

**INTERNAL FACTORS AFFECTING PROCUREMENT PROCESS OF
SUPPLIES IN THE PUBLIC SECTOR; A SURVEY OF KENYA GOVERNMENT
MINISTRIES**

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ABSTRACT. Given the impact of procurement activities on the operation and effectiveness of public sectors in Kenya, it is essential that these activities be performed by qualified staff with high professional and ethical standards and using sound procedures anchored in appropriate policies and regulations. The study adopted a descriptive research design to analyze the purchasing process in the Health-Care industry. The findings revealed that accountability, ICT adoption and ethics affected procurement process of health care supplies in the public sector to a great extent. The study therefore recommends that adequate controls should be put in place reducing opportunities for corruption.

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INTRODUCTION

Procurement is an important part of efficient drug management and supply and is critical for all levels of health care institutions. An effective procurement process ensures the availability of the right drugs in the right quantities, available at the right time, for the right patient and at reasonable prices, and at recognizable standards of quality (WHO 2007).

Based on this document, are four main operational principles of drug quantification, registration, selection and efficient management. Thus, procurement is not simply the act of buying but encompasses a complex range of operational, business, information technology, safety and risk management, and legal systems, all designed to address an institution's needs (Ombaka, 2009). Specifically, management of medicines procurement determine, accredit, and monitor appropriate supply sources; evaluate suppliers' performance; choose a buying strategy or approach; monitor drug delivery; assess clinical and use outcomes; and evaluate new products and the drug market. Successful hospital procurement is also a collaborative process, involving people with skills in purchasing, finance, management, clinical and nursing specialties, pharmacy, quality control, and even the end user: the patient.

One of the basic rules of procurement is that in the end, it is important to think in terms of the total cost of ownership. This includes not only the purchase price, but also time and resources that are expended in the pursuit of the ownership. By understanding the steps involved with procurement, it is possible to get a better understanding of the real cost involved with attaining any good or service (Baily et al 2004). Many public procurement activities suffer from neglect, lack of direction, poor co-ordination, lack of open competition and transparency, differing levels of corruption and most importantly not having a cadre of trained and qualified procurement specialists, who are competent to conduct and manage such procurements, in a professional, timely and cost effective manner. Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs, the potential for manipulation of

contract awards and lack of fair competition, all of which create the perception in the population at large, that public expenditure is slow, ineffective, expensive and often corrupt.

Information is critical to an effective and efficient procurement process, on the other hand financing is the engine that drives it. In the case of Kenya for example, (World Bank 2007) ensuring adequate financing for the procurement of pharmaceuticals remains an important part of medicines procurement. Pharmacists involved in hospital procurement of medicines, whether directly or indirectly, must be knowledgeable about medicines as well as the interacting issues and the many stakeholders who can potentially affect the process or who may have legal responsibility. Public procurement has, for long, been overshadowed with inefficiency, corruption and disregard of fundamental "value for money" considerations. This has adversely impacted the rate and quality of progress in realizing the objectives of national development, especially in developing and transition countries.

Transparent management is another concept, which is closely related to accountability and Kenya leaves a lot to be desired in this facet. The idea behind transparency is that by actively disclosing information on how decisions are made, as well as measures of performance, we can improve public deliberation, reinforce accountability and inform citizen choice. In addition, transparency helps to document and disseminate information on the scope and consequences of corruption, information which can help build support for anti-corruption programmes and target enforcement efforts.

PURPOSE OF THE STUDY

The importance of public organizations as an entity designed to serve the public, along with the imperative for public accountability, makes studying the problems associated with the public sector essential (Trionfetti, 2000).

This paper is based on the interplay between the third and fourth group of activities. While apportioning blame on the generally disappointing economic performance of African countries since their

independence, Kabaj (2003) succinctly argued that the failure to pay adequate attention to the proper management of public resources and the importance of establishing regulatory frameworks as a means to enhance investor confidence were the major culprits, in addition to the devastating effects of bribery and corruption on the productive use of resources (p.54). Public procurement systems are central to the effectiveness of development expenditure. Budgets get translated into services largely through the governments' purchases of goods, services and works. It is estimated that 15% of the world's Gross Domestic Product (GDP) is spent through public procurement (Development Assistance Committee, 2005). It is further estimated that public procurement accounts for 9%–13% of the GDP of the economies of developing countries. In Angola, public procurement accounts for 58%, it accounts for 40% in Malawi while in Uganda, it accounts for 70% of public spending (Thai, 2001). But the area of procurement is increasingly prone to internal factors (Trionfetti, 2000).

The study aimed at evaluating the internal factors affecting procurement process of supplies in the public sector with specific reference to Kenya government ministries. Some questions guided the data collection and analysis exercise.

Research Question: What are the factors affecting procurement process of health care supplies in the Kenyan government ministries?

The above question can be translated into the following research questions (RQ):

RQ1. What is the effect of accountability on procurement process of health care supplies in the public sector?

RQ2. How effective is ICT adoption on procurement process of health care supplies in the public sector?

RQ3. What is the effect of operating procedures on procurement process of health care supplies in the public sector?

RQ4. How does ethics affect the procurement process of health care supplies in the public sector?

3. BACKGROUND

3.1 PROCUREMENT PROCESS

Procurement encompasses the whole process of acquiring property and/or services. It begins when an agency has identified a need and decided on its procurement requirement. Procurement continues through the processes of risk assessment, seeking and evaluating alternative solutions, contract award, delivery of and payment for the property and/or services and, where relevant, the ongoing management of a contract and consideration of options related to the contract. Procurement also extends to the ultimate disposal of property at the end of its useful life (Waters 2004).

Sound public procurement policies and practices are among the essential elements of good governance (KIPPRA, 2006). Otieno (2004) notes the irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated. According to Thai (2001), the basic principles of good procurement practice include accountability, where effective mechanisms must be in place in order to enable procuring entities spend the limited resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are convincing reasons for single sourcing; and consistency, which emphasizes the equal treatment of all bidders irrespective of race, nationality or political affiliation.

The process should also uphold integrity by ensuring that there are no malpractices; informed decision-making, which requires public bodies to base decisions on accurate information and ensure that requirements are being met. More still, the Procurement practice should be responsive to aspirations, expectations and needs of the target society. Finally, there is need for transparency to enhance openness and clarity on procurement policy and its delivery (World Bank, 2003).

3.2 THE INTERNAL FACTORS AFFECTING PROCUREMENT PROCESS

3.2.1 ACCOUNTABILITY

Accountability is government's obligation to demonstrate effectiveness in carrying out goals and producing the types of services that the public wants and needs (Segal and Summers 2002). Lack of accountability creates opportunities for corruption. Brinkerhoff (2004) identifies three key components of accountability, including the measurement of goals and results, the justification or explanation of those results to internal or external monitors, and punishment or sanctions for non-performance or corrupt behavior. Strategies to help increase accountability include information systems which measure how inputs are used to produce outputs; watchdog organizations, health boards or other civic organizations to demand explanation of results; performance incentives to reward good performance; and sanctions for poor performance. In South Africa, a district health planning and reporting system was used to improve management control and hold government agents accountable for their decisions. By combining financial and service data, the reporting system drew attention to clinics and programmes that had unusual indicators, and helped officials to explore root causes for performance differences, including possible corruption (Vian and Collins 2006).

3.2.2 ICT ADOPTION

Government officials and elected leaders have increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector. Faced with tight budgets and a retiring workforce, today's government agencies are operating in an environment defined by the need to 'do more with less'. Public authorities are expected to provide excellent service to their constituents in an effective and transparent manner, all the while working under constant resource constraints by adopting ICT (Hagén, and Zeed, 2005).

In order to meet today's operating challenges, regional and local governments are turning to ICT to enhance the services for residents, businesses and visitors, and improve internal efficiencies by lowering

costs and increasing productivity. Public authorities are implementing scalable communication infrastructures to promote economic development, attract new businesses and residents, and above all, provide excellent service to constituents (Abouzeedan and Busler, 2002). From a business perspective, implementing scalable communication infrastructures such as wide area networks (WANS) accommodates the various types of services government agencies require on a day to day basis, including provision of broadband internet access for online services and internal collaboration, handling administrative data.

3.2.3 INTERNAL PROCESSES

Public procurement has, for long, been overshadowed with inefficiency, corruption and disregard of fundamental "value for money" considerations. This has adversely impacted the rate and quality of progress in realizing the objectives of national development, especially in developing and transition countries (Tan *et al.*, 2009). Employees may neither engage in, nor give the appearance of engaging in, dishonest or unethical actions. Both are injurious to the public's perception of honest government. As a government employee, you might have access to procurement and other nonpublic information that could affect a contract bid or the award process (Wymer and Regan, 2005). Improper disclosure of such protected information could violate numerous laws, as well as ethics rules. It also could subject you to administrative actions, as well as civil or criminal penalties. Management in contracting authorities should ensure that there is an appropriate focus on good practice in purchasing and, where there is a significant procurement function that procedures are in place to ensure compliance with all relevant guidelines.

Officials involved in procurement must not make improper use of their position (Tan *et al.*, 2009). Officials may have access to very confidential and/or market sensitive information. It is unethical to use inside information provided to the agency as part of a tender process, either for the material benefit of the official or for another person. Criminal sanctions apply to such behaviour.

3.2.4 ETHICS

According to Wee (2002) ethics are the moral principles or values that guide officials in all aspects of their work. Ethical behaviour encompasses the concepts of honesty, integrity, probity, diligence, fairness, trust, respect and consistency. Ethical behavior includes avoiding conflicts of interest, and not making improper use of an individual's position. Ethical behavior is important in public procurement as it involves the expenditure of public money, and is subject to public scrutiny. Public officials should always behave ethically and fairly, including in their business undertakings. Ethical behavior supports openness and accountability in a procurement process and gives suppliers confidence to participate in the Government marketplace. Ethical behavior can also reduce the cost of managing risks associated with fraud, theft, corruption, and other improper behavior; and enhance confidence in public administration (Wee, 2002).

An important and effective way to maintain ethics awareness in agencies is to provide training for employees (Amos and Weathington, 2008). Ethics training and seminars can be provided, along with training in more specific areas, such as procurement procedures, record keeping, records management, and accountability and administrative law. Regular reviews or audits of procurement processes can be done to ensure probity is being considered and achieved (Amos and Weathington, 2008).

Providing health facilities with drugs and medical supplies is a complex process involving both the private and public sectors. Governments and health Ministries often lack the management skills required to write technical specifications, supervise competitive bidding, and monitor and evaluate the contract performance. Financial malpractices also could occur at any stage of the process and influence decisions on the model of procurement (direct rather than competitive), on the type and volume of procured supplies, and on specifications and selection criteria ultimately compromising access to essential quality medicines (Miles and Breen, 2005).

4. METHODOLOGY

4.1 THE DESIGN AND SAMPLE CHARACTERISTICS

Each research method has its strengths and weakness and certain concepts are more appropriately studied through some methods than others (Cooper and Schindler, 2000: 110). The study used descriptive research design. Descriptive research design was chosen because it enables the researcher to generalise the findings to a larger population.

4.2 VALIDITY AND RELIABILITY

According to Mugenda and Mugenda (2003: 96), in a research study, the reliability coefficient can be computed to indicate how reliable data are. A coefficient of 0.80 or more implies that there is a high degree of data reliability. Sometimes, a researcher may get away with using less reliable data if the sample size is very big or the variables under study differ greatly among the subjects. But where the sample size and variations among the subjects are small, a highly reliable data set is required to reveal the magnitude of these variations. In this study, during the questionnaire's construction, quality control and validity were ensured through:

- face validity, where the instrument was subjected to experts to check whether it measures what it was intended to measure
- content validity, where the instrument was designed according to the study variables and their respective indicators of measurement; it was ensured that each question was appropriate for a particular variable construct through the calculation of the Content Validity Index (CVI)
- construct validity, which was maintained through restricting the questions to the conceptualizations of the variables and ensuring that the indicators of a particular variable fall within the same construct.

The survey instrument was subjected to overall reliability analysis and was found to be highly reliable ($\alpha = 0.937$). Given this overall picture, the reliability coefficient for the measures of public procurement process and the effect of the internal factors were analyzed. It was found that the measures of procurement process

were highly reliable ($\alpha = 0.8122$), while that of the effects of internal factors were found to be equal to 0.8901.

The data presented in this paper were analyzed using three sets of techniques. The first technique is descriptive statistics, where the percentages and frequencies together with the means and standard deviations were computed and analyzed for each item that measured public procurement process and the effects of internal factors. The second is correlation analysis, which establishes the relationship between public procurement process and effects of internal factors. This was followed by simple linear regression analysis utilizing the Structural Equation Model (SEM) analysis to examine the extent to which internal factors (independent variables) explained the variation in public procurement process (dependent variables)

4.3 DATA ANALYSIS

According to Mugenda & Mugenda (2003), data analysis is the process of bringing order, structure and meaning to the mass of information collected. Data analysis methods employed involved quantitative and qualitative procedures. Quantitative data was analysed using descriptive statistical methods. The study adopted a descriptive analysis by use of descriptive statistics such as the measure of central tendency.

Quantitative data analysis was aided by SPSS (Statistical Package for Social Sciences) Version 17 to generate those measures. Since percentages are the most widely used in descriptive analysis (Mugenda & Mugenda, 2003). SPSS Version 17 has got descriptive statistics features that assist in variable response comparison and gives a clear indication of response frequencies (Mugenda & Mugenda, 2003).

5. RESULTS AND DISCUSSION

In Kenya, public procurement is governed by the Public Procurement Disposal Act, 2005. The act establishes practices for procurement and disposal of unserviceable, obsolete or surplus stores and equipment by public organizations which are the government, the commissions, the local authority, the state corporations, the central bank,

corporative society, public schools, public universities and colleges. The bodies which regulate public procurement are Public Procurement Oversight Authority (PPOA), Public Procurement Oversight Advisory Board (PPOAB) and Public Procurement Administrative Review Board (PPARB). Procurement practices are open tendering, restricted tendering, direct procurement, request for proposal, requesting for quotation, specially permitted procurement practices and practices for low value procurements.

The study wished to generate opinions from the study respondents on factors affecting procurement process of supplies in the public sector. Using a closed-ended questionnaire, the opinions of the respondents were collected and analyzed. The results are presented below.

Of the 84 respondents, 76% were male while 24% were female. In terms of the highest qualifications of the study respondents, the survey established that majority (42%) of the respondents had a bachelor's degree, 44% had a college diploma while 11% of the respondents had secondary education. This suggests that all study respondents had adequate educational qualifications to enable them to answer the survey instrument. On the years of service, the survey established that majority of the respondents (47%) had worked for 1 to 5 years, 31% had worked for 6 to 10 years while 22% of the respondents had worked for less than 1 year. This points to the fact that most of the respondents were experienced since they had worked long enough to be conversant with the operations of the ministries.

5.1 ACCOUNTABILITY

Accountability shows how the public interest has been protected in the expenditure of public funds. Maintaining integrity in public procurement is one of the most important pillars of modern national procurement systems (Barrett, 2000). Ensuring the accountability of procurement officials is perhaps the most essential aspect of this goal. The accountability of procurement officials is not only important from a public or administrative law perspective, but also has economic implications.

Table 1: Components of accountability affecting procurement process of supplies in the public sector

	Mean	Std. Dev
The measurement of goals and results	2.222	0.538
The justification or explanation of those results to internal or external monitors	3.2	0.476
Punishment or sanctions for non-performance or corrupt behavior	2.578	0.492

The results presented in the table above revealed that the components of accountability affected procurement process of supplies in the public sector to a great extent and they include the justification or explanation of those results to internal or external monitors as shown by a mean of 3.200, punishment or sanctions for non-performance or corrupt behavior which was indicated by a mean of 2.578 and the measurement of goals and results as indicated by a mean of 2.222.

Table 2: Level of agreement on effects of accountability on procurement of supplies in the public sector

	mean	Std. Dev
Accountability is government's obligation to demonstrate effectiveness in carrying out goals and producing the types of services that the public wants and needs	2.8	0.476
Lack of accountability creates opportunities for corruption.	2.556	0.494
Government officials use discretion to license and accredit facilities, providers, services and products, opening risk of abuse of power and use of resources.	2.711	0.481
High amounts of discretion without adequate controls can create opportunities for corruption.	3.289	0.481

The study sought to find the level of agreement of the respondents on effects of accountability on procurement of supplies in the public sector. According to the findings, the respondents strongly agreed that high amounts of discretion without adequate controls can create opportunities for corruption as indicated by a mean of 3.289. Accountability is government's obligation to demonstrate effectiveness in carrying out goals and producing the types of services that the public wants and needs. This was indicated by a mean of 2.800. The respondents also agreed that government officials use discretion to license and accredit facilities, providers, services and products, opening risk of abuse of power and use of resources and that lack of accountability creates opportunities for corruption as indicated by a mean of 2.711 and 2.556 respectively.

5.2 ICT ADOPTION

The old way of doing business consists of buyers managing forecasts and communicating requirements to suppliers via phone, fax and e-mail. Spreadsheets and manual reports are passed between the trading partners. These manual processes are slow and cumbersome. They cannot support today's demand-driven enterprises. Supply chain

procurement professionals spend too much time “putting out fires” and reacting to daily problems (Thomson and Jackson, 2007). They cannot seem to find the time to develop strategic relationships with suppliers and deploy improved business processes that eliminate shortages. Factors that hinders ICT growth in developing nations are Infrastructure, business environment (financial, legal), social factors (such as poverty, illiteracy, urbanization level), educational factors and cultural environment.

Table 3: ICT adoption on procurement of supplies in the public sector

	mean	stdev
Government officials and elected leaders have increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector.	2.733	0.48
Public authorities are expected to provide excellent service to their constituents in an effective and transparent manner	3.311	0.483
In order to meet today's operating challenges, regional and local governments are turning to ICT to enhance the services by lowering costs and increasing productivity	3.778	0.538
Public authorities are implementing scalable communication infrastructures to promote economic development	2.644	0.486
African nations are lagging severely in ICT adoptions despite the benefits from ICT experienced by others	3.044	0.472

On the effects of ICT adoption on procurement of supplies in the public sector, the study revealed that the respondents strongly agreed that in order to meet today's operating challenges, regional and local governments are turning to ICT to enhance the services by lowering costs and increasing productivity. This was shown by a mean of 3.778; the respondents also agreed that public authorities are expected to provide excellent service to their constituents in an effective and transparent manner as indicated by a mean of 3.311. The study also revealed that African nations are lagging severely in ICT adoptions despite the benefits from ICT experienced by others as indicated by a mean of 3.044. the respondents agreed that government officials and elected leaders have increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector and that public authorities are implementing scalable

communication infrastructures to promote economic development d by as indicated by a mean of 2.733 and 2.644 respectively.

5.3 INTERNAL PROCESSES

Procurement staff will need training, particularly in how to resolve dilemmas and competing priorities. Useful monitoring and due diligence tools include Supplier Engagement Forums and supplier questionnaires during tendering and at other stages of the relationship such as contract renewal. Public officials should not accept benefits of any kind from a third party which might reasonably be seen to compromise their personal judgment or integrity. According to Thomson & Jackson, (2007), the actions of public officials must be above suspicion and not give rise to any actual or potential conflict of interest and their dealings with commercial and other interests should bear the closest possible scrutiny. It is not possible to give guidelines for every conceivable situation that may arise but if a doubt arises about a particular situation line management should be consulted.

Table 4: Effects of internal processes on procurement of supplies in the public sector

	mean	stdev
Professional and job-related responsibilities are placed before personal gain and individual interest	2.689	0.483
Employees may neither engage in, nor give the appearance of engaging in, dishonest or unethical actions	3.133	0.473
Value for money is the core principle underpinning public procurement, incorporating ethical behavior and the ethical use of resources.	3.778	0.538
Officials involved in procurement must not make improper use of their position	2.644	0.486

The paper also sought to find the effects of internal processes on procurement of supplies in the public sector. According to the findings, the respondents strongly agreed that value for money is the core principle underpinning public procurement, incorporating ethical

behavior and the ethical use of resource as indicated by a mean of 3.778. The study also indicated that employees may neither engage in, nor give the appearance of engaging in, dishonest or unethical actions as shown by a mean of 3.133. Professional and job-related responsibilities are placed before personal gain and individual interest. This was shown by a mean of 2.689. the respondents also agreed that officials involved in procurement must not make improper use of their position as indicated by a mean of 2.644.

5.4 ETHICS

Ethics is all about what is morally right and morally wrong, so procurement ethics is concerned with what is morally right in procurement as profession, (Wood, 1995). This is very important in procurement management because procurement staffs deal with suppliers represent the whole organization and that will determine the face of the organization towards the suppliers which may create goodwill or destroy it,

Table 5: Effects of ethics on procurement of supplies in the public sector

	mean	stdev
Ethical behavior includes avoiding conflicts of interest, and not making improper use of an individual's position.	2.867	0.473
Regular reviews or audits of procurement processes can be done to ensure probity is being considered and achieved	2.689	0.483
Separation of key internal functions contributes to professionalism, accountability and an efficient procurement system.	3.133	0.473
Officials conducting procurement need to be able to demonstrate that their decisions are fair and equitable, and made in accordance with the law, agency rules and guidelines, and conditions of contract.	3.311	0.483
Tender bids evaluation take longer than expected because the Kenyan tender committee is investigated for allegations of corruption.	3.778	0.538

The results presented in the table indicated that ethics affects procurement of supplies in the public sector to a great extent. The respondents indicated that tender bids evaluation take longer than expected because the Kenyan tender committee is investigated for

allegations of corruption which had a mean of 3.778. Officials conducting procurement need to be able to demonstrate that their decisions are fair and equitable, and made in accordance with the law, agency rules and guidelines, and conditions of contract this was indicated by a mean of 3.311. The respondents also agreed that separation of key internal functions contributes to professionalism, accountability and an efficient procurement system as indicated by a mean of 3.133. the study further revealed that ethical behavior includes avoiding conflicts of interest, and not making improper use of an individual's position as shown by a mean of 2.867 and that regular reviews or audits of procurement processes can be done to ensure probity is being considered and achieved as also indicated by a mean of 2.689.

6. REGRESSION ANALYSIS

In addition, the researcher conducted a multiple regression analysis so as to test relationship among variables (independent) on the Procurement process. The researcher applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study.

Table 6: Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.908 ^a	.825	.289		.65323

Source: Research, 2011

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Procurement process) that is explained by all the four independent variables (ICT adoption, operating procedures, ethics and accountability) (see tables below).

The four independent variables that were studied, explain only 82.5% of the internal factors affecting procurement process of supplies in the

public sector with reference to government ministries as represented by the R^2 . This therefore means that other factors not studied in this research contribute 17.5% of the procurement process of supplies in the public sector with reference to government ministries. Therefore, further research should be conducted to investigate the other factors (17.5%) that affect procurement process of supplies in the public sector with specific focus on government ministries.

Table 7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2.534	2	1.267	54.455	.024a	
	Residual	9.307	40	2.327			
	Total	3.465	42				

The significance value is 0.024 which is less than 0.05 thus the model is statistically significant in predicting how ICT adoption, internal processes, ethics and accountability affect the procurement process of health care supplies in the public sector. The F critical at 5% level of significance was 3.23. Since F calculated is greater than the F critical (value = 54.455), this shows that the overall model was significant.

Table 8: Coefficient of determination

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
		B		Beta		
1	(Constant)	1.112	1.223		0.917	0.367
	Internal process	0.21	0.104	0.157	1.081	0.267
	Accountability	0.18	0.145	0.087	0.578	0.188
	ICT adoption	0.396	0.204	0.155	0.96	0.045
	Ethic	0.12	0.096	0.215	0.342	0.321

Source: Research, 2011

The researcher conducted a multiple regression analysis so as to determine the relationship between procurement processes of medical supplies in the public sector with reference to government ministries. and the four variables. As per the SPSS generated table above, the equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$) becomes:

$$Y = 0.396X_1 + 0.210X_2 + 0.18 X_3 + 0.12 X_4 + 0.111$$

Where Y is the dependent variable (procurement process), X_1 is the ICT adoption variable, X_2 is operating procedures variable, X_3 is accountability and X_4 is ethic variable. The possible value of Y when all independent variables are equal to zero is 0.111.

According to the regression equation established, taking all factors into account (ICT adoption, internal process, accountability and ethic) constant at zero, procurement process will be 1.112. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in ICT adoption will lead to a 0.396 increase in procurement process; a unit increase in internal process will lead to a 0.210 increase in procurement process, a unit increase in accountability will lead to a 0.180 increase in procurement process and a unit increase in ethic will lead to a 0.120 increase in procurement process. This infers that performance evaluation and

monitoring contribute more to the performance of government ministries in Kenya followed by the process innovation strategies.

At 5% level of significance and 95% level of confidence, ICT adoption had a 0.045 level of significance, internal process showed a 0.188 level of significant, accountability showed a 0.188 level of significant, and ethic showed a 0.321 level of significant hence the most significant factor is ICT adoption.

7. CONCLUSIONS AND IMPLICATIONS

The study found that procurement process in Kenyan Government Ministries for health care supplies was affected by factors such as; accountability to a very great extent and justification of results to internal or external monitors to a moderate extent. The government officials used discretion to license and accredit facilities, providers, services and products, opening risk of abuse of power and use of resources. High amounts of discretion without adequate controls could create opportunities for corruption. Performance incentives to reward good performance increased accountability at Kenya government ministries and that the boards or other civic organizations to demand explanation of results increased accountability at Kenya government ministries.

The study further concludes that ICT adoption affected procurement process at Kenya government ministries to a great extent. ICT adoption enhanced the process of effective tendering through advertising, sourcing reviews, prequalification, potential for cost savings and greater awareness of new development. Adopting ICT enabled Kenya government ministries to provide excellent service to their suppliers in an effective and transparent manner.

In addition, the study concludes that operating procedures affected procurement process at Kenya government ministries to a very great extent. Conflict of interest affected the setting of user fees for supply registration. Market approval (or registration) of products was usually granted on the basis of efficacy, safety and quality.

Moreover, the study concludes that ethics affected procurement process at Kenya government ministries to a moderate extent. Separation of key functions contributes to professionalism, accountability and an efficient procurement system. Tender bids evaluation take longer than expected because the Kenyan tender committee is investigated for allegations of corruption.

8. RECOMMENDATIONS

The study recommends that examination and evaluation of offers be made effective. Accountability and measurement of goals and results need to be considered since they affect procurement process at Kenya government ministries. Procurement results need to be reported to internal or external monitors since this affects procurement process at Kenya government ministries. The government officials need to be encouraged to use discretion to license and accredit facilities, providers, services and products to reduce opening risk of abuse of power and use of resources. Adequate controls should be put in place reducing opportunities for corruption. Performance incentives need to be offered to employees to reward good performance. This will help to increase accountability. The study further recommends Kenya government ministries to adopt ICT adoption. This will enhance the process of effective tendering through advertising, sourcing reviews, prequalification, potential for cost savings and greater awareness of new development. It will also enable Kenya government ministries to provide excellent service to their suppliers in an effective and transparent manner.

In addition, the internal process should be enhanced at Kenya government ministries. Conflict of interest should be put on a check since it affects the setting of user fees for drug registration. Market approval (or registration) of pharmaceutical products should be granted on the basis of efficacy, safety and quality. Moreover, ethics need to be enhanced at Kenya government ministries. Separation of key functions contributed to professionalism, accountability and an

efficient procurement system. Tender bids evaluation need to be improved to take lesser time. Kenyan tender committee need to be investigated for allegations of corruption. Product specifications should be made clear. Slanting product specifications need to be discouraged.

9. LIMITATIONS AND AREAS FOR FURTHER RESEARCH

This study reviewed the study on the internal factors affecting procurement process of supplies in the public sector with reference to Kenya government ministries. To this end therefore a further study should be carried out to establish the external factors affecting procurement process of supplies in the public sector. Moreover, a study should also be carried out to establish the challenges faced while carrying out procurement process of supplies in the public sector.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE

This questionnaire consists of two parts; kindly answer all the questions by ticking in the appropriate box or filling in the spaces provided.

SECTION A: GENERAL INFORMATION

1. Gender.....
2. Your age bracket (Tick whichever appropriate)

18 – 24 Years	[]	25 - 30 Years	[]
]			
31 - 34 years	[]	35 – 40 years	[]
]			
41 – 44 years	[]	45 – 50 years	[]
]			
Over 51 years	[]		
3. What is your education level? (Tick as applicable)

Primary	[]	Secondary	[]
College	[]	Bachelors' degree	[]

Others-specify.....
4. Years of service/working period (Tick as applicable)

Less than 1 year	[]	6-10 years	[]
]			
1-5 years	[]	Over 10 years	[]
]			
5. Please indicate your designation

Head of department/unit/division	[]	Assistant head	[]
Human Resource Supervisor	[]		

Other (specify).....

SECTION B
ACCOUNTABILITY

6. To what extent does accountability affect procurement process of supplies in the public sector
- Very great extent [] Great extent [] Moderate extent []
- Little extent [] Not at all []
7. To what extent do the following key components of accountability affect procurement process of supplies in the public sector? Use a scale of 1-5 where 1= Very great extent and 5= Not at all

	1	2	3	4	5
The measurement of goals and results					
The justification or explanation of those results to internal or external monitors					
Punishment or sanctions for non-performance or corrupt behavior					

8. What is your level of agreement with the following statements that relate to the effect of accountability on procurement of supplies in the public sector? Use a scale of 1-5 where 1= strongly agree and 5= strongly disagree.

	1	2	3	4	5
Accountability is government's obligation to demonstrate effectiveness in carrying out goals and producing the types of services that the public wants and needs					
Lack of accountability creates opportunities for corruption.					
Government officials use discretion to license and accredit facilities, providers, services and products, opening risk of abuse of power and use of resources.					
High amounts of discretion without adequate controls can create opportunities for corruption.					

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ICT ADOPTION

9. To what extent does ICT adoption affect procurement of supplies in the public sector?

- Very great extent []
- Great extent []
- Moderate extent []
- Little extent []
- Not at all []

10. What is your level of agreement with the following statements that relate to the effect of ICT adoption on procurement of supplies in the public sector? Use a scale of 1-5 where 1= strongly agree and 5= strongly disagree.

Statements	1	2	3	4	5
Government officials and elected leaders have increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector.					
Public authorities are expected to provide excellent service to their constituents in an effective and transparent manner					
In order to meet today's operating challenges, regional and local governments are turning to ICT to enhance the services by lowering costs and increasing productivity					
Public authorities are implementing scalable communication infrastructures to promote economic development					
African nations are lagging severely in ICT adoptions despite the benefits from ICT experienced by others					

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ETHICS

14. To what extent do Ethics affect procurement of supplies in the public sector?

Very great extent []

Great extent []

Moderate extent []

Little extent []

Not at all []

15. What is your level of agreement to the following statements that relate to ethics on procurement of supplies in the public sector? Use a scale of 1-5 where 1= strongly agree and 5= strongly disagree.

Statements	1	2	3	4	5
Ethical behavior includes avoiding conflicts of interest, and not making improper use of an individual's position.					
Regular reviews or audits of procurement processes can be done to ensure probity is being considered and achieved					
Separation of key internal functions contributes to professionalism, accountability and an efficient procurement system.					
Officials conducting procurement need to be able to demonstrate that their decisions are fair and equitable, and made in accordance with the law, agency rules and guidelines, and conditions of contract.					
Tender bids evaluation take longer than expected because the Kenyan tender committee is investigated for allegations of corruption.					

APPENDIX II: BUDGET PLAN

ACTIVITY	COST (KSHS)
Transport and Materials	5,000
Internet and Research Materials	14000
Printing and photocopy	12,500
Field Work (research)	16,000
Total	47,500