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INFLUENCE OF SUPPLY CHAIN MANAGEMENT PRACTICES ON PERFORMANCE OF THE PROCUREMENT FUNCTION IN THE COUNTY GOVERNMENT OF BUNGOMA

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ABSTRACT

Procurement function encompasses the whole process of acquiring goods, services and works; thus begins when an entity has identified a need and decided on its procurement requirement. However, although performance of the procurement function is quite significant in service delivery in both public and private organization, a number of researches have revealed varied assertions on what really influences procurement performance in public institutions. Therefore lack of adequate empirical evidence on significant factors affecting procurement performance function in County governments motivated this study to examine key factors influencing procurement performance in the county government of Bungoma. The study was informed by the Stock Diffusion theory, Efficiency theory, and Resource Based View theory. The study adopted descriptive survey design and used structured questionnaires to collect data. The study targeted 115 respondents where Yamame's formula was applied to get a sample size of 89 respondents. A pilot study was done on 10 respondents selected from the senior management officers in the county government of Trans Nzoia which neighbors Bungoma county government, the study area. Descriptive statistics was used to summarize data into meaningful form while inferential statistics was used to determine variable relationships. The study established that procurement planning, procurement staff training, procurement monitoring and inventory control have significant influence procurement performance in the county government of Bungoma. These four supply chain management practices were found to be significant predicator of procurement performance. Therefore, the study concluded that supply chain management practices significantly influenced procurement performance in the county government of Bungoma. The study recommended that county government should continuously offer procurement staff training so as to improve their skills and knowledge. The study also recommended that there is need to upscale procurement monitoring practices in county governments such as supplier compliance assessments/evaluations and regular purchase/repurchase supervision.

Key Words: *Procurement Planning, Procurement Staff Training, Procurement Monitoring, Inventory Control*

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INTRODUCTION

Procurement performance in most organizations has been a subject of discussion with diverse conclusions. Procurement performance is not a new concept as the concept has attracted attention from as early as 1930s. In 1931, the concept of procurement performance was a hot debate in the National Association of Purchasing Agents meeting in the US. In 1945, following the contest, a committee was set to draft guidelines of the concept. In the recent past, in 2004, European Institute of Purchasing Management organized a conference which was majorly focused on measuring purchasing performance. The conference looked at majorly the intangible and financial aspects of procurement performance. Costs and savings were found to be major factors in procurement performance (Kakwezi & Nyeko, 2014).

In Africa, to boost procurement performance, the concept of inventory control has been a popular concept in accounting and procurement systems since 1930s. According to the report made by The Institute of Auditors Research Foundation, internal control systems gained popularity during the industrialization period. For instance, in Nigeria, the fact that inventory are believed to provide a direct link between production and sales and constitute good percentage of organizational costs has made many organizations invest heavily on systems that can enhance inventory control. The organizations had to come up with organizational inventory control policies and long term inventory management plans where the top management is directly involved (Ogbo, 2014).

Many large public corporations and institutions in Kenya rely on procurement to access most of their products and services, through purchasing and sourcing as well as tendering and contracting. In order to ensure fairness during the bidding process, the Government through the Public Procurement Oversight Authority (PPOA), Public Procurement and Asset Disposal Act (PPDA) of 2015, and the Procurement Regulations of 2015 entrenched the concept of competitive procurement in all government agencies.

Public procurement and Disposal Act (2015) states that procurement planning in the public sector is compulsory in order to ensure efficient procurement of goods, works and services. Those charged with public procurement responsibility must therefore ensure that procurement plans are prepared in line with those of their annual budgets and implemented. The implementation of procurement plans must be monitored on a quarterly basis and adjustments made as necessary. Procurement planning is the responsibility of those charged with procurement responsibility of the organization. Procurement is a complex function of and requires participation of all actors. It is also important for all actors to cooperate and perform their roles for the success of the procurement function. Each procurement activity for acquirement of goods, works and services should be assigned the responsible officials and time within which it should be completed as per the guidelines of Public Procurement Oversight Authority (PPOA).

Further, the aims of PPOA and PPDA is to establish procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by public entities to maximize economy and efficiency, promote competition and ensure that competitors are treated fairly, promote the integrity and fairness of those procedures, increase transparency and accountability in those procedures and to increase public confidence in those procedures and facilitate the promotion of local industry and economic development. But despite these standards, Kenya loses a lot of taxpayers' money to improper procurement practices (GoK, 2017).

Statement of the Problem

Procurement function encompasses the whole process of acquiring goods, services and works; thus begins when an entity has identified a need and decided on its procurement requirement. Though performance of the procurement function is quite significant in service delivery in both public and

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private organizations, a number of researches have revealed varied assertions on what really influences procurement performance in public institutions (Acquaye, 2011).

For instance, according to PPOA Capacity Building Strategy Report, 2011-2014; less than 10% of procured contracts were done according to procurement compliance regulations and procurement audit checks also revealed that compliance in public procurement in Kenya is still inadequate and reason for poor procurement performance in many public institutions.

More so, although public firms may strive to make stock available for use and reduce the costs of inventory, these items have been always mismanaged leading to deterioration, obsolescence or even pilferages (Cynthia & Amuhaya 2015); and poor inventory management leads to incurring continuous costs in inventory acquisition (Mogere, 2013).

Further, although public procurement is hyped as the most effective way of involving public participation in the procurement process and thus improves service delivery, procurement function has experienced an appalling performance in many county governments in Kenya. Therefore, lack of adequate empirical evidence on significant factors affecting procurement performance function in county governments motivated this study to examine key factors influencing procurement performance in the county government of Bungoma.

Objectives of the Study

The general objective of the study was to examine influence of supply chain management practices on procurement performance in the county government of Bungoma. The specific objectives were;

- To examine influence of procurement staff training on procurement performance in the county government of Bungoma.
- To determine influence of procurement planning on procurement performance in the county government of Bungoma.
- To assess the influence of procurement monitoring on procurement performance in the county government of Bungoma.
- To evaluate the influence of inventory controls on procurement performance in the county government of Bungoma.

The study was guided by the following research hypotheses

- **H_{01}:** Procurement staff training does not significantly influence procurement performance in the county government of Bungoma.
- **H_{02}:** Procurement planning does not significantly influence procurement performance in the county government of Bungoma.
- **H_{03}:** Procurement monitoring does not significantly influence procurement performance in the county government of Bungoma.
- **H_{04}:** Inventory controls do not significantly influence procurement performance in the county government of Bungoma.

LITERATURE REVIEW

Stock Diffusion theory

Stock diffusion theory by Eaton (1999) outlines a dynamic approach to inventory management used for non-stationary items with non-constant means and variance. That is, according to stock diffusion theory, stock consumption is modeled as a Markov process with a slow diffusion term. Fokker Planck equation is used to derive the probability distribution of stock consumption and reorder time. Management of the inventory distributed in this manner makes it possible to keep safety stock at minimum levels (Braglia, 2013). Similarly, it ensures the inventory costs are kept at minimal levels without interrupting the internal operations of the organization.

Efficiency Theory

This theory was conceptualized by Richard Posner in the 1970s and asserts that that parties value assets more or less correctly and that their transacting choices are motivated solely by wealth maximization goals. This theory further assumes the absence of negative externalities. An externality is an effect that a transaction between one set of parties puts on other parties who were not a part of the deal (Ware & Kynoch, 2013).

A positive externality is a benefit to non-parties, whereas a negative externality imposes costs on non-parties. If a transaction has a negative externality, then the true cost of the transaction is higher than that paid by the parties. Efficiency theory is typically applied "to contracts between firms that do not create negative externalities." In the absence of externalities, and where there is a competitive market, efficiency theory states that efficient transacting occurs (Ware & Kynoch, 2013).

Resource Based View Theory

Resource Based View theory by Barney (1991), asserts that a firm's resources and capabilities are its most important assets; thus the primary concern of RBV theory is about obtaining access to another firm's core competencies to gain competitive advantage (Steinle & Schiele, 2008). In this regard, Steinle and Schiele (2008) assert that suppliers can be regarded as resources in case they are "sufficiently bound to a firm". With these assumptions they clearly follow the extended resource based view, implying, resources can also be obtained through inter-firm connection from the external environment. They proceed by setting suppliers in context with the four resource attributes, mentioned in Barney (1991).

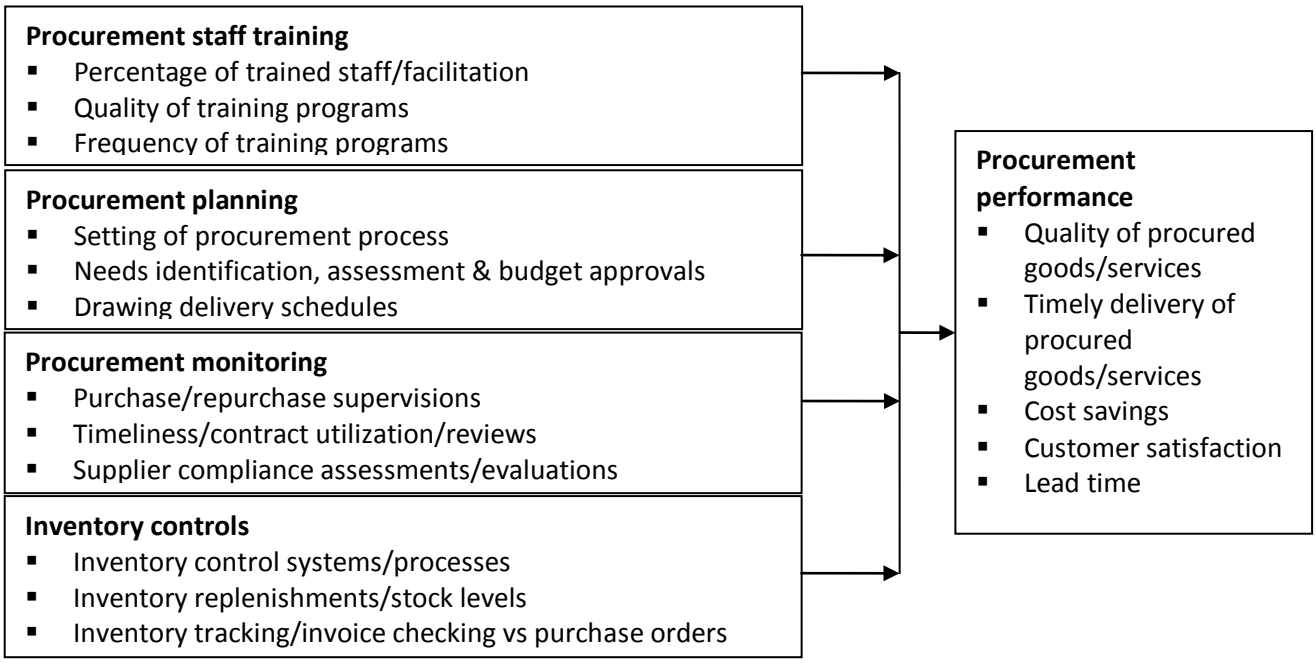

Figure 1: Conceptual Framework

Empirical Review

Hui (2011) while analyzing procurement issues in Malaysia established that procurement officers were blamed for malpractice and noncompliance to the procurement policies and procedures; recommended rigorous training of procurement officers so that they handle procurement matters professionally.

OECD- DAC (2016) combined studies on procurement performance reiterated that an all-encompassing procurement system should have

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personnel who are professionally trained and are well fortified with the expertise and competent for procurement jobs specified. That is, it is challenging to create a unit or workforce procurement with the right skills and capabilities taken into consideration changes to procurement processes, the introduction or expansion of alternative contracting approaches whose implementation relies on procurement staff training.

Procurement planning is one of the primary functions of procurement with a potential to contribute to the success of local government operations and improved service deliver. It is a function that sets in motion the entire acquisition/procurement process of local governments (Basheka, 2010).

Tukuta and Saruchera (2015) study on challenges facing procurement performance in public entities asserted that a well-planned procurement system supported by a feasible regulatory framework can really boost execution of the procurement function; that is, a legal and policy frameworks that are complicated can pose risks to procurement planning and its effectiveness.

Brown and Hyer (2013) reiterated that effectiveness of procurement system monitoring is supposed to base on operations that handle uppermost delay risks, over-runs of cost, as well as challenges to procurement performance. Therefore, procurement monitoring contract systems tend to have an important impact on individual's ability to make decision to de-escalate or escalate their commitments in executing the procurement function.

William (2013) study on damaged goods resulting from poor procurement monitoring found that procurement decisions made based on emotions, spontaneous buying, suppliers' preferences and making orders on phone are the main general causes which lead to errors in procurement, specifically, in the public organizations; thus recommended an existence of an effective procurement monitoring mechanisms.

Chong (2018) study on inventory management recommended that that a procurement process which is termed to be well prepared and implemented increase the possibilities to organizations' inventories reduction, encompass good services to customers, cost reduction as well as aid fast turns of inventory. Among the major procurement benefits are through the condition of short-range goals leading to productivity increase and inventory decline as well as less lead time.

Shah (2013) study on the importance of inventory controls in the procurement process argued that poor inventory management affect sales, customer services and revenue, which negatively impact an organization's performance. Therefore, maintaining accurate records of inventory improves customer service by providing knowledge of customers' demands; improves organization's productivity by ensuring that materials are available when needed and maximizes revenue by avoiding holding excess inventory that will eventually end up being written off.

Song, Haas and Caldas (2016) studies on inventory management in the US firms indicated that majority of the companies attain significant savings from effective materials management, which amounts between 50%- 60% of total costs. That is, effective management of materials can lead to a reduction in cost, resulting in a significant saving; hence improve organizational performance. Every dollar saved by reducing cost is more valuable than dollar sales. A dollar profit cannot be made from dollar sales; hence cost reductions positively impact an organization bottom-line profit. In order to achieve this, organizations must avoid incurring unnecessary cost and prioritize managing materials.

METHODOLOGY

This study adopted descriptive research design. In this study the target population was cases that contained the desired information, thus consists of procurement officers, ICT officers, internal auditors, accountants, and finance officers that are perceived to influence the procurement performance function

in the county government of Bungoma. The researcher used structured questionnaires designed according to the conceptualized study variables (procurement staff training, procurement planning, procurement monitoring and inventory controls on the procurement performance function). A pilot study was done on 10 respondents selected from the senior management officers in the county government of Trans Nzoia which neighbors Bungoma county government, the study area. Both descriptive and inferential statistics was computed using SPSS version 23. Descriptive statistics summarized data into meaningful form using frequencies and percentages as well as measures of central tendency (means) and dispersion (standard deviation). The regression and correlation analysis was based on the association between two (or more) variables. Data was presented in form of models and tables.

The multiple regression analytical model equation is;

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

Y = performance of the procurement function

β_0 = Constant

β_1- β_4 = Beta coefficients

X_1 = Procurement staff training

X_2 = Procurement planning

X_3 = Procurement monitoring

X_4 = Inventory controls

ε = the error term

FINDINGS

Analysis of Descriptive Data

These are descriptive statistics based on summarized responses on the structured questions about the influence of supply chain management practices on procurement performance in the county government of Bungoma. The responses were based on Likert scale with values ranging from 5 to 1; that is; 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree and 1= Strongly Disagree. The results were presented in the table form showing frequencies of responses as per each statement and its corresponding percentage score in brackets, means and standard deviations.

Procurement staff training and Procurement Performance

These were descriptive statistics on the influence of procurement staff training on procurement performance in the county government of Bungoma as summarized in table 1.

Table 1: Descriptive statistics: Procurement staff training

Statement	1	2	3	4	5	Mean	SD
Most of procurement staff have adequate training in public procurement	4 (5.3)	5 (6.6)	8 (10.7)	31 (41.3)	27 (36)	3.96	1.1 0
Most of procurement staff have adequate knowledge and skills in public requirement	4 (5.3)	5 (6.7)	18 (24)	31 (41.3)	17 (22.6)	3.69	1.0 6
There is frequent training of staff in public procurement	5 (6.67)	9 (12)	4 (5.3)	40 (53.3)	17 (22.6)	3.73	1.1 4
The quality of procurement training programs determines staff knowledge and skills in public procurement	5 (6.7)	5 (6.7)	4 (5.3)	35 (46.6)	26 (34.6)	3.96	1.1 3
Generally training of staff enhances procurement performance function in the county government	4 (5.3)	6 (8)	10 (13.33)	16 (21.3)	39 (52)	4.06	1.2 1
Valid listwise 75							
Grand mean = 3.883							

From table 1, most respondents agreed (41.3%) and strongly agreed (36.0%) that most of procurement and further 6.6% disagreed on the same. A mean of 3.96 postulated that most of procurement staff has adequate training in public procurement. More so, 41.3% and 22.6% of respondents agreed and strongly agreed respectively that most procurement staff have adequate knowledge and skills in public

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requirement. A mean of 3.69 implied that procurement staff at County Government of Bungoma has adequate knowledge and skills in public requirement

Further, most respondents agreed (53.3%) that there is frequent training of staff in public procurement and additional 22.6% strongly agreed on the same. A mean of 3.73 revealed that, to a moderate extent, there is frequent training. Similarly, 46.6% and 34.6% of the sampled respondents agreed and strongly that the quality of procurement training programs determines staff knowledge and skills in public procurement

Lastly, most respondents strongly agreed (52.0%) that generally; training of staff enhances procurement performance function in the county government and further supported by 21.3% of the respondents. A mean of 4.06 supported this assertion that training of staff enhances procurement performance function in the county government. Wanyonyi and Muturi (2015) study also 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; thus reiterating the importance of staff competency in enhancing procurement performance in public institutions. Further, OECD- DAC (2016) combined studies on procurement performance reiterated that an all-encompassing procurement system should have personnel who are professionally trained and are well fortified with the expertise and competent for procurement jobs specified.

Procurement Planning on Procurement Performance

These were descriptive statistics on the influence of procurement planning on procurement performance in the county government of Bungoma as summarized in table 2.

Table 2: Descriptive statistics: Procurement Planning

Statement	1	2	3	4	5	Mean	SD
All departmental heads are involved in setting of procurement processes	5 (6.7)	4 (5.3)	14 (18.7)	18 (24)	34 (45.3)	3.96	1.21
All departmental heads engage in procurement needs assessments	9 (12)	5 (6.7)	9 (12)	17 (22.7)	35 (46.7)	3.85	1.39
Budgets approvals are obtained before purchase orders are placed	9 (12)	10 (13.3)	13 (17.3)	34 (45.3)	9 (12)	3.32	1.21
Drawing of delivery schedules are done in line with suppliers	5 (6.7)	8 (10.7)	8 (10.7)	41 (54.7)	13 (17.3)	3.65	1.10
Procurement needs are independently defined by each department	5 (6.7)	4 (5.3)	8 (10.7)	12 (16)	46 (61.3)	4.20	1.23
Valid listwise 75							
Grand mean = 3.80							

From table, 2, 24.0% and 45.3% of respondents agreed and strongly agreed respectively that the all departmental heads are involved in setting of procurement processes. On the other hand, 18.7% of the respondents were undecided. A mean of 3.96 suggested that departmental heads are involved in setting of procurement processes. Further 46.7% of the sampled respondents strongly agreed that all departmental heads engage in procurement needs assessments and 22.7% agreed on the same. A mean of 3.85 revealed that departmental heads engage in procurement needs assessments.

More so, 45.3% of respondents agreed that budgets approvals are obtained before purchase orders are placed, while 12.0% of the respondents agreed on the same. On the other hand, 12.0% and 13.3% disagreed and strongly disagreed respectively on the same. The results also revealed that most of the

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respondents (54.7%) agreed that drawing of delivery schedules are done in line with suppliers and 17.3% agreed on the same. A mean of 3.65 implied that drawing of delivery schedules are done in line with suppliers

Lastly, 61.3% of respondents strongly agreed that the procurement needs are independently defined by each department while 16.0% agreed on the same. A mean of 4.20 postulated that procurement needs are independently defined by each department. This confirms the results from Mamiro (2013) who pointed out that a major setback related to public procurement performance is improper or weak planning and controlling of the procuring process including not well identified and estimated needs, unspecific, unmeasurable, unattainable and unrealistic budgets which must be addressed at procurement planning stage. Kilonzo (2014) established that company had adopted procurement planning practices that were followed when making company purchasing decisions.

Procurement Monitoring on Procurement Performance

These were descriptive statistics on the influence of procurement monitoring on procurement performance in the county government of Bungoma as summarized in table 3.

Table 3: Descriptive statistics: Procurement Monitoring

Statement	1	2	3	4	5	Mean	SD
There is continuous supplier compliance assessments/evaluations	10 (13.3)	4 (5.3)	8 (10.7)	17 (22.7)	36 (48)	3.87	1.42
There is timeliness of mitigation measures against any procurement hitch	4 (5.3)	9 (12)	22 (29.3)	31 (41.3)	9 (12)	3.41	1.05
There are regular purchase/repurchase supervisions to check for odd goods/services	3 (4)	5 (6.7)	5 (6.7)	50 (66.7)	12 (16)	3.80	1.00
Corrective actions are taken once discrepancy is identified in the procurement processes	6 (8)	7 (9.3)	8 (10.7)	41 (54.7)	13 (17.3)	3.65	1.10
There is an independent procurement oversight committee to monitor procurement services in all departments	5 (6.7)	9 (12)	4 (5.3)	40 (53.3)	17 (22.7)	3.73	1.14
Valid listwise 75							
Grand mean =3.69							

From table 3, slight majority of the respondents strongly agreed (48.0%) and agreed (22.7%) that there is continuous supplier compliance assessments/evaluations. On the other hand, 13.3% of the respondents strongly disagreed that there is continuous supplier compliance assessments/evaluations. A mean of 3.87 revealed the existence of continuous supplier compliance assessments/evaluations. The results also revealed that 41.3% of the respondents agreed that there is timeliness of mitigation measures against any procurement hitch while 29.3% were neutral on whether there is timeliness of mitigation measures against any procurement hitch.

Further, most of the respondents (66.7%) of respondents agreed that there were regular purchase/repurchase supervisions to check for odd goods/services and additional 16.0% strongly agreed on the same. A mean of 3.80 postulated that there are regular purchase/repurchase supervisions to check for odd goods/services. The results also revealed that 54.7% and 17.3% of the respondents agreed and strongly agreed that corrective actions are taken once discrepancy is identified in the procurement processes although 10.7% of the respondents were neutral.

Lastly, 53.3% of the respondents agreed that there is an independent procurement oversight

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committee to monitor procurement services in all departments and further 22.7% strongly agreed on the same. A mean of 3.73 indicated that there is an independent procurement oversight committee to monitor procurement services in all departments. These results were supported by Makabira and Waiganjo (2014) who found that procurement practices such as monitoring and training workforce played a great responsibility in the performance within the Kenya National Police Service. Ogwel, Iravo and Lagat (2016) established that individuals must have a wide range of personal competencies including task specific competencies in order to effectively monitor the procurement process.

Inventory Controls on Procurement Performance

These were descriptive statistics on the influence of inventory controls on procurement performance in the county government of Bungoma as summarized in table 4.

Table 4: Descriptive statistics: Inventory Controls

Statement	1	2	3	4	5	Mean	SD
All departments have valid inventory control systems/processes	4 (5.3)	5 (6.7)	6 (8)	12 (16)	45 (60)	4.24	1.24
The management supports existence of an independent and reliable Inventory control process	5 (6.7)	10 (13.3)	14 (18.7)	17 (22.7)	29 (38.7)	3.73	1.29
All departments have reliable inventory systems to cater for inventory replenishments	4 (5.3)	10 (13.3)	9 (12)	40 (53.3)	12 (16)	3.59	1.12
There is valid invoice checking before purchase orders are placed	5 (6.7)	10 (13.3)	8 (10.7)	17 (22.7)	35 (46.7)	3.89	1.31
There are regular inventory tracking mechanisms to check for any flaws in the inventory process	3 (4)	7 (9.3)	9 (12)	13 (17.3)	43 (57.3)	4.12	1.25
Valid listwise 75							
Grand mean =3.91							

From table 4, most respondents strongly agreed (60.0%) that all departments have valid inventory control systems/processes and 16.0% of the respondents agreed. A mean of 4.24 implied departments have valid inventory control systems/processes. Further, 22.7% and 38.7% agreed and strongly agreed respectively that management supports existence of an independent and reliable Inventory control process. A mean of 3.73 indicted that management supports existence of an independent and reliable inventory control process.

The results also revealed that most of the respondents agreed (53.3%) that all departments have reliable inventory systems to cater for inventory replenishments while 16.0% strongly agreed on the same. However, 13.3% disagreed that all departments have reliable inventory systems to cater for inventory replenishments. The results further revealed that 46.7% of the respondents agreed that there is valid invoice checking before purchase orders are placed. A mean of 3.89 indicated that there is checking of invoice before purchase orders are placed.

Lastly, most of the respondents strongly agreed that there are regular inventory tracking mechanisms to check for any flaws in the inventory process as shown by 57.3% and further 17.3% agreed on the same. A mean of 4.12 indicated that regular inventory tracking mechanisms to check for any flaws in the inventory process. Kilonzo (2016) hinted that inventory holding should be properly managed in order to ensure smooth operation in a firm through reordering costs, carrying costs and stock out costs. Wangui (2014) study on inventory controls also reiterated that internal inventory operations integrated with supply chain

management and systems enabled by the Internet will benefit businesses and stakeholders at large.

Inferential statistics

Scholars asserts that if correlation coefficient, (r) is close to 1 or -1, then there is multicollinearity but if correlation coefficient (r) is not above 0.9, then there is no multicollinearity In this study (table 5 on correlation analysis), the highest correlation coefficient between all pairs of independent variables (procurement staff training, procurement planning, procurement monitoring and inventory controls) is 0.715, which is below the threshold of 0.9, thus multicollinearity assumption was checked and met.

Table 5: Correlations

		PST	PP	PM	IC	PPf
PST= Procurement Staff Training	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	75				
PP=Procurement Planning	Pearson Correlation	.179	1			
	Sig. (2-tailed)	.125				
	N	75	75			
PM=Procurement Monitoring	Pearson Correlation	.196	.433**	1		
	Sig. (2-tailed)	.092	.000			
	N	75	75	75		
IC=Inventory Control	Pearson Correlation	.297**	.671**	.431**	1	
	Sig. (2-tailed)	.010	.000	.000		
	N	75	75	75	75	
PPf=Procurement Performance	Pearson Correlation	.715**	.610**	.527**	.648**	1
	Sig. (2-tailed)	.006	.000	.000	.000	
	N	75	75	75	75	75

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

Multiple regression analysis

Multiple regression analysis was computed to assess the multivariate influence of the study's independent variables (procurement staff training, procurement planning, procurement monitoring, and inventory control) on the dependent variable (procurement performance). This was after the compulsory assumptions of multiple regression analyses were checked and met. The multiple regression results were shown in table 6.

Table 6: Multiple regression results

Model Summary

					Change Statistics			
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.814[a]	.663	.648	.55817	.663	20.728	4	70	.000

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.831	4	6.458	20.728	.000[b]
	Residual	21.809	70	.312		
	Total	47.639	74			

a. Predictors: (Constant), Inventory control, Procurement monitoring, Procurement planning, Procurement staff training

b. Dependent Variable: Procurement performance

Multiple regression analysis in table 6 showed the multiple regression results of the combined influence of the study's independent variables (procurement staff training, procurement planning, and procurement monitoring and inventory control). The model's R squared (R^2) is 0.663 which shows that the study explains 66.3% of variation in procurement performance in the county government of Bungoma, while other factors not in the conceptualized study model accounts for 32.7%, hence, it is a good study model.

Furthermore, Analysis of Variance (ANOVA) showed the mean squares and F statistics significant (F=20.728; significant at *p<.001*), thus confirming the fitness of the model and also implies that the study's independent variables (procurement staff training, procurement planning, procurement monitoring, inventory control) have significant variations in their contributions to procurement performance in the county government of Bungoma.

Finally, the values of unstandardized regression coefficients with standard errors in parenthesis in table 7 indicated that all the study's independent variables (procurement staff training; β = 0.106 (0.074) at *p<0*.05, procurement planning; β = 0.250 (0.108) at *p<0.05;* procurement monitoring; β = 0.278 (0.103) at *p<0.01,* inventory control; β = 0.309 (0.107) at *p<0.01* significantly influenced procurement performance in the county government of Bungoma (dependent variable).

In this regard, the study's final multiple regression equation is;

(v) $y = 0.2247 + 0.106X_1 + 0.250X_2 + 0.278X_3 + 0.309X_4$

Where;

y= procurement performance in the county government of Bungoma.

X_1= procurement staff training

X_2= procurement planning

X_3= procurement monitoring

X_4= inventory control

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.224	.421		.534	.595
	Procurement Staff Training	.106	.074	.122	1.436	.036
	Procurement Planning	.250	.108	.258	2.311	.024
	Procurement Monitoring	.278	.103	.249	2.702	.009
	Inventory Controls	.309	.107	.331	2.895	.005

a. Dependent Variable: procurement performance

Hypothesis testing

First, study hypothesis one (H_{01}) stated that procurement staff training does not significantly influence procurement performance in the county government of Bungoma, Kenya. Multiple regression results indicated that procurement staff training practice has significant influence on procurement performance in the county government of Bungoma (β = 0.106 (0.074) at *p<0.05*). Hypothesis one was therefore rejected. The results indicate that a single improvement in procurement staff training will lead to 0.106 unit improvement in procurement performance in the county government of Bungoma.

Secondly, study hypothesis two (H_{02}) stated that procurement planning does not significantly influence procurement performance in the county government of Bungoma, Kenya. Multiple regression results indicate that procurement planning practice has significant influence on procurement performance in the county government of Bungoma (β = 0.250 (0.108) at *p<0.05*). Hypothesis two was therefore rejected. The results indicated that a single improvement in

procurement planning practice will lead to 0.250 unit improvement in procurement performance in the county government of Bungoma.

Thirdly, study hypothesis three (H_{03}) stated that procurement monitoring does not significantly influence procurement performance in the county government of Bungoma, Kenya. Multiple regression results indicated that procurement monitoring has significant influence on procurement performance in the county government of Bungoma (β = 0.278 (0.103) at *p<0.01*). Hypothesis three was therefore rejected. The results indicated that a single improvement in procurement monitoring will lead to 0.278 unit improvement in procurement performance in the county government of Bungoma.

Fourthly, study hypothesis four (H_{04}) stated that Inventory controls do not significantly influence procurement performance in the county government of Bungoma, Kenya. Multiple regression results indicated that inventory control has significant influence on procurement performance in the county government of Bungoma (β = 0.309 (0.107) at *p<0.05*). Hypothesis four was therefore rejected. The results indicated that a single improvement in inventory control will lead to 0.309 unit improvement in procurement performance in the county government of Bungoma.

CONCLUSIONS AND RECOMMENDATIONS

In regard to procurement staff training, the study concluded that there is significant positive influence of procurement staff training on procurement performance in county Government of Bungoma. The county government of Bungoma was found to have adequate training in public procurement. This has resulted to adequate knowledge and skills in public requirement hence improvement in procurement performance in county Government of Bungoma.

The study concluded that procurement planning has significant positive influence on procurement performance in county Government of Bungoma. This postulated that effective and robust procurement planning would results to improvement in procurement performance. For instance, involvement of all departmental heads in setting of procurement processes and procurement needs assessment would enhance procurement performance. Further, budgets were approvals are obtained before purchase orders are placed which also enhance procurement performance.

The study also concluded that procurement monitoring has significant positive influence on procurement performance in county Government of Bungoma. Specifically, there was continuous supplier compliance assessments/evaluations and regular purchase/repurchase supervisions to check for odd goods/services this ensured that good and service procured are of acceptable quality. On the other hand, corrective actions are taken once discrepancy is identified in the procurement processes.

Lastly, the study concluded that inventory control has significant positive influence on procurement performance in County Government of Bungoma. Most of the departments in the county government were found to have valid inventory control systems/processes. Further, Bungoma county Government has regular inventory tracking mechanisms to check for any flaws in the inventory process which has improved procurement performance.

The study recommended that county governments should be staffed with professionally qualified personnel. This can be achieved via continuous procurement staff training as well as recruitment of procurement staff with requisite professional qualification, certification and experience in procurement practices.

The study recommended that county government should avail adequate resources and at the same time include all stakeholders during procurement planning process so as to cover all aspects of

procurement planning such as specification and estimation in timely manner.

The study recommended that there is need to upscale procurement monitoring practices in county governments such as supplier compliance assessments/evaluations and regular purchase/repurchase supervision. This can be achieved by independent procurement oversight committee to monitor procurement services in all departments.

Lastly, the study recommended that there is need of County Governments to have an independent and reliable Inventory control process with capabilities of checking any flaws in the inventory process. Further, internal inventory security procedural practices should be considered as one of the strategies for inventory control. The internal inventory security procedural practices should be developed in a participatory manner between the stores and procurement functions documented and should be well communicated across the organization.

Areas for further research

The study focused on influence of supply chain management practices on procurement performance in the county government of Bungoma. Some factors such as competitive bidding and supply chain collaboration practices were not considered. Therefore, further studies should consider other factors not captured in this study.

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