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FACTORS INFLUENCING PROCUREMENT PERFORMANCE IN THE KENYAN PUBLIC SECTOR: CASE STUDY OF THE STATE LAW OFFICE

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ABSTRACT: Public procurement is crucial to government service delivery. For decades procurement performance has been attracting great attention from practitioners, academicians and researchers due to poor levels of performance. Despite Government efforts for improvement, it is still marred by shoddy works, poor quality goods and services. Stakeholders complain about poor service delivery. Benefits deriving from improved procurement performance at State Law Office (SLO) are dependent on systems and staff. The general objective of the study was to assess factors influencing procurement performance in Kenyan public sector with specific focus on the SLO. It sought to assess the extent to which records management systems, procurement procedures, information communications technology and staff qualifications influence procurement performance. Descriptive design was used in executing the study. Target population was the 600 SLO staff comprising of 7 departments. Sample size of 60 respondents, 10% of target population, was drawn using stratified sampling method. Primary and secondary sources of data were collected using questionnaires, interviews and observation. Both descriptive and inferential data analysis methods including frequencies, percentages, factor analysis and regression were used in STATA. Data was presented using graphs and figures. Based on the analyses of information presented above, the following findings were noted: Demographic indicators show that majority of the study participants are qualified and have attained education levels sufficient to influence favourably their comprehension of antecedents to effective management of the procurement function. Further findings on years of experience indicate that officers participating in the procurement function in the SLO have long work experience. The results indicate that the SLO is performing on the negative in all the five determinants of public procurement performance studied as they all recorded negative mean scores. Overall records management is most significant driver in procurement performance followed by procurement procedures, procurement staff qualifications and ICT in that order. It is recommended that reforms in the Department be accelerated with a view of streaming procurement processes as well as automating activities and back office operations.

KEYWORDS: State Law Office, procurement performance, procurement processes.

1 INTRODUCTION

The weakening global economic conditions are forcing organisations to reinvent their relations with customers and suppliers alike. Thus, costs must be lowered throughout the procurement process by focusing on value addition. Bottlenecks must be removed and performance measurements focus on total system efficiency and equitable reward distribution to key players in the process; to achieve win-win situations. The working principle is to create customer satisfaction at the end point of delivery and continuous improvement of process.

For decades procurement performance has been attracting great attention from practitioners, academicians and researchers due to poor performance. Adoption of e-procurement has rapidly increased since 1990s; yet organisations still

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face challenges associated with its advent and use. Analysis by Wyld (2004) showed that in the United States only 30% of firms surveyed use e-procurement systems for request for quotations (RFQ), online auctions (25%) and e-markets (33%). Despite evidence showing advantages of e-procurement systems, many organisations are still reluctant to embrace it. Organisations need to know critical success factors in implementing e-procurement strategies, processes and systems. Due to limited vision, management of many organisations fails to appreciate the importance of system-wide performance measures.

Procurement professionals find that combinations of quality, service, and price are seldom exactly equal. Burt, Petcavage and Pinkerton (2010) postulated that if quality and price are equal, then supplier should be selected solely on the basis of service. Service is seldom equal and in many cases it is a supplier's capabilities that are being purchased, not commodities. Government as a sovereign power is distinguished from commercial contracting process. In most cases, Government acts in the best interest of the public; to strive to guarantee transparency, accountability and facilitate easy access to information.

The public procurement system in Kenya was governed by amorphous legal framework such as Treasury Circulars from 1969; then Government Supplies Manual of 1978. In 1997, Government initiated the Public Procurement Reform and Enhanced Capacity Project following recommendations of two procurement audits carried out by consultancy firm, Societe Generale de Surveillance (SGS). The audit disclosed serious shortcomings. Thus, Government decided to reform existing practices in order to achieve and enhance economy, accountability and transparency. It harmonized all rules resulting in the Public Procurement Regulations, 2001.

An Independent Procurement Review (IPR), covering selected ministries, state corporations, and educational institutions, carried out in 2005 identified further key weaknesses. Thus, Government enacted the Public Procurement and Disposal Act 2005 and in December, 2006, the Public Procurement and Disposal Regulations 2006 were gazetted to operationalise the Act, effective from 1st January, 2007. The Act and Regulations set out rules and procedures that a procuring entity (PE) shall follow to implement procurement mandate. An effective public procurement system can contribute immensely to Kenya's socio-economic development and particularly be the cornerstone of attaining the Vision 2030 Strategy.

Public Procurement Oversight Authority (PPOA) Legislative and Regulatory Framework Pillar in 2010 assessed the existence, availability, quality and use of the legal framework from the highest level (Act and Regulations) down to the more detailed operational procedures, guidelines, model tender documents, and standard conditions of contract. Key weaknesses noted were excessive use of RFQ, and low use of open tendering method. The survey considered 11,046 procurement transactions by the sampled PEs and found that 89.2% of these were through RFQ; direct procurement 3.3%; low value procurements 3.9%; request for proposals (RFP) 0.1%; restricted tenders 1.3%; while open tenders accounted 1.3%. Excessive use of the RFQ method shows a worrying trend of about 90% of business as clerical operations.

Predominant weaknesses related to procurement operations and strict tendering security requirement constrained private sector access to public procurement. Chapter Twelve of The Constitution of Kenya, 2010, Part VI, has recognised the contribution of procurement to national economy. Section 227 (1) states that PEs should contract in accordance with a system that is fair, equitable, transparent, competitive and cost effective.

Integrated Financial Management Information System (IFMIS) initial launch and development by Ministry of Finance began in 1998 and roll out to Ministries began in 2003. It has only played a partial role in the Public Finance Management (PFM). Out of ten modules targeted, only three have been configured and operating in 48 ministries/departments only, the SLO included. It was limited to the General Ledger (GL), Purchasing Order (PO) and Accounts Payable (AP) modules suffering from technical limitations with functionalities insufficiently interlinked; leading to fragmented approach to its use. Usage resistance was high leading to poor adoption. Design flaw prevents POs from being properly formatted and validated. Poor combination of automated and manual processes undermined quality and accuracy of data. Requisitions, POs, payment vouchers, delivery notes, invoices, and approvals were done manually. Re-engineering process can radically transform the system of SLO transactions.

Some 18 baseline studies of RM were conducted under the Support for Reforming the Public Procurement System (RPPS) commencing 2007. A scoring system based on 13 key record keeping sub-indicators was developed for conducting an assessment. 77.8% obtained low scores ranging from 21% to 49%. Rembe (2011) noted that records management (RM) in most PEs has been unsatisfactory and depressing. This study was carried out at the SLO. Target group is all the 600 members of staff at headquarters. The SLO plays a key role in supporting and facilitating the implementation of Government policy interventions to revitalise the economy and encourage reform and development in various sectors.

1.1 STATEMENT OF THE PROBLEM

Public procurement is key to government service delivery, yet constraints affect its performance. Procurement is perceived as prone to corruption; occasioning waste and affecting quality of service and life improving opportunities. There is need to reverse this worrying trend and win public confidence. Despite Government efforts to improve the procurement system, it is still marred by shoddy works, poor quality goods and services. Improper implementation of recommended performance standards results in unnecessarily high operation costs, uncoordinated business activities, inability to achieve domestic policy goals, and failure to attract and retain professionals. Suppliers complain about the capability of public sector buyers.

The *Systems Audit for SLO, 2008/2009 Report* revealed losses of Kshs.18,291,430.30 through irregular procurements in financial year (FY) 2008/2009. Earlier, in FY 20072008, SLO had lost Kshs. 8,495,968.00 due to inefficiencies. This raises questions on the level of performance of SLO's procurement system. According to Juma (2010), central government procurement was estimated at 10% of gross domestic product (GDP). Even a 10% saving via improved procurement performance means Kshs. 30 billion annual savings for other needy sectors. Consequences of inefficiencies include drains on scarce resources and erosion of public confidence in Government. Nationally, it raises questions for SLO to exist as currently constituted or be privatised. Organisations are founded on goals and objectives and their continued existence can only be justified by the extent to which they meet them. This study is worthy so as to help get to grips with constraints; tackle waste, control public spending and light the fires of enterprise in public sector.

The general objective of this study was to assess factors influencing procurement performance in the Kenyan public sector: case study of the State Law Office. It was guided by the specific objectives of: to evaluate the extent to which records management systems affect procurement performance at the State Law Office, to establish the extent to which procurement procedures affect procurement performance at the State Law Office, to examine how information communications technology affects procurement performance at the State Law Office and to determine the contribution of staff qualifications to procurement performance at the State Law Office.

This study intended to make an in-depth assessment of factors affecting levels of procurement performance so as to improve productivity. There is growing demand from taxpayers for service higher levels. The study identifed ways for enhanced procurement system which, if implemented, can contribute to socio-economic benefits for the SLO, public procurement, and Government.

It is expected that from the findings of this study, SLO could put in place appropriate measures to improve procurement performance levels. Government could benefit from enhanced value for money due to improved revenue collection which could be used to finance other sectors of the economy. This study could form a basis of reference for what needs to be researched further and throw light to the need for future research in procurement. Its recommendations could enable the public at large to benefit through responsive service delivery, if implemented.

The study's scope lies in assessing factors influencing procurement performance in government. The study was conducted at the SLO headquarters which has seven departments, six of them technical/legal and one administrative with a total population of approximately six hundred members of staff. Data was specifically collected from employees of the senior management, middle and lower levels. These were considered as major respondents of the study. Strategic functions are centralised at the headquarters including procurement. All the regional offices are served, coordinated and administered from headquarters.

The study was limited in that, the data for this study was collected from officers who were not readily available due to their busy schedules. The researcher personally administered the questionnaires so as to enhance the rate of returned responses from respondents. The researcher made proper arrangements with respondents to avail themselves for the study off-time hours and motivated them on the value of the study. The study was perceived to narrow to the procurement unit yet the research problem cut across the whole organisation. The impact of limiting this study to the headquarters is to get accurate data from policy makers and key implementers of strategies. However, despite all these limitations mentioned, adequate sample was drawn, credible data collected and analysed.

2 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter comprises the theoretical review/conceptual framework, critique of relevant past studies or empirical review, a summary of the literature reviewed and any research gaps.

2.2 THEORETICAL REVIEW

Several theories have been developed in this area of study. Two of them, Hegelian dialectic theory and Bloom's Taxonomy Theory, are reviewed. After discussing these theories, a theoretical framework was provided.

2.2.1 HEGELIAN DIALECTIC THEORY

This study is based on Hegelian dialectic theory (Hegel, 1995). The theory has it that the organisational entity exists in a pluralistic world of colliding events, forces, or contradictory values that compete with each other for domination and control. Oppositions may be internal or external to an entity with several conflicting goals or interest groups competing for priority. The theory explains that change in organisations occurs when opposing values, forces or events gain sufficient power to confront and engage the status quo. Opposing forces are termed thesis (status-quo) and antithesis (new situation). Records management systemes, procurement procedures, information communications technology and emerging knowledge in procurement and supply chain management in general face several challenges to overcome the obtaining status-quo. Dialogue and consensus-building are primary tools. Agency theory can be applied to employer-employee and buyer-supplier relationships, facilitated by ICT and legal framework. Procurement involves several parties with different competing goals. Internal stakeholders, such as departments exist; with conflicting goals, adding complexity to the procurement performance.

2.2.2 BLOOM'S TAXONOMY OF LEARNING THEORY

Bloom (1956) produced a taxonomy of learning theory which is helpful in identifying different cognitive skills. He identified six levels in this scheme; knowledge, comprehension, application, analysis, synthesis and evaluation. Movement from level 1 to level 6 represents an increase in the level of sophistication of cognitve ability. From strategic thinking perspective, higher demands is be made of the skills associated with analysis, synthesis and evaluation. At operational and tactical level; knowledge, comprehension and application may be more heavily utilised. There are implications with this theory for the ability to learn; from the point of view of attributes in relation to personnel issues with regard to staffing, training and education. Sophisticated levels take on greater importance when analysing situations in terms of relevant factors and the relationships between them, or developing, through synthesis, a picture of the wider system and its functioning as a whole as a result of the inter-dependency of its parts. An example in procurement is the ability to understand each stage of activity in the process, as one side of the coin, but also to appreciate how the stages interrelate and to consider the performance of the system as a whole. Learning is not attempting to transfer a body of knowledge as if it were an inert commodity to be regurgitated in an exam and then promptly forgotten. It should serve more useful purpose to enhance procurement performance through embracing best practice.

2.3 CONCEPTUAL FRAMEWORK

A conceptual framework is a research tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and to communicate this. It is used in research to outline possible courses of action or to present a preferred approach to an idea or thought. Successful organisations strive constantly to improve all aspects of their procurement system. In the highly competitive business environment, only the efficient prevail. Therefore, for procurement performance improvement there is need for better functional relationships, sound RM, appropriate procedures, keeping a spotlight on training needs of staff, acquisition and use modern technology, and generally improvement of motivation in the organisation. According to Bogdan and Biklen (2003) a conceptual Framework is a basic structure that consists of certain abstract blocks which represent the observational, the experiential and the analytical/synthetical aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes.

A variable is a measurable characteristic that assumes different values among subjects. Independent Variables are changes that occur in an experiment that are directly caused by the experimenter. An independent variable is that variable which is presumed to affect or determine a dependent variable. It can be changed as required, and its values do not

represent a problem requiring explanation in an analysis, but are taken simply as given (Dodge, 2003). The independent variables in this study are as follows and are shown in the figure 2.1 below: records management systems, procurement procedures, information communications technology, and staff qualifications.

A dependent variable is a variable dependent on another variable: the independent variable. A dependent variable is what is measured in the experiment and what is affected during the experiment. The dependent variable responds to the independent variable (Everitt, 2002). It is called dependent because it depends on the independent variable. In a scientific experiment, you cannot have a dependent variable without an independent variable. Procurement performance is a function of several variables depicted in figure 2.1 below:

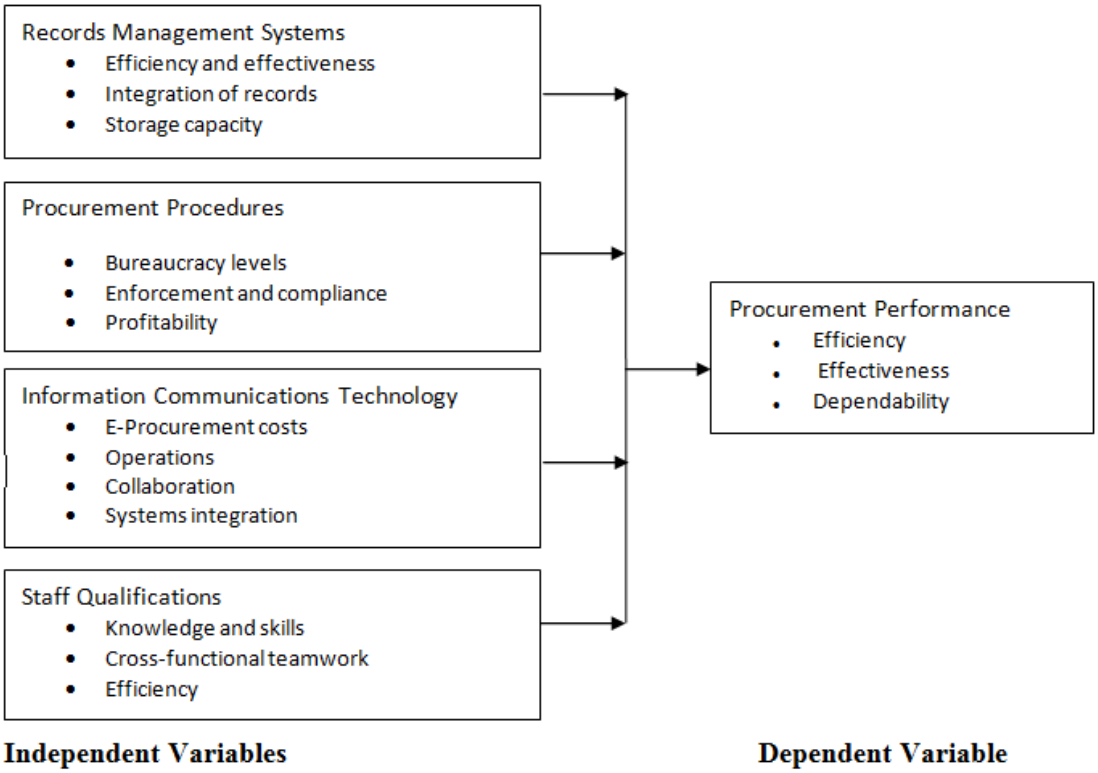

Figure 2.1: Conceptual Framework

2.3.1 PROCUREMENT PERFORMANCE

Smith and Conway (1993) identified seven key success factors which influence procurement, namely; a clear procurement strategy, effective management information and control systems, development of expertise, a role in corporate management, an entrepreneurial and proactive approach, co-ordination and focused efforts. An eighth is fundamental; communicate the key success factors to all levels of the organisation and set out a procurement strategy to achieve continuous improvement in value for money. This should be based on total cost, quality, and enhancement of competitiveness of suppliers using best procurement practice.

Supplier performance has an impact on procurement performance. According to Leenders and Fearon (2002), decisions to buy instead of make to improve quality, lower inventories, integrate supplier and buyer systems, and create co-operative relations underline need for good supplier performance. Recent trends are to fewer suppliers; long-term contracts, e-procurement, and continuing improvement in quality, price, and service require closer co-ordination and communication between key procurement partners. Supplier switching for lower prices may not result in the best long-term value. Sharing information and assisting suppliers to improve performance is a necessity for world-class performance.

There is need to have coherent methods of performance in the procurement function in PEs. Lardenoije, van Raaij and van Weele (2005) asserted that basing on financial performance and neglecting non-financial performance cannot improve the procurement operations because only partial performance is considered. Realisation of procurement goals is influenced by internal and external forces. Interactions between various elements; professionalism, staffing levels and budget resources,

procurement organisational structure, regulations, rules, and guidance, and internal control policies, all need attention and influence procurement performance.

Christopher (2005) distinguished features of a responsive organisation. Major transformations are; from functions to process, profit to performance, products to customers, inventory to information, and transactions to relationships. Critical measures of procurement performance need to be continuously monitored. The idea of 'Key Performance Indicators' (KPI) framework suggests that whereas there are many measures of procurement performance to be deployed in an organisation, only a small number of critical dimensions contribute more than proportionately to success or failure. A balanced scorecard can provide guidance on critical areas where action may be needed to ensure achievement of goals. Three key outcomes of success are: better, faster, and cheaper. The goals combine customer-based measures of performance in terms of total quality with internal measures of resource and asset utilisation. Benchmarking helps identify current best practice and then focuses on how processes could be re-engineered and managed to achieve excellence in critical procurement areas. Emphasis should be on search for strategies that provide superior value in the eyes of customers seeking greater responsiveness and reliability.

Van Weele (2006) maintained that there is a link between procurement process, efficiency, effectiveness and performance. Procurement performance starts from purchasing efficiency and effectiveness in the procurement function in order to change from being reactive to being proactive to attain set performance levels in an entity. Performance provides the basis for an organisation to assess how well it is progressing towards its predetermined objectives, identifies areas of strengths and weaknesses and decides on future initiatives with the goal of how to initiate performance improvements. Procurement performance is not an end in itself but a means to control and monitor the procurement function.

For any organisation to change its focus and become more competitive, performance is a key driver to improving quality of services. Batenburg and Versendaal (2006) noted that use of inappropriate means can be a barrier to change and may lead to deterioration of procurement operations. Organisations which do not have performance means in their processes, procedures, and plans experience lower performance and higher customer dissatisfaction and employee turnover. Measuring procurement performance yields benefits to organisations such as cost reduction, enhanced profitability, assured supplies, quality improvements and competitive advantage. Electronic processes have replaced physical and paper-based processes. E-procurement moves tendering, negotiation and purchasing processes to websites. Improvement to a PE's procurement performance can be realised through reduced costs and wider choice availed.

2.3.2 RECORDS MANAGEMENT SYSTEMS AND PROCUREMENT PERFORMANCE

Records, asserted Thurston (2002), are critical to the operations of any organisation. No entity can operate successfully if it relies on human memory alone to keep trail of her transactions. Procurement records are a vital resource to any organisation that strives to conduct operations effectively. Organisations need accurate and accessible records that are tamper-free, original, reliable and able to reveal institutional memory for informed decision making. PEs should strictly comply with documentation, recording, minuting and filing requirements. The documentation should be kept in orderly, accessible and clean conditions.

Sound RMS is a vital aspect of ensuring transparency, accountability and responsibility in the procurement process. It can reduce vulnerability to legal challenge on financial loss and promote efficiency in terms of human and space resources through greater coordination of the information use, maintenance and control. Procurement RM aims at addressing weaknesses and provides guidance and direction for best practices. David (2005) opined on the future of managing electronic records, which is complex and goes beyond the procurement of a RMS. He contended that firms need an understanding of current ICT trends and business processes and must accept that records systems are products of the moment. The future lies in electronic systems that are more recent in business logic and more useful in business support. Management of electronic records must not be confused with the procurement of document management systems. For any positive contribution to procurement performance, PEs must ensure that records are available to provide documentary evidence of conformity to the requirements of an effective management system. The records control system should facilitate identification, storage, protection retention and disposition of records.

One of the best ways to implement a record management policy is utilizing a business that specializes in it; there are a myriad of companies that offer record management solutions for both paper and electronic documents. Bolton (2006) noted that such solutions make it easy to track, retrieve, and securely store important documents. With so many threats facing entities today, prevention with record management is one vital key to managing a successful.

Rembe (2011) observed that RMS should be accorded a high organisational status and ranking in terms of budgetary allocation, investment in human resource development, records storage space and equipment. It should be viewed as a

critical support function. PEs need to strive to appoint procurement records officers with clearly defined record keeping duties. Transparency and accountability is promoted through the appropriate recording of procurement procedures. There is need for every PE to maintain records retention and disposal schedule for sound management of procurement transactions. This schedule should specify the length of time each type of record to be retained, and the applicable disposal action which may take the form of preservation in closed records room, transfer to the archives or destruction if it is deemed to be valueless upon the completion of the required retention period.

2.3.3 PROCUREMENT PROCEDURES AND PROCUREMENT PERFORMANCE

Procedures are operating instructions detailing functional duties or tasks. According to Saunders (1997), the division between public and private sectors creates two different worlds, requiring different approaches to procurement. Public ownership imposes obligations with regard to public accountability, leading to prescribed procedures and policies. All steps of the procurement cycle must be properly documented with each step being approved by the designated authority. Baily, Farmer, Jessop and Jones (2005) argued that public procurement procedures tend to be characterised by high levels of bureaucracy independent of order value; poor communications and focusing on unit price rather than long-term relations. Procurement perceptions are affected by the existing organisational structure, quality of internal communication system, past experience and resources available. A procurement policy may define the approval process for contracts of varying cost levels and may include role of purchasing, conduct of procurement staff, buyer-seller relationships, and operational issues. Without elaborate and effective procurement procedures Government policy objectives would fail to meet the desired objectives.

Lysons (2006) defined tendering as a purchasing procedure whereby potential suppliers are invited to make a firm and unequivocal offer of the price and terms, which on acceptance shall be the basis of the subsequent contract. Organisations need standard procurement procedures which cover all aspects of the procurement cycle, including supplier selection, contract negotiations, order placement and payment. These are used to control spending activity, ensure appropriate approvals are in place and reduce the risk of overpayment. An appropriate approval process involves a separation of tasks and the involvement of senior managers for transactions that cost more than a specific price for enhanced procurement performance.

Nicholas, Michael and Simone (2008), explored whether opportunities for fraud and corruption might be reduced or increased by rules governing public procurement. They focused on specific European legislation – Procurement Directive 2004/18 on the coordination of procedures for the award of contracts for public works, public supply and public services by public bodies within all EU Member States. They concluded that fraud risks in public procurement may be summarised in terms of insider-driven specifications, low visibility of procurement processes, and ample opportunities for renegotiation of terms. Risks may be increased by innovative procurement practices that have the effect of extending the manoeuvring between tenderers and public bodies, such as competitive dialogue. In Kenya, Part V of the PPDR provides for alternative procurement procedures as restricted tendering; direct procurement; request for proposal; request for quotations; low value procurement; and use of specially permitted procedures. This gives PEs room to meet needs in time during emergency, tragedy, limited sources or economic viability.

Burt *et al.* (2010) stated that every organisation develops procedures to enable its personnel implement policies and plans; designed to meet her objectives. In Kenya, Parliament prescribes a framework within which policies relating to public procurement and asset disposal shall be implemented and may provide for preferences or sanctions against contractors failing to perform according to professionally regulated procedures, contractual agreements or legislation or persons found guilty of corrupt practices. Parliament enacted the Public Procurement and Disposal Act (PPDA), 2005 and the operationalising Public Procurement and Disposal Regulations (PPDR), 2006. This law establishes procurement procedures for different methods of procurement with the aim of increasing public confidence, promoting local industry and stimulating economic development.

Jones and George (2009) postulated that bureaucratic control mechanism is control by a comprehensive system of formal rules and standard operating procedures (SOPs) that shapes and regulates the behaviour of divisions, functions and individuals. SOPs and rules allow employees to perform activities efficiently and effectively. Moncska, Handfield, Guinipero and Patterson (2010) held that the procurement function has a significant impact on corporate performance. Thus, traditional procedures are becoming obsolete in modern organisations. Procedures provide guidance that staffs follow in performing activities, put constraints on behaviour and show how the procurement function should work to achieve strategic objectives.

2.3.4 INFORMATION COMMUNICATIONS TECHNOLOGY AND PROCUREMENT PERFORMANCE

Saunders (1997) reckoned that personnel in procurement are, in a sense, information processors. They receive, analyse, make decisions and distribute information in order to manage the flow of goods and services in the SC. ICT is an enabler for information sharing which organisations in the procurement system can use for eliminating bloated inventory levels caused by cumulative effect of poor information cascading up through a SC. Daugherty, Myers and Autry (1999) averred that information integration is also a key component in many automatic replenishment programs (ARP). Initiatives such as vendor managed inventory (VMI) and collaborative planning, forecasting and replenishment (CPFR) are based on an increased level of automation in both the flow of physical materials, goods and associated information between companies to improve the efficiency in the entire system. It shortens information processing time and tremendously improves procurement performance.

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

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

Thomas and Rainer (2005) opined that procurement systems have long been supported by ICT. With the implementation of ERP systems in the 1990s, EDI connections with suppliers were established through automation of delivery schedules by linking user materials management system with supplier systems. ICT enables organisations to decentralise operational procurement processes and centralise strategic ones due to higher transparency. Prior to e-procurement, strategic procurement often dealt with routine tasks such as individual transactions. Strategic aspects were frequently neglected, with the buyer having little influence over the choice of suppliers and purchased products. Internet technologies facilitate faster and more efficient operational procurement processes enabling managers to concentrate on strategic tasks.

Christopher (2005) contended that there is a dimension to information that enables supply and demand to be matched in multiple markets, often with tailored products, in ever-shorter time frames. This enables suppliers to react in real-time to market changes. ICT serves as the connection between various stages of the system, allowing them to co-ordinate and maximise total supply profitability. It is crucial to the daily operation of each stage in the procurement process. Kim and Rogers (2005) asserted that studies have examined business-to-business (B2B) transactions on different operational performance dimensions such as inventory cost, cycle time, and manufacturer flexibility. Rapid growth of importance of ICT application is a testimony to its impact on improving procurement performance. This is achieved through Internet, Intranet and Extranet. However, organisations must make a trade-off between efficiency and responsiveness.

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

Chopra, Meindl, and Dhamram (2007) asserted that ICT provides a collaboration platform by allowing customers and suppliers to work together on product design using specialist ICT design tools. Value chain integration may be made possible if separate activities can be knitted together by faster and more reliable information flows. Integration allows customers to change their specification and delivery schedules themselves which then automatically reconfigures requirements back in the procurement system. ICT can allow managers and external stakeholders to bypass traditional gatekeepers who gained power

from their control of information. ICT-based systems can also create direct communication between the top and bottom of an organisation through use of in-house websites. This helps organisations reduce transaction and production costs and achieve operational efficiency.

Kenth and Vahid (2008) found that ICT drives e-markets to increase the availability of information about suppliers who are made available for each product and increase market interest for parties, reduce procurement costs and support paperless transactions. It enables users to buy at lower prices worldwide. Offers of companies on their websites enable customers to choose between a variety of products and retailers. Products can be customised before shopping and warehousing related costs reduced due to direct delivery. Dell and Amazon work this way. The global setting includes higher cultural distance and geographical complexity, lower behaviour transparency and social difficlties in bonding between procurement channel partners. Thus, ICT could be a more effective procurement performance coordination and control mechanism than personal face-to-face interaction in international exchange relationships.

2.3.5 STAFF QUALIFICATIONS AND PROCUREMENT PERFORMANCE

Saunders (1997) believed that successful functioning of organisational structures and effective operation of planning control systems is dependent on the quality and ability of staff employed. Strategic plans should include information on the acquisition, development, use and reward of human assets. Plans need to take into account the current state of development of the procurement function and the strategic direction in which its state might change. Multi-skilling provides employees with a variety of skills and should be developed extensively. Training is beneficial and generates more than the equivalent cost in payback. To further the goals of value-based management, all employees need broad and continuous education and training. Education, training and professional development should be skill, process oriented and continuous.

Leenders and Fearon (2002), noted that the large number of items, huge monetary volume involved, need for an audit trail, severe consequences of poor performance, and the potential contribution to effective organisational operations associated with the procurement function are five major reasons for developing a sound, professionally managed procurement system. They further argue that qualifications are crucial for value-based management which requires employees to assess and improve processes while contributing to team performance. In addition, qualifications enhance staff ability to perform, enabling them to make better decisions, work as a team, and adapt to change, while increasing efficiency, quality, productivity and job satisfaction. Training is often for improving immediate work while education develops people for the long term. To enable individuals to create value consistently, both education and training are needed.

Cousins (2003), stressed that with the ever increasing popularity of purchasing partnership philosophy, organisations must take a closer look at the educational levels of procurement staff. With procurement's perceived movement from a clerical service to a strategic business function, the calibre of staff in terms of training, education and skills must increase to fulfill its strategic potential. The author asserted that employees need to learn new skills for improving work performance. Procurement comprises a wide range of SC processes such as management of value analysis processes, supplier negotiations and quality certification; and supply market research as well as early supplier involvement in processes such as development of specifications and purchase of inbound transportation. This calls for higher professional skills for enhanced performance.

Baily *et al.* (2005) propounded that knowledge of the mission, the existence of top-down objectives with related performance measures, and process guidelines link individual or group performance to the firm's goals and expectations of upper management require good qualifications. The use of teams, cross-functional managers, broad process and linkage-oriented job responsibilities, and extensive information systems enable individuals to balance conflicting objectives and improve processes. Professional qualifications are the fulcrum around which performance turns. Without well-motivated, able and well trained staff, even the more brilliantly conceived plans and strategies can fail. A motivated team whose members work for and with each other can beat a team of less motivated people even if they are greater in talent. To improve procurement performance, it is essential to understand the roles that are to be performed, the standards to be achieved and how performance is evaluated.

Understanding is what allows an employee to become an innovator, initiative taker, and creative problem solver in addition to being a good performer on the job, (Goetsch & Davis, 2006). They list benefits of training as improved productivity, quality, safety and health, communication and better teamwork. The value-based procurement management paradigm requires a rethinking of the management of human resources. Education must cross necessary boundaries and motivate procurement team performance. However, simply possessing knowledge is less important than applying it. Attention should be moved to skills of doing jobs and demonstrating competences.

Noble (2011) argued that all chartered bodies such as the Chartered Institute of Purchasing and Supply (CIPS) are set up for the benefit of the public, because that is what professionalism is all about. It is both recognition and an expectation that professionals, through their expertise and commitment have a beneficial impact on society and corporate life. It is about promoting best-in-class procurement in organisations, whether responsible management of environment or helping out to stamp out corruption. Meanwhile, according to Maude (2011), many procurement professionals across government lack capability and market knowledge; and process-driven.

2.4 CRITIQUE OF THE EXISTING LITERATURE RELEVANT TO THE STUDY

Existing literature has found colossal constraints in the public procurement system. For instance, Amayi (2011), in his study found that procurement operations require better performance control system. He asserted that a records management system that an organisation adopts has effects on its procurement operations. The researcher concluded that without ethics the performance of procurement operations would be negatively affected and pointed out that existing legal framework was an impediment to the performance of operations in the public procurement. He further concluded that integrated ICT systems organise and disclose enormous amounts of information about the workings of the total system. While appreciating his findings, this study notes that the researcher did not employ the personal observation tool so as to gather data especially on ethics and integrity. Analysis of factors such as core technical skills and application of ICT in procurement management are important to overcome some of the constraints.

Kirungu (2002) in his study found that inefficiency in the supply chain (SC) was caused by bureaucratic procurement and disposal procedures, irrational supply base, adversarial customer-supplier relationships, and traditional storage operations. He recommended that Kenyatta National Hospital (KNH) procurement procedures be exempted from the Public Procurement Regulations, rationalisation of the supply base, and partnership sourcing. This study concurs with his findings pertaining to supply base rationalisation and relationships but wishes to point out that the research instruments used were limited to an interview and observations. No questionnaires were administered which could have given adequate data for analysis. It was further noted that senior managers were not interviewed and he failed to employ records analysis method. This study does not support the recommendation that KNH procurement procedures be de-linked from public procurement legal framework because with appropriate staff and technology, performance in the entire public sector procurement system can be improved.

Maina (2011) in his study found that weak oversight and enforcement, non-transparent practices, lack of effective links between procurement and financial management, poor record management and filing system, and delays and inefficiencies on the implementation of the PPDA as factors influencing the implementation of the procurement law in Kenya, the case of Ministry of Education. The study concluded inefficiencies in procurement led to increased procurement costs, causing longer cycle times, lower quality purchasing decisions within the ministry. While appreciating his findings, this study does not support findings that poor record management system alone impedes performance. Ethical issues should also be put into perspective. Indeed, performance can still be improved if ICT is employed with modern control mechanisms. This study agrees with his recommendation that all stakeholders need to be sensitized on the good of embracing financial and procurement reforms.

2.5 EMPIRICAL REVIEW

Rebecca (2007) sought to pursue the understanding of current business-to-business e-procurement practices by describing the success factors and challenges to its implementation in the corporate setting. The study through factor analysis resulted in three e-procurement success factors: supplier and contract management; end-user behaviour and e-procurement business processes; and information and e-procurement infrastructure. Three challenge-to-implementation factors also emerged: lack of system integration and standardisation issues; immaturity of e-procurement-based market services and end-user resistance; and maverick buying and difficulty in integrating e-commerce with other systems.

Gordon (2009) sought to establish perceived local government (LG) procurement best practice. Secondary research was then drawn upon to establish LG procurement's response to the economic recession. The study was set within the context of English LG. Its contribution is in highlighting that perceived best public procurement practice may well, in the short-term, be inappropriate and perhaps delay economic recovery. Suggestions for more radical short-term procurement strategic interventions were set out and justified as accelerating the economic recovery. The suggestions were considered appropriate, not only for the crisis, but also for future economic downturns or indeed any country facing such a situation. The analysis suggested that British LG procurement strategy generally remain unaltered from that adopted prior to the

economic recession. It is then argued that current best practice may well hinder an economic recovery and a short-term shift in procurement strategy is required.

Financial benefits can accrue from outsourcing procurement in the literature. Raising purchasing process compliance from 60% to 95% can reduce a firm's cost of goods sold by 4% and procurement outsourcing across the board can reduce costs of service and materials by up to 15% (Favre *et al.*, 2004). A slow changeover may be more costly, and it is believed that an expeditious approach may ensure benefits are delivered more rapidly, but the rate at which a firm is able to transition is dependent on organisational culture (John, 2003).

A noted benefit derived from outsourcing purchasing is the imposed behavioural and process discipline which the provider brings (John, 2003). Process discipline could and should be imposed in-house, but in reality this is often very difficult to enforce. Without process discipline it is difficult to track costs. Many smaller firms run into trouble because they simply do not know their true costs (Morgan, 1995) and we believe true cost to be even more difficult to calculate for larger firms who do not have rigorous processes. Outsourcing thus provides a methodology to control and measure costs more accurately. Great care needs to be taken when setting out the value expected to be gained from engaging a service provider and the method in which this value is measured and communicated in terms of quantified and realised benefits.

2.6 SUMMARY OF LITERATURE REVIEW

It is evident that procurement performance requires input from all key stakeholders for holistic win-win situations. Government has provided the legal framework for practice. Equally, sound RMS is a vital aspect of ensuring transparency, accountability and responsibility in the procurement process. Procurement procedures should be designed to ensure transparency, economy and effectiveness. Staff qualifications can enhance staff ability to perform. There is a link between procurement process, efficiency, effectiveness and performance.

2.7 RESEARCH GAPS

In recent years, there has been increasing amount of research on constraints to business relationships and performance. This issue has been raised in literature on marketing, procurenment, information systems and strategy. However, there is still fragmented evidence on how procurement systems operate, especially between public sector PEs and their suppliers. From the PPDR, it is unclear whether procurement procedures favour small suppliers in their relationship with PEs or put them at a disadvantage. More investigations in this field are needed to better understand how procurement performance can impact on the competitive capabilities of PEs and the wider SC. Therefore, this demonstrates that there is still room to study which other factors influence procurement performance.

The inefficiencies of traditional public procurement system include a chain of non-value-adding clerical activities and excessive documentation. Thus there is a gap on the effect of poor record management which gives a lee way for malpractices. This gap can be filled by enhancing the adoption of e-procurement that simplifies the end-to-end SC modules. This study is expected to fill the gap between inefficiencies of traditional procurement systems and aspirations of PEs to integrate applications seamlessly and exchange information with trading partners.

3 METHODOLOGY

3.1 INTRODUCTION

This chapter comprises the research design, target population, sampling frame, sample and sampling technique, instruments, data collection procedure, pilot-test, data processing and analysis design and presentation.

3.2 RESEARCH DESIGN

Research design facilitates study efficiency, yielding maximal information. This study used descriptive design. This design was appropriate because it gave an opportunity for one aspect of a problem to be studied in-depth with minimal expenditure of effort, time and money. It is a scientific method of investigation whereby data is collected and analysed in order to describe the current conditions, terms or relationships concerning a problem (Kothari, 2005). The aim is to assess factors influencing procurement performance in the Kenyan public sector: case study of the SLO. Kombo and Tromp (2006), asserted

that descriptive survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals.

3.3 TARGET POPULATION

Target population is that set of elements that the researcher focuses upon and to which results obtained by testing the sample should be generalised (Orodho, 2005). This study targeted the SLO, comprising 7 departments with 600 members of staff at the headquarters due to centralisation of all procurement activities at the head office. Mugenda and Mugenda (2003) explained that the target population should have some observable characteristics, to which the researcher intends to generalise the results of the study. This definition assumes that the population is not homogeneous. Population per department is as shown in the table 3.1 below:

Table 3.1: Target Population per Department

Department	Population
Administration and Finance	150
Registrar-General	130
Administrator-General	108
Civil Litigation	67
Legislative Drafting	50
Advocates Complaints Commission	50
Treaties and Agreements	45
Total	**600**

Source: Survey Data

3.4 SAMPLING FRAME

The sampling frame describes the list of all population units from which the sample was selected (Cooper and Schindler, 2003). This study targets a sample size of 60 respondents that represents 10% of target population. Mugenda and Mugenda (2003), contended that in descriptive studies, a sample of 10% of the population is recommended as a good representation. Ogachi (2011) argued that the use of a reasonable sample is appropriate because it is quick, inexpensive, efficient and accurate means of assessing information about the population. Thus 10% is representative for data for analysis.

Table 3.2: Target Population, Sample and Sample Proportions

Department	Population	Sample	Proportion
Administration and Finance	150	15	10
Registrar-General	130	13	10
Administrator-General	108	11	10
Civil Litigation	67	6	10
Legislative Drafting	50	5	10
Advocates Complaints Commission	50	5	10
Treaties and Agreements	45	5	10
Total	**600**	**60**	**10**

Source: Survey Data

3.5 SAMPLE AND SAMPLING TECHNIQUES

The study employed stratified sampling` method in determining who to administer questionnaire to so as to obtain a representative sample. This is because the population under study was heterogenous; does not constitute a homogeneous group. From the above population of six hundred, a sample of 10% from within each group in proportions that each group bears to the population as a whole was taken using stratified random sampling which gave each item in the population an equal probability chance of being selected. According to Kothari (2005), a representative sample is one which is at least 10% of the population is considered as representative. Stratified random sampling technique is used when population of interest is not homogeneous and can be subdivided into groups or strata to obtain a representative sample.

Sampling Population Proportion into Size (SPPS) was used because the 7 strata did not have equal population. The first procedure was to stratify the population into 7 non-overlapping strata. Sample items were selected from each stratum. To ensure fairness in data collection, departments formed basis for sample determination. Each department formed a stratum while sections under them formed sub-strata. Random sampling was applied in each. The total sample size for the study was 60 respondents.

3.6 INSTRUMENTS

The study used self-administered questionnaires and observation schedules.

A questionnaire is a research instrument that gathers data over a large sample and is one way to elicit self-values (Kombo, 2006). The questionnaires had both closed and open-ended questions. Likert scale of measurement was used. A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents.

The study considered questionnaires which have advantages over other types of research instruments. They are relatively cheaper, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardised answers that make it simple to compile data. The questionnaire designed in this study comprised of two sections. The first part included the demographic and operational characteristics designed to determine fundamental issues including the demographic characteristics of the respondent. The second part was devoted to the identification of the factors influencing implementation of the 2005 procurement act in the SLO where the variables of the study were put into focus.

The questionnaire was designed to include both structured and unstructured questions. The structured questions were used in an effort to conserve time and money as well as to facilitate an easier analysis as they are in immediate usable form while the unstructured questions were used so as to encourage the respondent to give an in-depth response without feeling held back in revealing of any information.

3.6.1 DATA COLLECTION PROCEDURES

This study utilised both primary and secondary data. Questionnaires, personal interviews, and personal observation techniques were used to collect primary data. Sixty copies of questionnaires were administered to all the seven departments/strata directly affected by the procurement function at the State Law Office as shown in table 3.2. By observation method, data was collected by own observation without interviewing respondents. Data collected related to what was currently happening and not complicated by past behaviour or future intentions or attitudes of respondents. It was suitable in studies small samples are concerned.

The respondents were assured of confidentiality of their names and responses and that the responses would not be handled by any other person but rather was to be used purely for academic purposes. Each questionnaire was coded and only the researcher got to know which person responded. The coding technique was only used for the purpose of matching returned completed questionnaires with those delivered to the respondents.

3.7 PILOT TEST

Before the actual study, it was crucial to conduct a pilot study. Robson (1993) argued that piloting provides opportunity for researchers to test their confidence in identifying shortcomings that may affect the actual collection of useful data. The pilot study evaluates the effectiveness and validity of the instruments. The purpose is not to collect data but to refine the process and instrument. It provides an opportunity to detect and remedy potential problems such as questions that respondents don't understand; questions that combine two or more issues in a single question (double-barreled questions); and questions that make respondents uncomfortable.

3.8 DATA PROCESSING AND ANALYSIS

Before processing the responses, the completed questionnaires were edited for completeness and consistency.

3.8.1 DATA PROCESSING

The study used quantitative and qualitative data analysis techniques. Kombo and Tromp (2006) reckoned that quantitative data analysis consists of measuring numerical values from which descriptions such as mean and standard deviations are made. The first step towards this process was to edit the data. A thorough data cleaning was undertaken. This helped save time in the final analysis of data from the field.

After editing data, the latter was coded for easier classification and writing of the final report. Data with the same information was given a compatible alpha-numeric code. After coding and classifying data, the researcher tabulated the results of the findings for the purposes of comparison and counter-checking the related information for more realistic reporting. Quantitative data was analyzed using the Statistical Packages for Social Sciences (SPSS). The Likert Five Point rating scale of 5, 4, 3, 2, and 1, and were used to analyzed responses. Bar graphs, charts, frequency distribution tables, and percentages were used to present the information. Qualitative data was analyzed using STATA software and findings presented thematically. Key findings and major recommendations are based on the research objectives.

3.8.2 DATA PRESENTATION

Tables were used to present responses and facilitate comparison. Cooper and Schindler (2003) noted that the use of percentages is important for two reasons; first they simplify data by reducing all the numbers to range between 0 and 100. Second, they translate the data into standard form with a base of 100 for relative comparisons. This generated quantitative reports through tabulations, percentages, and measure of central tendency.

Table 3.3: Data Processing and Analysis

No	Research Questions	Independent Variables	Dependent Variable	Method
1	To what extent does records management system affect procurement performance at the State Law Office in Kenya?	Records Management Systems	Procurement Performance	Percentage and Frequency
2	How do procurement procedures affect procurement performance at the State Law Office in Kenya?	Procurement Procedures	Procurement Performance	Percentage and Frequency
3	How does information communications technology impact procurement performance in the State Law Office in Kenya?	Information Communications Technology	Procurement Performance	Percentage and Frequency
4	Which impact does staff qualifications have on procurement performance at the State Law Office in Kenya?	Staff Qualifications	Procurement Performance	Percentage and Frequency

4 FINDINGS AND CONCLUSIONS

4.1 INTRODUCTION

This chapter is presents analysis done in relation to the study objectives and research questions. The first part deals with descriptive analysis of the responses while the second part is devoted to inferential statistics. Sixty questionnaires were issued to the study participants out of whom 49 were received back representing an 82% response rate. Falconer and Hodgett (1999) state that, “even in a survey which is perfectly targeted to its sample, about 42% to 58% response rate is the maximum that is likely to be achieved.” Hagger *et al.,* (2003) proposes that a researcher should strive to achieve a response rate of 50 percent, 60 percent or 75 percent.

4.2 DEMOGRAPHIC INFORMATION

The researcher used four demographic items in the questionnaire; sex, age, job group, work experience, and educational qualification. The respondent’s responses are as below.

4.2.1 RESPONDENTS' SEX

Table 4.1 shows that majority of the respondents were female comprising 63.3percent while females were 36.76 percent implying that more females than males volunteered to participate in the study. Notably males are employed that the SLO than females.

Table 4.1: Sex of Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	18	36.7	36.7	36.7
	Female	31	63.3	63.3	100.0
	Total	49	100.0	100.0	

4.2.2 RESPONDENT'S AGE

Table 4.2 shows that most respondents in the age group 45-54 comprised 54.3 percent followed by age bracket of 25-44 years with 34.8 percent and the age bracket above 54 years with 10.9 percent. This gave the implication that the majority were able with adequate experience in matters of procurement in the public sector.

Table 4.2: Age (Years)

		Frequency	Percent	Valid Percent	Cumulative Percent
	25 – 34	8	16.3	17.4	17.4
	35 – 44	8	16.3	17.4	34.8
	45 – 54	25	51.0	54.3	89.1
	55 – 60	5	10.2	10.9	100.0
	Total	46	93.9	100.0	
Missing	System	3	6.1		
Total		49	100.0		

4.2.3 JOB GROUP

Table 4.3 shows that most respondents were in the job group K and above, comprising the professional and management level cadres. This gave the implication that the majority were able with enough professional authority to direct key decisions regarding matters of procurement in the public sector.

Table 4.3: Job Group

	Frequency	Percent
D – J	9	18%
K – N	21	43%
P - R	17	35%
S	2	4%
Total	49	100%

4.2.4 RESPONDENTS' EDUCATIONAL QUALIFICATIONS

Table 4.4 below shows that the level of education was as follows; 4.1 had secondary education, 34.7 percent of the respondents were college diploma holders while majority of the respondents were degree holders 61.3 percent with 42.9 percent being post graduates while 18.4 percent were holding undergraduate qualification. This implied that most persons had attained a level sufficient to influence favorably their comprehension of antecedents to effective management of the procurement function.

Table 4.4 Respondent's Educational Qualifications

	Frequency	Percent
Secondary	2	4.1
College	17	34.7
Undergraduate	9	18.4
Graduate	21	42.9
Total	49	100.0

4.2.5 RESPONDENT'S DESIGNATION

The findings in table 4.5 show that 18.4% of the respondents were heads of Departments, 32.7% were supervisors, while lower level staff cadres comprised 49 percent. It emerges thus that a sizeable percentage of 51% were management staff (heads of departments and supervisors). This gave the implication that the majority were able with adequate designation authority to direct key decisions regarding matters of procurement in the public sector.

Table 4.5: Indicate your Designation

	Frequency	Percent
Head of Department	9	18.4
Supervisor	16	32.7
Lower level	24	49.0
Total	49	100.0

4.3 PROCUREMENT PERFORMANCE AND ITS DIMENSIONS AT THE STATE LAW OFFICE

In order to measure procurement performance at the SLO, factor analysis was conducted on the questions regarding procurement key performance indicators (KPIs) and a procurement performnace index generated. In addition different indices (records management system, procurement procedures, ICT, staffing) were derived for each of the independent variables using factor analysis of the corresponding questions in the questionnaire. These results are presented below:

Table 4.6: Indices

Variable	n	Median	Std. Dev.	Min	Max
Procurement Performance Index	46	1.48e-09	1.26	-1.79	3.54
Records Management Index	48	-1.47e-08	1.09	-2.07	2.60
Procurement Procedures Index	46	-2.27e-09	1.18	-1.75	2.75
ICT Index	48	-3.26e-09	1.14	-1.43	3.97
Procurement Staffing Index	48	-1.71e-09	1.21	-2.00	2.61

The results as hown in table 4.6 indicate that the SLO is performing on the ngative in all the five determinants of public procurement performance as they all recorded negative indices. On the overall, the procurement performance is positive but very low (a median index of 1.48e-09). The implication of these findings is that the SLO must not remain complacence in reforming the public procurement function. Kernel density functions of the indices are presented in fig. 4.1, all showing non-normal distributions.

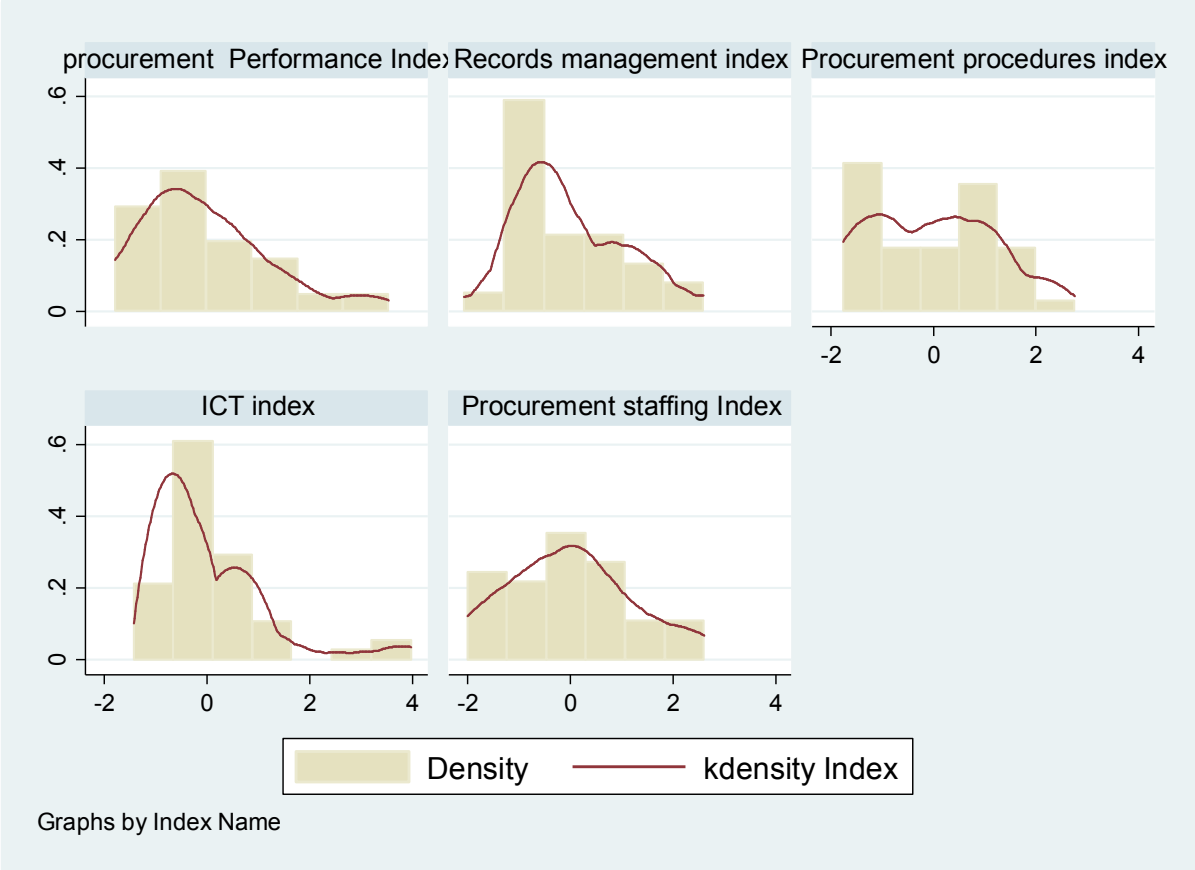

Figure 4.1: Histogram and kernel density distributions of indices

The next subsections are aimed at exploring the specific indicators explaining the trends in each of the independent variables studied.

4.3.1 PROCUREMENT PERFORMANCE

Results presented in table 4.7 indicates that factor 1 accounted for 31 percent in the variance in procurement performance. The first factor was used to determine the factor loadings (contributions) for each of the dimensions that were used to measure procurement performance. The results (factor loading of 0.67-0.79) indicate that that procurement life cycle/ time taken from beginning of a sourcing process to time contract is signed as well as the quality of employees at SLO were the main dimensions enhancing positive procurement performance. On the other hand, poor staff safety, low levels in soliciting ideas from suppliers resulted in negative procurement performance. The role of the other dimensions were minimal.

Table 4.7: Factor Rotation and Scoring Coefficients for Procurement Performance

Factor analysis/correlation	Number of obs = 46
Method: principal factors	Retained factors = 6
Rotation: orthogonal varimax (Kaiser off)	Number of params = 51

Factor	Variance	Difference	Proportion	Cumulative
Factor1	1.29565	0.15050	0.3128	0.3128
Factor2	1.14515	0.25330	0.2764	0.5892
Factor3	0.89185	0.19436	0.2153	0.8045
Factor4	0.69749	0.00602	0.1684	0.9729
Factor5	0.69147	0.43599	0.1669	1.1398
Factor6	0.25548	.	0.0617	1.2015

LR test: independent vs. saturated: chi2(55) = 107.88 Prob>chi2 = 0.0000

Variable	Factor 1	Factor 2	Factor 3	Factor4	Factor5	Factor6
Q 6	-0.15455	-0.01113	0.29693	0.16875	-0.34401	-0.91005
Q8A	0.06880	-0.02467	0.87830	0.08480	0.01607	0.79978
Q8B	0.67001	0.34261	-0.01780	-0.21789	-0.18056	0.51639
Q8C	0.01059	0.06107	0.21533	1.08770	-0.11631	0.14569
Q8D	-0.11479	-0.01931	0.23065	0.25986	0.07348	1.34083
Q8E	0.06203	0.24282	0.25912	0.13335	0.59813	-0.05043
Q8F	0.06077	-0.15398	-0.18438	-0.22604	0.88142	0.49587
Q8G	0.79201	0.17970	-0.04112	0.37502	0.42517	-0.34747
Q8H	0.23449	0.73652	0.04036	-0.19824	-0.25206	-0.30475
Q8I	0.19367	0.75817	0.12080	0.32977	0.32097	0.11527
Q8J	-0.10966	0.16626	0.63477	0.15094	0.09676	-0.69602

4.3.2 RECORDS MANAGEMENT SYSTEMS

Results presented in table 4.8show that the first factor accounted for 87 percent in the variation of records management systems index. The first factor was used to determine the factor loadings (contributions) for each of the dimensions that were used to assess the state of records management systems. The results (factor loading of 0.32-0.71) indicate that while the SLO has recognized that maintaining good, efficient, effective and user-friendly procurement records systems promotes good working interfaces with key stakeholders in the supply chain, records management should be accorded high organisational status (negative factor loading). This is more discernible as records storage space remains a challenge at the SLO.

Table 4.8: Factor Rotation and Scoring Coefficients for Records Management Systems

Factor analysis/correlation	Number of obs = 48
Method: principal factors	Retained factors = 4
Rotation: (unrotated)	Number of params = 26

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	4.55209	3.79430	0.8674	0.8674
Factor 2	0.75779	0.42837	0.1444	1.0118
Factor 3	0.32942	0.32573	0.0628	1.0746
Factor 4	0.00369	0.02267	0.0007	1.0753
Factor 5	-0.01898	0.06413	-0.0036	1.0717
Factor6	-0.08311	0.01655	-0.0158	1.0558
Factor 7	-0.09966	0.09369	-0.0190	1.0368
Factor 8	-0.19334	.	-0.0368	1.0000

LR test: independent vs. saturated: chi2(28) = 260.90 Prob>chi2 = 0.0000

Variable	Factor1	Factor 2	Factor 3	Factor4
Q10a	0.32780	-0.05999	-0.30954	7.42023
Q10b	0.71077	-0.15720	-0.32682	-1.0e+01
Q10c	-0.01868	-0.47972	1.10036	-1.10799
Q10d	-0.01329	-0.07019	0.42333	9.55306
Q10e	0.31746	0.14860	-0.57185	-3.15137
Q10f	0.01410	0.70611	-0.63278	4.35640
Q10g	-0.22666	0.11075	0.63477	-4.04375
Q10h	-0.26922	0.79862	0.06514	-2.26480

4.3.3 PROCUREMENT PROCEDURES

The findings of the factor analysis presented in table 4.9 show that the first factor accounted for 72 percent in the variation of procurement procedures index. The first factor was thus used to determine the factor loadings (contributions) for each of the dimensions that were used in the quationniare to assess the state of procurement procedures at the SLO. The findings indicate that the variables with the highest positing loading are; low PPOA compliance enforcing capacity and the use of open tendering as the most preferred method of procurement at SLO. The implication of these results is that though they seem positive in fast-tracking and facilitating life cycle time in procurement process, the attendant weakness are subject to abuse by different stakeholders. The overall net effect in this case may not result in positive procurement performance. Results also indicate that the existing procurement procedures need review.

Table 4.9: Factor Rotation and Scoring Coefficients for Procurement Procedures

Factor analysis/correlation — Number of obs = 46
Method: principal factors — Retained factors = 4
Rotation: orthogonal varimax (Kaiser off) — Number of params = 26

Factor	Variance	Difference	Proportion	Cumulative
Factor 1	2.06594	1.19869	0.7150	0.7150
Factor 2	0.86725	0.29901	0.3002	1.0152
Factor 3	0.56824	0.55693	0.1967	1.2119
Factor 4	0.01131	.	0.0039	1.2158

LR test: independent vs. saturated: chi2(28) = 97.21 Prob>chi2 = 0.0000

Variable	Factor1	Factor 2	Factor 3	Factor 4
Q12b	-0.09928	0.73934	-0.00557	0.59877
Q12c	-0.04386	0.58561	-0.16183	-1.14259
Q12d	0.13024	0.19635	-0.23449	4.79205
Q12e	0.82066	-0.26942	-0.61866	-4.46271
Q12f	0.49879	-0.22522	-0.43158	3.38348
Q12g	-0.16985	-0.01977	0.62670	5.58768
Q12h	-0.10420	-0.23856	1.08618	-1.29675
Q12i	-0.13673	0.55716	0.92327	-4.25825

4.3.4 INFORMATION COMMUNICATIONS TECHNOLOGY

The results form the factor analysis as shown in table 4.10 show that the first loading factor accounted for about 52% in in the variation of ICT for the procurement function. The first factor was thus used to determine the factor loadings (contributions) for each of the dimensions that were asked in the study questionnaire in order to evaluate the state of ICT for procurement at the SLO. Staff were of the stong view that use of ICT enables systems integration, promotes transparency, accountability and reliability in addition to enhancing relationship management. It is also evidenced from the factor loadings that staff are yet to benefit from attendant ICT use and adoption: achieving the paradigm shift into ICT enabled new frontiers of knowledge as well total automation and streamlining of procurement functions is yet to be realized.

Table 4.10: Factor Rotation and Scoring Coefficients for ICT

Factor analysis/correlation — Number of obs = 48
Method: principal factors — Retained factors = 3
Rotation: orthogonal varimax (Kaiser off) — Number of params = 15

Factor	Variance	Difference	Proportion	Cumulative
Factor 1	1.91987	0.01824	0.5157	0.5157
Factor 2	1.90164	1.65869	0.5108	1.0265

LR test: independent vs. saturated: chi2 (15) = 168.95 Prob>chi2 = 0.0000

Variable	Factor 1	Factor 2	Factor 3
Q15A	-0.13239	-0.02968	1.07863
Q15B	-0.27791	0.80849	-0.73811
Q15C	0.06001	0.73963	-1.71538
Q15D	-0.17629	0.11738	1.59185
Q15E	0.58551	-0.15088	-0.98378
Q15F	0.76916	-0.55758	1.12184

4.3.5 PROCUREMENT STAFF QUALIFICATIONS

Table 4.9 presents the analysis findings on procurement qualifications at he SLO. The first explained 52 percent in the variation of Procurement Qualifications. The factor loadings (contributions) for this variable was based on the first factor. The findings indicate that SLO practices staff promotion system that is accords first priority to internally qualified staff. This has enabled many procurement professionals to progressively go up career ladder.

Table 4.11: Factor Rotation and Scoring Coefficients for Procurement Staff Qualifications

Factor analysis/correlation — Number of obs = 48
Method: principal factors — Retained factors = 5
Rotation: orthogonal varimax (Kaiser off) — Number of params = 35

Factor	Variance	Difference	Proportion	Cumulative
Factor 1	1.99196	0.17871	0.5186	0.5186
Factor 2	1.81325	1.45525	0.4721	0.9907
Factor 3	0.35801	0.05855	0.0932	1.0839
Factor 4	0.29946	0.18228	0.0780	1.1618
Factor 5	0.11718	.	0.0305	1.1924

LR test: independent vs. saturated: chi2(36) = 135.77 Prob>chi2 = 0.0000

Variable	Factor 1	Factor 2	Factor 3	Factor4	Factor5
Q 19A	-0.07655	0.45447	-0.49686	1.04783	-0.31461
Q 19B	-0.28665	0.54566	0.40758	-0.04774	-0.39555
Q 19C	0.11015	0.02924	-0.09445	-0.88623	-0.75452
Q 19D	0.16714	0.04616	-0.64921	0.22294	1.77755
Q 19E	0.18224	-0.02252	-0.01846	1.23311	-0.19868
Q 19F	0.62711	-0.07709	-1.25312	0.27375	-1.43302
Q 19G	0.67120	-0.21604	0.13322	-0.65489	2.09352
Q 19H	-0.04790	0.43241	0.36649	-0.44630	1.13848
Q 19I	-0.13372	0.04092	1.54556	-0.14954	0.07814

4.4 RELATIONSHIP BETWEEN PUBLIC PROCUREMENT PERFORMANCE AND INDEPENDENT VARIABLES

The next section provides the empirical analysis on the relationship between procurement performance and its drivers. This has been achieved through OLS regression with robust parameters. The nature and magnitude of the relationship is represented by corresponding correlation and regression coefficients for each of the independent variables shown in tables 4.9 and 4.10. The co-efficient of co-relation values between the variable of procurement performance and independent variables ranges from 0.12 to 0.47 and are all positive. Notable, it is only the relationship between record management systems and procurement performance that is significant 5 percent level of confidence. The coefficients indicate that there is a positive relationship between procurement performance and its determinants.

Table 4.12: correlation coeffients between procurement perfomance and its determinants

	Correlation coefficient
Record mgt Systems	**0.47****
Procurement Procedures	**0.37**
ICT	**0.17**
Procurement Staff Qualifications	**0.12**

**** significant at 5% level**

Under this sub-section, the researcher is interested in finding out the impact of record management systems, procurement procedures, ICT and procurement staff qualifications on procurement performance. Thus the following equations are formulated to find out the significant effect of independent variables on dependent variable. Hence the regression equation is:

$Y = a + b1x1 + b2x2 + b3x3 + b4x4$

Y = Procurement Performance (Dependent Variable)

X = [x1, x2, x3, x4] represents a vector of Independent Variables where x1 = Record Management Systems, x2 = Procurement Procedures, x3 = ICT and x4 = Procurement Staff Qualifications.

Table 4.13 shows that the four factors studies contributes significantly (at 10% confidence level) to procurement performance at the SLO at 31%. The remaining 69% can be contributed by other factors that have not been studied in the current research.

Table 4.13: OLS Regression Results

Linear regression — Number of obs = 42
F(4, 37) = 2.90
Prob > F = 0.0349
R-squared = 0.3062
Root MSE = 1.1134

Procurement Perf._Index	Coeff.	Std. Err.	t	P>t	[95% Conf.	Interval]
Records Mgt Sys._Index	.4702398	.1826581	2.57	0.014	.1001393	.8403403
Procurement Proc._Index	.2755352	.1584545	1.74	0.090	-.0455242	.5965946
ICT_Index	.1181281	.1012884	1.17	0.251	-.0871017	.3233579
Procurement Qualification Index	.1951088	.1931556	1.01	0.319	-.1962616	.5864791
Constant	.0007176	.1832465	0.00	0.997	-.3705751	.3720102

Hence the variable considered for this study that highly and significantly influenced public procurement performance level at the SLO office is records management systems. Therefore, the under mentioned regression equation is formulated:

$$Y = 0.0007 + 0.47x1 + 0.28x2 + 0.11x3 + 0.20x4$$

In this equation, if efficiency in record management systems (RMS) increases by 1 unit, the overall procurement performance increases by 0.47; all other factors kept constant. Overall records management is the most significant driver in procurement performance followed by procurement procedures, procurement staff qualifications and ICT in that order. The sequence is a pointer to the varying levels in terms of the current state of each factor studied. The most significant factor (RMS) is where the SLO has recorded significant streamlining milestones while the least factor (ICT) represents the area with the lowest performance. The results confirm the outcome of the factor analysis that found out that the the SLO has recognized that maintaining good, efficient, effective and user-friendly procurement records systems promotes good working interfaces with key stakeholders in the supply chain. Notable, the procurement systems have not been streamlined and automated at the SLO.

4.5 SUMMARY OF FINDINGS

The preceding chapters have so far presented the aim, objectives and the problem statement of the study, a review of literature on internal audit performance, the research methodology employed and analysis of the data. This chapter presents a summary of the findings, conclusions and recommendations made to help improve the performance of public procurement in the SLO & and other state departments in Kenya based on the objectives of the study. The chapter concludes with recommended areas for further research work.

The summary of the findings of the study was based on the objectives of the study. Based on the analyses of information presented above, the following findings were noted:

4.5.1 RECORDS MANAGEMENT SYSTEMS

The SLO recorded significant streamlining milestones in records management. It recognised that effective procurement records systems promote working interfaces with key stakeholders in the supply chain. Records storage space inadequacy was a challenge at the SLO.

4.5.2 PROCUREMENT PROCEDURES

Management of procurement life cycle at SLO was the main dimension enhancing positive procurement performance. There was low PPOA compliance enforcing capacity and the use of open tendering as the most preferred method of procurement at SLO. The implication of these results is that though they seem positive in fast-tracking and facilitating life cycle time in procurement process, the attendant weakness are subject to abuse by different stakeholders. The overall net effect was negative procurement performance.

4.5.3 INFORMATION COMMUNICATIONS TECHNOLOGY

Procurement systems were still largely manual, neither streamlined nor automated. This resulted in efficiency and losses. ICT enables systems integration, promotes transparency, accountability, reliability and enhancement of relationship management. Staff members are yet to benefit from attendant ICT use and adoption.

4.5.4 STAFF QUALIFICATIONS

SLO practices staff promotion system that is accords first priority to internally qualified staff. This has enabled many procurement professionals to progressively go up career ladder. Majority of the respondents were qualified for effective management of the procurement function. Further findings on years of experience indicated that officers participating in the procurement function in the SLO had long working experience.

In summary, majority of the respondents were in consonance on the importance of all the factors studied on the public procurement performance. The results of the current study were in tandem with past studies in the subject area.

4.6 CONCLUSIONS

This study concluded that the SLO was performing on the negative in all the five determinants of public procurement performance studied as they all recorded negative mean scores. Overall records management was the most significant driver in procurement performance followed by procurement procedures, procurement staff qualifications and ICT; in that order.

Based on the summary of findings, the following conclusions were made: having motivated and well qualified staff and effective records management systems are crucial for enhanced public procurement performance. On the other hand, failure to automate procurement systems and non-adoption of ICT systems impacted negatively on procurement performance.

4.7 RECOMMENDATIONS

In view of the research findings and taking cognizance of the need to accelerate ongoing reforms in procurement, the following recommendations are preferred.

To ensure enhance procurement performance records management should be accorded high organisational status. Digitization of all procurement records and networking with key players in the supply chain shall be of great value.

The SLO should also deepen reforms in the procurement with a view of streamlining processes as well as automating activities and back office operations. The existing procurement procedures need review with stakeholder involvement. The organization structure in which procurement function was embedded need be reformed to be more flatter in order to scale down bureaucracy and red-tape in the procurement process. Realignment of procurement processes with key performance indicators such as performance contracts and service charter will enhance service delivery at SLO is further recommended.

Achieving the paradigm shift into ICT shall enable new frontiers of knowledge as well total automation and streamlining of procurement functions is yet to be realized. Procurement is a skilled profession that requires well trained people. The appropriate authorities need to ensure that procurement function is managed by qualified staff to ensure performance. Further research on other factors such as leadership, ethics, integrity and governance is recommended.

4.8 SUGGESTED AREAS FOR FURTHER RESEARCH

The scope of this research was broad and attempted to assess the performance of the public procurement in the SLO. The study was limited to the SLO, and the findings cannot be equally generalised to apply to the private sector entities and other government organisations too. In connection to this limitation, it is possible to carry out further research how the issues look like in other sectors. The current study found that the variables considered; records management systems, procurement procedures, ICT, and staff qualifications accounted for 31% variability in public procurement performance; implying that the 69% could be due to other factors beyond the scope of the current study. Further research is recommended on factors such as leadership, ethics, integrity and governance.

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