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Lagat, R. K.,¹ Indara, S.,² Otieno, D.,³ Muiruri, E. N.⁴

^{1,2,3,4} Lecturer, Kiriri Women University of Science and Technology [KWUST], Kenya

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ABSTRACT

This study aimed at analyzing the precursors of supply chain optimization the devolved system of governance in Kenya. The survey adopted a descriptive research design, and the target population of the study consisted of staff involved in procurement activities in Bomet County Government. The data collected was analyzed, summarized and tabulated by use of SPSS software. On procurement planning, the study established that it permitted the creation of procurement strategy for procuring each requirement that would be involved in procurement plan. It helped the county government to prioritize what to buy, when, and from what source and allowed the planners to determine if expectations were realistic; particularly the expectations of the requesting entities, which expected their requirements met on short notice and over shorter period than the application of the corresponding procurement method allows. On procurement information system, the study established that electronic procurement improved on transaction times, on-going purchases could qualify customers for volume discounts or special offers and E-procurement software made it possible to automate buying and selling. On procurement staff competency, the study established that competent staff could put in place procurement strategies and they were able to implement them effectively thus helping the procurement department to achieve their objectives. On the reliability of suppliers, the study established that suppliers with healthy financial muscle were relied upon since they could supply and wait for a more extended period for payments approval. The study concluded that procurement planning, procurement information system, procurement staff competence and reliability of suppliers had a significant and positive influence on supply chain optimization the devolved system of governance in Kenya. The study recommended that county governments should continuously plan for the procurement processes to adopt the best and new practices that reduce operational costs and enhance efficiency.

Key Words; *Procurement Planning, Procurement Information System, Supplier Relations, Staff Competence, Supply Chain Optimization*

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INTRODUCTION

Procurement is the nerve centre of performance in every institution whether its public or private thus needs a tight system to be followed and adopted. The role of procurement in the organization has received and continuous to receive increasing attention as the years go by. A strategic approach to procurement is important because it can assist an organization in meeting its policy objectives and to obtain value for money in its expenditure for goods and services (Gian, 2012).

Mason and Leek (2008), estimated that procurement plays an important role in helping to shape the competitive position of any organization in the market place. This component can directly support the corporate and business strategies of an organization. For example, increasing products or services quality, this helps in improving the quality of suppliers and services delivered; increasing market share by securing the supply chain of critical components at the level or extending payment terms.

According to Cox (2008) procurement and supply chain enhances efficiency and competitiveness among other benefits but realize these benefits, it is important to look at the strategic factors that affect the performance of the procurement and supply chain functions. Selection and maintaining competent suppliers is very essential in procurement. However, many factors affect a firm's ability to choose the right suppliers. There is need to identify the strategic supplier related factors and include them in the supplier selection criteria. Some of the factors firm consider include trust and commitment, adequate finance, quality, reliable delivery times, adequate logistics and technological capabilities.

External and internal forces are influencing the ability to recognize the procurement goal. Relations among different elements like professionalism, staffing levels and budget resources, organizational structure whether centralized or decentralized, procurement

regulations, rules, guidelines and internal control policies, all have impact on the performance of the procurement functions and need consideration (Kimet et al., 2013). For the development of African countries, it is vital to have efficient procurement system and tangible commitments should be exerted to make the best possible use of public resources (Kabaj, 2003).

In public sector, poor procurement performance is the problem causing delay in delivery, increase defects and delivery of low quality goods or no delivery at all. Traditional procurement procedures mostly manual, incompetent staff, poor coordination of procurement activities, failure to embrace e-procurement, absence of quality assurance policies and proper regulations has led to poor procurement performance.

Activities of procurement usually suffer from neglect, poor co-ordination, lack of open competition and transparency, corruption may also occur in the various procurement processes. It is also common to observe lack of trained and qualified procurement specialists who are competent to conduct and manage procurement in various public institutions. Inflexibility and bureaucratic systems of procurement contribute to contract delays, increased costs and lack of fair competition, all of which affects the procurement process and performance negatively.

The influence of certain factors on procurement performance has been focus for years together with the impact on the overall organizational efficiency. Despite the fact that there are various studies that focus on procurement performance in other countries and counties it seems there is no known study that has been conducted on factors affecting procurement performance in devolved unit of governance in Kenya, this prompted the researcher to conduct the study in Bomet County Government, with a view to establish factors affecting procurement performance.

Pegnato (2013) estimated United states federal procurement at around 200 billion dollars per annum .Government is often the single biggest customer within a country and its government uses its purchasing power to level to deliver broader government objectives such as stimulating innovation in supply market, using public money to support environmental and social objectives and for supporting domestic markets (Mccrudden,2008).The United Kindom rules do not cover procurement which are below thresholds.

An assessment carried out in 1998 at an education department in Philippines exposed that textbooks purchased at a value of 320,000 us-dollars were bought at a price higher than the market price, some were sub-standards and in some cases zero deliveries were done. insufficient control mechanisms ,failure to bring those involved in to the dismal performance of public entities (OED,2006).balanced score cards initiatives was being applied by 40 percent of the successful firms in the USA before and up to the end of year 2000.informartion obtained by balance secret card group shows statics could even be more proposing that more than fifty percent of the interviewed organizations in the world had already embraced the use of this evaluation that by the middle of 2001(downing, 2001).

In most developing countries, the procurement function is transitioning from a clerical non-strategic unit to an effective social-economic unit that is able to influence decisions and add value (Khight, Harland &Telgon, 2007) they have reformed their public procurement regulations. The reforms have not been limited to regulations only, including public procurement process, procurement organizational structure and work force. None the less, most developing counties are facing a problem of rapid changes in public procurement requirements. The changes are impacting the pressure on how the procurement function performs its internal and external processes and procedures in order to

achieve its objectives. the ability to realize procurement goals is influenced by internal force and external force interactions between various elements, professionalism, staffing levels and budget resources, procurement organizational structure whether centralized or decentralized procurement regulations, rules and guidance and internal control policies, all need attention and influences the performance of the procurement function.

Public procurement is dictated by the government systems; unitary or exercises control over local bodies government in Uganda. The central government regulates local government procurement structure and process.at the other extreme in the federal state system federal and local government enjoys a high level of autonomy. Each state and local is free and to create their own procurement structure methods and processes. Thus public procurement in federal system is very fragmented and there exist a great variation in procurement or organizational structure methods and processes.

Procurement performance in Kenya public sector are regulated by three major acts namely; (PPDA, 2005; PPPDR, 2006; GoK, 2006) and the suppliers' management act 2007(GoK, 2007). The PPDA, effective as of 1st January 2007, applies to all procurement of goods, works or services as well as the disposal of assets by public entities. Public entities are those that procure goods, works or services utilizing public funds. As such, public entities include the central and local governments, courts, commissions state corporations, cooperatives and educational institutions such as colleges, schools and universities(Duncan, 2009).The PPDA was established in order to maximize economy and efficiency, promote competition and ensure that competitors are treated fairly, promote the integrity and fairness of Procurement procedures, increase transparency and accountability in those procedures, increase public confidence in those procedures, facilitate the promotion of local industry and economic

development (Mathew, 2009). To achieve these objectives, the act establishes procurement and disposal procedures and sets up the necessary structures to ensure that the procedures are followed and there is provision of oversight and compliance. The Act also establishes the public Procurement administrative review board, which handles complaints, review and appeals stemming from Procurement performance. The suppliers Practitioners Management Act 2007 was assented to law on 22nd October 2007 and commenced on 30th October 2007. This Act regulates both public and private sector Procurement practitioners and strives to professionalize Procurement performance in Kenya (Andrew, 2010). Most of the public and private organizations use the same procedures in Kenya to meet the expected targets and perform in the Procurement functions.

Statement of the problem

Procurement function has been one of the vital departments in any organization it contributes tremendously to the organization efficiency and effectiveness. Any head of department is expected to purchase goods or services or works at the right time, price, place, quality and quantity for the use of all the departments in the organization so that the organization would derive great benefits from this and would therefore be able to serve their customers in a better way (Snider and Rendon, 2001) when procurement department is inefficient in its procurement activities it affects all other departments and therefore has a great impact on the organizations supply chain as whole.

The present day business environment is getting more challenging and therefore companies have to increase their business operations to stay competitive as a result managers need to embrace all those practices that will improve their performance one of the most important factors for improving business operations is implementation of effective and efficient procurement and supply

chain management practices, Chong and Voi (2008), assert that good organized and executed supply chain management will make possible companies to decrease their inventories have been better customer services and diminishing of costs as their inventory turns. In addition one of the biggest advantages of supply chain management practices, in the short term objective, is increasing productivity and decreasing inventory. Levels and reducing lead time which will eventually lead to an improved performance of a firm.

An international study done by Kabaj (2003) concluded that an efficient public procurement system is vital to the advancement of all countries and is a concrete expressing of their national commitments to making the best possible use of public resources. Non-adherence to standardized procurement process culminates in poor coordination within various departments and enhances presence of leakages of financial resources, which turns out to be costly component to the whole management process of the procurement function (Knight, 2010). Rutiri and Xu (2009), did a study on supply chain management factors facing the food industry sector in Tanzania and found out that the factors that affect procurement and supply chain management in the food industry comprised of greater differentiation of food products, competition for consumers, understanding of supply chain management concept, inventory management, pricing strategy, customer service and customer perceived value, marketing and distribution strategies.

Gitary (2011) focused on procurement and supply chain malpractices in Kenya public sector and found out that supply chain is affected by internal and external components that can be classified as transportation, utilities, communication, suppliers, customers, labor and finance. Despite the numerous studies on supply chain management, the aspect of effects of the procurement performance in relation to devolved unit of governance, specifically Bomet

county has been largely neglected therefore this study is intended to bridge the knowledge gap. Therefore, the research question for this study was what the factors are affecting procurement and supply chain performance in devolved unit of governance in Bomet county government.

Objectives of the Study

The general objective of the study was to examine the precursors of supply chain optimization in devolved units of governance in Kenya. The specific objectives were as follows;

- To determine the effect of procurement planning on supply chain optimization in devolved units of governance in Kenya.
- To establish the extent to which procurement information system influence supply chain optimization in devolved units of governance in Kenya
- To determine the effect of supplier relations on supply chain optimization in devolved units of governance in Kenya.
- To enumerate how staff competence, affect supply chain optimization in devolved units of governance in Kenya.

LITERATURE REVIEW

Resource Based View Theory

According to Grant (2001), strategy has been defined as the match an organization makes between its internal resources and skills; the opportunities and risks created by its external environment. Most research into the strategic implication of the firm's internal environment and resources has been concerned with issues of strategy emerge. The theory purposes a framework for a resource based approach to strategy formulation which integrates a number of the key themes. This is a five-stage procedure for strategy formulation, analyzing the firm's resource based, appraising the firm's capabilities, analyzing profit earning potential of firm's resources and capabilities, selecting a strategy, and extending and

upgrading the firm's pool of resources and capabilities.

According to Weissman (1998), obtaining resource for reform needed for technical assistance to help prepare business plan to describe and implement key objectives of the reform. There is a major concern on the level of professionalism on the government side in conduct of procurement. There is a shortfall of professional capacity in many countries. This stems from a shortage of procurement experienced professional staff, inadequate training and low pay. It is clear that development of procurement systems in Africa region. The level of professionalism requirements for official conducting and authorizing procurement functions is not taken seriously. Quite a number of countries in Africa have no procurement qualifications as are requirement for employment Instead they provide minimum civil service qualification to serve as a procurement officer.

To improve performance, government should strive towards creating a competent corps of procurement specialists with high ethical standards. Government should delegate procurement to these procurement specialists. The competent procurement after training should be transferred to different positions to strengthen procurement performance. None of these will succeed without government support commitment and that of other stakeholders in the procurement process (Wessman, 1998).

Quality Management Theory

Quality management theory by Heiser and Render (2005) states that the top management commitment and participation in quality management practices are the most important factors for the success of firm. Quality management is considered so have four main components; quality planning, quality control, quality assurance and quality improvement. Quality management theory focuses on continuous improvement therefore uses quality assurance and

quality control of processes to achieve more consistent quality (Jansen,2008)

The theory suggests that quality management is an important aspect for Good performance of procurement and supply chain department. Quality management affects the quality of goods procured and the delivery of quality services to the clients. Quality management results to high customer satisfaction and high firm's performance. The study will use quality management theory to identify how quality management affects the procurement and supply chain performance.

Technology, governance and Environment Theory

The technology, governance and environment theory was developed in 1990 by Tomatcky and Fleischer. It identifies three aspects of an organisation that influences the process by which it adopts and implements technological innovation. These three aspects are; technological context, organisational context and environmental context.

Technological context describes both the internal and external technologies relevant to the firm. This includes current practices and equipment internal to the firm, as well as the available technologies external to the firm, as well as the available technologies external to the firm. Organizational context refers to descriptive measures about the organization such as scope, size and managerial structure. Environmental context is the arena in which a firm conducts its business, it's industry, competitors and dealing with the government (Tiago and Maria, 2010).

According to Rowan (2013) the use of information communication technology based on procurement systems in devolved unit of governance is affected by environmental context. All these contexts determine the level of automation, type of procurement systems to be used in the firm, nature of ICT infrastructure and how e-procurement is employed in the firm. This theory will be useful in this study for identifying how

ICT affects procurement and supply chain performance in devolved units of governance.

Supplier Relationship Management Theory

One theory cannot explain all the SRM research perspectives such as, Transactional costs, Economies (TCE) Theory –Cox (1996), argues that all the discussions on the proper form of the relationship, it is the firm and its external environment must include the theory of TCE, because it presents the factor, which determines the internal and external boundaries of the firm. The research based view (RBV), states that companies in the same Industry may select completely different organizational structure but be equally successful. The Resource Dependence Perspective (RDP) theory, states that to acquire resources organizations must interact with others who control these resources.

Supplier performance measurement theory

According to Gordon (2008), supplier performance measurement is a process, not an event, it requires support from stakeholders besides procurement, as supplier performance impacts on firm's success. A SPM processed should include key stakeholders, who interact with suppliers as well as the suppliers themselves. A SPM program should have the following; the establishment of devolved unit of governance is an expression of continued faith in decentralization and the frustration with the poor indeed fatal performance of all previous models of decentralization. How well is the legal and organizations framework of the county governments programs suited for the realization of development goals in Kenya in the light of theoretical precepts of decentralization (Chwenya, 2014).

Further based on the provision in the new act among others, PPOA conducted a study to determine the impact of the new constitution in public procurement in November,2010 and developed a compendium of proposed amendment to the public policy and disposal Act,2005. The process of preparing a

parliamentary bill is underway since the end of 2011. According to the fourth schedule of the new constitution, procurement of goods and services has to be looked into and steps taken to reform it,

together with the PPDA which has to be amended by an act of parliament within four years after the enactment of the constitution, which means by the middle of 2014 was amended.

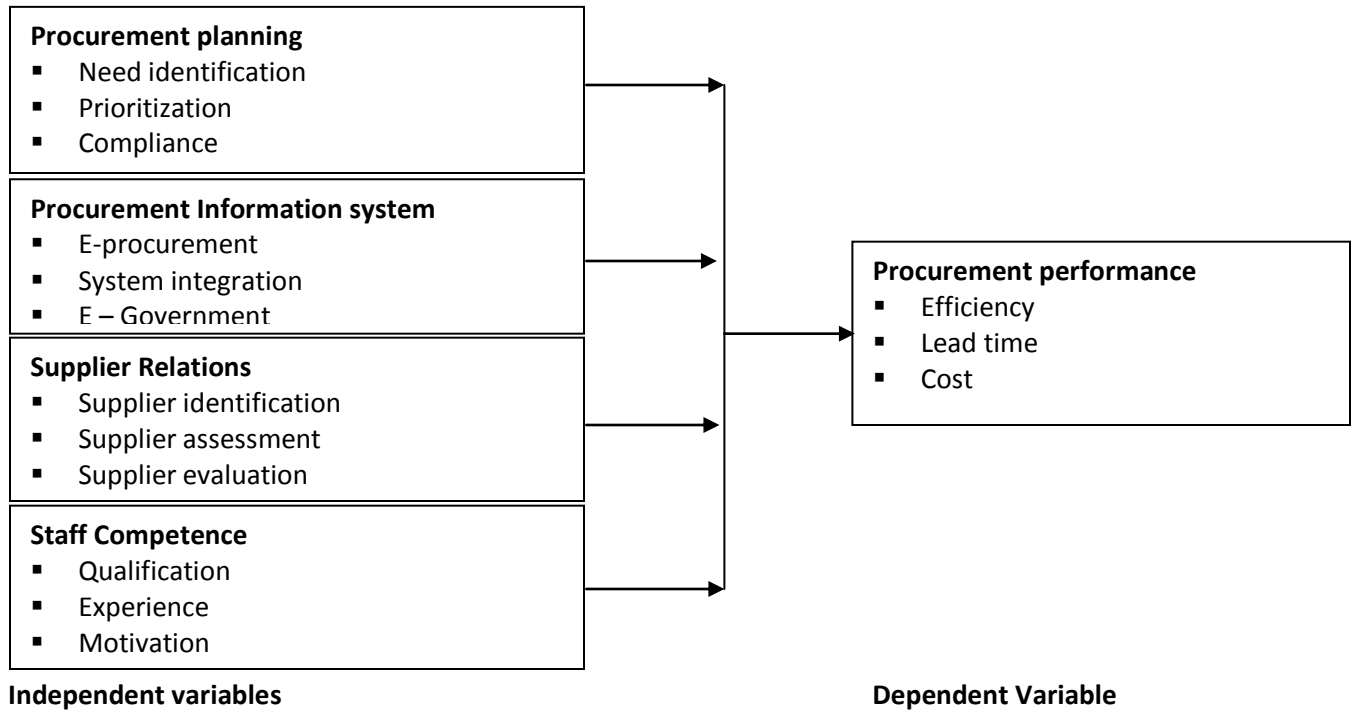


Figure 1: Conceptual framework

Empirical Review

Kiage (2013), his study titled factors affecting procurement performance: A case of Ministry of Energy concluded that planning, resource allocation, staff competency, and contract management positively affected procurement performance at the Ministry of Energy. Mutara (2012), in her study on impact of public procurement procedures on delivery of maintenance works; a case of the Ministry of Housing, National Social Security Funds and Kenyatta National Hospital Maintenance projects, concluded that the bureaucratic processes due to the provision of the Act had rendered the processes difficult and time consuming hence fail to serve the main purpose especially in the procurement of emergency services.

Kakwezi and Nyeko (2010) conducted a study on procurement processes and performance; Efficiency

and effectiveness of the procurement functions in Uganda found out that other than financial measures, non-financial measures also contribute significantly in the procurement performance. According to Okoth (2013), factors affecting procurement and supply chain performance include; bureaucracy and time consuming methods of procurement, Training on cost effectiveness and timely delivery of projects, stakeholders involvement, failure to involve suppliers at an early design and specifications stage leading to frequent changes of design and specifications and cancellation of contracts. Okoth faulted the lengthy procedures that do not support cost saving strategies such as early supplier involvement, lean supply chain management and JIT delivery. He also noted slow procurement law implementation. According to Mwangi (2010), purchasing departments have

become larger and more complex, most organizations have adopted IT based system that have created a platform for installation of automated procurement systems. These systems provide efficient and extensive cost savings and other business benefits by automating many of the purchasing procedures and processes.

Dalip, et, al., (2007) observed a sub-optimal productivity level in the value created by supplier relationship between suppliers and buyers. Fundamentally, sellers and buyers have entered into relationship with a predetermined set of assumption and these assumptions drive the wrong behaviour of on both sides. When relations begin and managed in such an antagonistic manner, Value is lost. They believe that most sourcing/supply chain professionals have the wrong end point in mind and therefore end up leaving a significant amount of value for each other some other the best value creating activities for an organization are capable of being accomplished after the contract has been signed by starting with a focus in a mutual of interest. Both sides the buyer and supplier organizations need to cognized of others mutually of interest so that the benefits are realized from the beginning and throughout the relationship.

According to Schaper et al., (2006), purchasing needs a rise in a variety of contexts. In so s cases, the company unit with a purchasing need may wish to engage prospective suppliers in preliminary discussions. In other cases, the company unit may decide to ask purchasing to deal with prospective suppliers. In no case should a company unit commit the company to a purchase must be used in every case, to ensure that the supplier is selected objectively. Frequently, competitive bids will be used in order to obtain best value. Approved contracts, developed by purchasing and the legal department, including approved templates will be used wherever possible to ensure that the company's (1) interest are fully protected and (2) purchasing initiatives are appropriately implemented. Forms provided by

suppliers should be used only in exceptional circumstances and only with the price approved of purchasing or the legal department.

METHODOLOGY

The study adopted a descriptive research design. The descriptive research design was effective because it enabled the study to collect data across a varied sample. The study population for this study was 455 employees in the devolved system of governance. The study used the Yamane (1967) formula to arrive at the sample size of 213 respondents. The selection formula was as follows: $n = (N / (1 + N (e)^2))$

Stratified random sampling technique was used to select the study respondents. The respondents of the study were stratified in to four strata's. The sample size of the study respondents was 213 respondents. The questionnaire was the selected instrument or tool for data collection for the study. The questionnaire had both open and close-ended questions. The study carried out a pilot study to pretest and validates the questionnaire. Reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. Quantitative data collected was analyzed by the use of descriptive statistics using SPSS (Version, 23) and presented through percentages, means, standard deviations and frequencies. The information was displayed by use of bar charts, graphs and pie charts and in prose-form. Content analysis was used to analyze data that was qualitative in nature or aspect of the data collected from the open ended questions. The study conducted a correlation analysis to establish the strength of the relationship between the independent and the dependent variable. Multiple regression was also used.

RESEARCH FINDINGS

Out of 213 questionnaires administered, 134 were dully filled and returned making the overall response rate to be 63%. According to Kothari, (2004) a response rate of 50% is adequate for the descriptive

study; as such, a response rate of 63% for the study is adequate as per the recommendations.

Descriptive Analysis

Procurement Planning

The research sought to determine from the respondents the extent to which they agreed the firms implemented the procurement planning in an effort to improve performance in the devolved system of governance. From the research findings, majority of the respondents indicated that they neither agreed that the firms based on the average mean of 3.72. Majority of the respondents agreed that Procurement plan practices determines government policies and regulations the firms focus on financial stability of the suppliers process as shown by a mean of 3.85; the respondents also had moderate stand that Government budget policy

selection method improves accountability as shown by a mean of 3.55; respondents also were in moderate agreement on Tax policy facility have greatly affected customer satisfaction as shown by a mean of 3.55. Majority of the respondents were in moderate agreement that financial strength plan affect the quality of products as shown by mean of 4.02. Concisely, majority of the respondents agreed Competence level affects performance as shown by a mean of 3.99. This implies that majority of the firms had started recognizing the role of supplier appraisal on enhancing performance with other firms in the manufacturing sector. The findings of this study were in tandem with literature review by silver, (2007) who observed that supplier appraisal criteria that are enhance issues such as using effective purchasing strategies, waste reduction, and budget review and planning of the materials.

Table 1: Descriptive analysis of procurement planning

Statements	Mean	Std. Deviation
Procurement plan practices determines government policies and regulations	3.85	1.54
Government budget policy selection method improves accountability	3.55	1.43
Tax policy facility have greatly affected customer satisfaction	3.55	1.32
Financial strength plan affect the quality of products	4.02	1.23
Competence level affects performance	3.99	1.39
Average	3.792	1.382

Procurement information system

The research sought to determine from the respondents the extent to which they agree the organization implemented the procurement information system in an effort to improve performance function in the devolved system of governance. From the research findings, majority of the respondents indicated that they neither agreed nor disagreed that Method of Physical facilities allow functions to align around a single organizations goal for good on performance based on the average mean of 3.12. Majority of the respondents agreed that Software systems promotes value creation in

reducing cost as shown by a mean of 3.31; the respondents also had moderate agreement stand that the E-procurement on stocks kept can be transformed quickly as shown by a mean of 3.53; respondents also were in agreement that Value for customers in terms of high quality and improved service level as shown by a mean of 3.81 and the respondents were in agreement that The use of ERP system assists in facilitating the implementation of PP shown by mean of 4.17.

This implied that majority of the firms had started recognizing the role of procurement information systems on performance of devolved system of

governance. The findings of this study were in tandem with literature review by Shapiro, (2009) who observed that procurement systems that are enhance

issues such as using effective purchasing strategies, and proper ethical standards that enhances performance.

Table 2: Descriptive analysis of procurement information system

Statements	Mean	Std. Deviation
Method of Physical facilities allow functions to align around a single organizations goal for good on performance	3.12	1.32
Software systems promotes value creation in reducing cost	3.31	1.3
E-procurement on stocks kept can be transformed quickly	3.53	1.45
Value for customers in terms of high quality and improved service level	3.81	1.4
The use of ERP system assists in facilitating the implementation of PP	4.17	1.12
Average	3.314	1.318

Staff Competence

The research sought to determine from the respondents the extent to which they agree the organization implemented the staff competence boost their performances. From the research findings in majority of the respondents agreed that Professional competence ensure employees neither engage in, nor give the appearance of engaging in, dishonest or unethical actions as shown by average mean 3.77. Respondents agreed that Employee training and seminars are regularly conducted to increase awareness on ethical behavior as shown by average 3.70. The respondents agreed that Employee codes were circulated regularly to the suppliers to ensure compliance with regulation during their

service provision time as shown a mean of 3.58. The respondents agreed that Employees complied with the rules since perceive that the entity is accountable to the government as shown by mean of 3.18. The respondents agreed that Officials who have access to very confidential and/or market sensitive information use it to the benefit of some bidders.as shown by a mean of 3.64. This implied that majority of the firms had started recognizing the role of employee competence in enhancing performance of the devolved system of governance. The findings of the study are in agreement with literature review by Porteus (2008), who indicated that employee appraisal, selection and approach improve productivity and performances of a firm.

Table 3: Descriptive analysis of staff competence

Statements	Mean	Std. Deviation
Professional competences ensure employees neither engage in, nor give the appearance of engaging in, dishonest or unethical actions.	3.77	0.181
Employee training and seminars are regularly conducted to increase awareness on ethical behavior	3.70	0.139
Employee codes are circulated regularly to the suppliers to ensure compliance with regulation during their service provision time	3.58	0.189
Employees comply with the rules since perceive that the entity is accountable to the government.	3.18	0.175
Officials who have access to very confidential and/or market sensitive information use it to the benefit of some bidders.	3.64	0.162
Average	3.57	0.138

Supplier relations

The research requested the respondents to indicate the extent to which they agree the firms has implemented the supplier relations in an effort to enhance their performances in the devolved system of governance. From the results, majority indicated that they neither agree nor disagree that the firm had provide incentives to the potential suppliers as shown by a mean of 3.30. The respondents agreed that prequalified suppliers given awards for job well done as shown by a mean of 3.62. The respondents agreed that frequent Audits done to the suppliers of the organization as shown by a mean of 4.07. The

respondents agreed that mutual partnership affects performance as shown by a mean of 3.50. The respondents agreed that the Incentives to suppliers affect performance as shown by 3.53. The above findings corroborates with literature review by Sandeep (2007) who indicated that supplier development is achievable through; vendor incentives, random assessment of the suppliers ability and keen handling and verification of the products. According to Song & Zipkin (2011), the long-term relationship with suppliers is another important aspect of enhancing performance of firms.

Table 4: Descriptive analysis of supplier relations

Statements	Mean	Std. Deviation
Do the organization provide incentives to the potential suppliers	3.30	1.28
Are prequalified suppliers given awards for job well done	3.62	1.27
Frequent Audits done to the suppliers of the organization	4.07	0.95
Mutual partnership affects performance	3.50	1.54
Incentives to suppliers affects performance	3.53	1.45
Average	3.622	1.26

Inferential Analysis

Correlation Analysis

After the descriptive analysis, inferential analysis was conducted using correlation and multiple regressions

to determine the extent and direction of relationship of procurement planning, procurement information system, supplier relations, staff competence and supply chain optimization.

Table 5: Correlation Matrix

		Procurement Planning	Procurement Information System	Supplier Relations	Staff Competence
Procurement planning	Pearson correlation	1			
Procurement information system	Sig Pearson correlation	.538** 0.000	1		
Supplier relations	Sig Pearson correlation	.535** 0.003	.613** 0.000		
Staff competence	Sig Pearson correlation	.154** 0.014	.373** 0.000	.477** 0.001	
Supply chain optimization	Sig Pearson correlation	.493** 0.000	.575** 0.000	.679** 0.000	.576** 0.000

The study used Pearson correlation analysis to establish the association among the variables used in the study. A Pearson correlation was used since the data was discrete. Correlation indicated the direction in one variable if another variables change.

Correlation findings indicated that the correlation between procurement planning and supply chain optimization was 0.493 with a corresponding p value of 0.000. The correlation coefficient was therefore significant and positive implying that if procurement planning increases the supply chain optimization in devolved units of governance in Kenya also increases. The findings concur with Shapiro (2009) findings who also revealed that technical capability, financial strength and competitive level affected devolved system of governance. The results further revealed that the correlation between procurement information system and devolved system of governance at 0.575 with a corresponding p value of 0.000. The correlation coefficient was also significant and positive which implied that if increase in procurement information system the supply chain optimization in devolved units of governance in Kenya. This finding conforms to those of Palevich (2012) who found out that there is a strong

relationship between approval rating of suppliers and performance of a firm.

The findings also indicate that the correlation between supplier relations and supply chain optimization was 0.679 with a corresponding p value of 0.000. The correlation coefficient revealed a significant and positive association implying that if supplier relations increase the supply chain optimization in devolved units of governance in Kenya also increases, Silver (2007) also emphasizes that the scope of supplier appraisal approach is determine whether the operational approach, structural approach and labored approach.

The finding results indicate that the correlation between staff competence and supply chain optimization in devolved units of governance in Kenya was 0.576 with a corresponding p value of 0.000. The correlation coefficient revealed a significant and positive association implying that increase in staff competence increases the supply chain optimization in devolved units of governance in Kenya. According to Porteus (2008) incentives and awards and audits are very crucial in enhancing the performance of devolved system of governance.

Multivariate Regression Analysis

Table 6: Multivariate Regression Analysis

Model	R	R ²	Adjusted R ²	Std. error of the estimate
1	0.840 ^a	0.705	0.692	0.54908

In order to establish the statistical significance of the hypothesized relationships, multiple linear regression was conducted at 95 percent confidence ($\alpha=0.05$). The findings revealed a relationship $R=0.840$, indicating a strong positive association between procurement planning, procurement information

system, supplier relations, staff competence supply chain optimization in devolved units of governance. $R^2 =0.705$ indicate that 70.5% of variation in the supply chain optimization can be explained by the four variables.

Table 7: Analyze of various (ANOVA) results (overall model significance)

Model		Sum of squares	Df	Mean square	F	Sig
1.	Regression	52.583	4	13.146	43.602	.000 ^b
	Residual	75.674	129	0.301		
	Total	128.257	133			

a. dependent variable: supply chain optimization

b. Predictors: (constant), procurement planning, procurement information system, supplier relations and staff competence.

The result of ANOVA test showed that the F value was 43.602 with a significance of p value =0.000 which was less than 0.05, meaning that there is a significant relationship between procurement planning, procurement information system, supplier relations, staff competence and supply chain optimization in devolved units of governance. The ANOVA statistics at 5% level of significance showed that the value of F

calculates (F computed) was 43.602 and the value of F critical (F tabulated) at 4 degrees of freedom and 83 degrees of freedom at 5% level of significance is 2.44. F calculated (F computed) is greater than the critical (F tabulated) (43.602>2.44), this showed that the overall model was statistically significant at 5% significance level.

Table 8: Regression coefficient Results

	B	Std error	T	Sig.
(constant)	2.331	0.173	13.473	0.000
Procurement planning	0.196	0.042	4.666	0.000
Procurement information system	0.260	0.065	4.000	0.000
Supplier relations	0.217	0.052	4.173	0.000
Staff Competence	0.198	0.061	3.245	0.000

a) Dependent Variable: supply chain optimization in devolved units of governance.

$$Y=2.331+0.260X_1+0.217X_2+0.198X_3+0.196X_4+ \epsilon$$

The coefficient of procurement planning was ($\beta=0.196$, $p=0.000$, <0.05) showed a statistically significant relationship between procurement planning and supply chain optimization in devolved units of governance. The results implied that a unit increase in procurement planning would result to an increase of 0.196 units in supply chain optimization in devolved units of governance. Similarly, Ayom (2013) study concluded that technical capability affected performance of an organization. It was therefore recommended that the implementation of procurement planning indicators have impact on the performance of a firm.

The coefficient of procurement information system was ($\beta=0.260$, $p=0.000$, <0.05) shows a statistically significant relationship between procurement information system and supply chain optimization in devolved units of governance. The results implied that unit increase in procurement information system would results to an increase of 0.260 units in supply chain optimization in devolved units of governance. This finding conforms to those of Navon & Berkovich (2006) who found out that there is a strong relationship between procurement information system and devolved system of governance, therefore the study conclude that the presence of a procurement information system positively affects

supply chain optimization in devolved units of governance.

The coefficient value of Supplier relation was ($\beta=0.217$ $p=0.000$, <0.05) this shows statistically significant relationship between Supplier relation and supply chain optimization in devolved units of governance. The results were in tandem with the research done by Walter (2013) who found out that supplier relation is effective in utilization of operational activities in the organization increases the devolved system of governance.

The coefficient of staff competence was ($\beta=0.198$, $p=0.000$, <0.05) shows a statistically significant relationship between staff competence and supply chain optimization in devolved units of governance. The results implied that a unit increase in staff competence would result to an increase of 0.198 units in supply chain optimization in devolved units of governance. Palevich (2012) also emphasized that the staff competence devolved system of governance is to determine whether the organization's awards and audit process as represented by management, is adequate and functioning in a manner which ensures that the suppliers are appropriately identified and managed.

CONCLUSION

Procurement planning has a positive significant effect on supply chain optimization in devolved units of governance in Kenya. A procurement plan practice determines government policies and regulations. Government budget policy selection method improves accountability. Tax policy facility has greatly affected customer satisfaction. Financial strength plan affects the quality of products.

There was a significant and positive relationship between procurement information system and supply chain optimization in devolved units of governance in Kenya. A software system promotes value creation in reducing cost. E-procurement on stocks kept can be transformed quickly. Value for customers in terms of

high quality and improved service level. Use of ERP system assists in facilitating the implementation of PP.

There was a significant and positive association between supplier relations and supply chain optimization on in devolved units of governance in Kenya. Prequalified suppliers are given awards for job well done. Frequent Audits done to the suppliers of the organization. Mutual partnership affects performance. Incentives to suppliers affects performance.

There was a significant and positive association between staff competence and supply chain optimization in devolved units of governance in Kenya. Professional competence ensures employees neither engage in, nor give the appearance of engaging in, dishonest or unethical actions. Employee training and seminars are regularly conducted to increase awareness on ethical behavior. Employee codes are circulated regularly to the suppliers to ensure compliance with regulation during their service provision time. Employees comply with the rules since perceive that the entity is accountable to the government.

RECOMMENDATIONS

The study recommended that procurement and supplies managers and directors should be trained on how to ensure efficiency in the system in order to meet the citizens' requirements.

The study recommended that procurement plans are not static and that preparation of annual procurement plans should be participatory, frequently reviewed so as to improve on the development of county government performance. Equally, management of the procurement and supplies process should be administered by qualified, competent and experienced procurement professionals. This will help maintain good procurement standards and achieve high levels of efficiency and effectiveness.

In addition, to avoid delays in supply and provision of services, timelines have to be respected since most projects would have overruns. For the success of county governments, the management of county government should ensure that proper mechanisms for project monitoring and evaluation, are put in place with the input of Procurement personnel and the user department should submit progress reports on time in order to fasten the necessary actions hence best performance.

Suggestion for further research

Since the study puts on emphasis on Bomet County government, future studies might consider a broader scope by including other devolved unit of governance operating within the country, i.e., Kericho County, Bungoma County, Nairobi county, Mombasa County among others. There is need for future research to replicate the findings employing multi-disciplinary measures of county's performance and wider coverage of procurement management.

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