

**ROLE OF BUYER-SUPPLIER RELATIONSHIP ON PROCUREMENT
PERFORMANCE IN THE PUBLIC SECTOR IN KENYA: A CASE OF MINISTRY OF
EAST AFRICAN AFFAIRS, COMMERCE AND TOURISM**

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ABSTRACT

Buyer-supplier relationships management have in recent times become more strategic in nature and the process of relationship development has become more vital as organizations create better relationships with their suppliers to achieve their goal. Government ministries play a major role in

the development of the country through provision of public services and have become a strong entity in Kenya and very useful engines to promoting development. The general objective of this study is to evaluate the role of supplier segmentation, development, selection and Information management on buyer-supplier relationship management on procurement performance. A descriptive research design was used in this study. The population of this study comprises of all staff at Ministry of East African Affairs Commerce and Tourism which is 270 employees. The study sample size was 135 staff which included staff in the department of Supply Chain management. Data was collected using structured questionnaire to ensure consistency. The response rate was 81.4%; the study indicates that supplier development influences the procurement performance most followed by supplier selection, information management and finally supplier segmentation. In conclusion, supplier selection encourages buyer supplier's relationship, and organization should consider quality and reliability when selecting a supplier. Again organization should evaluate their suppliers training and support them. The study agrees that information management enables information sharing between suppliers and the organizations.

KEY TERMS: Procurement, Supplier Relationship Management, Buyer supplier Management

Introduction

The relationship between buyer and supplier has become increasingly important for organizations. In the last 20 years the number of academic publications on the relationship between buyer and supplier has been increasing (Terpend, Tyler, Krause and Han field 2008). During the 1980's the academic literature was primarily focused on buyer practices, such as supplier power and supply base reduction but since then it has moved towards a diverse set of theories that help to extract maximum value from this relationship for both parties (Terpend et al 2008). Prior to the 1980s most purchasing relationships were reactive. Interaction between vendor and purchasing resulted in outcomes where one's gain would be the other's loss (Burt Dobler and Starling, 2013)

Firms compete on head to head battles for market share and position with other organizations in their competitive sets. In such competitive environments, suppliers are often treated in an adversarial manner by buyers. As the relationship between buyers and suppliers are viewed as a win lose situation. However, many forward looking firms have found it more effective to work collaboratively with their suppliers to serve the ultimate customer. Terms such as alliances, partnerships, collaborative relationships and boundary less organizations have been used to describe these new buyer supplier relationships (Crotts, Buhalis and March, 2010)

Debra (2006) Building and maintaining a competitive franchise requires innovation, teamwork and continuous improvement. Our supplier selection process is stringent and allows us to use only suppliers that meet our specific needs. We actively manage our suppliers and monitor their ongoing performance to promote and build the best possible relationship between our firms. We seek to enhance the Morgan Chase team through establishing relationships with a diverse range of suppliers who share goals and values.

According to Donald & Russell (2012) there are two main types of buyer and seller relationships. The buyer is the person or organization that purchases products from suppliers. A buyer could be a manufacturer purchasing raw materials a customer buying a finished product from a retailer (Sharma et al., 2006). The relationship between the buyer and seller can be either short term (one off or low commitment purchases) or long term, involving regular purchases based on established agreements (Cater and Cater, 2010). Both short term and long term buyer and seller relationships have advantages and disadvantages. Short term relations can be useful when a degree of flexibility is required. For example, short term agreements give the buyer the option to switch suppliers for their next purchase. They can also be beneficial in markets where the prices of materials are volatile and long term commitments are not appropriate. The high level of competition to win short term contracts can also provide opportunities for price discounting and special deals to be done (Sweeney and Webb, 2007). However, short term arrangements also have their disadvantages.

They generally provide little scope for payment and order flexibility. For example, a new supplier on a short term agreement will want a definite order and prompt payment. There is no trust built up over time between parties, so the opportunity to share market information is also reduced (e.g. Bellou, 2008). There are many advantages that come as a result of building strong buyer and seller relations over a period of time. There is a greater commitment from both groups which means that you were better able to rely on them when it comes to orders and payments (Mavondo and Rodrigo, 2011). There may also be more scope for discounts after the relationship is established and there may be more flexibility in the timing of payments. Trust between the buyer and seller is developed over time and this may allow for the sharing of information, forecasts, knowledge and customers between the buyer and seller (Gedeon et al., 2009; Sharma et al., 2006). However, long term buyer and seller relationships generally involve a high level of commitment and work to maintain (Sweeney and Webb, 2007).

Procurement performance

For decades procurement performance has been attracting great attention from practitioners, academicians and researchers due to poor performance. Adoption of e-procurement has rapidly increased since 1990s; yet organisations still face challenges associated with its advent and use. Analysis by Wyld (2004) showed that in the United States only 30% of firms surveyed use e-procurement systems for request for quotations (RFQ), online auctions (25%) and e-markets (33%).

Procurement professionals find that combinations of quality, service, and price are seldom exactly equal. Burt, Petcavage and Pinkerton (2010) postulated that if quality and price are equal, then supplier should be selected solely on the basis of service. Service is seldom equal and in many cases it is a supplier's capabilities that are being purchased, not commodities. Government as a

sovereign power is distinguished from commercial contracting process. In most cases, Government acts in the best interest of the public; to strive to guarantee transparency, accountability and facilitate easy access to information

Public procurement is concerned with how public sector organizations spend taxpayers' money on goods and services (Hall, 2009). Globally, in many developed nations, government organizations across the world tend to spend between 8 per cent and 25 per cent of GDP on goods and services (Organization for Economic Co-operation and Development, 2006); in the UK, public procurement expenditure is approximately £150 billion (Department of trade, tourism, and Rural Affairs, 2007). In Africa, public procurement procedures are poorly executed and this negatively affects realization of increased economic development in the region. In Nigeria for instance, high level of corruption and bureaucratic procedures in the government are some of the key challenges responsible for lack of development of road network infrastructure in the northern parts of the country.

In developing countries like Kenya, the public procurement sector is often the largest domestic market. The government has the obligation of providing goods, works and services to meet a variety of citizen needs. The necessity for public procurement law and also clearly defined procurement systems arises from the fact that, unlike the private sector, public procurement is a business within a national and political system, whose pillars of strengths are integrity, fairness, accountability, competition, transparency, national interest, promotion of local industry and economic development (PPOA, 2009).

Institution that embrace the essence of relationship with suppliers in areas of transaction eventually, create a room for win-win situation approach in their primary activities. This attribute enables companies in question to reap benefits from each other since every company works for the

best of each other hence this ensures a high degree of supply performance Lysons (2010). The main activities under buyer-supplier relationship entail; supplier visits, early supplier involvement, long term partnership with suppliers and provision of supplier conference forums.

Public procurement is crucial to government service delivery. For decades procurement performance has been attracting great attention from practitioners, academicians and researchers due to poor levels of performance. Despite Government efforts for improvement, it is still marred by shoddy works, poor quality goods and services.

Statement of the Problem

Public procurement is one area that lags behind in terms of change especially in least developed nations. Most public sectors in least developed nations use a traditional procurement system which is purely based on adversarial relationships with many suppliers. Bid and bash approach (Welch, 2013) is used in the tendering process which focuses on the lowest bid and arms` length relationships with many suppliers. This increases procurement costs by 25%, for it includes multiple contracts administration, monitoring many suppliers` performance, continuous education of suppliers on an institution`s processes and requirements. Ellram (2010) argues that when dealing with multiple suppliers, it is costly to coordinate the procurement process and to monitor the quality consistency of many different suppliers.

Systems Audit for SLO, 2008/2009 Report indicated that despite Government efforts to improve the procurement system, it is still marred by shoddy works, poor quality goods and services. Improper implementation of recommended performance standards results in unnecessarily high operation costs, uncoordinated business activities, inability to achieve domestic policy goals, and failure to attract and retain professionals; hence Suppliers complain that the public sector does not support buyer supplier relationship. 35% of private manufacturing firms in Kenya have endeavored

to collaborate with their suppliers; they have failed to ensure relationship continuity. This has led to low levels of supplier retention, loss of relationship loyalty, customer dissatisfaction and failure to meet future expectations and intentions (Union Consulting ltd, 2009). This may have been escalated by low levels of information sharing, lack of joint decision making and inability to align incentives which eventually led to low levels of adaptation, trust and commitment. Despite the extent of documented studies on procurement performance there is limited evidence on studies on buyer supplier relationship management on its influence on procurement performance in Kenya. In view of these a dedicated study is required to establish the role of buyer supplier relationship on procurement Performance in the Ministry of East African Affairs, Commerce and Tourism.

Specific Objectives of the Study

- i. To establish the role of supplier segmentation on procurement performance in public sector in Kenya.
- ii. To identify how supplier development influence procurement performance in public sector in Kenya.
- iii. To determine the role of supplier selection on procurement performance in public sector in Kenya.
- iv. To assess the role of information management on procurement performance in public sector in Kenya.

Conceptual Framework

This study seeks to investigate the role of buyer supplier relationship management on distribution performance in Kenya. According to Bogdan and Biklen (2003) a conceptual framework is a basic structure that consists of certain abstract blocks which represent the observational, the experiential and the analytical/ synthetically aspects of a process or system being conceived. It is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. The interconnection of these blocks completes the framework for certain expected outcomes. A variable is a measurable characteristic that assumes different values among subjects.

The dependent variable responds to the independent variable. The independent variables influence the antecedent variables which in turn influence the dependent variable. The study identified the following variables and their relationships which are summarized in the following conceptual framework in figure 1

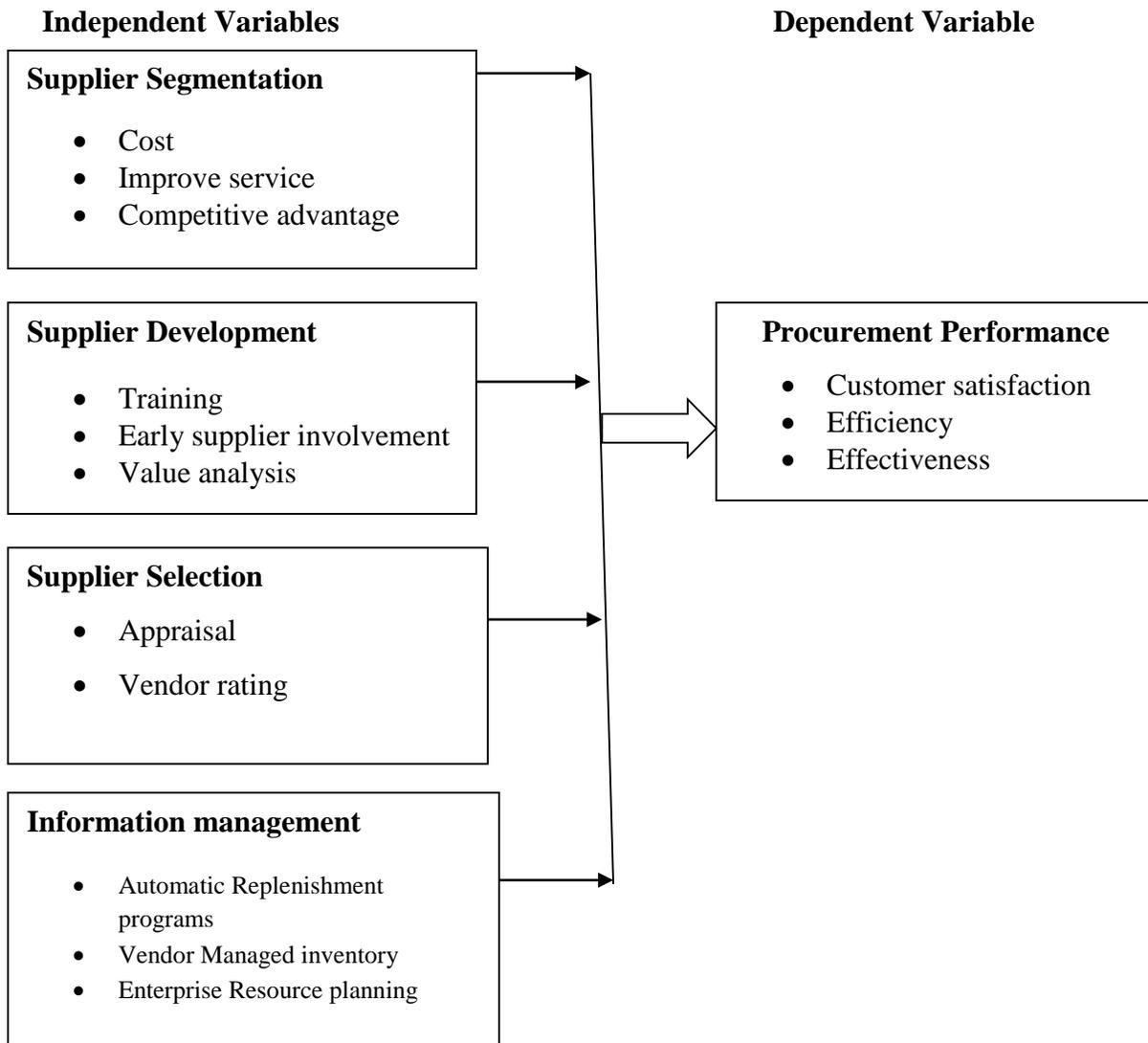


Figure 1 Conceptual framework

Supplier segmentation

Supplier segmentation is the important part of supply relationship management which incorporates differentiating suppliers, preparing supplier segmentation teams, reviewing supplier segments, identifying opportunities with suppliers, developing product/service agreements, implementing agreements, measuring performance and generating supplier/cost profitability reports (Douglas and Lambert, 2004; Sollner and Rese, 2001). According to the material/service supplied suppliers can be classified into one of four quadrants: commodity, strategic, standard, or key. The classification can also depend on money spent, product complexity, breadth of supply base and the volume of supplied goods and/or services (Bueler, 2006).

Supplier Development

There is considerable theoretical support for the assertion that buyers' performance is enhanced through supplier development, especially investments in specialized assets (Williamson, 2005). Supplier development could be considered as actions taken by a buying firm to strengthen the competitive capability of its suppliers. Improvements in performance will happen within the unique exchange relationships developed between the buyer and supplier firms. This will become unique resources and capabilities of the buying firm (Chen. L & Huang, 2006). Hence, ultimately, the buying firm will reap benefits from its supplier development efforts.

Supplier development is obviously a relation-specific program. The buying firm expects to realize an advantage over competing firms by converting general assets (such as money, raw materials, commodities, general people skills) into specific assets and capability (Schoemaker & Amit, 2004).

However, as recognized in transaction cost economics (TCE), increased specialization within a production network cannot be achieved without a cost. When transacting firms make investments in specialization, transaction costs arise because of the fear of opportunism. A central premise of TCE is that transaction costs increase as transacting firms make greater asset-specific investments. Buying firms take a variety of efforts to improve their suppliers' performance and capabilities. Specificity represents transaction-specific investments in the supplier by the buying firm (Williamson & Krause, 2009). Examples include (1) a buyer's direct investment in assets specialized to the buyer and supplier's exchange and (2) a buyer's investments in training suppliers with transaction-specific know-how or providing technical support personnel to suppliers (Joshi & Stump, 2009);

A basic classification often applied in the supplier development literature is the distinction between direct and indirect supplier development (Krause, 1999). This difference is based on the role the buying company plays in terms of the resources it commits to the supplier that is being developed (Monczka et al., 2003). Indirect supplier development is defined as the buying firm committing only limited resources to a supplier (Krause et al., 2000; Monczka et al., 2003). Indirect supplier development activities reported in the literature include buying from alternative suppliers to increase the pressure for current suppliers to enhance performance (Wagner, 2006; Krause, 2009; Nishiguchi, 2004; Dyer and Ouchi, 1993), supplier evaluations (Prahinski and Benton, 2004; Giunipero, 2000), present and future incentives for increased business (Monczka et al., 2003) and recognition and awards for outstanding suppliers (Galt & Dale, 2001).

Direct supplier development is regularly interpreted as the buying firm playing an active role in the supplier development effort by the dedication of capital and/or human resources (Krause et al., 2000; Monczka et al., 2003). Specific activities included in the direct supplier development

classification are the buying firm's training of supplier personnel (Monczka et al., 2003), temporary exchange of personnel between the two firms (Krause, 2007) and direct investments by the buying firm in the supplier (Krause et al, 2000). The direct investments can be allocated to the supplier as plain financial resources or the buying company can purchase equipment for the supplier, among others.

A second classification of supplier development strategies noted in the literature can be considered an extension of the indirect and direct distinction. For this reason, this second classification implicitly divides supplier development strategies on the basis of resources committed to the supplier being developed (Modi & Mabert, 2007; Krause & Scannell, 2002).

This classification identifies four different strategies buying companies can pursue to improve suppliers; competitive pressure, supplier evaluation and certification systems, incentives and direct involvement. The competitive pressure strategy may be applied in case a buying firm is able and willing to switch suppliers. In such cases buying firms may buy from an alternative supplier to put pressure on its main supplier to improve its performance on any relevant performance dimension (Krause & Scannell, 2002). If a supplier, consequently increases performance it may be rewarded with increased business in the future (Tezuka, 2007).

Supplier evaluation and certification systems refer to systems buying companies employ to evaluate and assess a supplier in terms of quality, delivery, costs and technical and managerial capabilities (Han et al., 2000). The outcomes of such a system are used to benchmark suppliers and to obtain insights into areas future supplier development efforts should be targeted (Krause & Scannell, 2002). Incentive strategies are used when buying firms use the consideration of increased volumes and future business to motivate suppliers to improve their performance

(Monczka et al., 2003). Other incentives include the sharing of achieved cost savings (Giunipero,2000) and recognizing best suppliers through awards (Krause et al., 2008).

The last strategy according to this classification, direct involvement, is similar to the direct supplier development dimension within the first classification. It involves a proactive role of the buying company, which is expected to allocate capital and/or human resources to a supplier (Krause et al., 2000) A recently developed classification of supplier development strategies divides supplier development on two dimensions (Sanchez-Rodriguez et al., 2005). This classification separates supplier development activities on the basis of buying firm's involvement and implementation complexity. Here, implementation complexity extends the first two classifications in terms of time and skills, including the necessary resources, needed to implement and execute specific supplier development activities successfully (Sanchez- Rodriguez et al., 2005). Based on the level of buying firm's involvement and implementation complexity, three types of supplier development activities can be identified; basic, moderate and advanced supplier development.

Basic supplier development activities require limited buying firm's involvement and are likely to hold a low implementation complexity (Sanchez-Rodriguez et al., 2005). Supplier development activities considered to be basic include supplier evaluation and feedback, sourcing from a limited number of suppliers, parts standardization and supplier qualification.

Moderate supplier development activities refer to activities demanding moderate levels of buyer's involvement and encompass medium levels of implementation complexity. Activities considered moderate supplier development activities comprise visiting suppliers to assess their facilities, recognizing and rewarding supplier improvements, collaboration with suppliers in terms of components improvement and supplier certification (Sanchez-Rodriguez et al., 2005).

Advanced supplier development activities call for more resources to be allocated than in case of moderate and basic supplier development activities, which is caused by high levels of buying firm's involvement and implementation complexity (Sanchez-Rodriguez et al., 2005). Supplier development activities believed to be advanced consist of training provided to personnel, supplier's involvement in new product development and sharing of vital data by the supplier, including financial, cost and quality related data.

Krause et al. (2007) claim that supplier development may be composed of such activities from a buying firm as "goal setting, supplier evaluation, performance measurement, supplier training, and other related ones". Previously Krause (1997) claimed that direct involvement as a factor of supplier development consisted of a set of practices such as: formal supplier evaluation, certification, recognition, informal supplier evaluation, supplier site visits, training, and buyer sites and facilities visits, as well as verbal or written demand for performance improvement. This set of practices composing direct involvement indicates a multidimensional nature of supplier development.

Supplier Selection

Whereas (Gary, 2004) defines supplier selection process means analyzing and comparing current supplier with the newly acquired ones with the aim of selecting one who will satisfy the requirements of the procurement department. Youssef et al (2006) defines suppliers' selection as process of choosing the right supplier which involves much more than scanning a series of price lists depending on a wide range of factors such as value for money, quality and reliability and services. Kenneth Lyson (2000) looks at supplier selection as a systematic approach of identifying source supplier with who to transact business.

Bailey, Jessop & Jonacs (2008) point out that prior to every buying situation it is essential to first identify the suitable suppliers. The most interesting buying situation is when an item is bought for the first time. The supplier's expertise in such a situation may be used in drawing up the specification and many departments may participate. Source selection starts with determining all potential suppliers and continues eliminating them based on the criteria's established until the number is reduced to a workable few.

Buying firms may use a variety of activities to develop their supplier. These activities include supplier evaluation as a requirement for supplier selection, organization workshop for supplier personnel, direct investment in supplier's operation by the buying firm (Monezka & Tent 1993, Blemans & Brand 1995). Supplier selection is important because it prequalifies their suppliers in order to encourage transparency, competitiveness and fairness.

Information management

Saunders (2007) reckoned that personnel in procurement are, in a sense, information processors. They receive, analyze, make decisions and distribute information in order to manage the flow of goods and services in the SC. ICT is an enabler for information sharing which organizations in the procurement system can use for eliminating bloated inventory levels caused by the cumulative effect of poor information cascading up through a SC. Daugherty, Myers and Autry (2009) averred that information integration is also a key component in many automatic replenishment programs (ARP). Initiatives such as vendor managed inventory (VMI) and collaborative planning, forecasting and replenishment (CPFR) are based on an increased level of automation in both the flow of physical materials, goods and associated information between companies to improve the efficiency in the entire system. It shortens information processing time and tremendously improves procurement performance.

Process integration can enhance procurement performance. ICT provides new ways to store, process, distribute and exchange key information with customers and suppliers in the entire procurement system. Simatupang and Sridharan (2005) emphasised that information is the glue that holds organisations together and can be used to integrate procurement process activities both within a process and across multiple processes. Information on demand, forecasting and replenishment is recognized as a central component in integration of planning and control. Internal integration focuses on cross-functional processes. Externally, focus is on relationships with outside customers and suppliers. A relationship can have various intensity levels ranging from lowest open-market negotiations, cooperation and coordination to the highest collaboration level.

Collaboration in procurement is based on a high degree of trust, commitment and information-sharing. It requires linking performance systems with decision making, information sharing and incentive alignment in the SC. Sriram and Stump (2004) reckoned that enterprise resource planning (ERP) systems are essential for supporting internal information sharing. Externally, inter-organizational information systems (IOIS) constituting automated information systems shared by various firms can be used to support information-sharing with customers and suppliers. ICT contributes to improved communications patterns, increased demand for coordination of joint activities and new organisational structures through its ability to store transmit and process information and speed up inter-organisa-tional activities. Organisations have huge amounts of raw procurement data but are poor at converting same into market knowledge. They should strive to find trends, patterns and connections in data in order to inform and improve competitive procurement performance.

Thomas and Rainer (2005) opined that procurement systems have long been supported by ICT. With the implementation of ERP systems in the 1990s, EDI connections with suppliers were

established through automation of delivery schedules by linking user materials management system with supplier systems. ICT enables organisations to decentralise operational procurement processes and centralise strategic ones due to higher transparency. Prior to e-procurement, strategic procurement often dealt with routine tasks such as individual transactions. Strategic aspects were frequently neglected, with the buyer having little influence over the choice of suppliers and purchased products. Internet technologies facilitate faster and more efficient operational procurement processes enabling managers to concentrate on strategic tasks.

Christopher (2005) contended that there is a dimension to information that enables supply and demand to be matched in multiple markets, often with tailored products, in ever-shorter time frames. This enables suppliers to react in real-time to market changes. ICT serves as the connection between various stages of the system, allowing them to co-ordinate and maximise total supply profitability. It is crucial to the daily operation of each stage in the procurement process.

Rapid growth of importance of ICT application is a testimony to its impact on improving procurement performance. This is achieved through Internet, Intranet and Extranet. However, organisations must make a trade-off between efficiency and responsiveness.

Bowersox, Closs and Cooper (2007) argued that ICT provides the means for collecting relevant demand data, developing a common database and providing a means for transmitting order information. It allows organisations to change the way they source supplies for smooth operations. Auto makers Ford Motor Company, DaimlerChrysler and General Motors have transacted their businesses on Internet since year 2000 and registered positive results. Based on expected procurement efficiencies, the firms' procurement and product development costs fell by 16%, a reduction that resulted in saving approximately US \$ 1,000 per motor vehicle. Chopra, Meindl,

and Dhamram (2007) asserted that ICT provides a collaboration platform by allowing customers and suppliers to work together on product design using specialist ICT design tools.

Methodology

The study used descriptive design. Creswell (2003) observes that a descriptive research design is used when data is collected to describe persons, organizational settings or phenomenon. The research design constitutes the blue print for the collection, measurement and analysis of data, (Kothari, 2004). The unit of analysis of the study was Procurement staff at Ministry Of East African Affairs, Commerce and Tourism comprising of a total of 270 staff. Thus buyer supplier relationship and its application are relevant at this level prompting the choice of the departments.

According to Mugenda & Mugenda, (2003) supports a sample size of 50% and therefore the samples size of this study was 135 respondents of the target population of 270 employees. The study used purposive sampling method because the study got responses from a particular group of respondents. This would enable generalization of a larger population with a margin of error that was statistically determinable.

The study used questionnaires with both closed-ended and also a few open ended questions as the data collection tools. Descriptive statistics such as means, standard deviation and frequency distribution was to analyze the data the statistically. Regression models were used to analyze relationships and predictions among variables under the study. Multiple regression analysis was used to determine the relationship between dependent (procurement performance) and independent

variables (Supplier segmentation, supplier development, and supplier selection and Information management) the regression model will thus become

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \sum$ Whereby: β_0 is the regression intercept; β_1 - β_4 are the regression coefficients; Y is the dependent variable (Procurement Performance); X_1 = Supplier Segmentation; X_2 = supplier development; X_3 = Supplier Selection, X_4 = Information management

Analysis of variance (ANOVA) was used to test the significance of the overall model at 95% level of significance. According to Mugenda (2008) analysis of variance is used because it makes use of the F – test in terms of sums of squares residual. The information obtained was codified and entered into a spreadsheet and analyzed using Statistical Package for Social Sciences (SPSS version 21). SPSS Version 21 has got descriptive statistics features that assist in variable response comparison and gives a clear indication of response frequencies (Mugenda and Mugenda, 2003). The SPSS version 21 also offers extensive data handling capabilities and numerous statistical routine that can analyze small to very large data statistics (Donald & Tromp, 2006). Chava (1996) adds that the language of SPSS is logical and quiet simple.

Findings

The study targeted 135 respondents and 110 questionnaires were filled and returned. Therefore the response rate was 81.4%. According to Babbie (2012), any response of 50% and above is adequate for analysis.

Procurement Performance

The study sought to determine the how buyer- supplier relationship management affects procurement performance.

Procurement strategy encourages buyer-suppliers relationship

The respondents were requested to indicate their level of agreement with the assertion that Procurement strategy encourages buyer-suppliers relationship. Majority of the respondents (59%) strongly agreed that Procurement strategy encourages buyer-suppliers relationship. 31% of the respondents agreed with the statement while 10% disagreed with the statement that Procurement strategy encourages buyer-suppliers relationship. The findings are as shown in figure 2

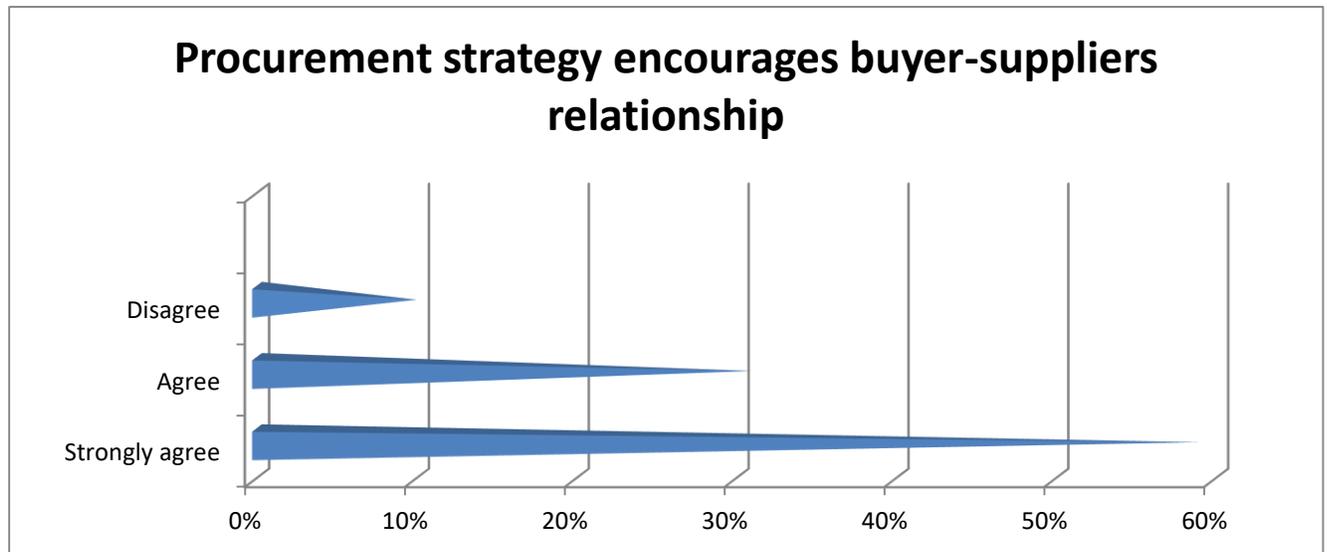


Figure 2; Procurement strategy encourages buyer-suppliers relationship

Measures of Buyer-supplier relationship

The respondents were requested to indicate their level of agreement with the assertion that a Control measure ensures good Buyer-supplier relationship management. Majority of the respondents (63.36%) strongly agreed that Control measures ensures good Buyer-supplier relationship management. 27.56% of the respondents agreed with the statement while 9.21% disagreed with the statement that Control measures ensures good Buyer-supplier relationship management. The findings are as shown in figure 3

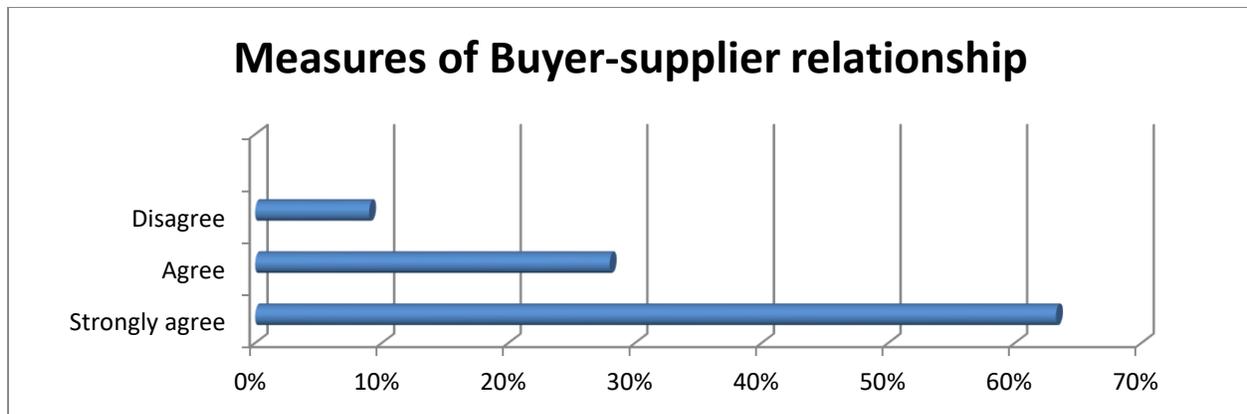


Figure 3; Measures of Buyer-supplier relationship

Low inventories is due to good buyer-supplier relationship management

The respondents were requested to indicate their level of agreement with the statement that a low inventory is due to good buyer-supplier relationship management. According to the findings, 59% strongly agreed that low inventories is due to good buyer-supplier relationship management, 26.35% agreed that Low inventories is due to good buyer-supplier relationship management while 14.25% of the respondents disagreed with the statement that Low inventories is due to good buyer-supplier relationship management. The findings are as shown in figure 4

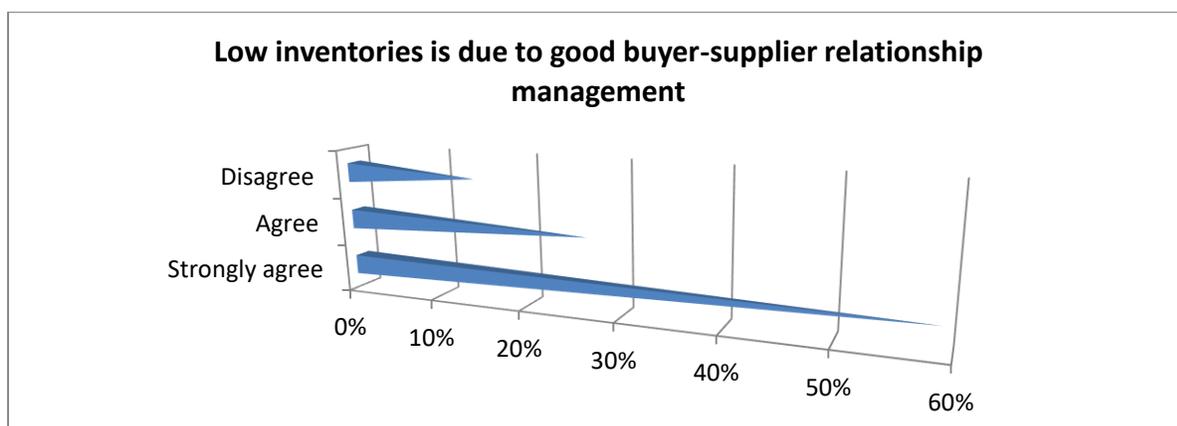


Figure 4: Low inventories is due to good buyer-supplier relationship management

Few suppliers due to good practice of buyer-supplier relationship management

The respondents were also requested to indicate their level of agreement with the statement that organization have few suppliers due to good practice of buyer-supplier relationship management. According to the findings, Majority of the respondents (57%) strongly agreed with the statement, organization have few suppliers due to good practice of buyer-supplier relationship management, 20% agreed with the statement that organization have few suppliers due to good practice of buyer-supplier relationship management, 17 % disagreed with the statement while 6% strongly disagreed with the statement. The findings are as shown in figure 5

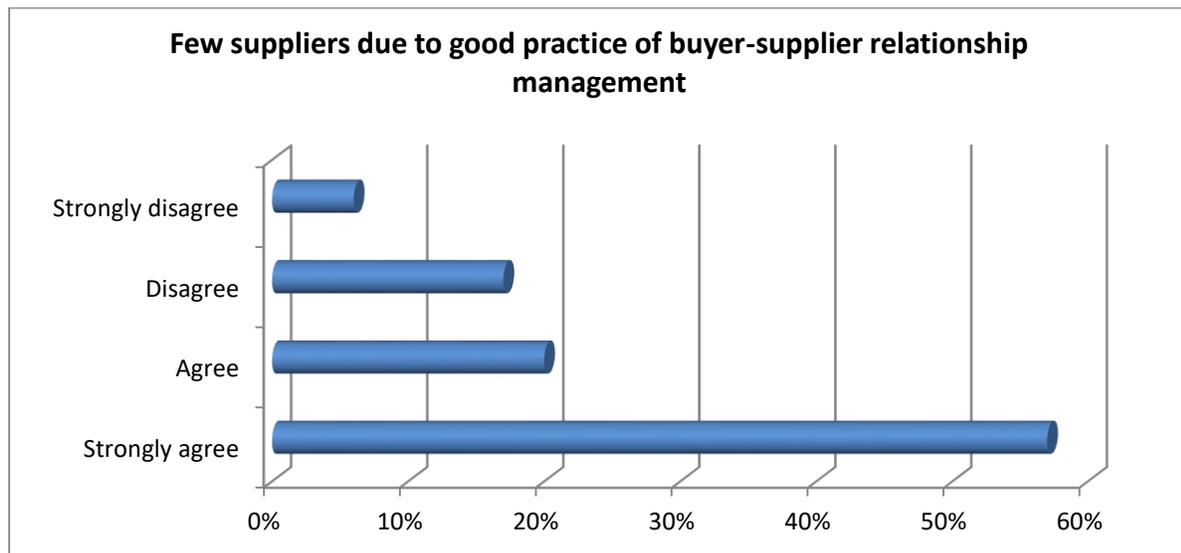


Figure 5; Few suppliers is due to good practice of buyer-supplier relationship management

Information sharing with suppliers aims at improving their performance

The respondents were requested to indicate their level of agreement with the statement that Information sharing with suppliers aims at improving their performance. According to the findings, 63% of the respondents strongly agreed that the Information sharing with suppliers aims at improving their performance, 22% of the respondents agreed that Information sharing with

supplier's aims at improving their performance, 11% of the respondents disagreed with the statement while 4 % of the respondents were undecided. The findings are as shown in 6

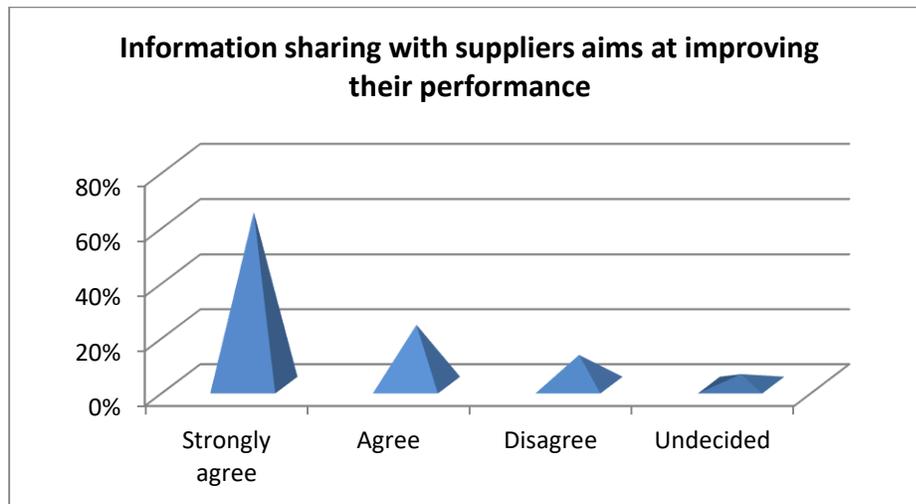


Figure 6; Information sharing with suppliers aims at improving their performance

Regression Analysis

The researcher conducted a multiple linear regression analysis so as to determine the relationship between the procurement performance and the four independent variables. The regression model was; $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ Whereby: β_0 is the regression intercept; β_1 - β_4 is the regression coefficients; Y is the dependent variable (procurement performance); X_1 is the supplier segmentation; X_2 is supplier development; X_3 is supplier selection and X_4 is Information Management. The researcher applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study.

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the

dependent variable. The four independent variables that were studied, explain 81.4% of the procurement performance in Kenya as represented by adjusted R square. This therefore means that other variables not studied in this research contribute 19.6% of the role of Buyer Supplier Relationship Management on procurement performance in Kenya. Therefore, further research should be conducted to investigate the other variables and factors (19.6%) that influence procurement performance in Kenya.

Table 1; Model Summary

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.957 ^a	.915	.814	.55499

a. Predictors: (constant), Supplier segmentation; Supplier development; Supplier selection and Information Management.

ANOVA

Table 2, shows the regression and residual (Error) Sum of squares. The variance of the residuals (or errors) is the value of the mean square which is 803.196. As can be observed in table 4.8, the predictors X1-X4 represent the independent variables, which are the factors enhancing procurement performance in public sector. Table 2, also provides the data to compute R². this is sum of squares-regression divided by sum of squares total R squared. $SS\text{-regression}/SS\text{-total}$ $3212.784/4=803.196$. Table 2, reports that the summary of ANOVA and F-statistic which reveals the value of F (1.204) is significant at 0.05 confidence level. The value of F is large enough to conclude that the set independent variables X1-X4 are the factors enhancing procurement performance in public sector in reference to Ministry of East African Affairs Commerce and Tourism.

Table 2;ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3212.784	4	803.196	1.204	0.05
Residual	314.535	105	2.329		
Total	3527.317	109			

Regression Coefficient

The possible value of Y when all independent variables are equal to zero is 5.063. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in supplier development will lead to a 0.354 increase in procurement performance; this means there is a significant relationship between supplier development and procurement performance. The *P*-value was 0.040 and thus the relationship was significant. A unit increase in supplier selection will lead to a 0.348 increase in procurement performance; this means that there is a significant relationship between supplier selection and procurement performance. The *P*-value was 0.030 and thus the relationship was significant. A unit increase on information management will lead to a 0.338 increase in procurement performance; this means there is a significant relationship between information management and procurement performance in Kenya. The *P*-value was 0.020 and thus the relationship was significant. Lastly, a unit increase in supplier segmentation will lead to a 0.312 increase in procurement performance; this means that there is a significant relationship between supplier segmentation and procurement performance. The *P*-value was 0.010 and thus the relationship was significant. This infers that supplier development influences the procurement performance most followed by supplier selection, information management and finally supplier segmentation.

As per the SPSS generated coefficient table 3, the equation

$(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon)$ becomes:

$Y = 5.063 + 0.354X_2 + 0.348X_3 + 0.338X_4 + 0.312X_1$ Y is the dependent variable (procurement performance); X_1 is the supplier segmentation; X_2 is supplier development; X_3 is supplier selection and X_4 is Information Management.

Table 3: Regression Coefficient

Model	Unstandardized		Standardized T	Sig.	
	Coefficients				
	B	Std. Error	Beta		
(Constant)	5.063	3.061	1.652	.104	
Supplier segmentation	0.312	0.073	0.204	2.221	0.010
Supplier development	0.354	0.079	0.623	5.344	0.040
Supplier selection	0.348	0.058	0.375	3.063	0.030
Information Management	0.338	0.039	0.472	5.328	0.020

a. Dependent Variable: Procurement performance

Summary of Findings

Several empirical studies have investigated the effect of supplier segmentation, supplier development, supplier selection and information management on procurement performance. Many of these studies, however, are concentrated in developed countries or in countries with jurisdictions not similar to Kenya. Few have attempted to demonstrate the effects of these factors in the private sector. This study sought to determine the role of buyer-supplier relationship management on procurement performance in the public sector in Kenya with specific focus on the Ministry of East

African Affairs, Commerce and Tourism by looking at supplier segmentation, supplier development, supplier selection and information management on procurement performance.

The first objective of the study was to establish the role of supplier segmentation on procurement performance in public sector in Kenya. According to the findings, study indicate that 44% of supplier segmentation depend on money spent on them, again respondents with the 36% indicated that supplier segmentation depend on quality of commodity they supply and 30% of the respondents indicated that supplier segmentation depending on complexity and expertise of the commodity they supply. According to the findings, the respondents strongly agreed that supplier segmentation reduces operation Cost with 20%. Respondent agreed that supplier segmentation improve service delivery by 25%, they agreed that supplier segmentation creates Competitive advantage by 16%, Supplier segmentation has enhanced Quality service by 15% and supplier segmentation enhance Cost for sourcing is minimized by 24%.

The studies revealed that supplier development improve procurement performance. According to the findings, the study strongly agreed with a mean of 4.25 that suppliers are strengthen making them competitive. The study also agreed with a mean of 2.31 that suppliers are involved at early stages when choosing the goods. The study strongly agreed with the mean of 3.26 that the organization gives financial support to the suppliers. Buying firm expects to realize an advantage over competing firms by converting general assets (such as money, raw materials, commodities, general people skills) into specific assets and capability.

The third objective of the study was to determine the role of supplier selection on procurement performance in public sector in Kenya. The finding indicated that supplier selection encourage buyer supplier's relationship. According to the study, the respondents strongly agreed that they recognize and awards the outstanding suppliers. Again the study strongly agreed that they

considered quality and reliability when selecting a supplier. The study further agreed with a mean of 4.35 that they practice supplier evaluation, and they training and support their suppliers.

The fourth objective was to assess the role of information management on procurement performance in public sector in Kenya. According to the findings the study agrees that ICT enables information sharing within the organizations. Again the study agreed that the organization have integrated and automated its operation. The study further agreed that ICT have provided exchange of key information with customers and suppliers in the entire procurement system. IT has linked the user materials management system with supplier systems. Again ICT enables organizations to decentralize the procurement processes while the study agrees that IT have changed the way we source for supplies.

Conclusion of the study

From the findings the study concludes that supplier segmentation is significant in affecting procurement performance. According to the findings, study indicate that supplier segmentation depend on money spent on them, again supplier segmentation depend on quality of commodity they supply and supplier segmentation depending on complexity and expertise of the commodity they supply. According to the findings, the study strongly agreed that suppliers are strengthen making them competitive, the study also agreed that suppliers are involved at early stages when choosing the goods and the organization gives financial support to the suppliers. In conclusion, supplier selection encourages buyer supplier's relationship, and should consider quality and reliability when selecting a supplier. Again organization should evaluate their suppliers training and support them. The study agrees that ICT enables information sharing within the organizations, organization should integrated and automated its operation, ICT have provided exchange of key information with customers and suppliers in the entire procurement system. IT has linked the user

materials management system with supplier systems. Again ICT enables organizations to decentralize the procurement processes while the study agrees that IT have changed the way we source for supplies.

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