



## EFFECT OF PROCUREMENT PRACTICES ON PROCUREMENT PERFORMANCE OF PUBLIC SUGAR MANUFACTURING FIRMS IN WESTERN KENYA

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### ABSTRACT

The main purpose of the study was to establish the effect of procurement practices on procurement performance of public sugar manufacturing firms in Western Kenya. The specific objectives of the study were to establish the effect of procurement planning and staff competence on procurement performance of public sugar manufacturing firms in western Kenya. The study employed a descriptive survey research design. Primary data was collected using questionnaires targeting employees in the procurement department. A census was done. The study achieved 72% response rate since forty five (45) out of the 62 questionnaires administered were filled and returned. The study population comprised of two public sugar manufacturing firms in Kenya operating in Western Kenya. The study findings revealed that procurement planning had a positive and insignificant impact on the procurement performance whereas staff competence had a strong positive and significant impact on the procurement performance of sugar manufacturing firms in Western Kenya studied. The study recommends that all sugar manufacturing firms in Kenya must implement efficient procurement practices in order to become more efficient in their operations. Particularly the study recommends that the organizations should enhance their planning and also ensure that procurement plans are adhered to, staff employed in the procurement department should be competent and that there should be training opportunities for the staff.

**Keywords:** Procurement practices, procurement planning, staff competence, procurement Performance.

### 1. INTRODUCTION

Public procurement is the use of public funds by a procuring entity to acquire goods, services and works (World Bank, 1995). According to Makori (2011) due to the multiplicity of functions they have to achieve, public procurement systems are inherently complex and dynamic. Procurement faces several challenges especially due to the legal framework, market structure and the political environment that procurers face, thus achieving efficacy in public procurement is an ambitious task (Thai, 2004). Public procurement is recognized as necessary in service delivery In developing countries (Basheka & Bisangabasaija, 2010) and thus accounting for a high proportion of total expenditure. There is therefore the need for accountability and transparency due to the large amount of money involved in government procurement and also due to the fact that such money comes from the general public (Hui et

al., 2011). To promote effective supply chain management a set of activities need to be undertaken known as procurement practices. (Sollish & Semanik, 2012).

According to public procurement and asset disposal Act (2015) procurement is the acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise, or by any other contractual means of any type of works, assets, services or goods including livestock or any combination and includes advisory, planning and processing in the supply chain system.

The enlightened public of the twenty first century has continually demanded good governance, proper monitoring and evaluation of public funds as well as total compliance to the law by officers given the responsibility to manage public funds through procurement as contained in the recent report by National Tax Payers Association (NTPA, 2013). According to Mahmood (2010) public procurement was represented by 18.42% of the world's gross domestic product. Public procurement is being recognized as important in service delivery in developing countries (Basheka & Bisangabasaija, 2010) accounting for the total expenditure in a high proportion. For instance in Kenya it accounts for 60% (Akech, 2005), 70% of Uganda, 40% in Malawi, 58% of Angola's public spending Basheka and Bisangabasaija (2010). Compared to the global average of 12-20 %, this is very high. (Frøystad *et. al.*, 2010).

According to Kenyanya *et. al.*, (2011) in the past three decades, Kenya has undergone noticeable development. In the 1960s it was a system with no regulations, in the 1970's , 1980s and 1990s it was regulated by the Treasury Circulars, new standards for public procurement in Kenya were brought in 2006 by introduction of the Procurement Regulations. Article 227 of the Kenyan Constitution (2010) has established a new framework which ensures that the State Owned entities are dynamic enough to respond to opportunities available in the market to increase value for the Kenyan public. Procurement contribution to the national economy has also been recognized by the constitution. Section 227 (1) provides that Public enterprises should contract in accordance with a system that is fair, equitable, transparent, competitive and cost effective. By implementing effective Procurement practices, public expenditure could be reduced (Victor, 2012)

The sugar manufacturing companies in the Western Kenya Sugar belt has the following sugar companies; Mumias sugar company, Nzoia Sugar Company, Butali Sugar Mills and West Kenya Sugar Company. Mumias and Nzoia are state owned sugar firms whereas West Kenya and Butali are privately owned sugar firms. Mumias Sugar Company Limited is the largest sugar manufacturer in Kenya is Mumias which produces about 250, 000 metric tonnes (42%) of the estimated 600, 000 metric tonnes annual national output. The company is located in Mumias town in Kakamega County, near the sugar plantations. Nzoia Sugar Company Ltd is also one of the key players in the Sugar Industry in Kenya. It's located in Bungoma County. It serves over 67, 000 farmers in the larger Bungoma, Kakamega, Malava and Lugari Districts.

### **1.1 Problem Statement**

Roodhooft and Abbeele (2006) alluded that public bodies had always been big purchasers that dealt with huge budgets. There's need for accountability and transparency in government procurement due to the large amount of money that's involved and also due to the fact that

the money comes from the public (Hui *et. al.*, 2011). Due to inefficiency and losses in State owned enterprises' operations, the Government is required to carry major procurement burdens (SCAC, 2013). In a study on parastatal governance problems in Kenya, the following issues emerged: huge financial losses, inefficiency in operations and provision of poor products and services (Atieno, 2009). This was attributed to: poor public sector financial management, poor governance, bureaucratic wastage and pilferage in the management of parastatals, which resulted to heavy budgetary burden to the public. Inefficiency and incompetence of administration and management of the Procurement function in numerous public institutions has contributed to a loss of Ksh 50 million annually (PPOA.2010).

Several studies have been carried out regarding procurement practices. In a study by Lintukangas *et. al* (2010) on the effects of long term planning, collaborative supplier relationships and supply management capabilities on the status of purchasing and supply management (PSM), these elements were found to positively influence the status of PSM in Finland and Russia. Mukopi and Iravo (2015) carried out a study on the Effects of Inventory Management on the Performance of the Procurement Function of Sugar Manufacturing Companies in the Western Kenya Sugar Belt, Kiage (2013) studied factors affecting procurement performance. A case of Ministry of Energy, Karanja and Kiarie (2015) carried out a study on the influence of procurement practices on organization performance in private sector in Kenya: A case study of Guaranty Trust bank Kenya Ltd and the study variables were performance measurement, e-procurement, procurement planning and contract management. The present study differs from the above studies on the context, focus and the depth of coverage. This study thus proposed to examine the effect of procurement practices on procurement performance of public sugar manufacturing firms in Western Kenya.

## **1.2 Research Objectives**

### **1.2.1 General Objective**

The general objective was to examine the effect of procurement practices on procurement performance of public sugar manufacturing firms in Western Kenya.

### **1.2.2 Specific objectives**

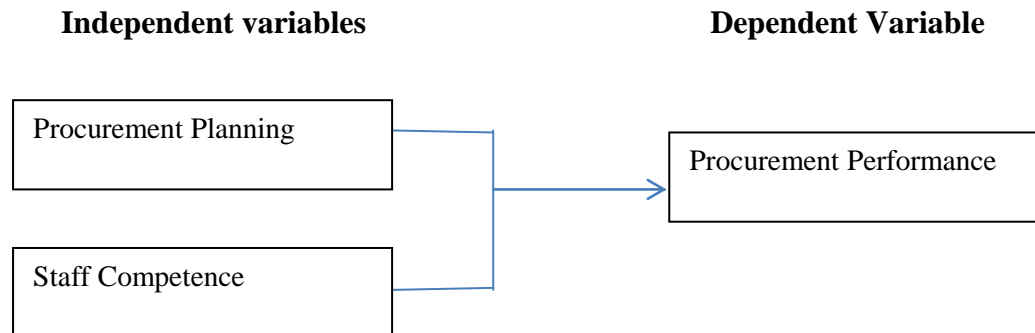
- i. To establish the relationship between procurement planning and procurement performance in public sugar manufacturing firms in western Kenya.
- ii. To establish the relationship between staff competence and procurement performance in public sugar manufacturing firms in western Kenya.

## **1.3 Research Hypotheses**

- i.  $H_{01}$  There is no significant relationship between procurement planning and procurement performance in public sugar manufacturing firms in Western Kenya.
- ii.  $H_{02}$  There is no significant relationship between staff competence and procurement performance in public sugar manufacturing firms in western Kenya.

## 1.4 Conceptual Framework

The conceptual framework explains the relationship between the independent variables (procurement planning and staff competence) and the dependent variable (procurement performance). This relationship is shown in Figure 1 below.



**Fig. 1: Conceptual Framework (Source: Authors 2017)**

## 2. LITERATURE REVIEW

### 2.1 Theoretical framework

According to Defee *et. al.*, (2010) good research should be based in theory. This study will be grounded on institutional theory and resource based view theory.

#### 2.1.1 Institutional theory

Institutional theory as a traditional approach is used to examine public procurement (Obanda, 2010). Institutional theory describes effects of external institutional pressures on the organizations and defines institutions as regulatory structures, government agencies, laws, courts, and professions, as well as interest groups and public opinion (Lowell, 1994).

According to Scott (2003) institutions are composed of cultural-cognitive and regulative elements that together with associated activities and resources give meaning to life. The author explains the three pillars of institutions as regulatory (policy), normative and cultural cognitive. The regulatory (policy) pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism with emphasis on compliance. The normative pillar refers to norms-how things should be done and the values preferred desired. The cultural pillar rests on shared understanding (common beliefs, symbols, shared understanding). This theory is critical in regards to procurement planning. The Public procurement asset and disposal Act (2015) requires an accounting officer to prepare an annual procurement plan that's realistic in a format set out in the regulations within the approved budget prior to commencement of each financial year as part of the annual budget preparation process.

#### 2.1.2 Resource based theory

RBV proponents argue that valuable, rare, inimitable and non-substitutable resources can be a source of superior performance and may result to achievement of the firm's sustained competitive advantage. The RBV of the firm's RBV is thus a suitable approach to understand competitive dynamics whereby the firm's resources being intangible and tangible assets are linked to it in a semi-permanent way, including the technological, human and physical assets.

Having resources only is not sufficient, thus, RBV theory adds a group of capabilities which result from complicated patterns of interactions and coordination between resources (Wong & Karia, 2010). The manner in which firm's needs, develops, maintains, bundles and applies them leads to competitive advantage and superior performance over time. A firm is able to create long-lasting competitive capabilities and thus generate a competitive advantage by exploiting its non-imitable resources (Paulraj, 2011).

## **2.2 Procurement Planning**

According to the Industry Manual (2008) a procurement plan is an instrument used for implementing a budget and it should be prepared by the user departments with a view to avoiding or limiting excess votes in the entities' budgets and for ensuring that procurements don't proceed unless there are adequate funds to pay for them. Thus all procurement plans should be integrated into the budget process on the basis of the indicative budget as appropriate and also in conformity with the procurement law.

Section 53(2) of the Public Procurement Asset and disposal Act (2015) provides that an accounting officer shall prepare an annual procurement plan which is realistic in a format set out in the Regulations within the approved budget prior to commencement of each financial year as part of the annual budget preparation process. Further section 53(4) provides that all asset disposals shall be planned by the accounting officer concerned through annual asset disposal plan in a format set out in the Regulations. Moreover, Section 53(8) provides that an accounting officer shall not commence any procurement proceeding until satisfied that sufficient funds to meet the obligations of the resulting contract are reflected in its approved budget estimates. Additionally section 53(9) provides that an accounting officer who knowingly commences any procurement process without ascertaining whether the good, work or service is budgeted for, commits an offence under this Act.

Mullins (2003) alluded that in developed and developing countries in the public sector, there's efficient and effective service delivery due to the contribution of procurement planning at the central and local government. These findings were confirmed by Kavuva and Ngugi (2014) whose study showed a significantly positive association between procurement planning and performance in local government procurement systems in Kenya. A study conducted by Ogwel, Iravoand Lagat (2016) revealed that planning on budgeting influenced procurement performance.

Kennard (2006) indicated that a procurement plan had the potential of cutting costs, shortening timescales and enhancing stakeholder relationships, reducing risks and improving overall performance. In corroboration, Basheka (2008) found procurement planning to be a prerequisite for subsequent procurement activities as a mistake in procurement planning had wide implications for procurement performance/ diverse implications for procurement performance.

According to Mamiro (2010), poor planning and management was found to be a challenge facing public procurement process which included needs that were not well identified and estimated, unrealistic budgets, inadequacy of the skills of staff responsible for procurement

and non-conformity to procurement plans. James (2004) reiterated that planning that was properly developed and implemented could serve as an essential mechanism for the extraction, distribution and allocation of resources. Kibet and Njeru (2014) posited that good plans led to effectiveness and efficiency and thus attainment of projected results.

In order to procure right quality goods, detailed specification is necessary as it assists in identifying what's required from the contractor who is expected to bid against the specifications that have been given in the bid document. Specifications, whether simple or complex, depends on the nature of procurement (Caldwell, Roehrich & Davies, 2009).

Poor procurement planning is a limiting factor to the economic development of Africa as a number of African countries have not paid enough attention to proper management of public resources (Basheka, 2004). Kabaj (2003) argued that for the African countries to advance they should have a public procurement system that's efficient and they should also express a national commitment to make the best use of public resources.

For a public institution to succeed in its operations and service delivery, procurement planning is vital (Basheka, 2008). According to Wittig (2008) public money is being consumed by procurement hence millions of government funds being misappropriated through procurement may be inhibited through procurement planning. According to Lewis and Roehrich (2009) a good procurement plan describes the process one has to go through for the appointment of suppliers contractually (Lewis & Roehrich, 2009).

According to Caldwell, Roehrich, and Davies (2009) concept of procurement is that an advanced plan, schedule and group buying results to saving costs, an efficient business operation and thus increased profitability. Group buying, just in time delivery, negotiated bulk pricing and reduced administrative overhead are the steps that form the basis of procurement planning:

According to Onyango (2014) effective and efficient procurement process can only be achieved by proper planning and competent staff or else the institution expects flawed procurement process. Kibet and Njeru (2014) reiterated that adherence to procurement plans positively affects procurement performance in institutions.

### **2.3 Staff Competence**

Boyatzis (2008) defined competency as a capability, ability or an underlying feature of an individual that's casually associated to effective or superior performance. Competencies refers to having sufficient knowledge and skills that enable's a person to act in diverse situations (Aketch & Karanja, 2013). Competency also refers to applied knowledge and skills, performance delivery and behaviour required to get things done very well (Armstrong & Baron, 1995). According to Russell (2004) in public procurement, professionalism relates to the education levels, workforce qualifications and also the professional approach regarding how business activities are conducted.

Banda (2009) posited that many procuring organizations lack competent staff critical to good procurement process management. To improve and contribute to the productivity of organizations, there's need for human resource extensive external training (Appiah, 2010). Moreover the study further shows that there are clear merits in ensuring that

professional staff deal with suppliers and that approaches are handled well. Low level of competence among procurement staff was a major setback to improving the system (Public Procurement Oversight Authority, 2007).

Ogwel, Iravo and Lagat (2016) found that public procurement performance was enhanced by Staff competencies in Trans Nzoia thus there was the need to train employees continuously. These findings were corroborated by those of William (2009) who argued that in a work context, individuals must have a wide range of personal competencies including task specific competencies in order to perform effectively and efficiently.

Berger and Humphrey (2007) concerted that a procurement function that's carried out professionally is crucial for any service on the value for money principle. There have been claims for damages from potential suppliers leading to loss of taxpayers' money and poor quality work due to contracts awarded without following due process by incompetent purchasing professionals. Thus there's a negative effect of incompetency on procurement regarding the public sector enterprises (Aho *et. al.*, 2006).

Wanyonyi and Muturi (2015) found that the key contributors to staff competence included training of new employees in the procurement departments, enhancement of team work of procurement staff, acquaintance with the procurement law by the procurement team and employment of qualified and competent personnel in the procurement departments among others. This study concurs with their findings pertaining to the significance of staff competency in enhancing procurement performance in public institutions.

It is important to optimize employees' contribution to the aims and goals of organizations so as to sustain economic growth and eventually effective performance. Technological developments and organizational change have led some employers to realize that success is reliant on the employees skills and abilities and this means considerably and continuously investing in training and development (Sultana, 2012). Mokogi, Mairura and Ombui (2015) posited that the level of experience and knowledge of the procurement laws and regulations by procurement staff enhances efficiency

## **2.4 Procurement Performance**

Mukopi and Iravo (2015) alluded that to ensure effective performance measurement, the measurement goals must represent the functional goals and metrics chosen must reflect a balance between the financial and non-financial measures that can help in decision making. According to Wittig (1999) improvements in public procurement systems can have direct and beneficial effect on a country's overall economic situation. In most countries a large part of government resources are consumed on procurement of goods, services and works that's required in government departments ( Basheka & Tumutegyereize, 2010)

Procurement performance evaluation has been a problem for the procurement professionals in Kenya public practice (Odhiambo & Kamau, 2003). Procurement performance is an outcome of purchasing effectiveness and purchasing efficiency (Venkatesh *et. al.*, 2003). Performance provides the ground to assess how well public entities progress towards predetermined objectives and decides on the future initiatives with the purpose of starting performance improvements. (Gelderman, *et. al.*, 2006).

Measuring the performance of the purchasing function yields benefits to organizations such as cost reduction, enhanced profitability, assured supplies, quality improvements and competitive advantage as noted by (Basheka & Bisangabasaija, 2010). Research by (Gribbins *et. al.*, 2003) has also described public procurement research and how these positively impact public procurement in terms of cost, time, satisfaction, quality, stock, and value.

### 3. RESEARCH METHODOLOGY

The research employed descriptive survey research design using quantitative approaches. The design entails data collection for more than one case, at a single point in time so as to collect quantitative or quantifiable data in relation to two or more variables, which are further examined for detecting patterns of association (Bryman, 2012).

#### 3.1 Target Population

The target population the study comprised all 62 employees of sugar manufacturing firms in Mumias and Nzoia who work or are directly involved in the procurement department. Since the population is fairly small, the study undertook a census study. This ensured adequate representation of the subjects of the study.

#### 3.2 Data Collection and Analysis

This study used primary data. Close ended Questionnaires were used to collect data since it is straightforward and less time consuming for both the researcher and the respondents. Data collected was organized, processed and analyzed using Statistical Package for Social Science (SPSS) Version 21. Data was analyzed quantitatively using descriptive statistics such as mean and standard deviation and also by use of inferential statistics such as Pearson correlation and regression analysis. Multiple regression model below was used;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Whereby Y = procurement performance

$\beta_0$  = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ , = Coefficients of determination

$X_1$  = procurement planning

$X_2$  = staff competence

$\varepsilon$  = Error term

#### 3.3. Reliability

The reliability of the questionnaire had a Cronbach's Alpha of 0.801 as which is above the Recommended 0.70 thus it was reliable.

**Table 1: Reliability statistics**

Reliability Statistics	
Cronbach's Alpha	N of Items
.801	20



## 4. RESULTS

### 4.1 Response Rate

The study targeted 62 employees working in the procurement department as the respondents but only 45 of them filled the questionnaire correctly and returned the study questionnaire, representing 72% response rate. According to Bell (2005) a response rate of 60% is adequate to permit data analysis.

### 4.2 Descriptive Results

The study investigated the effect of procurement practices on procurement performance of public sugar manufacturing firms in Western Kenya. This was on a five (5) point Likert scale (where 1= strongly disagree 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly agree).

**Table 2: Descriptive Statistics on procurement planning**

	N	Minimum	Maximum	Mean	Std. Dev.
Plan based on approved budget	45	3.00	5.00	4.5556	.62361
Poor planning leads to budget deficits	45	1.00	5.00	4.5333	.96766
Procurement process begins with planning	45	4.00	5.00	4.7111	.45837
Needs assessment is undertaken	45	3.00	5.00	4.3333	.60302
Market capability analysis is carried out	45	2.00	5.00	4.3333	.79772
Department specifies when to utilize the goods and service	45	4.00	5.00	4.2667	.44721
Plan takes into account all purchases	45	3.00	5.00	4.3111	.70137
Org places order	45	3.00	5.00	4.3111	.59628
Funds availability before proceedings begin	45	3.00	5.00	4.3778	.61381
Valid N (listwise)	45				

From the table majority were in agreement with the statements that the procurement plan is based on approved budgets (mean 4.5), poor procurement planning leads to big budget deficits (mean 4.5), procurement process begins with planning (mean 4.7), thorough needs assessment is undertaken (mean 4.3), market capability analysis is carried out (mean 4.3), user departments clearly specifies when to utilize required goods and services (mean 4.2), planning takes into account all purchases (mean 4.3), organization places order before exhaustion (mean 4.3), accounting officer ensures funds availability before proceedings begin (mean 4.3).

**Table 3: Descriptive Statistics on staff competence**

	N	Minimum	Maximum	Mean	Std. Dev.
Organization deploys staff based on skills	45	3.00	5.00	4.2444	.77329
Staff are inducted	45	3.00	5.00	4.1778	.64979
Staff have adequate skills	45	3.00	5.00	4.4667	.58775
Staff have knowledge on procurement rules and regulations	45	3.00	5.00	4.3333	.56408
Organization sponsors staff for training	45	2.00	5.00	3.9333	.83666
Training has improved staff knowledge skills and experience	45	2.00	5.00	4.2222	.84984
Valid N (listwise)	45				

Majority agreed to the statements that the organization deploys its procurement staff based on skills, competencies and abilities (mean 4.2), staff are inducted (mean 4.2), staff have adequate skills (mean 4.5), staff have knowledge on procurement rules and regulations (mean

4.3), procurement staff are sponsored for trainings (mean 3.9), training has improved staff knowledge thus performance (mean 4.2).

**Table 4: Descriptive Statistics on procurement performance**

	N	Minimum	Maximum	Mean	Std. Dev.
Timely deliveries	45	3.00	5.00	4.3556	.60886
Minimal complaints from customers	45	3.00	5.00	4.1111	.61134
Enhanced quality services	45	3.00	5.00	4.4667	.58775
Wastages and damages have reduced	45	1.00	5.00	3.9556	.92823
Cost reduction	45	1.00	5.00	4.1778	.98371
Valid N (listwise)	45				

Majority were also in agreement with the statements that the organization offers timely deliveries of requisitions (mean 4.3), there are minimal complaints from customers on procurement matters (mean 4.1), organization offers enhanced quality service (mean 4.5), wastages and damages have reduced (mean 3.9), cost reduction (mean 4.1).

**Table 5: Correlation Matrix**

		Procurement planning	Staff competence	Procurement performance
<b>Procurement planning</b>	Pearson Correlation	1	.731**	.600**
	Sig. (2-tailed)		.000	.000
	N	45	45	45
<b>Staff competence</b>	Pearson Correlation	.731**	1	.784**
	Sig. (2-tailed)	.000		.000
	N	45	45	45
<b>Procurement performance</b>	Pearson Correlation	.600**	.784**	1
	Sig. (2-tailed)	.000	.000	
	N	45	45	45

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

From table 5 above, procurement planning is positively correlated to performance at 99% confidence level ( $r = 0.600$   $P < 0.01$ ). This means that as procurement planning increases performance of the firm increases. These findings are in tandem with Onyango (2014) who found a significant statistical relationship between procurement planning and performance.

It further shows that there is also a strong positive and significant relationship between staff competence and procurement performance ( $r = 0.784$ ;  $p < 0.01$ ). These findings concur with those of Barsemoi, Mwangangi and Asienyo (2014) whose study established a strong positive correlation of 70% between staff competence and procurement performance indicating that staff competence positively affect procurement performance of Henkel Chemicals (E.A).

**4.3 Regression Results**

**Table 6: Model Summary<sup>b</sup> for procurement planning**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.600 <sup>a</sup>	.360	.345	.50393	.360	24.227	1	43	.000	2.155

a. Predictors: (Constant), procurement planning

b. Dependent Variable: procurement performance

The value of R square is 0.345 as in table 6 above. This indicates that the independent variable (procurement planning) can explain 34.5% of the variance in the dependent variable (procurement performance). Thus factors not studied in the research contribute 65.5% of procurement performance. The Durbin Watson value is 2.155 hence there is no autocorrelation problem on the regression model.

**Table 7: Model Summary<sup>b</sup> for staff competence**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.784 <sup>a</sup>	.614	.605	.39125	.614	68.527	1	43	.000	2.642

- a. Predictors: (Constant), staff competence
- b. Dependent Variable: procurement performance

The value of R square is 0.614 as in table 7 above. This indicates that the independent variable (staff competence) can explain 61.4% of the variance in the dependent variable (procurement performance). Thus factors not studied in the research contribute 38.6% of procurement performance. The Durbin Watson value is 2.642 hence there is no autocorrelation problem on the regression model.

**Table 8: Model Summary<sup>b</sup> for combined variables**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.785 <sup>a</sup>	.616	.598	.39506	.616	33.691	2	42	.000	2.572

- a. Predictors: (Constant), staff competence, procurement planning
- b. Dependent Variable: procurement performance

The value of R square is 0.616 as in table 8 above which indicates that the independent variables (procurement planning and staff competence) can explain 61.6% of the variance in the dependent variable (procurement performance). Thus factors not studied in the research contribute 38.4% of procurement performance. There is no autocorrelation problem on the regression model as the Durbin Watson value is 1.892.

**Table 9: ANOVA<sup>a</sup> on combined variables (procurement practices)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.517	2	5.258	33.691	.000 <sup>b</sup>
	Residual	6.555	42	.156		
	Total	17.072	44			

- a. Dependent Variable: procurement performance
- b. Predictors: (Constant), staff competence, procurement planning

The ANOVA table shows that the regression model can be used to explain the effect of Procurement practices on procurement performance as P=0.000 which is significant at 99% confidence level.

**Table 10: Coefficients<sup>a</sup> on combined variables**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.280	.742		.378	.707		
1 Procurement planning	.101	.242	.058	.416	.679	.465	2.149
Staff competence	.825	.156	.741	5.288	.000	.465	2.149

a. Dependent Variable: procurement performance

Having regards to the regression findings in table 10 above, substituting the equation  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$  becomes  $Y = 0.280 + 0.101 X_1 + 0.825 X_2$ . Assuming that all other independent variables are 0.000 procurement performance will be 0.280. A unit increase in procurement planning leads to 0.101 increases in procurement performance. A unit increase in staff competence leads to 0.825 increase in procurement performance. Further there is no multi collinearity problem as the VIF are  $< 10$  (Cooper & Schindler 2003).

For testing the research hypothesis, regression results in table 10 were used. Having regards to the first hypothesis, though procurement planning has a positive relation with procurement performance, it is insignificant. The null hypothesis is therefore affirmed that there is no significant relationship between procurement planning and procurement performance of public sugar manufacturing firms in Western Kenya,  $P(0.679) > 0.05$ . These findings differ with those of Onyango (2014), Karanja and Kiarie (2015) who found a positive and significant association between procurement planning and performance.

Regarding the second hypothesis the null hypothesis of the study was rejected at 0.01 significant level,  $P(0.000) < 0.01$  and the study affirmed the alternative hypothesis that there's a positive and significant relationship between staff competence and procurement performance of public sugar manufacturing firms in Western Kenya. These results were consistent with Kiage (2013) who studied factors affecting procurement performance in the Ministry of Energy. In his findings, he found that procurement staff competencies had an effect on procurement performance since if they carried out their responsibilities unprofessionally it leads to resource wastage.

## 5. CONCLUSION

The study concludes that procurement practices affect procurement performance of public sugar manufacturing firms in Western Kenya. From the findings procurement planning has a positive and insignificant relationship with procurement performance  $P(0.679) > 0.05$ . Further staff competence has a positive and significant effect on procurement performance  $P(0.000) < 0.01$ .

## 6. RECOMMENDATIONS

In relation to procurement planning the study recommends that thorough needs assessment should be undertaken, market capability analysis should be carried out, user departments should clearly specify when they require to utilize required goods and services, planning should take into account all purchases, organization should place order before exhaustion and that the accounting officer ensures funds availability before proceedings begin.

Having regards to staff competence the study recommends that procurement staff in the sugar manufacturing firms needs to have adequate professional qualifications in procurement and be adequately trained on the procurement procedures under the Public Procurement Asset and Disposal Act (2015). Greater emphasis should be placed on developing such competencies to enhance best practices and overall performance.

## **7. SUGGESTIONS FOR FURTHER STUDIES**

This study examined the effect of procurement practices on procurement performance of public sugar manufacturing firms in Western Kenya. The study focused on procurement planning and staff competence. Future studies should focus on other procurement practices like contract management, monitoring, controls and supplier selection process. Further future studies should focus on other organizations including private organizations as this research only focused on sugar industries.

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