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COAST PROVINCIAL GENERAL HOSPITAL**

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**ABSTRACT**

*The general objective of this study was to assess the effect of supplier evaluation on performance of procurement contract in Coast General Hospital in Kenya. This research adopted a quantitative correlation research design to address the formulated hypotheses. Stratified random sampling technique was used to select 70 respondents from the target population of 85 respondents in five departments in Coast General Hospital in Kenya. Primary data was collected by use of self-administered structured questionnaires which was distributed through the drop and pick method. Data analysis was by descriptive statistics and inferential statistics using Statistical Package for Social Sciences (SPSS) version 24. The Pearson's product moment correlation analysis and standard multiple regression analysis was used for hypotheses testing. The data was presented using tables, and figures for the purpose of giving a pictorial view of the results. The study revealed that supplier evaluation had statistically significant effect on procurement contract performance in Coast Provincial General Hospital. Supplier collaboration had a statistically significant effect on procurement contract performance in Coast Provincial General Hospital. Financial stability had a statistically significant effect on procurement contract performance in Coast Provincial General Hospital. Supplier technical competency had a statistically significant effect on procurement contract performance in Coast Provincial General Hospital. Supplier ethics had a statistically significant effect on procurement contract performance in Coast Provincial General Hospital. The study recommended that the Coast Provincial General Hospital should adopt supplier collaboration, financial stability, supplier technical competency and supplier ethics in order to foster procurement contract performance in Coast Provincial General Hospital.*

**Key terms:** Accountability, E- Procurement, Governance, Performance, Procurement, Procurement policies, Supplier management, Transparency, Training

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## INTRODUCTION

According to (Gordon 2010) Purchasing and Supply for years has been used to offer procurement materials, suppliers and services. Recently the term "supply management" has increasingly been of useful significance to the procurement process. Employees who were participating in this sector were known as buyers, purchasing agents or supply managers who have contributed in making supply chain successful. By the year 2010, there were few purchasing departments which existed in US business (Chen, 2013). Supplier evaluation has been a significant process for any organization because on average, products that are purchased account for between forty and sixty percent of sales of end products (Chartered Institute of Procurement and Supply 2013). This directly influence the quality and cost of purchased products; a small gain in cost due to supplier evaluation has significant benefits for organizations. Supplier evaluation is one of the activities executed by procurement staff and one whose effective execution determines the success or failure in the performance of procurement contract.

The role of the procurement function in organizations has received and continues to receive increasing attention as the years go by (Johnson, Lenders, & Flynn, 2012). Procurement enhances efficiency and competitiveness among other benefits but to realize these benefits, it is imperative to look at strategic factors that affect the contract of the procurement function. Evaluation and maintaining competent suppliers is very essential in procurement. However, many factors affect a firm's ability to choose the right supplier. In the 20th century, purchasing departments existed in railroad industry. There were several books on purchasing which were published for discussion of purchasing practices and concerns and were tailored to specific industries in technical trade. In the year 2015, the founding of the National Association of purchasing agents, helped purchasing departments to grow industrially.

This organization eventually became known as the National Association of Purchasing management (NAPM) and is still active today under the name the Institute for supply Management (ISM).

Purchasing as an academic discipline was furthered with the printing of the 1st college textbook on the subject, authored by Howard Lewis of Harvard in 2013. Early buyers were responsible for ensuring a reasonable purchase price and maintaining operations avoiding shutdowns due to the stock outs. Both worlds brought more attention to the profession due to shortage of materials in the market. In 2007 purchasing personnel became more integrated with a materials system and by 2010 purchasing agents were basically serving in a staff support position (Johnson, Lenders, & Flynn, 2012). Supplier evaluation strategy has also been important to the procurement contract because it has assisted an organization in assuring the right competences among procurement staff and the right tools to support an efficient administration, for example e-procurement; Support the achievement of organizational objectives by linking them with the procurement goals (Chen, 2013).

Coast Provincial General Hospital was founded in 1908 as the Native Civil Hospital in the Makadara area of Mombasa Island. In 1957 new group hospital was built in Tononoka area as outpatient facility with Lady Grigg maternity built adjacent to it by Municipal council of Mombasa. In 1958 new group hospital renamed Coast province general hospital and expanded to include administration and inpatient wards. In 1971 the Ministry of Health took over Lady Grigg maternity hospital and adjacent maternity home by Rahimtullah trust to be part of Coast general hospital and carried out major expansion in 1981. Between 1998 and 2000, Japan International Cooperation Agency (JICA) sponsored major expansion at the cost of ten million dollars to construct new millennium maternity wing and a modern kitchen

The objective of every organization is to minimize limited opportunity in the most efficient manner to realize its goal with minimal costs. This necessitates the evaluation of suppliers to ensure that an organization gets the best contracts in terms of quality, costs, flexibility and reliability; however, many organizations feel that supplier evaluation does not have much influence on the buying decision since the buying decision is mostly determined by price (Kavale&Mwikali, 2012). Thus, suppliers feel that high scores on the supplier evaluation sheet is more a question of playing games and showmanship than one of dedication to improvement. Effective supplier evaluation is a holistic process and starts with alignment of objectives, data capture and analysis, all the way to communication with suppliers, in a transparent manner.

The choice of an organization's supplier should be guided by an elaborate evaluation of the potential suppliers since the suppliers can impact the performance of any procurement function or process. Delayed deliveries, poor quality products or services, non-completion of orders and even threats of litigation due to delayed payments is a common scenario experienced by Coast General Hospital. Report by PPOA (2016) indicates that up to 30% of procurement inefficiencies in the Coast General Hospital are attributed to supplier's performance issues.

There is therefore concern as to what can be done to reduce supplier related procurement issues. One of the ways through which organizations strive to reduce supplier related inefficiencies is through evaluation of suppliers. In ideal situations, supplier evaluation is expected to positively influence procurement performance. However, it is puzzling to note that the relation has not been the case as studies reveal mixed findings with some indicating significant positive relationship while others indicate insignificant relationship. As reported by PPOA, in Coast General Hospital, suppliers are in most cases

conventionally selected based on low price and less importance is given to the suppliers who give assurance of on time delivery and long-term relationships. The question arises in this case as to what criteria the Coast General Hospital should use in selecting their suppliers for better procurement performance. Supplier evaluation is arguably one of the popularly used approaches of ensuring the right suppliers are awarded contracts. It is for this reason that this study will intend to fill the research gap by focusing on the role of supplier evaluation on procurement contract performance in Coast General Hospital.

### **Research Objectives**

- To establish the effect of supplier collaboration on the performance of procurement contract at Coast General Hospital.
- To assess the effect of financial stability on the performance of procurement contract at Coast General Hospital
- To assess the effect of supplier technical competency on the performance of procurement contract at Coast General Hospital.
- To evaluate the effect of supplier ethics on the performance of procurement contract at Coast General Hospital.

### **Research Hypothesis**

- **H01:** Supplier collaboration has no significant effect on the performance of procurement contract at Coast General Hospital.
- **H02:** Financial stability has no significant effect on the performance of procurement contract at Coast General Hospital.
- **H03:** Supplier technical competency has no significant effect on the performance of procurement contract at Coast General Hospital.
- **H04:** Supplier ethics has no significant effect on the performance of procurement contract at Coast General Hospital.

## RELATED LITERATURE

### Theoretical Framework

#### Supply Chain Management Theory

Supply chain has its origin in Porter's (1985) value chain, which is the set of processes a firm uses to create value for its customers. Although originally described as a chain, supply chain can nowadays be defined as the network of organizations that are involved through upstream and downstream linkages in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer (Christopher, 2005). The chain involves two or more legally separated organizations that are linked together by material, information or financial flows and includes the ultimate customer. The objectives of the supply chain are to provide service to customers by bringing goods closer to customer reach, achieve low operating costs and minimize the assets in the chain (Skjott-Laysen, Schary, Mikkola, & Kotzab, 2014). Many companies and state corporations are now looking at securing cost, quality, technology and other competitive advantages as strategies to pursue in a globally competitive environment and to achieve this government corporations are focusing on their supply chain management capability by investing in supplier evaluation management.

Supply chain management is an important multi-disciplinary topic in modern business management and research. It enhances organizational productivity and performance through a revolutionary philosophy to managing the business with sustained competitiveness (Gunasekaran, Patel, & McGaughey, 2014). Supply chain management emphasizes the overall and long-time benefit of all parties in the supply chain through co-operation and information sharing (Yu, Yan, & Cheng, 2011). Simchi-Levi *et al.* (2009), define Supply chain management as a set of approaches used to efficiently integrate suppliers, manufacturers, warehouses and stores so that

products are produced and distributed at the right quantities, to the right locations, and at the right time in order to minimize system-wide costs while satisfying service-level requirements.

#### The Lean Supply Chain Theory

Lean supply chain management is a set of organizations directly linked by upstream and downstream flows of products, services, finances and information that collaboratively work to reduce cost and waste by efficiently and effectively pulling what is required in meeting the needs of the individual customer. Lean thinking in the supply chain is the use of lean principles to align activities across corporate functions within the firm and to manage business relationships with customers and suppliers (Lambert 2018). The core concept of lean thinking is the Japanese term Muda exemplified by the practices of Japanese motor manufacturing (Lysons & Farrington, 2012). Muda means waste or any human activity that consumes resources but creates no value. In the lean paradigm, activities that consume resources but generate no redeeming value in the eyes of the consumer are waste that must be eliminated (Womack & Jones, 2013).

Manrodt and Vitasek (2013), defined lean as a systematic approach to enhancing value to the customer by identifying and eliminating waste through continuous improvement by flowing the product at the pull of the customer in pursuit of perfection. It calls for organizations to analyze business processes systematically to establish the value adding processes and identify the incidence of this waste (Harrison & Van Hoek, 2015). Lean Supply chain seeks to reduce wastes found anywhere in the supply network, standardizes processes across traditional, vertical organizations, and optimizes core resources. The non-value adding activities in manufacturing companies includes overproduction, waiting wastes, inappropriate processing, unnecessary inventory, unnecessary motion by operators and waste due to defects.



### **The Agile Supply Chain Theory**

The market environment has become more dynamic and turbulent; companies need to adopt new supply chain strategy for them to remain competitive. Supply chain management is now moving away from traditional processes to agile capability of competitive bases of speed, flexibility, innovation, quality, and profitability through the integration of reconfigurable resources and best practices in a knowledge-rich environment to provide customer-driven products and services in a fast-changing market environment (Yusuf et al., 2014). Agility is a business-wide capability that embraces organizational structures, information systems, logistics processes and in particular, mindsets (Christopher, 2013). Lee (2014) argues that supply chain agility aims at responding quickly to short-term changes in demand or supply and ensure that the company handles external disruptions smoothly. Christopher (2013) identified four characters of agile supply chain that included sensitivity, virtuality, process integration and network based. Process integration means collaborative working between buyers and suppliers, joint product development, common systems and shared information.

Agile supply chain is market sensitive and needs the supply chain members to be able to read and respond to the market demand. The supply chain members should show the willingness to create an environment in which information can flow freely in both directions in the chain for them to achieve a more agile supplier base. Christopher (2013) argues that leveraging supplier relations allows companies to create agile supply chains by reducing lead time between organizations. The leverage of respective strengths and competencies of network partners assists to achieve greater responsiveness to market needs (Christopher, 2013). Krajewski et al. (2012) asserts that efficient supply chain has the qualities of make to stock, low capacity cushion, low inventory investment, short lead time, emphasis low process

with consistent quality and on time delivery while for responsive supply chain include assemble to order with emphasis on product variety operational strategy, high capacity cushion, just as needed inventory to enable fast delivery time, shorten lead time and emphasis on fast delivery time, customization, and flexibility. It is through information sharing and collaboration that the company will have responsibility in assisting its external suppliers to improve quality, delivery time and service performance. This requires real time market feedback on actual customer requirements without making forecasts based upon past sales or shipments.

### **Supply Chain Integration Theory**

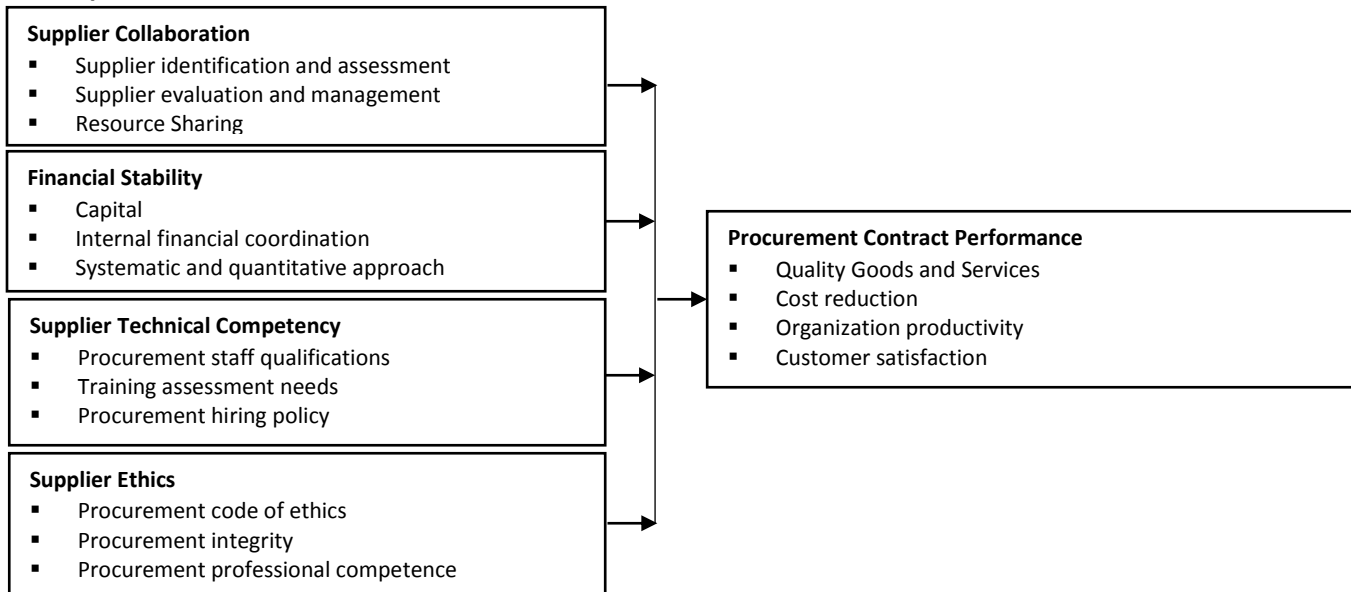
Integration is a process of interaction and collaboration in which companies in a supply chain work together in a cooperative manner to achieve mutually acceptable outcomes (Pagell, 2014). Kim and Narasimhan (2012) asserts that supply chain integration links an organization with its customers, suppliers and other channel members by integrating their relationships, activities functions, processes and locations. According to Lambert (2014), successful supply chain management requires cross-functional integration of key business processes within the company and across the network of companies that consist of the supply chain.

Organizations must integrate their operations with trading partners in order to sustain competitive advantage for the whole supply chain (Lambert & Cooper, 2010). Power (2015) asserts that integration involves the cooperation, collaboration, information sharing, trust, partnerships, shared technology and a fundamental shift away from managing individual functional processes to managing integrated chains of processes. Kwon and Suh (2014) consider supply chain integration to be a strategic tool that aims to reduce costs and thus increase customer and shareholder value. Supply chain integration is a good approach for improving business performance in a

highly competitive market (Narasimhan, Jayaram, & Carter, 2012). Frohlich and Westbrook (2011) assert that the highest levels of integration with both

suppliers and customers have the highest correlation with high levels of an organization's performance.

### Conceptual Framework



### Independent Variable

### Dependent Variable

**Figure 1: Conceptual Framework**

**Source: (Author, 2019)**

### Supplier Collaboration

Collaborative approaches have been shown to deliver a wide range of benefits which enhance competitiveness and performance in terms of better cost management, improved delivery time, improved resource management, improved risk management and delivering incremental business value and innovation (Lysons & Farrington, 2012). Competitive supply chains should be able to integrate supply and demand through collaboration in order to deliver significantly improved performance in procurement contract (Barratt, 2004). Organizations that have incorporated supply chain collaboration among their chain member realizes improved forecast, more accurate and timely information, reduced costs, reduced inventory and improved customer service in their business operations (Simatupang & Sridharan, 2005; Barrat & Oliveira, 2001; Whipple *et al.*, 2007).

Collaborative supply chain initiatives continue to be developed and gain prominence based on the assumption that closer inter-enterprise relationships and enhanced information exchange will improve the quality of decision-making and hence improve performance of procurement contract (Ahmed & Ullah, 2012). Vertical collaboration enables the suppliers to quickly respond to customer expectations, good product innovations and anticipate customer needs (Tsai, 2006).

Derocher and Kilpatrick (2016) affirmed that a strong relationship increases the likelihood for organization to exchange critical information as required to collaboratively plan and implement new supply chain strategies. Simatupang and Sridharan (2013) argues that effective collaboration requires mutual objectives, integrated policies, appropriate performance measures, a decision domain, information sharing, and incentive alignment. Ryu et

al., (2014) asserts that when companies collaborate, they open their information, knowledge and assets to their partners. The sharing of information, decision synchronization and incentive alignment aid the members to maximize their market share, minimize running costs and ensure reliable and timely delivery of products to customers (Sandberg, 2017).

Supply chain collaboration can help in the coordination in supply chain. Chopra and Meindl (2015) argues that supply chain coordination occurs when all the different stages of supply chain work toward the objective of maximizing total supply chain profitability rather than each stage devoting itself to its own profitability. Integration of key business processes in a supply chain is best achieved through collaboration of business partners (Christopher, 2005). Collaborative relationship is multi-dimensional and might involve parties including external partners or alliances, suppliers and customers who work together. Handfield and Nichols (2003) argue that without a foundation of effective supply chain relationships, any effort taken to manage the flow of information or materials in a supply chain is likely to be unsuccessful.

### **Financial Stability**

Supplier's financial condition need to be evaluated at the earliest stages of supplier appraisal. Some purchasers view the processes as a pre-screening exercise that a supplier must pass before a detailed evaluation process can begin (Handfield et. al., 2008). According to the Chartered Institute of Purchasing and Supplies (2012) financial status and stability are measured by factors such as profitability, cash flows management, assets owned, debts owed among other factors. The financial criterion is important since selection of a supplier with poor financial conditions presents several dangers to the purchaser. To start with, is the danger that the supplier will go out of business. Then suppliers with poor financial health will not have resources to invest in plant, equipment, or research necessary for long-term

performance improvements. Thirdly, the supplier may become so financially dependent on purchaser. Lastly, financial weakness seems to be an indication of underlying problems (Handfield et al., 2008).

The financial stability will equally reflect on the ability of suppliers to meet the current contract with the purchaser and to ensure a secure future flow of supplies. The financial records may also indicate the risk of delivery or quality problems and more disruptions to supply and more complex legal issues if a supplier becomes insolvent. A supplier that is financially unstable poses three nightmares to the buyer. A buyer may need to insist on quality but the supplier is forced to cut on costs; a buyer may have a claim against the supplier but he may not have sufficient working capital; to meet it and a buyer may wish to insist on speed delivery but supplier cannot pay overtime (Lysons, 2008). The information provided by the supplier balance sheet and income statement will give the basis for computing ratios that provide additional insights into a supplier's financial health. Suppliers' solvency should be of primary concern because it is more likely to be an immediate threat to continuing operations. A buyer should equally look at a supplier's price and cost factors.

### **Supplier Technical Competency**

Supplier staff competency seeks to analyze and improve the performance of work units, departments, and the whole organization. Organizational capacity building in terms of competence is a system-wide, planned effort to increase organizational performance through purposeful reflection, planning, and action. Capacity building looks in depth at where an organization stands in comparison to where it hopes to be in the future and develops the skills and resources to get there (Theisohn & Lopes, 2013). There is a major concern on the level of competency on the government side in the conduct of procurement and supplier evaluation. There is a shortfall of professional capacity in many countries. This stems



from a shortage of experienced procurement professional staff, inadequate training and low pay. The development of procurement professionalism is of prime importance in the development of procurement system in the Coast General Hospital.

The level of professionalism requirements for officials conducting and authorizing procurement functions is not taken seriously. Several countries in Africa have no procurement qualifications as are requirement for employment. Instead they provide a minimum civil service qualification to serve as a procurement officer. Some countries show that familiarity and on the job training as the standard measure for one to carry out procurement function. Some argue that there is no need for degree requirement or study background in the field of purchasing or supply and materials management (OECD, 2015).

Better use of budget resources allocated to public investments and public procurement conditions, including the control of corruption, are imperative for successful economic reform. In the African region, the total amount of public procurement contracts awarded amounted to more than US\$ 50 billion (AFDB, 2016).

### **Supplier Ethics**

Ethics are the moral principles or values that guide officials in all aspects of their work. Ethical behavior encompasses the concepts of honesty, integrity, probity, diligence, fairness, trust and respect. Ethical behavior includes avoiding conflicts of interest, and not making improper use of an individual's position (Wee, 2002). Ethical behavior supports openness and accountability in procurement with the result that suppliers have confidence in participating in the Government marketplace and giving the best to government organizations. It also reduces the cost of managing risks and enhance trust in public administration.

Ethical behavior is important in supplier evaluation and procurement as it involves the expenditure of

public money and is subject to public scrutiny. Public officials in Coast General Hospital should always behave ethically and fairly in their business undertakings. Ethical behavior supports openness and accountability in a procurement process and gives suppliers confidence to participate in the Government marketplace. Ethical behavior can also reduce the cost of managing risks associated with fraud, theft, corruption, and other improper behavior; and enhance confidence in public administration (Karanja & Mugo, 2010).

Ethical behavior includes avoiding conflicts of interest, and not making improper use of an individual's position. Ethical behavior is important in public procurement as it involves the expenditure of public money and is subject to public scrutiny. Public officials should always behave ethically and fairly, including in their business undertakings. Ethical behavior supports openness and accountability in a procurement process and gives suppliers confidence to participate in the Government market place. Ethical behavior can also reduce the cost of managing risks associated with fraud, theft, corruption, and other improper behavior; and enhance confidence in public administration (Wee, 2002).

A procurement process that conforms to the expected standards of integrity, uprightness and honesty is one in which clear procedures are consistent with government policies and legislation are established, understood and followed from the outset. These procedures need to consider the legitimate interests of suppliers and ensure that all potential suppliers are treated equitably (Wee 2002). An important and effective way to maintain ethics awareness in agencies is to provide training for employees (Amos & Weathington, 2016). Ethics training and seminars can be provided, along with training in more specific areas, such as procurement procedures, record keeping, records management, and accountability and administrative law. Regular reviews or audits of procurement processes can be

done to ensure probity is being considered and achieved (Amos & Weathington, 2016).

### Procurement Contract Performance

One performance measure is quality which is measured in a number of ways including: parts per million, customer defects per supplier and field failure rates by purchase item and by supplier (Lysons et al., 2009). Another measure is responsiveness/ time / delivery which measures the amount of time in weeks or months from concept to first shipment or delivery of final product to the market with the objective of continuous reduction of time to the market. The measures here include: on time delivery, cycle time reduction, responsiveness to schedule changes, mix changes and design or service changes and achieving new product introduction (Lysons et al., 2009; Handfield et al., 2008)

Particularly when appraising suppliers of non-standard products such as construction projects or the installation of computer systems, questions should be asked regarding what similar projects the supplier has already undertaken, what current projects are in hand, what are/were the distinctive features of such projects, what innovations might be introduced, what customers the supplier can cite as referees. The British Standards definition of quality is the totality of features and characteristics of a product of a product or service that bear on its ability to satisfy given need" (CIPS, 2012). A buyer needs to assess and ensure that a supplier has robust systems and procedures in place for monitoring and managing its outputs. The systems for the detection and correction of defects are called quality control while those for prevention of defects are known as quality

assurance and a buyer needs to check whether the supplier has these in place (Lysons et al., 2008).

### METHODOLOGY

This study adopted a descriptive survey method, in which both qualitative and quantitative approaches was used. Qualitative analysis was used in behavioral skills, personal attributes and quality data that cannot be quantified while quantitative approach was used in the numerical data that can be easily measured. This was used to find out the effect of supplier evaluation on performance of procurement contract in Coast General Hospital. Descriptive and inferential statistics was done using SPSS version 22 and specifically multiple regression model was applied. Set of data was described using percentage, mean standard deviation and coefficient of variation and presented using tables, charts and graphs. Fraenkel and Wallen, (2014) argue that regression is the working out of a statistical relationship between one or more variables. The researcher used multiple regression analysis to show the influence of the independent variables on the dependent variables.

The multiple regression equation was as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Y = Represents the dependent variable, Performance of Procurement Contract

$\beta_0$  = Intercept of regression line

$\beta_1 - \beta_3$  = Partial regression coefficient of the Independent Variables

$X_1$  = Supplier Collaboration

$X_2$  = Financial Stability

$X_3$  = Supplier Human Resource Competency

$X_4$  = Supplier Ethics

$\epsilon$  = error term or stochastic term.

### FINDING

**Table 1: Supplier Collaboration**

	N	Mean	Std. Deviation
My organization involves our suppliers in the joint planning and forecasting process	59	3.54	1.317

My company relationship with its suppliers is based on mutual understanding and mutual goals	59	4.05	1.238
My company has a clear policy on managing the relationship with suppliers	59	4.19	1.137
My company has developed the system to monitor the supplier performance	59	4.15	1.257
My company gives feedback to suppliers on their performance	59	4.44	.970
My company guides suppliers on quality expectations of the organization.	59	4.15	1.127

The first objective of the study was to establish the effect of supplier collaboration on performance of procurement contract in Coast Provincial General Hospital. Respondents were required to respond to set questions related to supplier collaboration and give their opinions. The statement that my organization involves our suppliers in the joint planning and forecasting process had a mean score of 3.54 and standard deviation of 1.317. The statement that my company relationship with its suppliers is based on mutual understanding and mutual goals had a mean score of 4.05 and a standard deviation of 1.238. The statement that my company had a clear

policy on managing the relationship with suppliers had a mean score of 4.19 and a standard deviation of 1.137. The statement that my company has developed the system to monitor the supplier performance had a mean score of 4.15 and a standard deviation of 1.257. The statement that my company gives feedback to suppliers on their performance had a mean score of 4.44 and a standard deviation of 0.970. The statement that my company guides suppliers on quality expectations of the organization had a mean score of 4.15 and a standard deviation of 1.127.

**Table 2: Financial Stability**

	N	Mean	Std. Deviation
Price of goods and services help in selecting suppliers	59	4.03	1.217
Supplier financial statements are evaluated before being awarded procurement contract.	59	4.07	1.271
Suppliers clean records in terms of CRB are evaluated before being awarded procurement contract	59	3.80	1.349
Supplier KRA returns are evaluated before being awarded a procurement contract.	59	4.07	1.143
Supplier prices are within the market prices.	59	4.03	1.203
Due diligence is taken when evaluating supplier financial stability.	59	3.53	1.419

The second objective of the study was to establish the effect of financial stability on performance of procurement contract in Coast Provincial General Hospital. Respondents were required to respond to set questions related to financial stability and give their opinions. The statement that price of goods and services help in selecting suppliers had a mean score of 4.03 and standard deviation of 1.217. The statement that supplier financial statements are evaluated before being awarded procurement

contract had a mean score of 4.07 and a standard deviation of 1.271. The statement that's supplier's clean records in terms of CRB were evaluated before being awarded procurement contract had a mean score of 3.80 and a standard deviation of 1.349. The statement that supplier KRA returns are evaluated before being awarded a procurement contract had a mean score of 4.07 and a standard deviation of 1.143. The statement that supplier prices are within the market prices had a mean score of 4.03 and a

standard deviation of 1.203. The statement that due diligence was taken when evaluating supplier

financial stability had a mean score of 3.53 and a standard deviation of 1.419.

**Table 3: Supplier Technical Competency**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Procurement staff are taken for refresher courses annually	59	3.85	1.271
Majority of procurement staff have acquired knowledge with at least a first degree	59	3.75	1.372
Procurement records of the organization are properly kept by the staff	59	3.61	1.390
Procurement staff in the organization have professional qualifications and are registered by professional bodies.	59	3.76	1.250
Procurement staff have the necessary skills required	59	3.76	1.250
Procurement staff adhere to procurement rules in their day to day activities.	59	3.85	1.337

The third objective of the study was to establish the effect of supplier technical competency on performance of procurement contract in Coast Provincial General Hospital. Respondents were required to respond to set questions related to supplier technical competency and give their opinions. The statement that procurement staff are taken for refresher courses annually had a mean score of 3.85 and standard deviation of 1.271. The statement that majority of procurement staff have acquired knowledge with at least a first degree had a mean score of 3.75 and a standard deviation of 1.372. The statement that procurement records of the

organization are properly kept by the staff had a mean score of 3.61 and a standard deviation of 1.390. The statement that procurement staff in the organization have professional qualifications and are registered by professional bodies had a mean score of 3.76 and a standard deviation of 1.250. The statement that procurement staff have the necessary skills required had a mean score of 3.76 and a standard deviation of 1.250. The statement that procurement staff adhere to procurement rules in their day to day activities had a mean score of 3.85 and a standard deviation of 1.337.

**Table 4: Supplier Ethics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Adherence to codes of conduct practices is imperative to attain desired procurement performance.	59	3.76	1.406
The adoption of ethical behaviors ensures that firms obtain value for their procurement money	59	3.75	1.445
Transparency secures best value for organizational procurement money	59	3.81	1.468
Accountability secures best value for organizational money as it improves on overall procurement performance	59	3.78	1.403
Procurement staff declare gifts above Ksh 5000	59	3.42	1.499
Procurement staff have knowledge of the existing policies governing ethics.	59	3.76	1.418

The fourth objective of the study was to establish the effect of supplier ethics on performance of procurement contract in Coast Provincial General Hospital. Respondents were required to respond to set questions related to supplier ethics and give their

opinions. The statement that adherence to codes of conduct practices is imperative to attain desired procurement performance had a mean score of 3.76 and standard deviation of 1.406. The statement that the adoption of ethical behaviors ensures that firms

obtain value for their procurement money had a mean score of 3.75 and a standard deviation of 1.445. The statement that transparency secures best value for organizational procurement money had a mean score of 3.81 and a standard deviation of 1.468. The statement that accountability secures best value for organizational money as it improves on overall procurement performance had a mean score of 3.78

and a standard deviation of 1.403. The statement that procurement staff declare gifts above Ksh 5000 had a mean score of 3.42 and a standard deviation of 1.499. The statement that procurement staff have knowledge of the existing policies governing ethics had a mean score of 3.76 and a standard deviation of 1.418.

**Table 5: Procurement Contract Performance**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Adherence to codes of conduct practices is imperative to attain desired procurement performance	59	3.44	1.405
Procurement staff in the organization have professional qualifications and are registered by professional bodies.	59	3.44	1.465
My company has developed the system to monitor the supplier performance	59	3.68	1.407
My company has fully invested in state of art information system to enable information sharing within and outside our company	59	3.46	1.418
My company has trained staff on the importance of customer service in procurement	59	3.73	1.324
My company has transparency and accountability policies.	59	3.54	1.454

The statement that adherence to codes of conduct practices is imperative to attain desired procurement performance had a mean score of 3.44 and standard deviation of 1.405. The statement that procurement staff in the organization have professional qualifications and are registered by professional bodies had a mean score of 3.44 and a standard deviation of 1.465. The statement that my company has developed the system to monitor the supplier performance had a mean score of 3.68 and a standard deviation of 1.407. The statement that my company has fully invested in state of art information system to enable information sharing within and outside our company had a mean score of 3.46 and a standard deviation of 1.418. The statement that my company has trained staff on the importance of customer service in procurement had a mean score of 3.79 and a standard deviation of 1.324. The statement that my company has transparency and accountability policies had a mean score of 3.54 and a standard deviation of 1.454.

**Correlation Analysis**

To establish the relationship between the independent variables and the dependent variable the study conducted correlation analysis which involved coefficient of correlation and coefficient of determination.

**Coefficient of Correlation**

Pearson Bivariate correlation coefficient was used to compute the correlation between the dependent variable (procurement contract performance) and the independent variables (supplier collaboration, financial stability, supplier technical competency and supplier ethics). According to Sekaran, (2015), this relationship is assumed to be linear and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables (Kothari and Gang, 2014).

In trying to show the relationship between the study variables and their findings, the study used the Karl



Pearson's coefficient of correlation (r). This is as shown in Table 6 below. According to the findings, it was clear that there was a positive correlation between the independent variables, supplier collaboration, financial stability, supplier technical competency and supplier ethics and the dependent variable procurement contract performance. The analysis indicates the coefficient of correlation, r

equal to 0.344, 0.333, 0.451 and 0.226 for supplier collaboration, financial stability, supplier technical competency and supplier ethics. This indicates positive relationship between the independent variable namely supplier collaboration, financial stability, supplier technical competency and supplier ethics and the dependent variable procurement contract performance.

**Table 6: Pearson Correlation**

	Correlations				
	Procurement Contract Performance	Supplier Collaboration	Financial Stability	Supplier Technical Competency	Supplier Ethics
Procurement Contract Performance	1				
Supplier Collaboration	.344** .008	1			
Financial Stability	.333** .010	.604** .000	1		
Supplier Technical Competency	.451** .000	.559** .000	.650** .000	1	
Supplier Ethics	.226 .085	.127 .338	.340** .009	.253 .053	1
	59	59	59	59	59

\*. Correlation is significant at the 0.05 level (2-tailed)  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).

**Coefficient of Determination (R2)**

To assess the research model, a confirmatory factors analysis was conducted. The four factors were then subjected to linear regression analysis in order to measure the success of the model and predict causal

relationship between independent variables (supplier collaboration, financial stability, supplier technical competency and supplier ethics), and the dependent variable (procurement contract performance).

**Table 7: Coefficient of Determination (R2)**

Model	Model Summary			
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.480 <sup>a</sup>	.230	.173	3.42775

a. Dependent variable: Procurement Contract Performance

b. predictors: (Constant), Supplier Collaboration, Financial Stability, Supplier Technical Competency, Supplier Ethics

The model explained 23% of the variance (Adjusted R Square = 0.173) on procurement contract performance. Clearly, there are factors other than the four proposed in this model which can be used to predict procurement contract performance. However, this was still a good model as Cooper and Schinder, (2013) pointed out that as much as lower value R square 0.10-0.20 is acceptable in social science research. This means that 23% of the relationship is explained by the identified four factors namely supplier collaboration, financial stability, supplier technical competency and supplier ethics. The rest 77% is explained by other factors in the procurement contract performance not studied in this research. In summary the four factors studied namely supplier collaboration, financial stability, supplier technical

competency and supplier ethics determines 23% of the relationship while the rest 77% is explained or determined by other factors.

#### Analysis of Variance (ANOVA)

The study used ANOVA to establish the significance of the regression model. In testing the significance level, the statistical significance was considered significant if the p-value was less or equal to 0.05. The significance of the regression model is as per Table 8 below with P-value of 0.03 which is less than 0.05. This indicated that the regression model is statistically significant in predicting factors of procurement contract performance. Basing the confidence level at 95% the analysis indicates high reliability of the results obtained. The overall Anova results indicated that the model was significant at  $F = 4.035$ ,  $p = 0.003$ .

**Table 8: ANOVA**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	189.629	4	47.407	4.035	.003 <sup>b</sup>
	Residual	634.473	54	11.749		
	Total	824.102	58			

a. Dependent Variable: Procurement Contract Performance

b. Predictors: (Constant), Supplier Ethics, Supplier Technical Competency, Financial Stability, Supplier Collaboration

**Table 9: Multiple Regression**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.806	4.293		3.352	.000
	Supplier Collaboration	.194	.209	.246	2.932	.003
	Financial Stability	.031	.180	.231	2.173	.004
	Supplier Technical Competency	.411	.189	.357	2.179	.034
	Supplier Ethics	.097	.098	.328	2.997	.002

a. Dependent Variable: Procurement Contract Performance

The regression equation was:

$$Y = 5.806 + 0.194X_1 + 0.031X_2 + 0.411X_3 + 0.097X_4$$

Where;

Y = the dependent variable (Procurement Contract Performance)

X<sub>1</sub> = Supplier Collaboration

X<sub>2</sub> = Financial Stability

$X_3$  = Supplier Technical Competency

$X_4$  = Supplier Ethics

The regression equation above has established that taking all factors into account (procurement contract performance as a result of supplier collaboration, financial stability, supplier technical competency and supplier ethics) constant at zero procurement contract performance was 5.806. The findings presented also shows that taking all other independent variables at zero, a unit increase in supplier collaboration will lead to a 0.194 increase in the scores of procurement contract performance; a unit increase in financial stability will lead to a 0.031 increase in procurement contract performance; a unit increase in supplier technical competency will lead to a 0.411 increase in the scores of procurement contract performance; a unit increase in supplier ethics will lead to a 0.097 increase in the scores of procurement contract performance. This therefore implies that all the four variables have a positive relationship with supplier technical competence contributing most to the dependent variable.

From the table we can see that the predictor variables of supplier collaboration, financial stability, supplier technical competency and supplier ethics got variable coefficients statistically significant since their p-values are less than the common alpha level of 0.05.

### Results of Hypotheses Testing

- The first research hypothesis, **H<sub>01</sub>**: Supplier collaboration has no significant effect on the performance of procurement contract at Coast General Hospital ( $\beta = 0.246$ ;  $t = 2.932$ ;  $p \leq 0.05$ ) was rejected and conclusion made that there was a statistically significant effect of supplier collaboration on the performance of procurement contract at Coast General Hospital. This is consistent with Weber, Current, & Benton (2011) who illustrated that soft, non-quantifiable selection criteria, such as a supplier's strategic commitment to a buyer, have a greater impact on performance than hard, more quantifiable criteria such as supplier capability, yet were less important. They further illustrated that assessment of a supplier's willingness and ability to share information also has a significant impact on the buying firm's performance yet is again considered to be relatively unimportant.
- The second research hypothesis, **H<sub>02</sub>**: Financial Stability has no significant effect on the performance of procurement contract at Coast General Hospital ( $\beta = 0.231$ ;  $t = 2.173$ ;  $p \leq 0.05$ ) was rejected and conclusion made that there was a statistically significant effect of financial stability on the performance of procurement contract at Coast General Hospital. This is consistent with Nzau and Njeru (2014) who did a study on the factors affecting procurement performance in public universities and found that procurement planning, staff competency management support on procurement performance in public universities in Nairobi County. They report that 94% of respondents indicated that procurement departments prepared procurement plans. They further report that 79 percent of the respondents were of the view that procurement staff lacked adequate skills in supply chain management. Nevertheless, they report that 76 percent of the respondents acknowledged the efforts of management in providing professional support including training and educational opportunities for procurement staff. Since procurement staffs are involved in the selection and evaluation of suppliers, report by 76% of respondents that procurement staffs have inadequate skills creates suspicion as to the objectivity with which they can undertake supplier selection and evaluation. Nzau and Njeru (2014) recommend that management at public universities enhance training and professional support to enhance procurement performance.
- The third research hypothesis, **H<sub>03</sub>**: Supplier Technical Competency has no significant effect on

the performance of procurement contract at Coast General Hospital ( $\beta = 0.357$ ;  $t = 2.179$ ;  $p \leq 0.05$ ) was rejected and conclusion made that there was a statistically significant effect of supplier technical competency on the performance of procurement contract at Coast General Hospital. This is consistent with Musuya and Namusonge (2013) who assessed the factors that affect the implementation of JIT supply chain practices in public health sector in Kenya and found that product demand/ supply stability variable influence on the ability to implement JIT in Ministry of public health. Mutuerandu and Iravo (2014) investigated the impact of Supply Chain Management Practices on Organizational Performance: A Case Study of Haco Industries Limited (Kenya). The study found out that supply chain management practices like customer relations, strategic partnerships, training and information sharing have a positive effect on the organization's performance. Kimani (2013) investigated the supply chain management challenges in Kenya petroleum industry: Case of national oil corporation of Kenya and found out that four independent variables namely; information technology, supply chain design, collaboration issues and people issues are very critical to effective supply chain management in the petroleum sector.

- The fourth research hypothesis, **H<sub>04</sub>**: Supplier Ethics has no significant effect on the performance of procurement contract at Coast General Hospital ( $\beta = 0.328$ ;  $t = 2.997$ ;  $p \leq 0.05$ ) was rejected and conclusion made that there was a statistically significant effect of supplier ethics on the performance of procurement contract at Coast General Hospital. This is consistent with Wanyonyi and Muturi (2015) who sought to evaluate the factors affecting the performance of the procurement function among public technical training institutions in Kisumu County Kenya. Primary data was collected by using questionnaires. Data was analyzed using quantitative analysis by employing both descriptive and inferential statistics. The study concludes that information technology, ethics and staff competency have a positive effect on performance of the procurement function in technical training institutions. It therefore recommends that the use of information technology in the two institutions be enhanced to deliver success in the performance of procurement functions, competence of employees should be promoted in both institutions and work ethics being a fundamental in the success of any organization's performance should be observed in all procurement departments.

**Table 10: Hypotheses Testing**

Research Hypothesis	$\beta$	t	Sig.	Comments
<b>H<sub>01</sub></b> : Supplier collaboration has no significant effect on the performance of procurement contract at Coast General Hospital	.246	2.932	.003	Reject H <sub>01</sub>
<b>H<sub>02</sub></b> : Financial Stability has no significant effect on the performance of procurement contract at Coast General Hospital	.231	2.173	.004	Reject H <sub>02</sub>
<b>H<sub>03</sub></b> : Supplier Technical Competency has no significant effect on the performance of procurement contract at Coast General Hospital	.357	2.179	.034	Reject H <sub>03</sub>
<b>H<sub>04</sub></b> : Supplier Ethics has no significant effect on the performance of procurement contract at Coast General Hospital	.328	2.997	.002	Reject H <sub>04</sub>

## **CONCLUSION**

From the research findings, the study concluded that supplier collaboration influenced procurement contract performance in Coast General Hospital. The study concluded that majority of the respondents found supplier identification and assessment, supplier evaluation and management and resource sharing as key indicators that affect procurement contract performance in Coast General Hospital. The findings further concluded that supplier identification and assessment, supplier evaluation and management and resource sharing had a very strong effect on procurement contract performance in Coast General Hospital. Thus, the study concluded that the results exhibited a high degree of positive significance on effect of supplier collaboration on procurement contract performance in Coast General Hospital.

From the research findings, the study concluded that financial stability influenced procurement contract performance in Coast General Hospital. The study concluded that majority of the respondents found capital, internal financial coordination and systematic and quantitative approach as key indicators that affect procurement contract performance in Coast General Hospital. The findings further concluded that capital, internal financial coordination and systematic and quantitative approach had a very strong effect on procurement contract performance in Coast General Hospital. Thus, the study concluded that the results exhibited a high degree of positive significance on effect of financial stability on procurement contract performance in Coast General Hospital.

From the research findings, the study concluded that procurement staff qualifications influenced procurement contract performance in Coast General Hospital. The study concluded that majority of the respondents found procurement staff qualifications, training assessment needs and procurement hiring policy as key indicators that affect procurement contract performance in Coast General Hospital. The findings further concluded that procurement staff

qualifications, training assessment needs and procurement hiring policy had a very strong effect on procurement contract performance in Coast General Hospital. Thus, the study concluded that the results exhibited a high degree of positive significance on effect of supplier technical competency on procurement contract performance in Coast General Hospital.

From the research findings, the study concluded that supplier ethics influenced procurement contract performance in Coast General Hospital. The study concluded that majority of the respondents found procurement code of ethics, procurement integrity and procurement professional competence as key indicators that affect procurement contract performance in Coast General Hospital. The findings further concluded that procurement code of ethics, procurement integrity and procurement professional competence had a very strong effect on procurement contract performance in Coast General Hospital. Thus, the study concluded that the results exhibited a high degree of positive significance on effect of supplier ethics on procurement contract performance in Coast General Hospital.

## **RECOMMENDATION**

The study recommended the following:

That the Coast General Hospital should adopt supplier collaboration strategies such as supplier identification and assessment, supplier evaluation and management and resource sharing to enhance procurement contract performance in Coast Provincial General Hospital.

That the Coast General Hospital should adopt financial stability strategies such as capital, internal financial coordination and systematic and quantitative approach to enhance procurement contract performance in Coast Provincial General Hospital.

That the Coast General Hospital should adopt supplier technical competency strategies such as procurement



staff qualifications, training assessment needs and procurement hiring policy to enhance procurement contract performance in Coast Provincial General Hospital.

That the Coast General Hospital should adopt supplier ethics strategies such as procurement code of ethics, procurement integrity and procurement professional competence to enhance procurement contract performance in Coast Provincial General Hospital.

### **Suggestion for Further Studies**

This study focused on effect of supplier evaluation on performance of procurement contracts in Coast

Provincial General Hospital. Since only 23% of results were explained by the independent variables in this study, it is recommended that a study be carried out on other factors on procurement contract performance in another county. The research should also be done in other government corporation or private hospitals in the health sector and the results compared to ascertain whether there is visibility, competition, satisfaction, better lead time and leverage on supplier base to perfect contact performance.

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