



**FACTORS AFFECTING EFFICIENCY OF PROCUREMENT IN PUBLIC  
INSTITUTIONS: A CASE OF PUBLIC ENTITIES IN HOMABAY COUNTY**

<sup>1</sup> **Titus Okore Okinyi**

*Jomo Kenyatta University of Agriculture and Technology*

[tokore89@gmail.com](mailto:tokore89@gmail.com)

<sup>2</sup> **Dr. Willy Muturi**

*Department of Business Administration*

*Jomo Kenyatta University of Agriculture and Technology*

[mmuturi2001@yahoo.com](mailto:mmuturi2001@yahoo.com)

**Abstract**

Procurement is a crucial element in the working functions of any government. In spite of the reforms in the procurement system and enactment of Public Procurement and Disposal Act (2005) in Kenya, very little has been done to analyze the factors influencing the procurement process in public sector. Procurement in Kenya suffers from poor performance characterized by red tape measures, non-compliance to the Act, overpricing, poor planning, poor contract management, inadequate transparency and accountability, material redundancy and corruption. This paper aimed at investigating factors affecting public procurement efficiency with one of the devolved county governments in Kenya – Homabay used as a case study. The investigation was achieved by; firstly, establishing how professional qualification of employees influence the efficiency of the public procurement process. Secondly assessing how information communication technology (ICT) affect the efficiency of the procurement function in Public procurement. Thirdly, establishing how contract management affect the efficiency of procurement process in the Public Sector and lastly, establishing how the procurement planning process affect efficiency of procurement process in the public sector. The study found that; there is close relationship between ICT procurement performances with highly integrated public procurement process more efficient than manual procurement process; ICT integration within public institution improves customer service delivery making it more simple and efficient; proper contract management in public procurement helps to achieve efficiency in public sector.

*Keywords: Procurement Systems, Public Procurement*

## **1. Introduction**

Farrington (2006) defines procurement as a process of obtaining goods or services in any way including borrowing, leasing, and even force or pillage. This process is widely covered in the tendering process that entirely entails a number of procedures to be followed. A tender or bid is a formal offer to supply goods or services for an agreed price (Harrington, 2006).

In Kenya, open tendering is a competitive bidding whereby potential suppliers are invited to make a firm and unequivocal offer of the price and terms on which they will supply specified goods and services, which on acceptance shall be the basis of a subsequent contract between the purchasing organization and the selected supplier. Although tendering is used by the private sector undertakings, it is in the public sector that tendering is mostly used to ensure conformity of selected supplier to specifications (Harrington, 2006). The devolved county governments in Kenya, use the same system to procure goods and services.

The legal framework of Kenya's public procurement system was strengthened with the enactment of the Public Procurement and Disposal Act 2005. This came to operation on January 1 2007 with the publication of the Public Procurement and Disposal Regulations 2006. The Act and the Regulations were enacted for the purpose of establishing procedures for public procurement and disposal by public entities to achieve the following objectives: Maximize economy and efficiency, promote competition, and ensure that competitors are treated fairly. It was also set to promote integrity and fairness of those procedures, Increase transparency, and accountability, increase public confidence in those procedures, and facilitate the promotion of local industry and economic development. The Public procurement has enabled establishment of standard procedures that has enabled an efficient flow of procurement flow (PPDA, 2007).

## **2. Statement of the problem**

Procurement process in Kenya, consume huge government spending, 60% of the national budget and in spite of this, both the Central and County governments of Kenya lose multimillions in the tendering processes. Currently, there are toothless oversight authorities, inadequate transparency and accountability, poor procurement planning strategies, conflicts of interest, insufficient capacity building to procurement staff, delays and inefficiencies, poor records management, bureaucracy, corruption, political interests and collision with suppliers.

It is therefore that this study sought to establish the factors affecting the efficiency of public procurement system in Homa Bay County. The investigation was guided through the following objectives;

### **3. Objectives of the Study**

- a) To establish how professional qualification of employees influence the efficiency of the public procurement process in Homa Bay County
- b) To assess how information communication technology (ICT) affect the efficiency of the procurement function in Public procurement in Homa Bay County
- c) To establish how contract management affect the efficiency of procurement process in the Homa Bay County
- d) To establish how the procurement planning process affect efficiency of procurement process in Homa Bay County.

### **4. Scope of the Study**

The study covered procurement employees from county government institutions in Homa Bay County who entailed employees from; Homabay ministry of education and ICT, ministry of Road and transport, and ministry of finance; Homabay County Assembly, and subcounty administrative offices.

Study population from the ministries was divided into top management, comprising of directors and principle secretaries, middle management comprising of heads of departments (finance and procurement) and lower level management comprising of clerks.

HomaBay county assembly respondents population was also divided into three levels of management with top level comprising of clerks and deputy clerks, middle level having directors and lower level having heads of departments.

The sub county administrative offices sampled were HomaBay and Oyugis offices which comprise of administrative officers and deputy administrative officers. Both have been categorized as top level and middle level management respectively.

### **5. Literature reviewed**

The study was founded on two theories;

**Institutional theory** - is the traditional approach that is used to examine elements of public procurement. Institutional theory helps identify three pillars of institutions as regulatory,

normative, and cultural cognitive (Mahmood, 2010). The regulatory pillar emphasizes the use of rules, laws, and sanctions as enforcement mechanism, with expedience as basis for compliance. The normative pillar refers to norms and values with social obligation as the basis of compliance. The cultural-cognitive pillar rests on shared understanding on common (Mahmood, 2010).

**Public Value Theory** - was formulated in 1995 by Moore with an aim of providing public sector managers with a greater understanding of the limitations and opportunities within which they work, and the challenge to be able to form publically valuable outcomes. Generally, Public Value theory can be summarized as an approach used by management of public services based around the three strategies with its combination of the agreement of values and overall strategy, second one being securing of political legitimacy through the authorizing environment, and finally the availability of the appropriate operational capacity (Zheng et al., 2007).

## **6. Research Methodology**

The researcher used descriptive research design. This involved the use of questionnaires to get information. The targeted respondents were 100 covering employees of Homabay county government. The same number of targeted respondents was sampled out of which 92% of the sample size respondent.

## **7. Research Findings and Discussion**

Discussion has been done based on the objectives i.e professional qualification, information communication and technology, contract management and procurement planning.

## **8. Professional Qualification and procurement performance**

The study sought to find out whether the procurement staff had the necessary skills and experience to carry out procurements effectively and whether staff competencies influence procurement performance. From the findings, 54% of the respondents indicated that the procurement staff had the necessary skills and experience to carry out procurements effectively and that the staff competencies influence procurement performance to a large extent. The study reveals that procurement staff competencies affect procurement performance both for procurement unit and to the whole public officers in other words the study reveals that experienced staff carry out duties in a professional manner and reduces wastage of resources. Moreover, competent staffs are effective, efficient and provide solutions to the procurement

problems while incompetent staff would be ineffective and inefficient thus contributing to poor performance for the ministry. Finally the respondents indicated that effective and efficient procurement process can only be achieved by proper planning by competent staff else there would be flaws in the process. Competent staff would ensure that items services are procured as and when the need is expected.

## 9. Information Communication Technology

The researcher sought to inquire about the whether there are working computers which are used by staffs in the procurement departments. The study found that 78% of public offices have working computers while only 22% were not having computers.

The study also sought to investigate the integration of IT system on the performance of public procurement. From the findings, majority of respondents (66%) agreed with the statement that Integration helps in easy evaluation of major suppliers, (67%) of the respondents also agreed with the statement that Integration helps easy payment and attendance to customers. majority of respondent (70%) strongly agree with the statement that integration improves service 15% of the respondent agree and only 10% of the respondent disagree. The findings supports report by Kelly (1994), who had investigated the impact of IT on qualitative performance indicators that is customer satisfaction, company image, job interest of employees, stakeholders confidence and have found positive impact. Lee and Wang (2001) addressed the possibilities of reducing the bullwhip effect in supply chains through Internet based collaboration and integration. Table 1 in the next page presents the findings.

**Table 1: Information Integration system**

Statement	Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
Integration helps in easy evaluation of major suppliers	43%	23%	12%	10%	12%
Integration helps easy payment and attendance of major customers	54%	13%	5%	23%	5%
Integration improves internal control system	70%	15%	0%	10%	5%
It is easier and more simple to serve	13%	45%	2%	14%	26%

integrate suppliers						
Integration increases customer service delivery efficiency	23%	46%	0%	9%	22%	
Integration improves control system of an organization	19%	28%	1%	31%	21%	

Source; Researchers (2016)

The study further sought to investigate how the use of IT improves customer service delivery in public sector. From the findings in the table, majority (49%) disagree with the statement that customers can launched complains and get services online with incorporation of IT system, while smaller percentage 45% agree with the same statement. This supports the findings by Croom (2006) that very few public offices integrate customers complains in their system in third world countries as compared to developed countries. The respondents were 50-50 on whether customers are more satisfied being served manually than online. Majority of respondents (80%) agreed with the statement that time to serve one customer has reduced significantly with incorporation of IT on customer service delivery in public sector. This is in line with Christopher (2005) that argues that use of IT in customer service deliver is more efficient than manual system. Majority of respondent (70%) of respondents agreed that the cost of employing customer service attendance can greatly reduce while serving them online. Lastly, the respondents were 50- 50 on whether the manual customer attendance is more fulfilling than online attendance. Public sector procurement can gain competitive advantage by operational effectiveness, doing the same as private sector do but doing it better, and by strategic positioning, doing things differently from competitors in a way that delivers a unique type of value to customers. The respondent agrees that IT plays important role in the performance of public procurement. The result is presented in Table 2 Below.

**Table 2: Customer Service Delivery**

Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Customers can launched complains and get services online with incorporation of IT system	32%	13%	6%	24%	25%
Customers preferred being served manually compared to online services	25%	21%	5%	30%	16%

The time to serve one customer has reduced significantly with incorporation of IT on customer service delivery	62%	18%	0%	13%	7%
The cost of employing customer service attendance has reduced while serving them online	58%	12%	4%	18%	8%
Manual customer attendance is more fulfilling than online attendance	31%	16%	6%	21%	26%

Source: Researchers (2016)

### 10. Contract Management and procurement performance

The study sought to investigate how contract management affects procurement efficiency in public sector. 35% of the respondent strongly disagree with the statement that contract management does not affect efficiency, hence we can conclude that contract management influence efficiency of public procurement. On whether contract management involve all the interested parties in the contract to ensure that satisfaction is met throughout the process, 30% strongly agreed while 20% agreed hence over 50% of the respondents agreed that the contract management in public procurement involve both parties which is in line with public procurement Act 2012. On the statement whether public organization carry out contract management on all contracts awarded, 40% strongly agree with the statement while 20% simply agree hence the statement hold for efficiency in public procurement. On the statement whether contract management enable public organization to achieve value for money in all contracts undertaken, 35% strongly agreed, 30% agreed while 10% were not sure, it is therefore clear that proper contract management in public procurement helps to achieve efficiency in public sector.

**Table 3: Contract management**

Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Contract management does not affect the efficiency of procurement in the public sector	20%	10%	15%	20%	35%
contract management involve all the interested parties in the contract to ensure that satisfaction	30%	20%	10%	20%	20%

---

is met throughout the process									
Public organization carry out contract management on all contracts awarded	40%	20%	5%	20%	15%				
contract management enable public organization to achieve value for money in all contracts undertaken	35%	30%	10%	20%	5%				

---

Source: Researchers (2016)

### 11. Procurement planning and procurement performance

The study sought to find out whether procurement planning influences procurement performance. From the findings, 71% of the respondents indicated that Procurement planning influences procurement performance to a great extent while 29% of the respondents indicated that procurement planning did not influence procurement performance. 42 % of the respondents indicated that there were delays in payments to suppliers and that this affected greatly on their service delivery. The study reveals that contract management entails planning, organizing, control and directing payments. The respondents added that to avoid delays in supply and provision of services, timeliness have to be respected. Work plans and contract periods have to be respected since most projects would have overruns. The study sought to find out whether the established budget allocations for contracts and contract activity timeliness are respected. From the findings, all the respondents indicated that the established budget allocations for contracts and contract activity timeliness are respected. Hence, some level of planning in the public offices.

### 12. Regressions

**Table 4: Regression**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.828 <sup>a</sup>	.686	.791	.388	1.851

Source: Researchers (2016)

Table 4 above indicates that the value of the adjusted R-squared ( $R^2$ ) amount to 0.791 which is 79.1%. This shows that the factors that are not covered amount only to 20.9%. It therefore, means the four factors have a big role in the efficiency of public procurement processes. This study



supports the findings of Lee and Wang (2011) showing the role of IT and customer service in efficiency in public procurement process.

**Table 5: ANOVA for All Variables**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1646.01132	4	.412	2.729	.000 <sup>b</sup>
Residual	75432.123	5	.151		
Total	77078.13432	9			

Source: Researchers (2016)

The ANOVA result for all variables indicates that there was a highly significant relationship between the variables at  $F = 2.729$  and  $P = 0.000$ . This implies that there is a strong relationship between the four variables and efficiency in procurement process in public institutions. In support of these findings, Livermore and Rippa (2011) investigated the relationship between customer service delivery and IT in public sector. They found high correlation among the variables.

### Regression Analysis Results

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t-Stat</i>	<i>P-value</i>
Intercept	0.00405	0.002704	1.49969	0.139213
Professional Qualification	0.713403	0.066123	10.78904	2.16E-15
<i>ICT</i>	0.465344972	0.136103457	3.41905327	0.001167
Contract Management	0.682135	0.19267	3.540432	0.000804
Procurement planning	1.222043	0.089438	13.66365	1.24E-19

Source: Researchers (2016)

The study conducted a multiple regression analysis to determine the relationship between independent variables and dependent variable. The regression equation was

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \alpha$$

Where  $\beta_0$  is the regression intercept;

$\beta_1$ -  $\beta_4$  are the regression coefficients

While Y is the dependent variable (procurement performance)

X1 is the Professional qualification,

X2 is the ICT

X3 is Contract management and

X4 is procurement planning.

$$Y = 0.0040\beta_0 + 0.713403\beta_1 + 0.465\beta_2 + 0.682\beta_3 + 1.222\beta_4$$

Since all the variables are statistically significance with P-value < 0.05. it shows that the four variables positively influence efficiencies of procurement in public sector and the extent of their influence are shown by beta coefficient shown above with procurement planning having greater influence at 1.222 while professional qualification least with 0.0040. This supports findings by Husband & Bolles, (2007) which states that without relevant skills and rightful skills on public requirement functions it will be very difficult to achieve efficient procurement process. Procurement planning positively influence efficiency of public procurement with a coefficient of 1.222 supporting findings by Kagendo (2012) in his study he concluded that in planning for procurement there is always the challenge of failure to adhere to set plans especially due to the emergence of personal interest and failure to plan greatly causes inefficiencies in procurement process. The study further found the contract management positively influence efficiencies in public procurement with coefficient of 0.682. This study findings supports findings by Van (2007) where she investigated contract management process in public sector. Van 2007 concluded that public institutions have a number of internal controls that has to be adhered to when conducting procurement related activities. Some of the internal controls can work against the effectiveness of public procurement functions when they are inflexible but when properly managed, it improves the effectiveness of the process a position further echoed by Interagency Procurement Working Group (2012) in their working paper. Lastly, the study found positive relationship between use of ICT and efficiency in customer service delivery with a coefficient of 0.4653. This supports findings by Minahan & Degan (2001) where they stated that some of the ICT applications currently being integrated in the procurement processes are in most cases very complex and when effectively used by staff then they increases the efficiencies of service deliver. Aggrey (2011) supports ICT in procurement as it enhances transparency and accountability in procurement process.

### **13. Summary of findings**

#### **Professional Qualification and procurement performance**

The study findings reveal that procurement staff competencies affect procurement performance both for procurement unit and to the whole public officers in other words the study found out qualification goes hand in hand with experienced where more qualified and experienced staff are more efficient and competent than less qualified.

#### **Information Communication Technology and procurement performance**

The study found that there is close relationship between ICT procurement performances with highly integrated public procurement process more efficient than manual procurement process. The study further found that ICT integration within public institution improves customer service delivery making it more simple and efficient.

#### **Contract Management and procurement performance**

The study found that proper contract management in public procurement helps to achieve efficiency in public sector.

#### **Procurement planning and procurement performance**

The study found that poor planning causes inefficiencies in public procurement process and with proper planning, the public sector is able to achieve efficiency in customer service delivery in procurement department.

### **13. Conclusion of the Study**

The study found that the four variables that are, academic qualifications and experience, ICT, contract management and procurement planning process greatly influence the efficiency of procurement process in public institution. Proper ICT integration, proper planning and contract management process accompanied by right qualification will improve the efficiency and effectiveness of public procurement and enhance customer service delivery in procurement departments in public institution.

### **14. Recommendations for the study**

#### **Academic qualifications**

The government should ensure that they match individual skills with the job description. Through this it will ensure that right candidates with right qualification are employed in procurement department for effective and efficient process.

## **Level of ICT Usage**

The government should adopt the use of IT in their service delivery in order to improve their efficiencies as the higher the level of usage, the more efficient firms become the more profitable it is. The public institutions should be in the four fronts in enhancing the level of usage with all activities being technologically integrated

## **Contract Management**

Public institutions should ensure those contracts are well managed as this will eliminate payments of contract which are not delivered or are delivered past deadlines. It will further ensure that contracts are awarded at the right time allowing enough time to monitor the work of contractors.

## **Planning process**

Each and every tendering process should be well planned in advanced as this will ensure or allow time for evaluation of different offer on the table hence the right candidates gets the contract.

### **15. Areas for Further Study**

From the recommendations, it is clear that integration of IT system, service delivery and contract management improves performance in terms of service delivery of public institutions as the new findings of the study hence need for the public institutions to integrate their systems. The researcher suggests the following areas for further are as follows.

1. Adoption of Information and Communication Technology by public institution
2. ICT Adoption and Impact on customer Service delivery in public sector
3. Absorptive Capacity and ICT Adoption Strategies for public institutions a
4. Impacts IT adoption of public procurement and performance

### **16. References**

- Aggrey, W.K. (2011). Factors affecting public procurement performance at the Kenya metrological department. *Msc Project represented to the Jomo-Kenyatta University of Agriculture and Technology*.
- Bailey, P, Farmer, D, Jessop, D, & Jones, D. (2008). *Purchasing principles and management*, eight editions. Prentice Hall. Financial Times: Great Britain
- Cohen, S. & Eimicke, W. (2008). *The responsible contract manager: protecting the public interest in an outsourced world*. Washington, DC: Georgetown University Press.

- Gallear, D. Ghobadian, A. & O'Regan, N. (2008) "Digital/web-based technology in purchasing and supply management: a UK study", *Journal of Manufacturing Technology Management*, 19(3), 346-360.
- Goldhar, N. & Lei, B. (2001) Task-technology fit and individual performance": *Journal of MIS Quarterly*, 19(2), 213-236.
- Hughes, M. W. (2009). Why projects fail: the effects of ignoring the obvious. *Industrial Engineering*, 18: 14-18.
- Kagendo, M. (2012). *Effects of public procurement and disposal act on procurement in parastatals in Kenya*. Nairobi: University of Nairobi Press.
- Kakwezi, P and Nyeko, S. (2010). Procurement processes and performance: efficiency and effectiveness of the procurement function. Kampala: Makerere University Press,
- Langseth, P. Kato, D. Kisubi, D. & Pope, J. (2007). Good governance in Africa. A case study from Uganda. Edition working papers, *economic Development Institute of the World Bank*.
- Levitt, B. & March, J. G. (2005). *Chester I Barnard and the intelligence of learning, in organization theory: from Chester Barnard to the present and beyond*, Ed O E Williamson, New York: Oxford University Press.
- Mahmood, S. A. I. (2010). Public procurement and corruption in Bangladesh. Confronting the challenges and opportunities: *Journal of public administration and policy research*, 2(6), 103-111: Oron o: University of Maine.
- Masime K. (2007). Citizens guide to public procurement: public procurement procedures for constituency development funds. *Centre for Governance and Development*. Kenya: University press.
- Mugenda & Mugenda, G.A. (2003). *Research Methods, Qualitative and Quantitative Approaches*, Kenya: ACTS press.
- Ogula, P. (2005). *Research Methods*. Nairobi: CUEA Publications.
- Orodho, J. (2003). *Essentials of Educational and Social Sciences Research Method*. Nairobi: Masola Publishers.
- Osei- Tutu, E. Mensah, S. and Ameyaw, C. (2011). The level of compliance with the public procurement act. *World Academic Journal of Business & Applied Sciences-March-September 2013 Edition 291 (Act 663)* In Ghana: Kumasi.
- Owens, K. (2002). Introduction to Survey Research Design. *SRL Fall 2002 Seminar Series*. Retrieved May 31, 2013 from <http://www.srl.uic.edu>.

- Rabecca K.M. (2010). Factors influencing efficiency in procurement systems within the public Institutions. Kenya: Msc Project presented to the Jomo-Kenyatta University of Agriculture and Technology.
- Rotich, L. M. (2011). Influence of planning on procurement performance in the Kenya public financial sector.
- Rubin, M. & Seeling, W. (2007). Experience as a Factor in the Selection and Performance of Project Managers. *IEEE Trans Eng. Management*, 14 (3): 131-134.
- Trionfetti, F. (2000). Discriminatory public and international trade. *The World Economy*, Vol. pp.57-76.
- Turner, J .R. and Keegan, A. E. (2001), Mechanisms of governance in the project-based organization: a transaction cost perspective, *European Management Journal*, 19(3).
- Van Weele, A. (2007). On the need for fostering academic community rather than academic methodology in purchasing and supply chain management. *Journal of purchasing and Supply Management*, Vol.13 No.2, (special issue): Methods, pp.204-6.
- Zheng, J. Knight, L. & Harland, F. (2007). An analysis of research into the future of purchasing and supply management, *Journal of Purchasing and Supply Management*, Vol. 13 No. (1).