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ABSTRACT

This study sought to find the influence of procurement practices on performance of the public sector in Kenya. A case of Narok County. Specifically, the study sought to determine the influence of Supplier Partnerships on Performance of Narok County; to find out the influence of Information and Communication Technology (ICT) adoption on Performance of Narok County; to establish the impact of adoption of Green Purchasing Policy on Performance of Narok County; and to find out the influence of Procurement Planning on Performance of Narok County. The study used a descriptive survey research design and the population of this study was the employees and management of Narok County. The study adopted stratified sampling because the population of interest was heterogeneous in nature. The study used a sample size of 196 respondents. Further, the study used structured questionnaires as the main instruments for collecting primary data from respondents. Data collected was first edited, formatted and organized for coding into the Statistical Package for Social Sciences (SPSS) Program. The statistical parameters generated from the software were presented in tables and charts for easier interpretation. Multiple Linear Regression Analysis was used to estimate the relationship between the dependent and independent variables, and provide a means of objectivity in assessing the degree and nature of the relationship between the dependent and independent variables. The study established that Supplier Partnerships, ICT Adoption, Green Purchasing Policy, and Procurement Planning influenced 77.1% of the total variability in the Performance of the County. This was quite a significant influence and therefore the study recommended adoption of this procurement practices in all procurement processes in the entire public sector so has to enhance performance and delivery of service.

Key Words: *Supplier Partnerships, Information and Communication Technology, Green Purchasing Policy, Procurement Planning, Narok County*

INTRODUCTION

Around the world, public sector organizations are experiencing an unprecedented pace of change and as a result, they are rapidly re-evaluating their operating models and market strategies not just to withstand these market forces, but capitalize on them (Mokogi, Mairura & Ombui, 2015). In this context, procurement has a significant role to play in helping the public sector achieve their objectives and prepare for the uncertainty ahead. In part, this will require procurement to focus on driving costs out of the cost base. However, according to Weeks and Namusonge (2016) the main opportunity exists in the function to add value in a much more strategic way while achieving strategic goals. Brammer and Walker (2011) describes two types of goals in the procurement system: non procurement goals and procurement goals. Procurement goals are primarily associated with quality, reduction of financial and technical risks, and protection over competition and integrity in the system. Non procurement goals usually involve the economic, social, and political goals within the system.

Knight *et al.* (2012) describes procurement process as managing business activities and relationships internally within an organization, with immediate suppliers, with first and second-tier suppliers and customers along the supply chain, and with the entire supply chain. On their part Sun and Collins (2009) describe procurement as the chain linking each element of the manufacturing and supply process from raw materials through to the end user, encompassing several organizational boundaries. Thus, according to this definition procurement encompasses the entire value chain and addresses materials and supply management from the extraction of raw materials to its end of useful life.

According to Wei and Jakob (2012), the driving forces of procurement stem from two sources: external pressures and potential benefits from strategic supply chain alignment. The external pressures that will encourage adoption of an effective supply chain include advances in technology and increased customer demand across national borders; maintaining lower costs while meeting these diverse needs; and intensified competition utilizing relationships among vertically aligned firms. These pressures have begun shifting the focus of individual firms vying for market presence and power to supply chains. The second main driving force entails the potential benefits from successful supply chain collaboration. From this collaboration, increased inventory turnover, increased revenue, and cost reduction across the chain have been registered from those organizations that have adopted an effective SCM.

Due to the importance of procurement in an organization, some organization have enhanced their procurement processes by adopting new systems such as, e-procurement that is used in conjunction with the varied technologies of electronic commerce such as document imaging, workflow management, bulletin boards and e-mail to enable business process reengineering (Kingori, 2013). With these combinations, e-procurement can give rise to a number of benefits to an organization and to the strategic position of a firm such that it will help to consolidate purchasing practices that will lead to greater discounts and better service from suppliers, accelerate the flow of important information between the buyer and supplier, reduce administrative hours, freeing them up to do other work and also helps to respond quickly to highly competitive new market entrants (Chebii, 2016). On the other hand, the operational benefits of e-procurement to the firm include, improving financial control by making it easier to match orders, improve auditing and better security by enabling staff and auditors to verify and track the movement of orders through the system and eliminate time zone obstacles, as the e-

procurement can be used any time of the day (Ordanini and Rubera, 2008).

Public procurement procedures provide a crucial function in the public sector, because the significant portion of public spending occurs through the public procurement process. Public procurement refers to the acquisition of goods, services and works by a procuring entity using public funds (Arrowsmith *et al.*, 2011). For example, in stationery items, infrastructures construction works, cleaning works, transport services and consultancy services. Parastatals see e-procurement as a good opportunity to enhance and improve efficiency in procurement procedures within the public sector bodies. These procedures are highly regulated, with specific rules for advertising procurement needs, invitations to tender and the awarding of contracts. As highlighted by Panda and Sahu (2012), government procurement procedures could be guided by three main principles: all interested parties must have an equal opportunity to submit tenders, all enquiries must receive equal treatment in order to eliminate discrimination on the grounds of particular contractor or the origin of the goods/services and all tendering and award procedures must involve the application of objective criteria.

According to Chemoiywo (2014), the public sector procurement mainly comprises procurements by government or state owned or controlled institutions and corporations. Public procurement consists of public sector supply chains and multi-level network which can be assessed at the central, province, district and local authority. The difference between these levels of procurement usually depended on value and volume and annual goods and services procured (Asante, 2017). In addition, public sector procurement mainly focus on different areas. This differs from sector to sector and also industry sector to sector, but they are standardized and regulated by one body. For instance, in Kenya, all public procurements are regulated by Public Procurement Oversight Authority (PPOA).

Procurement practices are a set of activities undertaken by an organization to promote effective management of its supply chain (Coggburn, 2017). They are the managerial actions undertaken to improve performance of the integrated supply chain. According to Marshall *et al.* (2017), procurement practices have been identified as customer orientation, strategic supplier partnership, level of information sharing, quality of information sharing, Reverse Logistics and Knowledge management. Other authorities have considered procurement practices to be similar to the supply chain management practices which is the set of activities undertaken by an organization to promote effective management of its supply chain (Odhiambo, 2014); as the approaches applied in integration, managing and coordination of supply, demand and relationships in order to satisfy clients in effective way (Wong, Boon-Itt & Wong, 2011); as tangible activities/technologies that have a relevant role in the collaboration of a focal firm with its suppliers and/or clients (de Sousa Jabbour *et al.*, 2011); and as the approach to involve suppliers in decision making, encouraging information, sharing and looking for new ways to integrate upstream activities. As a consequence, it involves developing customer contacts by customer feedback to integrate the downstream activities and delivering orders directly to customers (Githeu, 2014).

According to Kamaamia (2016), organizational performance is the ability of an organization to fulfil its mission through sound management, strong governance and a persistent rededication to achieving results. Firms delivering services must broaden their examination of productivity from the conventional company-oriented perspective to a dual company-customer perspective. This broadened approach can help reconcile conflicts or leverage synergies between improving service

quality and boosting service productivity (Grönroos & Helle, 2010). The performance measurement may be regarded as one of key tools, which help to assess the present situation and to make decisions, which help to improve the quality of provided services. Richard *et al.* (2009) point that organizational performance can be evaluated by quality service and products, satisfying customers, market performance, service innovations, and employee relationships. On the other hand, Koufteros, Verghese and Lucianetti (2014) in their study of organizational performance based on balanced scorecard, stated that organizational performance can be appraised by return of investment, margin on sales, capacity utilization, customer satisfaction and product quality.

Statement of the Problem

Worldwide, public procurement has become an issue of public attention and debate, and has been subjected to reforms, restructuring, rules and regulations (Onchweri & Muturi, 2015). Many countries both developed and least developed have instituted procurement reforms involving laws and regulations. The major obstacle however, has been inadequate regulatory compliance. Crowder (2015) confirm that non-compliance problem affects not only the third world countries but also countries in the European Union. This position is further supported by Onyinkwa (2014) who contend that compliance in public procurement is still a major issue. Shu Hui *et al.* (2011) while analyzing procurement issues in Malaysia established that procurement officers were blamed for malpractice and noncompliance to the procurement policies and procedures.

According to Tukamuhabwa (2012), public bodies have always been big purchasers, dealing with huge budgets. According to Mahmood (2010) public procurement represents 18.42% of the world GDP. In developing countries, public procurement is increasingly recognized as essential in service delivery (Basheka & Bisangabasaija, 2010), and it accounts for a high proportion of total expenditure. For instance, public procurement accounts for 60% in Kenya (Badaso, 2014), 58% in Angola, 40% in Malawi and 70% of Uganda's public spending (Tukamuhabwa, 2012).

Government owned enterprises' operations in Kenya have become inefficient and non-profitable requiring the Government to shoulder major procurement burdens (Koech & Namusonge, 2015). Achieving efficiency in public procurement is an ambitious task, as procurement faces numerous challenges, especially due to the market structure, the legal framework and the political environment that procurers face (Özbilgin & Imamoğlu, 2011). In a study carried out on parastatal governance problems in Kenya, the following characteristics emerged: inefficiency in operations, huge financial losses and the provision of poor products and services (Mokogi, Mairura & Ombui, 2015). The author attributed this to: poor governance, poor public sector financial management, bureaucratic wastage and pilferage in the management of parastatals, all of which subsequently lead to heavy budgetary burden to the public. The Public Procurement and Disposal Act 2005 provides a standardized framework for the procurement of goods and services across all public sector entities. This one size fits all approach has created challenges for many Government Owned entities.

A review conducted by the PPOA, while recognizing some strengths, identified a number of challenges including the cost of the procurement process, the long time to procure or reaction time to business opportunities, challenges of negotiation with suppliers, external approval processes and the issue of resale of branded items (Odero & Ayub, 2017). Therefore, there is a need to carry out a study to establish the influence of procurement practices on performance of the public sector in Kenya because

of the highlighted deficiencies. Further still, in spite of having various studies undertaken on procurement practices by various researchers, none of the studies have particularly addressed the influence of procurement practices on performance of the public sector in Kenya, and specifically Narok County. This has created a significant knowledge gap and therefore forms the basis for this study.

Objectives of the Study

The study sought to find the influence of procurement practices on performance of the public sector in Kenya. A case of Narok County. The specific objectives were:-

- To determine the influence of Supplier Partnerships on Performance of Narok County
- To find out the influence of Information and Communication Technology (ICT) adoption on Performance of Narok County
- To establish the impact of adoption of Green Purchasing Policy on Performance of Narok County
- To find out the influence of Procurement Planning on Performance of Narok County

LITERATURE REVIEW

Theoretical Review

Stakeholder Theory

The origins of stakeholder theory draw on four key academic fields: sociology, economics, politics and ethics and especially the literature on corporate planning, systems theory, corporate social responsibility and organizational theory (Laplume, Sonpar & Litz, 2008). Freeman over the course of his work entitled Strategic Management: a Stakeholder approach, generally accepted as launching the stakeholder theory concepts, defines how stakeholders with similar interests or rights form a group (Freeman, 2010). What Freeman was seeking to explain was the relationship between the company and its external environment and its behavior within this environment. The author set out his model as if a chart in which the company is positioned at the center and is involved with stakeholders connected with the company. In this model, the company-stakeholder relationships are dyadic and mutually independent (Bryson, 2018).

According Miles (2017), the basic premises of Stakeholder theory are: the organization enters into relationships with many groups that influence or are influenced by the company, i.e. “stakeholders” in accordance with Freeman terminology; the theory focuses on the nature of these relationships in terms of processes and results for the company and for stakeholders, the interests of all legitimate stakeholder are of intrinsic value and it is assumed that there is no single prevailing set of interests.

The theory focuses upon management decision making, explains how stakeholders try and influence organizational decision making processes so as to be consistent with their needs and priorities. In terms of organizations, these should attempt to understand and balance the interests of the various participants. Taking these premises into consideration, and according to Wagner, Alves and Raposo (2012), the concept of stakeholder management was developed so that organizations could recognize, analyze and examine the characteristics of partners being influenced by organizational behavior. Thus, management is carried out over three levels: the identification of stakeholders, the development of processes identifying and interpreting their needs and interests and the construction of relationships with the entire process structured around the organization’s respective objectives.

Systems Theory

Public organizations are open systems that receive inputs (demands, support, etc.) from their environment which are being absorbed and manufactured (throughput) through policy

processes and the use of management techniques which leads to outcomes that generate new feedback from the organizational external environment (O'Toole & Meier, 2014). Using this theory implies an analysis of how the external environment of organizations influences them to implement changes with regard to the integration of their services. By doing so, open systems theory leads to the insight of contingency or the fact that each public organization works within its own societal environment which is partly identical and partly different or specific.

Assessing both the internal and external situational factors becomes necessary in order to understand why each organization has a certain specific character (Vander Elst & De Rynck, 2014). Following the structural contingency theory, this specific character refers to the optimal structure which is different for each organization. Such a perspective emphasizes effectiveness and efficiency. Organizational reforms need to be considered as a strive for a best fit between organizational structures and the environment surrounding an organization. Contingency theory assumes a rational adaptation to the environment (Scott & Davis, 2015).

Open systems theory stresses the cohesion of a system or organization and considers the behaviour of an organization as a whole without looking at the behaviour of organizational groups or individuals (Greene, 2017). In Open System Theory, each system and its subsystems adapt to internal and external demands and feedback. Demands external to the public sector procurement encompass environmental factors such as suppliers, legislation, and technological advancement among other factors. Organizations continuously adapt system functioning in response to feedback and informational signals to counteract entropy. For example, aligning organizational policies to meet performance targets set by external agencies exemplifies the dynamic interaction between the organization and its external environment (Meyer & O'Brien-Pallas, 2010).

Conceptual Framework

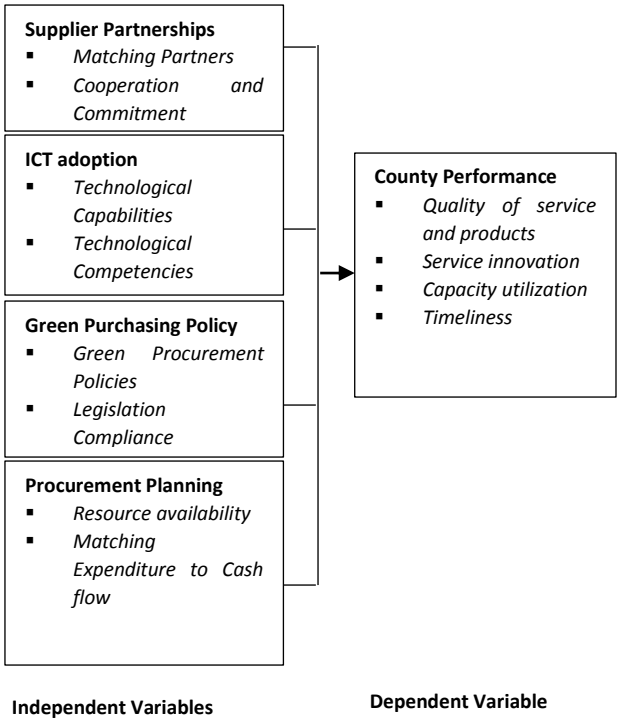

Figure 1: *Conceptual Framework*

Empirical Review

Supplier Partnerships

Relationship between the organization and its suppliers is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits. Supply partnership emphasizes direct, long-term association and encourages mutual planning and problem solving efforts (Ku, Wu & Chen, 2016). Such supply partnerships are entered into to promote shared benefits among the parties and ongoing participation in one or more keys strategic areas such as technology, products, and markets. Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products.

Suppliers participating early in the product-design process can offer more cost effective design choices, help select the best components and technologies, and help in design assessment. Strategically aligned organizations can work closely together and eliminate wasteful time and effort. An effective supplier partnership can be a critical component of a leading edge supply chain (Ngatia & Chirchir, 2013).

Supply partnership is viewed as the firm's ability to coordinate and integrate resources with their respective partners. Lin and Wu (2014), considered the ability to coordinate inter-organizational relationships effectively as one of the important resources of the firms. Kalatya (2017) views supplier partnership as one of the key supply chain capability and refer Suppliers partnership to the ability in coordinating the Supply Relationship transaction-related activities. These capabilities improve operational efficiency and performance between the supply chain relationships. Similarly, supply chain leaders viewed the ability to integrate strategies in an effort to jointly execute a collective activity as an important capability (Otila, 2011).

According to Meriläinen (2018), adopting early supplier involvement, operational activities, such as product development projects, can offer more cost effective design choices, and improved product quality and reduction in lead time. Through strategic suppler relationship, organizations can work closely with suppliers who can share responsibility for the success of the products (Brandes, Brege & Brehmer, 2013). A result of increasing reliance on suppliers has been that shortcomings in supplier performance and/or competency may present buying firms with problems such as missed shipping dates and inferior quality levels. For other companies however, superior supplier performance or capability may lead to superior quality and/or rapid integration of the latest technological breakthroughs into the buying firm's own products through early supplier involvement (Belderbos *et al.*, 2015).

Kim, Suresh and Kocabasoglu-Hillmer (2015) noted that the strategic relationship with suppliers begins long before the first order is placed, and continues well beyond the receipt of goods. This relationship is far different from the transactional tactical supplier relationship. Strategic relationship management goes beyond procuring products and services. It seeks to maximize the benefit for both supplier and customer and identify and implement mutual successes that will benefit both parties (Masiko, 2013).

SRM recognises that different relationships will be required with different suppliers/providers. On the other hand, this type of relationship will depend largely on the criticality and/or value of the goods or services they supply, and factors such as the number of suppliers in the market, and the global availability of a requirement (Okong'o, 2016). It allows procurement function to develop strategies for dealing with suppliers to achieve on going value for money, and reduce the risk of poor performance or non-delivery or non-availability. It allows the procurement organisation to focus effort on the right suppliers and ensures they are not being managed by their supplier. In a sourcing strategy a buyer researches for available sourcing options in the supplier market, which can either be from local or international vendors. A detailed assessment of the different supplier options should be undertaken, weighing various criteria, such as price, lead time, quality, on-site support and long term conditions, amongst others (Muiga & Kwasira, 2016).

Procurement personnel should use their creativity in exploring alternative supply options. A supplier pre-qualification process to ensure they comply with requirements aligned with procurement strategy and policies is also necessary (Oginda,

2013). The need to be competitive, flexible and efficient has forced companies to enter into collaborative relationships with suppliers and customers (Kimutai & Ismael, 2016). This has been necessitated by today's competitive situations where true competitive battles are fought along a network of cooperating companies. These competitive battles are fought along supply chains, implying that a company is as strong as its weakest supply chain partner.

According to Muthuri and Chirchir (2014), supply market intelligence is one the factors that need to be accounted. It explains the mutual competition between competing organizations in the market. With the help detailed supply market understanding, the factors that affect competitive advantage can be identified. Musanga, Ondari and Kiswili (2015) argue that the determination of the knowhow of supplier processes and the total cost structure helps to develop supplier relationships. The buying organization can imply that they have a deep knowledge about the supply market and supplier presented in the market. This shows that the organization can evaluate and compare suppliers that will enforce the suppliers to be more efficient and effective. It can also improve the service level of the suppliers. The best action to improve the supplier's performance is to give clear instructions on what is expected and required from them now and also in the future. Conducting a diverse analysis on supplier's performance would provide a tool to the supplier to develop its actions to a more wanted direction.

ICT adoption

As companies seek to improve the efficiency in the supply chain through increased integration, ICT can be considered as a key enabler for procurement process through its ability to support information sharing and shortening information processing time (Scarsi & Cepolina, 2016). Similarly, Vlosky, Fontenot and Blalock (2015) observed that the impact of ICT can be demonstrated in terms of for instance changes in relationships, inter organizational changes and performance. The many dimensions in which procurement process can be expressed and the wide variation of factors in which the impact of ICT can be defined in terms of integration indicates that previous research has been limited to studying a few dimensions and variables relationships at a time. The aspect of how to control and coordinate the activity between the companies in the supply chain, and how ICT affects the level of control integration in the supply chain is of great importance.

Use of ICT in procurement help in coordination of business processes, both within the organization and between a purchaser and existing suppliers. Examples include electronic purchase-order systems, online catalogues and online linkages with suppliers to exchange information regarding fulfillment activities (Kilonzo, 2014). Kumar, Singh and Shankar (2015) added that managers are attracted to the benefits of improved productivity, faster response times and an overall perception of low risk in implementation. Technological developments in information systems and information technologies have the potential to facilitate coordination in transporting firms, and this, in turn, allows the virtual integration of the entire procurement process. Managers have realized that the Information communication technology can enhance procurement decisions making by providing real-time information and enabling collaboration between trading partners. Technology provides tools to enable organization operations to consistently procure the best-value materials and services, using unified internet-based sourcing tools and streamlined support for complex negotiations (Wu & Chuang, 2010).

The potential of information technology is realized through its integrated use in the various core and support functions of an organization as well as with

external business partners. According to Tanner *et al.* (2008), ICT in procurement significantly influence the success of a company. The priority of ICT is to provide support in the creation of process efficiency and cost/expenditure transparency as well as achieving reductions in the purchasing price. ICT makes an important contribution to successfully carrying out the procurement function. ICT interacts with procurement to improving quality of services while its absence or use of inappropriate means can act as a barrier to change and may lead to deterioration of the purchasing function.

Nowadays, large organizations usually have to handle multiple procurement needs by applying different kinds of information systems developed by various suppliers. Such process will become inevitably long and cumbersome in conventional e-tendering systems when the categories of products are not well sorted out. In order to realize better cost savings and increase efficiency, replacing the manual paper-based tender procedures by electronic-facilitated system has become an essential element in process re-engineering (Quesada *et al.*, 2010). With a highly automated e-Tendering system, tender specification, advertising, tender aggregation as well as the evaluation and placing of the contract can be prepared at ease.

Information sharing practices such as vendor-managed inventory (VMI) give manufacturers more accurate information than before e.g. customer sales data. Smaros *et al.*, (cited in Wong *et al.*, 2012) used discrete – event simulation to examine how a manufacturer can combine traditional order data available from VMI customers in its production and inventory control and what impact this has on the manufacturer's operational control. They found that even for products with stable demand a partial improvement of demand visibility can improve production and inventory control efficiency. The value of product visibility greatly depends on the target products' replenishment schedule and the planning cycle employed by the manufacturer.

As with any new technology introduced into the workplace, ICT system's effectiveness depends, ultimately, on its being adopted and regularly used by employees in procuring. Employees are said to comply with the purchase of contracted items only 65% of the time, causing companies to miss out on the 22% in cost reductions possible through compliance with contract terms (Foroughi, 2008; Mose, Njihia & Magutu, 2013). Maintenance requires a wider supplier base than other business functions, and an e-Procurement system needs to provide access to a broad supplier base. Many suppliers, especially smaller ones, do not have the technological capability to integrate with e-Procurement platforms. They may lack the IT infrastructure and capital necessary to provide e-Procurement and fear that e-Procurement will enable buyers to leverage price concessions (Rotich & Okello, 2015).

Green Purchasing Policy

According to Walker *et al.* (2012), green procurement is the practice of purchasing environmentally preferable products and services, which are products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Such products or services may include, but are not limited to, those which contain recycled content, minimize waste, conserve energy or water, and reduce the amount of toxins disposed of or consumed (Testa *et al.*, 2012). Organizations recognize that there are a large number of consumers with a broad spectrum of goods and services. Every purchase has an environmental impact resulting from the combined effect of a product's manufacture, delivery, use, and disposition.

Leading companies that decided to go along with green procurement activities are experiencing tangible benefits. Strategic sourcing can create value through increased overall cost efficiency, enhanced reputation and market share, and reduced environmental risks and liabilities. These companies get economic benefits by reducing supplier-generated wastes and surpluses, companies decrease handling expenses and risks associated with waste disposal (Jerinabi & Santhi, 2012). In addition, a supplier's savings from improved efficiencies may be passed along to buyers in the form of reduced prices. Competitive advantage is also acquired through innovation.

Efficient production may be enhanced through suppliers' use of cleaner technologies, process innovation, and waste reduction (Lacroix, 2008). This is especially true when suppliers and customers work together to find new ideas. Companies get improved public image by adopting green procurement. Greening its suppliers can contribute to a company's overall reputation among customers, investors, employees, and other stakeholders. Some of these tangible benefits include cost avoidance, savings from conserving energy, water, fuel and other resources; easier compliance with environmental regulations; demonstration of due diligence; reduced risk of accidents, reduced liability and lower health and safety costs; support of environmental/sustainability strategy and vision and improved image (Khiewnavawongsa & Schmidt, 2008).

The measures of greenness were outlined by Hamner (cited in Chiou *et al.*, 2011) who summarized them as seven basic GP activities. These are product content requirements (buyers specify that purchased products must have desirable green attributes such as recycled or reusable items), product content restrictions (buyers specify that purchased products must not contain environmentally undesirable attributes such as lead, CFCs, plastic foam in packaging materials), product content labeling or disclosure (buyers require disclosure of the environmental or safety attributes the contents of the purchased product. Such disclosure can be done using green seals and indicators of relative environmental impact such as scientific certification system offered by various commercial organizations).

Perry and Singh (cited in Khidir ElTayeb, Zailani & Jayaraman, 2010) conducted a survey among 91 MNCs in Malaysia and found that the most important determinants of voluntary environmental actions are pressure to conform to corporate head office on environmental criteria, increased workforce environmental awareness, consumers especially those located in high-income communities, and community NGOs, and the media. These studies emphasis on four main drivers that influence business firms to adopt GP initiatives and they are regulations, customer pressure (CP), social responsibility (SR), and expected business benefits (EBB).

A study by Lee (2008) on the drivers for the participation of small and medium-sized suppliers in green supply chain initiatives revealed that buyer environmental requirements and support were positively linked to their suppliers' willingness to participate in green supply chain initiatives. The study also revealed that the more slack resources and organizational capabilities suppliers had, the more willingly they were to participate in those initiatives. Walker, Di Sisto and McBain (2008) explored the factors that drive or hinder organisations to implement green supply chain management initiatives. A literature review identified the main categories of internal and external drivers of green supply chain management practices, including organisational factors, regulation, customers, competitors and society. The study found that internal barriers include cost and

lack of legitimacy, whereas external barriers include regulation, poor supplier commitment and industry specific barriers.

Procurement Planning

Planning both as a concept and function is probably one of the extensively talked about concepts in the management literature. It is a function that forms the foundation for the rest of management functions (Basheka, 2009). When planning is properly conceived and implemented, it can serve as an important mechanism for extracting, distributing and allocating resources. Planning generally enhances the gathering, evaluating and interpreting of essential data and information in order to produce knowledge relevant to good policy making. In many African countries, planning has not arrived at the level of achieving the aims described because of problems related to human and technical capacities and financial resources (Davis, 2014). In management literature planning implies that managers think through their goals and actions in advance and that their actions are based on some method, plan or logic rather than on a hunch. The planning function encompasses defining an organization's goals, establishing an overall strategy for achieving those goals, and developing a comprehensive hierarchy of plans to integrate and coordinate the activities (Chelladurai, 2014).

Procurement planning is the process used by companies or public institutions to plan purchasing activity for a specific period of time (Manual, 2009). This is commonly completed during the budgeting process. Each year, departments are required to budget for staff, expenses, and purchases. This is the first step in the procurement planning process. Procurement planning as the purchasing function through which organization obtain products and services from external suppliers (Apiyo & Mburu, 2014). A good procurement plan will go one step further by describing the process you will go through to appoint those suppliers contractually. Whether you are embarking on a project procurement or organizational procurement planning exercise, the steps will be the same. First, define the items you need to procure. Next, define the process for acquiring those items. And finally, schedule the timeframes for delivery. Procurement is thus one part of the commissioning process. It refers to a specific method of purchasing services which involves tendering for a contract. Sometimes it is more appropriate for a public body to fund a service through the provision of a grant, but then it will have less control over the precise outcomes to be delivered (Lewis & Roehrich, 2009).

Basheka, Oluka and Mugurusi (2015) argue that procurement planning is one of the primary functions of procurement with a potential to contribute to the success of government operations and improved service delivery. It is a function that sets in motion the entire acquisition/procurement process of acquiring services in local governments. Basheka (2009) asserts that the contribution of procurement planning in facilitating an efficient and effective service delivery in public sector organizations is generally undisputed in both developed and developing countries. Effective procurement planning is an important route towards securing the right service to be delivered to the public, and also maximizing the level of service provision which can be achieved within the local Supporting People. A procurement plan helps Procuring Entities to achieve maximum value for expenditures on services to be delivered and enables the entities to identify and address all relevant issues pertaining to a particular procurement before they publicize their procurement notices to potential suppliers of goods, works and services (Nderi, 2015).

Procurement planning is the primary function that sets the stage for subsequent procurement activities. It 'fuels and then ignites' the engine of the procurement process. According to Anabah

(2015) mistake in procurement planning therefore has wide implications for local governance, measured from the two indicators of accountability and participation. Procurement Planning is a process of determining the procurement needs of an entity and the timing of their acquisition and their funding such that the entities operations are met as required in an efficient way. Without thorough procurement planning, the subsequent procurement processes will not yield substantial benefits. The consequences of poor or lack of procurement planning can never therefore be amusing.

According to Nderi (2015), the concept of procurement is that advanced planning, scheduling, and group buying will result in cost savings, more efficient business operation, and therefore increased profitability. There are four steps that form the basis of procurement planning: group buying, just in time delivery, negotiated bulk pricing, and reduced administrative overhead. Group buying is the process of combining the total resource requirements for different departments and creating one purchase order. The departments can be physically located in a range of buildings, with the delivery dates, quantities, and conditions listed in the purchase order. This practice is increasingly common in government and public sector firms, where the same item can be purchased for a range of different institutions.

Performance

According to Kinuthia and Abdallah (2015), organization performance is closely linked to the performance of procurement and therefore it is necessary to assure that procurement performs to the necessary levels so that the organization as a whole achieves high levels of operations. Ngunyi (2014) asserts that organization performance can be evaluated by quality service and products, satisfying customers, market performance, service innovations, and employee that organization performance can be appraised by the following dimensions of performance; return on investment, margin on sales, capacity utilization, customer satisfaction and product quality. Correspondingly, Richard *et al.* (2009) noted that return on investment, sales and market growth, and profit are important factors that can be used to measure organization performance.

Baier, Hartmann and Moser (2008) suggested that procurement practices, associated with competition capabilities of the firm, may have more significant effects on firm performance. According to Yee-Loong Chong and Ooi (2008), a good organized and executed procurement process will make it possible for companies to decrease their inventories, have better customer service, diminish costs as well as aid fast inventory turns. From the long term perspective, a procurement process has been found to significantly increase a company's market share.

Accord to Seurey (2015), one of the tools for the firm's competitiveness is strategic procurement which is seen to have a positive effect on the overall performance of the organization. Unlike traditional purchasing driven by the desire to cut costs of purchase, short-term profit improvement, transactional rather than relationship behavior, and emphasis on price reduction. Strategic procurement planning, by contrast, looks at how the purchasing of goods and services, including outsourcing of entire processes, can deliver better long-term shareholder value. It involves reducing the supplier base, co-operative negotiation with suppliers, quality interaction with suppliers, and developing long-term relationships with the best suppliers. Nevertheless, these strategic procurement behaviors are linked to better procurement performance.

Procurement enables purchasers to buy goods and services through the use of various facilities in a variety of forms. For instance, through online

tendering or e-tendering: tenders for contracts are made online, and this enhances participation among suppliers. E-procurement's potential has already been attested by a number of studies, and has attracted the attention of public sector bodies at local, national and international level. Above all, a government sees e-procurement as a good opportunity to enhance and improve efficiency in procurement procedures within the public sector bodies (Ngunyi, 2014).

According to Davis (2014), economic or market conditions have a great influence over the public procurement system's effort to maximize competition and service delivery. Moreover, the market determines whether or not socioeconomic objectives of procurement are accomplished; whether or not a governmental entity can fulfill its needs; the timeliness of fulfillment; and the quality and costs of purchased goods, services, and capital assets. Under a perfect competition market, a buyer is able to achieve a solid value with little or no effort (Thai, 2008).

METHODOLOGY

The study used a descriptive survey research design in collecting data from the respondents. Descriptive survey design portrays an accurate profile of persons, events, or account of the characteristics of a particular individual, situation or a group (Lewis, 2015). Target population refers to the entire group of objects of interest from whom the researcher seeks to obtain the relevant information for the study (Cooper & Schindler, 2011; Oso & Onen, 2009; Kombo & Tromp, 2011). This was a survey in the County of Narok and therefore, the population of this study was the employees and management in the County. The study was guided by a model of the form:

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

Where:

Y = Represents the dependent variable (County Performance)

β_0 = The Constant, the value of *Y* when all *X* values are zero.

β_i = The regression coefficients (*i = 1, 2, 3 and 4*). The regression coefficients indicate the relative importance of each of the independent variables in prediction of the dependent variable.

X_i = The independent variables (*i = 1, 2, 3 and 4*), will explain the variation in Performance of the County. In this case:

X_1 = Supplier Partnerships

X_2 = ICT adoption

X_3 = Green Purchasing Policy

X_4 = Procurement Planning

ε = the error term (To account for all other Variables not considered in the study), assumed to be normally distributed with mean zero and constant variance.

FINDINGS

Correlation between the variables

The study generated a correlation matrix table between the variables and presented the findings in Table 1. From the table all the independent variables had a positive and statistically significant (p-values less than 5%) correlation with the dependent variable. This implied that there was positive and statistically significant linear relationship between the dependent and independent variables.

Table 1: Correlation between the variables

Correlations

		Performance	Supplier Partnerships	ICT Adoption	Green Purchasing Policy	Procurement Planning
Performance	Pearson Correlation	1	.779**	.820**	.801**	.743**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	182	182	182	182	182
Supplier Partnerships	Pearson Correlation	.779**	1	.714**	.862**	.731**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	182	182	182	182	182
ICT Adoption	Pearson Correlation	.820**	.714**	1	.750**	.752**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	182	182	182	182	182
Green Purchasing Policy	Pearson Correlation	.801**	.862**	.750**	1	.703**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	182	182	182	182	182
Procurement Planning	Pearson Correlation	.743**	.731**	.752**	.703**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	182	182	182	182	182

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

Descriptive Statistics for the Variables

Supplier Partnerships

The study sought to determine the influence of Supplier Partnerships on Performance of Narok County. The findings were presented in Table 2. From the table, 41.8% of the respondents agreed that they have both local and international procurement partners, 39.0% agreed that their services to the citizens of Narok have improved greatly as a result of increase in number of procurement partners, 42.9% agreed that the synergy between the County and the partners has been exemplary, 43.4% agreed that their partners/collaborators have helped the County to make problem solving efforts in the County easy through fast supply of the required products, while 39.6% agreed that they have penetrated service delivery into all corners of the County through partnerships/collaborations with the local suppliers.

Table 2: Descriptive Statistics of Supplier Partnerships

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

We have both local and international procurement partners	1.1%	11.0%	23.1%	41.8%	23.1%
Our services to the citizens of Narok have improved greatly as a result of increase in number of procurement partners	1.6%	10.4%	22.0%	39.0%	26.9%
The synergy between us and our partners has been exemplary	1.6%	7.7%	22.0%	42.9%	25.8%
Our partners/collaborators have helped us to make problem solving efforts in the County easy through fast supply of the required products	1.6%	8.8%	27.5%	43.4%	18.7%
We have penetrated service delivery into all corners of the County through partnerships/collaborations with the local suppliers	2.7%	11.0%	22.0%	39.6%	24.7%

ICT Adoption

The research sought to find out the influence of Information and Communication Technology (ICT) adoption on Performance of Narok County. The findings were summarized in Table 3. From the findings, 45.1% agreed that ICT has greatly improved efficiency of their procurement processes and has therefore enhanced performance of the County, 36.8% agreed that ICT adoption has greatly helped County procurement particularly through coordination of business processes, 37.4% agreed that ICT adoption in the County has enabled provision of real-time information for quick decision making and enabling collaboration between trading partners, 47.8% agreed that through the use of ICT the County has realized greater cost/expenditure transparency, and 39.6% agreed that the County has skilled employees that are able to use ICT Systems in all procurement processes.

Table 3: Descriptive Statistics for ICT Adoption

	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
ICT has greatly improved efficiency of our procurement processes and has therefore enhance performance of the County	1.1%	6.0%	22.0%	45.1%	25.8%
ICT adoption has greatly helped County procurement particularly through coordination of business processes	3.3%	13.2%	31.9%	36.8%	14.8%
ICT adoption in the County has enabled provision of real-time information for quick decision making and enabling collaboration between trading partners	1.6%	9.9%	24.7%	37.4%	26.4%
Through the use of ICT the County has realized greater cost/expenditure transparency	1.6%	6.6%	16.5%	47.8%	27.5%
The County has skilled employees that are able to use ICT Systems in all procurement processes	1.1%	5.5%	25.8%	39.6%	28.0%

Green Purchasing Policy

The study sought to establish the impact of adoption of Green Purchasing Policy on

Performance of Narok County. From the findings in Table 4 showed that, 45.1% agreed that the County has adopted green procurement policies in all its procurement areas, 47.3% agreed that the County has environmental management systems in place, 40.7% agreed that the County favours products which provide information about their effect on the environment, 40.7% agreed that the County provides design specification to suppliers that include environmental requirements for purchased items, while 39.6% agreed that the County partners with suppliers who are compliant with environmentally related legislation.

Table 4: Descriptive Statistics of Green Purchasing Policy

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The County has adopted green procurement policies in all its procurement areas	1.1%	6.0%	22.0%	45.1%	25.8%
The County has environmental management systems in place	0.0%	8.2%	22.5%	47.3%	22.0%
The County favours products which provide information about their effect on the environment	0.0%	8.2%	24.2%	40.7%	26.9%
The County provides design specification to suppliers that include environmental requirements for purchased items	1.1%	8.8%	22.5%	40.7%	26.9%
The County partners with suppliers who are compliant with environmentally related legislation	1.1%	5.5%	24.2%	39.6%	29.7%

Procurement Planning

The research sought to establish the impact of adoption of Green Purchasing Policy on Performance of Narok County. The findings were summarized in Table 5. From the findings, 38.5% of the respondents strongly agreed that procurement planning in the County is always done together with budgeting process, 47.3% agreed that procurement planning has facilitated an efficient and effective service delivery in the County, 44.5% agreed that procurement planning enables the County to have an expenditure that is realistic and achievable, 48.4% agreed that through procurement planning, the County is able to prioritize the procurement requirements, 47.3% agreed that procurement planning enables the County to match procurement to funds or cash flow, and 53.3% agreed that procurement planning enables the County to determine total time of the procurement process.

Table 5: Descriptive Statistics of Procurement Planning

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Procurement planning in the County is always done together with budgeting process	1.6%	4.9%	17.6%	37.4%	38.5%
Procurement planning has facilitated an efficient and effective service delivery in the County	0.5%	6.0%	30.2%	47.3%	15.9%
Procurement planning enables the County to have an expenditure that is realistic and achievable	0.5%	5.5%	18.7%	44.5%	30.8%

Through procurement planning, the County is able to prioritize the procurement requirements	0.0%	5.5%	22.5%	48.4%	23.6%
Procurement planning enables the County to match procurement to funds or cash flow	0.0%	4.4%	27.5%	47.3%	20.9%
Procurement planning enables the County to determine total time of the procurement process	0.0%	3.3%	20.3%	53.3%	23.1%

County Performance

The research sought to find the descriptive statistics of County Performance. The findings were summarized in Table 6. From the findings, 43.4% agreed that there is improved quality of service and products and hence satisfaction to citizens of the County, 48.4% agreed that there is enhanced service innovation, 44.5% agreed that there is optimal capacity utilization in the County, 43.4% agreed that the County has decreased its inventories, 45.1% agreed that there is timeliness of fulfillment of County objectives, 42.3% agreed that the County has been able to achieve a solid value and quality of purchased goods, services and capital assets with little or no effort.

Table 6: *Descriptive Statistics of County Performance*

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
There is improved quality of service and products and hence satisfaction to citizens of this County	0.0%	6.6%	24.7%	43.4%	25.3%
There is enhanced service innovation	1.1%	4.4%	29.1%	48.4%	17.0%
There is optimal capacity utilization	1.1%	9.9%	27.5%	44.5%	17.0%
The County has decreased its inventories	1.1%	9.3%	24.2%	43.4%	22.0%
There is timeliness of fulfillment of County objectives	1.6%	5.5%	25.8%	45.1%	22.0%
The County has been able to achieve a solid value and quality of purchased goods, services and capital assets with little or no effort	3.3%	7.1%	22.0%	42.3%	25.3%

Linear Regression Analysis

Table 7: Model Summary of the Variables

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.878[a]	.771	.765	2.114

a. Predictors: (Constant), Procurement Planning, Green Purchasing Policy, ICT Adoption, Supplier Partnerships

b. Dependent Variable: Performance

Table 8: ANOVA on dependent variable and the independent variables

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	2658.322	4	664.581	148.679	.000[b]
	Residual	791.172	177	4.470		
	Total	3449.495	181			

a. Dependent Variable: Performance

b. Predictors: (Constant), Procurement Planning, Green Purchasing Policy, ICT Adoption, Supplier Partnerships

The study optimal model was fitted as shown;

$$\boldsymbol{County\ Performance = 0.165(X_1) + 0.509\ (X_2) + 0.297(X_3) + 0.149(X_4)}$$

Table 9: Beta Coefficients on dependent variable and the independent variables

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.180	.992		.182	.856
	Supplier Partnerships	.165	.072	.174	2.298	.023
	ICT Adoption	.509	.077	.407	6.569	.000
	Green Purchasing Policy	.297	.090	.253	3.296	.001
	Procurement Planning	.149	.068	.132	2.201	.029

a. Dependent Variable: Performance

CONCLUSION AND RECOMMENDATIONS

In the first objective, the study sought to determine the influence of Supplier Partnerships on Performance of Narok County. From the findings, the study concluded that there was positive and statistically significant linear relationship between the County Performance and Supplier Partnerships.

In the second objective, the study sought to find out the influence of Information and Communication Technology (ICT) adoption on Performance of Narok County. The findings led the study to conclude that there existed positive and statistically significant linear relationship between County Performance and Information and Communication Technology (ICT) adoption.

In the third objective, the study sought to establish the impact of adoption of Green Purchasing Policy on Performance of Narok County. Through the findings, the study concluded that there was positive and statistically significant linear relationship between the County Performance and Green Purchasing Policy.

In the fourth objective, the study sought to find out the influence of Procurement Planning on Performance of Narok County. The findings led the study to conclude that there was positive and statistically significant linear relationship between the County Performance and Procurement Planning.

Policy Recommendations

The study sought to find the influence of procurement practices on performance of the public sector in Kenya using a case of Narok County. Specifically, the study sought to find the influence of Supplier Partnerships, ICT Adoption, Green Purchasing Policy, and Procurement Planning on County Performance. The study established that Supplier Partnerships, ICT Adoption, Green

Purchasing Policy, and Procurement Planning influenced 77.1% of the total variability in the Performance of the County. This was quite a significant influence and therefore the study recommends adoption of this procurement practices in all procurement processes in the entire public sector so has to enhance performance and delivery of service.

Recommendations for Further Study

The study sought to find the influence of procurement practices on performance of the public sector in Kenya using a case of Narok County. Therefore, a study can be carried out using a different case study. Still, a study can be carried out in different geographical location outside the realm of this study. The study used Supplier Partnerships, ICT Adoption, Green Purchasing Policy, and Procurement Planning as its variables. Therefore, a study can be carried out using different objectives/variables.

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