



FACTORS INFLUENCING ELECTRONIC PROCUREMENT IMPLEMENTATION BY SMALL AND MEDIUM ENTERPRISES IN KISAUNI SUB-COUNTY MOMBASA COUNTY

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ABSTRACT

Electronic procurement is one of the areas where transactions are done through the internet and has been accepted world over even though it still faces challenges of its implementation. The general objective of this study was to find out factors influencing e-procurement implementation by Small and Medium Enterprises in Kisauni sub-county Mombasa County. The study was guided by four specific objectives. To ascertain the effect of skills of employees on implementation of e-procurement by SMEs in Kisauni Sub-County Mombasa County, to establish the effect of supplier compatibility on implementation of e-procurement by SMEs in Kisauni sub-county Mombasa County and to determine the effect of cost of systems infrastructure on implementation of e-procurement by SMEs in Kisauni Mombasa County. The study was based on the Diffusion of Invention theory, Planned Behavior Theory and Dynamical Systems Theory. The study used descriptive survey design. This design enabled the collection of data from members of the population in terms of attitudes, understanding and acceptance of technology. The targeted population of the study was 78 owners of small and medium enterprises, 65 respondents for the study were drawn from the owners of SMEs within Kisauni Sub County. Questionnaires were used to collect data. The data collected was analysed, summarized and tabulated by use of SPSS Version 23 software. Regression model was used to analyse data collected. Descriptive statistics and inferential statistics were used to summarize the results for each of the main objective of the study. The outcomes found out that technological issues were the key factor influencing e-procurement implementation amongst SME's in Mombasa Sub County. Data was presented using tables.

Key terms: Implementation, Procurement, Purchasing, Small and Medium, Enterprises, Staff Competence, Supplier Compatibility

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INTRODUCTION

Adoption of e-procurement technology in an organization enables a firm to organize its interactions with its most crucial suppliers, a set of built-in monitoring tools to help control costs, assure maximum supplier performance and keeping an open line of communication with potential suppliers during a business process (Makanga, 2017). Procurement is the process obtaining or buying of inventory. This includes the preparation and processing of demands as well as the end receipt and approval of payment. The process of procurement is part of a company's strategy since the ability to purchase certain materials will determine whether operations will continue (Doolan, 2014). E-procurement reduces transaction costs and fragmentation in procurement thus it enhances performance of procurement (Wang, Musau, Guo, & Abdullahi, 2015).

SMEs can be defined by the number of full time employees or turnover per year; 56% of Malaysian workforces are employed by SMEs. Their contribution to the total GDP has been growing steadily over the past 10 years, reaching a significant 31.2% contribution by the year 2009 (National SME Development Council. SME Annual Report 2009/10.) The use of e-procurement could be the key to improving productivity among SMEs. For example, 47% of the SMEs in UK have already been using the Internet for their businesses by the year 2000 (Zoltan et al, 2016) In Malaysia, there are efforts from the government to popularize Internet usage among SMEs. The Malaysian Industrial Development Finance offers loan to SMEs of up to 90% for purchasing ICT applications at only 4% interest rates payable over 5 years (Malaysian Industrial Development Finance (Berhad, 2017) Telekom Malaysia, one of the major Internet service providers and sole proprietor of landlines in Malaysia, established a separate entity called TM SME to help promote ICT use among SMEs. IT solutions such as cheaper Internet packages and e-marketing applications, online support platform and

resources are among the services offered (Telekom Malaysia Berhad. (Mahmud, 2015). In Malaysia, Telkom Malaysia introduced SMEs One Plan to offer big value, low cost for SMEs. African governments are currently realizing that a well-organized procurement system will contribute to good governance thus increasing public confidence and assuring judicious government spend (Elijah, 2015). Most African countries have made incredible efforts at reforming their public procurement regulations and practices. Regulations, public procurement processes, procurement methods, organizational structure, and workforce have been streamlined in Kenya, Ghana, Uganda and many other African countries (Abukari, 2018). The Manual procurement system is full of tedious paper work leading to wastage of time and money.

Procurement has been defined to basically mean purchasing but in Tanzania is the process of buying, purchasing, renting, leasing or acquiring any inventory by a procuring entity by use of public funds on behalf of a ministry or department or regional administration of the government or public body and include all pertain to the obtaining of any inventory including description of requirements, selection and invitation of tenders and preparation and award or contract electronically (PPA-Tanzania (2004).

Low adoption of E-procurement in Tanzania construction industry is mainly due to lack of policies & frameworks and low level of awareness of E-procurement to stakeholders (Mohamed & Kayunga, 2013). In Kenya SMEs are described as any non-farm enterprise, formal or informal, with less than 50 employees, including sole proprietorships, part-time businesses, and home-based businesses (GoK, 2012). The Government of Kenya introduced Integrated Financial Management Information System, IFMIS that has digitalized tender operations. There is need, therefore for all suppliers to develop technology in their operations. The Kenyan government, in the Sessional Paper number 10 of 2012 noted that there

is need to strengthen SMEs to become the key industries of tomorrow by improving their productivity and innovation. It is indicated that there is need to develop at least five small- and medium-enterprise (SME) industrial parks in key urban centers, Mombasa County being such urban centers. In the Kenyan context, electronic retail adoption process remains low at 3 % (UNCTAD, 2015) In Kenya the adoption of e-processes is still at the inception stages (Kyunguti & Makau, 2014)

The use of E-procurement has been adopted in larger organizations more and also firms within the ICT industry and electronics manufacturing has largely adopted the use of e-procurement (Batenburg et al., 2017). E-Procurement evolution is not going to the next level, despite comprehensive, elaborated new advantage (Ortuzar et al., 2017) Whether e-procurement can result in saving SMEs on cost and increase the profit margin is as a result on many organizations in other countries like Denmark, Norway, Finland, Ireland, the United Kingdom, Spain, Germany, Portugal, Italy, Singapore, Brazil, USA and Australia that have implemented e-procurement in their procurement activities (Efrous, 2013). Since there are many changes in ICT within and between organizations occurring at a fast pace, it is important that SMEs adopt modern approaches to information management in order to be competitive (Ganguly & Guin, 2013).

Several studies had been undertaken by various researchers on e-procurement implementation. Most the studies focused on urban SMEs and how electronic media can be utilized in business. Orori, (2011) in his study, survey of retail chain supermarkets in Kenya found out that there is a lot of resistance to change and thus slowing the adoption of e-procurement. Muthigani, (2011) in his study, electronic procurement implementation: case study of selected firms in Kenya noted that E-Procurement implementation initiative is to be determined by measuring user and supplier satisfaction. Kingori,

(2013) in her study, the effect of e-procurement on supply chain management at teachers' service commission noted that companies that will prosper and gain competitive advantage will be those that embrace e-procurement in their supply chain.

Consequently, there was no substantive study that had been done on the factors influencing e-procurement implementation in Kisauni Sub County, Mombasa County. However, existing researches had not clearly provided comprehensive relationship between skills of stakeholders, supplier compatibility, and cost of system infrastructure and e-procurement implementation. The interest in the study was motivated by the existing knowledge gap. Furthermore, despite the fact that most researches had been done on e-procurement implementation by SMEs, none had focused on SMEs found in Kisauni Sub County, Mombasa County. This Study therefore bridged the literature gaps that had been identified by examining factors influencing e-procurement implementation by SMEs in Kisauni Sub County, Mombasa County.

The research specific objectives were

- To ascertain the effect of employee competency on implementation of electronic procurement by SMEs in Kisauni sub county in Mombasa County
- To establish the effect of supplier relationship on implementation of electronic procurement by SMEs in Kisauni sub county in Mombasa County
- To determine the effect of cost of electronic system infrastructure on implementation of electronic procurement by SMEs in Kisauni sub county in Mombasa County
- To determine how ethical issues affects the adoption of e-procurement practices in Kisauni sub county in Mombasa County

The research hypothesis were

- **H₀₁:** Skills of employees and suppliers has no significance on the implementation of e-

procurement by SMEs in Kisauni Sub County in Mombasa County

- **H₀₂:** Supplier compatibility has no significance on the implementation of e-procurement by SMEs in Kisauni Sub County in Mombasa County
- **H₀₃:** Cost of systems infrastructure has no significance on the implementation of e-procurement by SMEs in Kisauni Sub County in Mombasa County
- **H₀₄:** Ethical issues have no significance on the implementation of e-procurement in Kisauni Sub County in Mombasa County.

RELATED LITERATURE

Diffusion of Innovation Theory: Diffusion of Innovation is a theory that seeks to explain how, why and at what rate new ideas and technology spread through cultures, operating at the individual and firm level, (Hakan, 2014). Diffusion is the process by which an innovation is communicated over time among the participant in a social system (Yusta et al, 2013). This theory is of interest since it advances that individuals possess different degrees of willingness to adopt innovations, and thus generally observed that the portion of the population adopting an innovation is approximately normally distributed over time. It is a normal distribution and can be categorized into segments that lead to the separation of individuals into five categories of individual innovativeness (from earliest to latest adopters): innovators, early adopters, early majority, late majority, and laggards. The innovation process in organizations is much more complex. This generally involves quite a number of individuals, perhaps including both supporters and opponents of the new idea, each of whom plays a role in the innovation-decision.

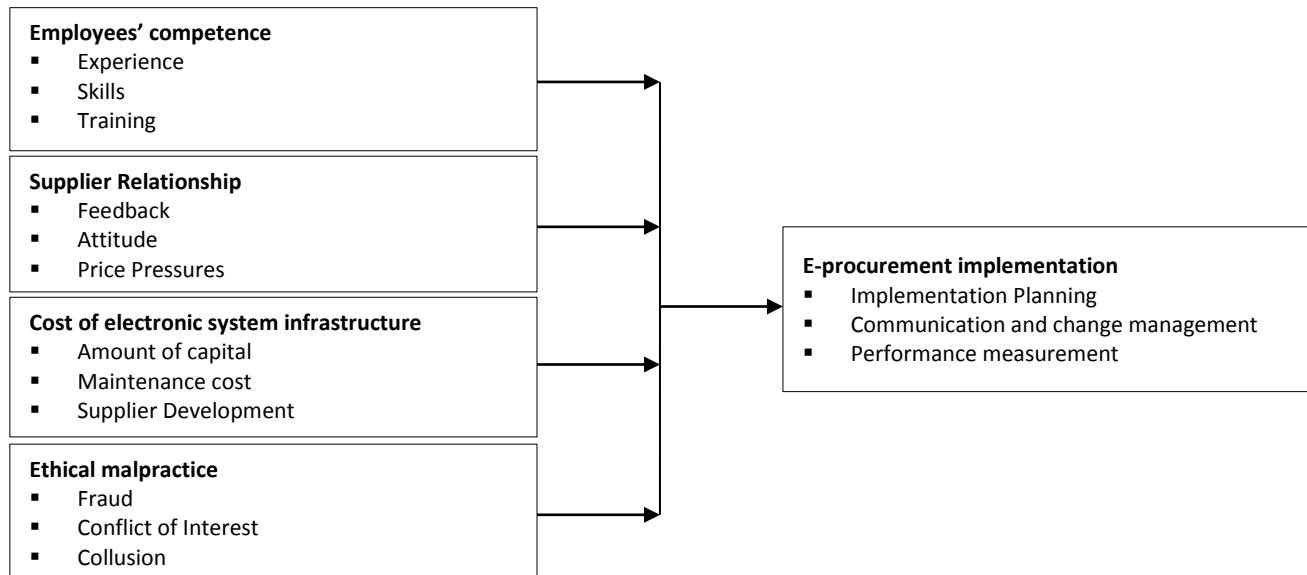
Planned Behavior Theory: The theory of planned behavior is an extension of the theory of reasoned action introduced by Fishbein in the 1960s and the theory argued that a positive attitude towards a certain action leads to the performance of the

appropriate behavior (Andrea, 2015) This theory talks about how subjective norms, and perceived behavioral control collectively shape an individual's behavioral intentions and behaviors (Appetite, 2012). Little attention has been given to understand the acceptance of e-procurement systems by the employees in organizations that have introduced E-Systems (Chaffey & Smith, 2013). Behavioral intention toward e-procurement technology is mainly determined by user's attitude and additionally influenced by perceived usefulness and subjective norm (Aboelmaged, 2010). Aboelmaged continued by asserting that System developers and procurement managers should also consider the role of social influences, such as these from supply chain partners, in the adoption process and how such influences may facilitate or inhibit e-procurement adoption process. This theory was deeply explored to help in understanding effect of skills of stakeholders on implementation of E-procurement by SMEs in Kisauni Sub County in Mombasa County.

Dynamical Systems Theory: This theory was first advanced by David Teece, Gary Pisano and Amy Shuen. It describes an organization's ability to deliberately organize its resources in an effort to improve performance. According to Chien & Tsai, 2012. Dynamic capability is the capability of an organization to purposefully adapt an organization's resource base (Chien & Tsai, 2012). Any organization should therefore be able to react effectively and efficiently to changes from external forces. Strategies to capture such capabilities and put them into use are therefore required for adoption. This will give the organization the ability to put together, develop, and maximize on the environmental competitive advantage. Modern day organizations are very dynamic and such dynamism is brought about by changes ranging from organizational structures, organization culture, marketing and customer's tastes and preferences are taking a different path (Wang et al, 2015). It is evident that e-procurement not only

uses in-house but depends also on external procurement components to address changes that way organizations reduce cost and ensuring efficiency to procure goods (Mwenga, 2016). E-procurement depends on IT and should therefore be up to date with the latest inventions in the market. This

therefore implies that start-up companies that implement e-procurement will have technological system that is up to date (Hasani et al, 2017) Based on this, the study chose to include this theory as it best explains the need to have e-procurement as a business strategy for SMEs.



Independent Variable

Dependent Variable

Figure 1: Conceptual Framework

Empirical Review

In the Kenyan context, electronic retail adoption process remains low at 3 % (UNCTAD, 2015) Wariga, (2017) in his study, electronic procurement implementation and supply chain performance of dairy firm in Kenya noted that challenges faced by dairy firms in Kenya when implementing e-procurement include: fear of security threats and confidentiality of information, inadequate technical expertise and staff incompetence, lack of evaluation of systems before installation, slow user acceptance of new information systems, failure to comply with best practices, lack of digital format necessary for e-procurement systems, and absence of IT infrastructure. Makali, (2015) carried out a research on E-procurement and procurement performance in supermarkets in Nairobi and noted that ICT sector

should enhance technology in small retailers in Kenya and Mambo, (2015) further noted that these small retailers adopting e-procurement need to scale down on traditional procurement activities if the benefits of e-procurement are to be realized. Staff competences positively affect the implementation of the e-procurement in the county governments (Odago, 2013).

Technology, organization's finance, leadership and integrity, legal framework and technical preparedness, available law and employee attitude, procurement policy and national procurement law, and staff attitude are factors that affect the implementation of e-procurement readiness in Kenya (Orina 2013). George, (2016) carried out a research on Evaluation of Electronic Retail Adoption (E-Tail) in the Kenya and came to a conclusion that as a

developing country, Kenya lags behind in technology diffusion, adoption, and adaptation in local e-marketplace due to diverse barriers. Technology is a prerequisite for globally competitive organizations and adoption and applications of technology improves operational performance of the supermarkets.

METHODOLOGY

Descriptive research design was used in the study to help in identifying the factors influencing the implementation of e-procurement. Additional multiple regression analysis was employed in establishing any association between the independent and dependent variables within this study. Multiple regressions are aimed at determining whether some variables worked together in predicting a certain dependent variable (Mokua &

Ngugi 2013). Multiple regressions, explanations in the variations found in dependent variables can be explained using multiple independent variables (Kothari et al 2013).

The multiple regression models assumed the form: The multiple linear regression models that was adopted for the study was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where: Y = E-procurement implementation

α is a constant, intercept of the equation

β_1 - β_4 is the regression coefficients of independent variables

X_1 is employee competency

X_2 is supplier relationship

X_3 is cost of electronic systems infrastructure

X_4 is ethical malpractice

Table 1: Hypotheses Testing

Hypotheses Test Method	Decision Rule
Karl Pearson Beta Test	If $\beta \neq 0$ and P-value is less than 0.5, reject null hypotheses. If $\beta \neq 0$ and P-value is greater than 0.5 then fail to reject null hypotheses
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FINDINGS

Employees' Competence

One of the objectives of the study was to ascertain the effect of employee competency on

implementation of electronic procurement by SMEs in Kisauni Sub County in Mombasa County. The results were recorded in the table below.

Table 2: Employee Competence

Statement	Mean	Std Dev
Skilled workers are key to implementing buying and selling through the internet	4.13	0.78
Workers fully understand how online business is carried out	4.62	0.76
It is easy for workers to become skillful at using the e-procurement system	4.28	0.83
Workers with experience find the e-procurement system easy to use.	4.55	0.81
Training of workers makes them want implement e-procurement	4.07	1.23
Employees possess the required computer skills	3.53	1.22
Management rewards employees who exemplary use e-procurement	3.40	1.27

From the findings, 52% of the respondents strongly agreed that skilled workers are key to implementing buying and selling through the internet, 13% of respondents agreed with the same statement, while 7% were not sure, 15% disagreed and 15% strongly disagreed. The study further revealed that only 1% of responded strongly agreed that workers fully understood how online business was carried out, 15% agreed while 30% of the respondent were not sure. 34% and 20% disagreed and strongly disagreed respectively. 35% of the respondent agreed that it was easy for the workers to become skillful at using the e-procurement system. Only 12% were not sure about the same. 28% of the respondents disagreed while 25% strongly disagreed. Only 8% agreed that it was easy for workers to become skillful at using the e-

procurement system. As for the training of workers to make them want to implement e-procurement, 25% of the respondents strongly agreed, with 40% agreeing. 25% of the respondents also strongly agreed that employees possess the required computer skills that could help in the implementation of e-procurement. 54% of the respondents disagreed that management rewards employees who exemplary use e-procurement.

Supplier Relationship

The second objective of the study sought to establish the effect of Supplier Relationship on implementation of electronic procurement by SMEs in Kisauni Sub County in Mombasa County. Results found were as follows.

Table 3: Supplier Relationship

Statement	Mean	Std Dev
Suppliers with existing internet buying system makes it easier to implement buying through the internet	4.21	0.66
Sharing information with customers is key in online buying and selling	3.52	0.91
Our organization support the use of e-procurement system	3.72	1.06
Communication with suppliers make it easier to implement e-procurement	3.90	1.21
It is easier to deal with suppliers with existing ICT infrastructure	4.12	1.05
Suppliers who use electronic systems find it satisfying to do business.	4.40	0.61

70% of the respondents strongly agreed that suppliers with existing internet buying system made it easier to implement buying through the internet. Only 2.2% strongly disagreed with the statement while some 5% of the respondents were not sure. 43.4% strongly agreed that sharing information with customers was key in online buying and selling. 32% agreed and 10.2% were not sure. 9.1% and 5.4% disagreed and strongly respectively. Respondents were asked whether their organization support the use of e-procurement system and 30% strongly agreed with 32.2% agreeing. 23.5% were not sure and some 8.2% disagreed that their organization used e-

procurement system. On Suppliers who used electronic systems found it satisfying to do business, 52.7% strongly agreed with 39.1% just agreeing and none of the respondents strongly disagreed and only 2% not being sure.

Cost of electronic systems infrastructure

The third objective was to determine the effect of cost of electronic system infrastructure on implementation of electronic procurement by SMEs in Kisauni Sub County in Mombasa County. The findings were tabulated as follow:-

Table 4: Cost of electronic system infrastructure

Statement	mean	Std dev
Cost of installing internet equipment and software makes it difficult to implement buying and selling through the internet.	4.34	0.80
The business gets enough profit to invest in e-procurement	3.50	1.21
Cost of setting up e-procurement infrastructure is high	4.60	0.69
E-procurement reduces costs of transactions	4.48	0.70
It is expensive to pay workers to maintain the system	3.12	1.51
The cost of buying spare parts and buying new software is very high.	4.32	0.70

From the results, 52.2% strongly agreed that cost of installing internet equipment and software makes it difficult to implement buying and selling through the internet. 35.9% Agreed while 11.9%. No respondent disagreed with statement thus it was believed that implementation of e-procurement strongly relied on the cost of installing internet equipment and software. On whether the profit the business was making being enough to enable investing in e-procurement, only 1% strongly agrees, 8% agreeing, 42.2% were not sure while 28.6% and 20.2% disagreed and strongly disagreed respectively. Majority of the respondents at 37.5% strongly

believed that e-procurement reduced costs of transactions. Only 0.6% strongly disagreed. 48% of the respondents strongly agree that it was expensive to pay workers to maintain the system. Only 1% strongly disagreed that paying workers was not all that expensive.

Ethical Malpractices

The fourth objective was to determine how ethical malpractice affects the adoption of e-procurement practices in Kisauni Sub County in Mombasa County. The findings were tabulated as follows:

Table 5: Ethical Malpractices

Statement	Mean	Std dev
Workers understand and comply with the procedure in procurement	4.12%	0.70
Reduction in procurement cost is key objective of the organization	3.98%	0.63
There is transparency in the procurement process	4.16%	0.87
Procurement officers collude with suppliers to steal from the organization	3.98%	0.69
Procurement officers supply the organization they work for.	4.31%	0.58

Majority of the respondents, 30.4%, disagreed that workers understood and complied with the procedure in procurement. 28% strongly disagreed with the same statement while 15.1% were not sure. On whether reduction in procurement cost was key objective of the organization, 62% of the respondents strongly agreed. Reduction of cost was a major concern of organization so as to increase the profit margin as only 3.2% of the respondents disagreed to the statement. There was a divided opinion on whether there was transparency in the procurement process as 21.3% strongly agreed that there was transparency, 30% agreed and 35% were not sure, an

indication that transparency was a guarded practice. 10% disagreed and 3.7% of the respondents strongly disagreed. 38% of the respondents strongly agreed to the statement that procurement officers colluded with suppliers to steal from the organization, 29% agreed and 10.2% were not sure. 20% agreed and 2.8% strongly disagreed. 10% strongly agreed that procurement officer's supply the organization they work for, 25% agreed while 22.7% were not sure. 30% of the respondents disagreed with 12.3% strongly disagreed.

E-procurement implementation

E-Procurement implementation needs thinking of how to build support for e-Procurement implementation. The communications strategy will need to plan for the necessary pieces of legislation passed before considering other factors. Companies that seek better business processes have to implement e-procurement. Before the SMEs start

implementing the e-Procurement, it is important to determine the level of readiness to embrace the e-Procurement in a sustainable manner. Benefits of implementing e-procurement include cost saving, improved efficiency and data management. (Odago & Mwajuma, 2013). The following represented the findings on e-procurement implementation within Kisauni Sub County in Mombasa County.

Table 6: E-Procurement implementation

Statement	Mean	Std dev
There is high speed availability of internet connectivity around your area	3.98%	0.87
I always use e-procurement to do my procurement duties because it reduces my cost	4.10%	0.98
Management embrace technology	4.13%	0.79
I will regularly use e-procurement in the future	3.69%	0.98
More time is dedicated to implementation of e-procurement	3.98%	0.96
Management of the business is participative	4.21%	0.87
Suppliers who are connected to e-procurement system are happy	4.32%	0.89

From the results, 54.7% of respondent stated that there was high speed availability of internet connectivity around organization’s area. 58.9% agreed that they always used e-procurement to perform their procurement duties since it reduced their costs. 48% strongly believed that management embraced technology, an indication that change systems could be set in place to enhance the e-

procurement implementation. Some 60% of the respondents were strongly hopeful that they would use e-procurement in future. On happiness of suppliers who were connected to e-procurement, 51.5% strongly agreed, an indication that implementation of e-procurement used within Kisauni Sub County would, in future, likely to intensify.

Coefficient of correlation

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888a	.875	.874	.83103

Predictors: (Constant), Ethical malpractice, Cost electronic systems, supplier relationship, employee competence

Predictors: (Constant), Employee competence, supplier relationship, cost of electronic system and infrastructure and ethical malpractice. The independent variables in the model represented 87.4% of the factors that influenced electronic procurement implementation by small and medium enterprises in Kisauni Sub County as represented by the R². This meant that the four independent

variables contributed about 87 % while other factors not included in the model contributed a paltry 23%. This meant that further research should be conducted to investigate the other factors (23%) that affected electronic procurement implementation by small and medium enterprises in Kisauni Sub County.

Table 8: Correlation Analysis

		Employee Competence	Supplier Relationship	Cost Electronic Systems	Ethical Malpractice	E procurement
Employee Competence	Pearson Correlation	1	.973**	.954**	-.047	.980**
	Sig. (2-tailed)		.000	.000	.726	.000
	N	58	58	58	58	58
Supplier Relationship	Pearson Correlation	.973**	1	.916**	-.016	.957**
	Sig. (2-tailed)	.000		.000	.904	.000
	N	58	58	58	58	58
Cost of Electronic Systems	Pearson Correlation	.954**	.916**	1	-.008	.965**
	Sig. (2-tailed)	.000	.000		.955	.000
	N	58	58	58	58	58
Ethical Malpractice	Pearson Correlation	-.047	-.016	-.008	1	.033
	Sig. (2-tailed)	.726	.904	.955		.804
	N	58	58	58	58	58
Eprocurement	Pearson Correlation	.980**	.957**	.965**	.033	1
	N	58	58	58	58	58

Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis conducted on the variables found out that there was a positive correlation between e- procurement, cost of electronic systems, supplier relationship, and employee competence. However, it was noted that ethical malpractice had a

negative correlation with the other variables. This meant that ethical malpractice had an adverse effect on all the variables altogether. A unit increase in any of the variables would be reduced considerably by equal unit of employee malpractice.

Table 9: Analysis of Variance (Anova)

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.999	4	8.500	544.321	.000 ^b
	Residual	.828	53	.016		
	Total	34.827	57			

a. Dependent Variable: E-procurement

b. Predictors: (Constant), Ethical Malpractice, Cost of electronic systems, supplier Relationship, employee competence

The ANOVA findings revealed that at 95% confidence level, employee competence, supplier relationship, cost of electronic system and infrastructure and ethical malpractice produce statistically significant

values and could be relied on to determine their effects on procurement performance. Significance of F ratio was used to determine whether model used was fit or not. If the F ratio is statistically significant,

the model used is considered fit and vice versa. In this case the F ratio (F=4.77, p=0.000) was found to be statistically significant hence the model used for analysis was reliable.

There was also a positive significant linear relationship between employee competence and e-procurement implementation in county governments (r =0.606, p<0.05). This implied that having competent employees trained on e-procurement

improved the implementation of e-procurement in county governments. These findings were in agreement with a study by Hardy and Williams (2011) which asserted that as e-procurement comprised of changes in procurement approaches and new technologies, the need to train staff in the use of e-procurement tools and procurement practices are critical to the success of an e-procurement initiative.

Table 10: Multiple Regression Analysis

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	1.649	.118		5.514	.000
	Employee Competence	.471	.105	.577	4.495	.000
	Supplier Relationship	.093	.085	.102	1.085	.283
	Cost Electronic Systems	.304	.069	.322	4.403	.000
	Ethical Malpractice	.104	.035	.064	2.979	.004

a. Dependent Variable: E procurement

The regression equation $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ became

$$Y = 1.649 + 0.471X_1 + 0.093X_2 + 0.304X_3 + 0.104X_4 + \epsilon$$

Based on the regression equation established, taking all factors (Employees competence, supplier relationship, cost of electronic system and Ethical malpractice) constant at zero, the e-procurement implementation factors by the SME's would be 1.649. It was also established that taking all other independent variables at zero, a unit increase in employee competency related factors lead to a 0.471 increase in e-procurement implementation. A unit increase in supplier relationship factors will lead to a 0.093 increase in procurement implementation, and a unit increase in the cost of electronic system infrastructure will lead to a 0.304 increase in e-procurement implementation. The relationship is significant as the P-value (0.000) was less than the significance level (0.05).

CONCLUSIONS

From the research findings, the study concluded all

the four independent variables studied have influenced electronic procurement implementation by SME's in Kisauni Sub County. This reiterated that the studied independent variables namely employee competence, supplier relationship, cost of electronic system infrastructure and ethical malpractice have significant influence on electronic procurement implementation by SME's in Kisauni sub county.

The researcher recommended that SME's should integrate their departments, their key suppliers and payment systems through electronic procurement systems to make it easy for processing of documents which shall result into efficiency and improved performance. They should also continue investing in ICT to make their procurement systems more effective. The study thus recommended that the organizations should be aware of the ever changing business environment that dictates the environment they operate in. As such, staying ahead through adoption of ICT would ensure that the organizations remain relevant for the unforeseeable future. Embracing of Information Communication

Technology (ICT) ensures that the supply chain balances its need to satisfy customer needs and also to manage costs so as to attain profits.

The researcher also noted that unethical malpractice eats into the SME's profit margins and that automation of its procurement activities will greatly help in mitigating such anomalies. SME's are therefore advised to employ competent employees who adhere to professional ethics at all times

The researcher dwelled on only four variables that influenced electronic procurement implementation by SME's in Kisauni Sub County. The researcher therefore rallies fellow scholars to exhaust all other

factors that would influence e-procurement implementation. Future researchers should conduct the same study on other organisations and business setups not limited to SME's. Both private and public organisations like government parastatals, listed companies and the ilk should also be included in future researches so as to ascertain on the factors that influence their electronic procurement implementation.. The researcher felt that electronic procurement was an ever changing field with periodic improvements hence study should be conducted time and time again.

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