT systems that help improve effectiveness and efficiency across the board.	3.35	1.260
Overall, there is total support by the top management on e-procurement adoption.	3.48	1.347

From the findings, there seems to be positivity on the organizations ability to adopt e-procurement. For instance, there seems to be readiness by the top management to support trainings. The statements “The management belief that e-procurement is merely the “flavor of the month” and will soon be obsolete” and “There is lack of enthusiasm for e-procurement among company officials and/or key stakeholders” were both rated lowly at **1.97** and **1.92** respectively. This implies that there is commitment by the top management with regard to adoption of e-procurement which also includes willingness to facilitate training as evidenced in the rating of the statement “The top management is always ready to take staff for trainings on ICT issues” which was rated at **4.07**. These findings are in tandem with the view by Jeyaraj et al. (2006) who found that top management support to be one of the best predictors of organizational adoption of IS innovations.

### **Environmental preparedness and e-procurement adoption**

Assessment of the environmental factors was done by rating of statement on a liker scale. This was similar to doing a SWOT analysis for the adoption of the e-procurement with regard

to the factors highlighted in the table below. The table is as shown together with responses:

### **Environmental preparedness**

	Mean	Std. dev
There is a procurement strategy in place	<b>4.37</b>	<b>0.486</b>
There is a procurement policy in place	<b>4.37</b>	<b>0.712</b>
There is a department/directorate that deals with procurement in the county	<b>4.22</b>	<b>1.342</b>
The county government is putting measures in place in preparation for e-procurement adoption	<b>4.35</b>	<b>0.709</b>
There is merit in the employment of ICT staff that goes beyond identity.	<b>4.02</b>	<b>0.918</b>
The county government is positive about e-procurement	<b>4.15</b>	<b>0.361</b>
There is no interference by the national government officials regarding e-procurement adoption	<b>2.87</b>	<b>1.157</b>
There is a good working relationship between county staff and national government staff on matters procurement	<b>3.12</b>	<b>0.783</b>
Since devolution was effected, there is better coordination of procurement and e-procurement will thus be less challenging	<b>3.29</b>	<b>0.893</b>
There are political consideration in eventual adoption of e-procurement	<b>3.77</b>	<b>0.427</b>

The above findings indicate that there is strategy in place for full adoption of e-procurement backed with measures regarding human resource. It further shows that there is a harmonious working condition between county government and national government. The statement “Since devolution was effected, there is better coordination of procurement and e-procurement will thus be less challenging” scored above average (**mean of 3.12 and std. dev of 0.783**) implies that matters procurement are now being carried out with ease. There however seems to be a not so positive opinion on whether there is interference by the national government officials regarding the implementation of e-procurement. This may indicate a glaring possibility of ills of the national government being devolved to the county government, a factor that can hinder the adoption of e-procurement. The county government, if allowed to carry out its procurement mandate, will be able to realize the full benefits of the system.

#### **Technological preparedness and e-procurement adoption**

The third objective was to assess the technological preparedness of the counties. In particular, infrastructure and the changes in technology were considered. The table below shows the responses:

#### **Technological preparedness**

	Mean	Std. dev
There is structured cabling/hot spots in all offices county government offices	3.55	1.213
There is an external optical fiber connection to internet point presence	2.93	1.716
There is a working intranet	3.30	1.807
ty government only purchases branded (HP, Dell, IBM) client and server machines	3.86	1.386
There is ICT personnel in place	3.88	1.553
There is telecommunication mechanics in place	3.5	1.195
training opportunities available to ICT workforce	3.25	1.282
ICT workforce have at least an undergraduate Degree in ICT (information systems)	3.38	1.302
All networked computers use licensed anti-virus software	3.5	1.604
Computers are physically secured	3.38	1.685
There is data-back up	3.57	1.134
There is data security issue to process business dealings through e-procurement	3.5	0.837
E-procurement will provide opportunities for hackers to paralyze company operations.	2.43	1.512



There is Lack of faith in transaction and data integrity.	<b>2.00</b>	<b>1.00</b>
There will be problem integrating with existing systems.	<b>2.86</b>	<b>1.215</b>
The county will cope with dynamism of technology	<b>3.57</b>	<b>1.134</b>
There is a change management strategy in place	<b>3.29</b>	<b>1.38</b>
Overall, I am satisfied with ICT infrastructure and the county's ability to handle ICT changes	<b>4.14</b>	<b>0.9</b>

The respondents were asked to rate the statements provided on a likert scale. There was general positivity in all statements. The findings indicated that matters to do with data integrity and security were all being addressed. They further indicated that there was willingness to cope with dynamism in technology. Findings on age showed that there were a young and energetic working force in Gariassa and therefore the positivity regarding technological preparedness is no surprise. These findings are consisted with Kiula (2012) who found that the job scale, the level of education, the length of time in public service and the age of staff were found to have a significant linear relationship with ICT penetration and utilization.

## CONCLUSIONS

This implies that there is commitment by the top management with regard to adoption of e-procurement which also includes willingness to facilitate training as evidenced in the rating of the statement. There was a strong positive correlation between the two variables. It further showed that the success of the adoption will strongly depend on the expertise of the workforce and the amount of support from the top management.

The above findings indicate that there is strategy in place for full adoption of e-procurement backed with measures regarding human resource. It further shows that there is a harmonious working condition between county government and national government. This implied that there are strengths and opportunities that favour adoption of e-procurement. It further revealed that there was that there is a strong positive correlation between the two variables.

The findings indicated that matters to do with data integrity and security were all being addressed. They further indicated that there was willingness to cope with dynamism in technology. Findings on age showed that there were a young and energetic working force in Gariassa and therefore the positivity regarding technological preparedness is no surprise.

There was a very strong correlation between the technological preparedness and e-procurement adoption.

The county governments are prepared to adopt e-procurement. Given the age of the workforce which is young and dynamic and the availability of IT infrastructure, the adoption of e-

procurement is likely going to be a success. Further, this study indicated that there was a simmering concern of interference by the national government. It however did not indicate exactly how the national government interfered with the operations of the county with regard to procurement matters.

## REFERENCES

- Boyle, B.A. & Alwitt, L.F. (1999). Internet use within the US plastics industry. *Industrial Marketing Management* 2: 327 – 341.
- Brack, K. (2000). E-Procurement: the next frontier. *Industrial Distribution* 89: 65 – 70.
- Bray, R. 2004. SMEs struggle with e-procurement, *Sunmmit*, 7(7): 5.
- Calamai, L.(2009). The link between and regional disparities: Evidence from the Italian regions. *Envorinmental and planning*. VOI VI,PP 1129-1151.
- Chwelos, P., Benbasat, I. and Dexter, A. S. (2001). Research Report: Empirical Test of an ED Adoption Model. *Information Systems Research*, 12 (3): 304-321.
- Cragg, P. B. and King, M. (1993). Small-Firm Computing: Motivators and Inhibitors. *MIS Quarterly*, 17 (1): 47-60.
- Davila, A., Gupta, M. & Palmer, R. (2003). Moving procurement systems to the Internet:
- Davila, A., Gupta, M. & Palmer, R. (2003). Moving procurement systems to the Internet:
- Dholakia, R. R. and Kshetri, N. (2002). Factors Impacting the Adoption of the Internet Among SMEs. *Small Business Economics*, 23 (4): 311-322.
- GOK, (2006). Information and Communications Technology Sector Policy Guidelines, Government Press, Nairobi, Kenya.
- GOK, (2007). Kenya Vision 2030: A Globally Competitive and Prosperous Kenya, Government of Kenya, Nairobi, Kenya.
- Grover, V., & Goslar, M. D. (1993). The Initiation, Adoption, and Implementation of Telecommunications Technologies in U.S Organizations. *Journal of Management Information Systems*, 10 (1): 141-163
- Hawking, P., A. Stein, D. Wyld and S. Foster 2004. E-Procurement: Is the Ugly Duckling Actually a Swan
- Iacovou, C. L., Benbasat, I. , & Dexter, A. S. (1995). Electronic Data Interchange and Small Information Sharing Between E-Commerce Systems for Construction Material Procurement. Kluwer Academic Publishers,Kluwer, Singapore.
- Ibraheem, A. F. (2008), *ICT Penetration in Arab World and Its Effect on e-Government Projects* viewed December 17, 2008 <http://publications/ksu/edu.sa/conferences/egovernment%2conference/e15.pdf>

ITU-WTD, (2003). World Summit on the Information Society, World Telecommunications Development Report, ITU, Geneva, Switzerland.

KIULA( 2012) *ict penetration and utilization in local authorities in kenya: the status and implications* ; Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

Lancioni, R., Smith, M. & Schau, H. (2003). Strategic Internet Application trends in supply chain management. *Industrial Marketing Management* 32: 211 – 217.

*Marketing Management*, 32, 227 – 233.

Min, H. & Galle, W. (2003). E-purchasing: profiles of adopters and nonadopters. *Industrial*

Min, H. & Galle, W. P. (1999). E-commerce usage in B2B purchasing. *International Journal of Operations & Production Management* 19: 909 – 921.

Musgrave , R.A (1959). The theory of public finance: A study in public economic, New York: MC Graw-Hill

Oates, Wallace E(1972). Fiscal federation New York: Harcourt Brace Jonabovich

Potters, J.Graham (2001). Devolution and globalization implications for local decision makers. Paris: organization for economic cooperation and development (OECD)

Premkumar, G. and Roberts, M. (1999). Adoption of New Information Technologies in Rural Small Businesses. *Omega International Journal of Management Science*, vol. 27 (4), pg. 34.

Premkumar, G. and Roberts, M. (1999). Adoption of New Information Technologies in Rural Small Businesses. *Omega International Journal of Management Science*, vol. 27 (4), pg. 34.

Thong, J. Y. L. (1999). An Integrated Model of Information Systems Adoption in Small Businesses. *Journal of Management Information Systems*, 15 (4), pg. 187-214.

Zhu, K., & Kraemer, K. (2002). E-commerce metrics for net-enhanced organizations: Assessing the value of e-commerce to firm performance in the manufacturing sector. *Information System Review*, vol. 13, pg. 7-10

Chen, L., Gillenson, L., & Sherrell, L. (2002). Enticing online consumers: an extended technology acceptance perspective, 39(8), 709–719. doi:10.1016/S0378-7206(01)00127-6

Elena Karahanna, & Detmar Straub. (1999). The psychological origins of perceived usefulness and ease-of-use. *Information and Management*, 35, 237–250.

- Chen, L., Gillenson, L., & Sherrell, L. (2002). Enticing online consumers: an extended technology acceptance perspective, *39*(8), 709–719.
- Davis, F. (1989). Author(s): *Journal of Management Information Systems Quarterly*, *13*, 319–340.
- Taylor, S., & Todd, P. (1995). Assessing IT Usage: The Role of Prior Experience. *Management Information Systems Research Center*, *19*(4), 561–570.
- Venkatesh, V., & Davis, F. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, *46*(2), 186–204