# ETHICAL PROCUREMENT PRACTICES AND SUPPLY CHAIN PERFORMANCE OF KENYAN ENERGY SECTOR

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# **DECLARATION**

I, the undersigned, declare that this research project	is my own work and has never been
presented in any other university or college for a degree	e or any other award.
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#### **DEDICATION**

This Research project is primarily dedicated to my mentors and advisors Mrs. Rebecca Bull Odoemela, Dr. Louise Mapleh Kpoto, Mr. and Mrs. Raymond Ackah, Arcelormittal Mining Company-Liberia, Joseph Jenkins Roberts Educational Foundation and Mr. Allen N. Yancy, III whose extreme generosity provided me an opportunity to study at the University of Nairobi School of Business. This work is also dedicated to my beloved daughter Aarina Yamah Sengbeh and my entire family whose prayers, moral and financial supports have kept me alive.

Finally, this research is also dedicated to All School Going Children of Kenya and Liberia. You are an inspiration in my life whenever I see you in uniforms. May I also salute in this dedication the late Lewis Cargeor from whose flowing fountain I drank some of the finest principles in Accounting, may the Lord bless you wherever you are.

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#### **ABSTRACT**

Ethical procurement practices are acceptable norms that supply chain professionals and institutions should adopt to ensure flawless supply process. There are a lot of challenges that are created including developing an effective and efficient supply chain which can become a core competency. The study general objective was to evaluate ethical procurement practices and supply chain performance of Kenyan energy sector. The study was guided by following specific objectives, to establish the ethical procurement practices commonly used by firms in the Kenyan energy sector and to determine the relationship between ethical procurement practices and supply chain performance of firms in the Kenyan energy sector. This study adopted a descriptive research design. Descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage). Mean and standard deviations were also used as measures of central tendencies and dispersion respectively. Regression and correlation analysis were used to assess the strength of the relationships between the specified variables. Various statistics were extracted and interpreted with respect to the various models. Inferential analysis has been done, thus, testing the hypotheses of the study. The returned questionnaires were 93.75% and unreturned questionnaires were 6.25%. From the responses in the questionnaires it was noted that majority of the respondents (33.3%) had been in the firms for a continuous period of 6-10 years. The study concluded that supply chain performance is influenced by accountability practices in procurement. The study also established that integrity practices in procurement should be adopted in the energy firms in order to ensure supply chain performance. Further research may be conducted to investigate interaction of other variables that evaluate ethical procurement practices and supply chain performance of Kenyan energy sector, to establish the ethical procurement practices commonly used by firms in the Kenyan energy sector and to determine the relationship between ethical procurement practices and supply chain performance of firms in the Kenyan energy sector.

#### **CHAPTER ONE: INTRODUCTION**

#### 1.1 Background of the Study

Professional standing requires a level of conduct that adds value to the organizations which employ our services and to the society we serve. Members of professional organizations are often subject to more than a single code of conduct. The global dimensions of business create the potential situation where the practices in one jurisdiction may not be acceptable or recognized in another, Ayuso, (2006). The common areas relate to ethics and ethical behavior in companies include fair-trade, ethical trading, ethical sourcing, social accountability, social auditing, corporate social responsibility, corporate citizenship, codes of conduct and reputation assurance. According to Atkinson (2003) there are approximately 500,000 professional purchasing people in the United States and only 10 percent of these have been members of a professional Supply Chain Management Association which trains members in purchasing ethics, and the rest are not even aware that there are ethical and legal standards involved in procurement.

Supply Chain Management (SCM) is the management of the flow of goods and services. It includes the movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption. Organizations increasingly find that they must rely on effective supply chains, or networks, to compete in the global market and networked economy. In Breitman and Lucas, (2007) new management paradigms, this concept of business relationships extends beyond traditional enterprise boundaries and sought to organize entire business processes throughout a value chain of multiple companies.

As organizations strive to focus on core competencies and becoming more flexible, they reduce their ownership of raw materials sources and distribution channels. These functions are increasingly being outsourced to other firms that can perform the activities better or more cost effectively. The effect is to increase the number of organizations involved in satisfying customer demand, while reducing managerial control of daily logistics operations. Less control and more supply chain partners led to the creation of the concept of supply chain management. The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving inventory visibility and the velocity of inventory movement, (Ayuso, 2006).

Understanding the concept of ethics within procurement process is of greater importance in order to get a better understanding of the real cost involved with attaining any ethical procurement process. Many public procurement activities suffer from neglect, lack of open competition and transparency; differing levels of corruption and most importantly various conflict of interest arising from stakeholders and personnel's involved in handling a procurement process yet are expected to manage such procurements, in a professional, timely and cost effective manner (Andereck & Vogt, 2000).

#### 1.1.1 Ethical Procurement Practices

Procurement is the acquisition of goods, services or works from an external source. It is favorable that the goods, services or works are appropriate and that they are procured at the best possible cost to meet the needs of the acquirer in terms of quality and quantity, time, and location, (Barrett, 2000; Korosec & Bartle, 2003).

Ethical procurement prohibits breach of the public's trust by discouraging a public employee from attempting to realize personal gain through conduct inconsistent with the proper discharge of the employee's duties. Corporations and public bodies often define processes intended to promote fair and open competition for their business while minimizing exposure to fraud and collusion, (Morgan, 2006). After identifying the suppliers, a request for bids, proposals, quotes, and information can be made. However, direct contact with bidders can also be made instead of advertising the above requests. After selecting the suitable bidders, a quality check is essential in order to confirm the suitability of the goods in question. The next step would be negotiation of the terms, conditions, quality, and delivery schedules. Logistics and payment are the next two important processes that determine the safe delivery and the payoff of goods (Breitman & Lucas, 2007).

Ethical procurement must deliver value for money since this is the core principle of any viable procurement. Organizations strive to maximize overall 'value for money' for citizens. This requires consideration of issues such as client satisfaction, the public interest, fair play, honesty, justice and equity (Barrett, 2000; Korosec & Bartle, 2003). Recent theorists also point to the importance of public administration as a moral and ethical concern and recognize that administrative action is permeated by moral choices and are therefore models of not only technical and professional competencies but also of moral behavior (Ayuso, 2006).

Ethical procurement practices are supported by the underpinning practices of efficiency and effectiveness, competition, accountability and transparency, ethics and industry development (Commonwealth Procurement Guidelines, 2005).

Officials buying goods and services need to be satisfied that the best possible outcome has been achieved taking into account all relevant costs and benefits over the whole of the procurement cycle (Commonwealth Procurement Guidelines, 2005).

#### 1.1.2 Supply Chain Performance

A supply chain is a system of organizations, people, activities, information, and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials, and components into a finished product that is delivered to the end customer. In sophisticated supply chain systems, used products may re-enter the supply chain at any point where residual value is recyclable, (Tummala et al.,2006). With performance metrics supporting effectiveness, organizations can eliminate functional silos and create results- oriented, multifunctional teams.

Employee productivity may increase when individuals are able to make informed decisions based on root cause analysis and factual accurate data. In the same way, supply managers can quickly determine the root causes of supply chain failures to help identify and implement required changes, (Das & Narasimhan, 2000). Supply managers can also improve their understanding of how activities at multiple tiers are related and collaborate with each other. For both supply managers and staff, feedback mechanisms can help increase understanding and commitment to strategic goals, helping recognize the importance of each individual's role in the wider context of the supply chain and the organization as a whole. Transforming the supply chain based on effectiveness involves a paradigm shift for organizations and cannot be accomplished overnight or without support from the top. However, it can represent a true value differentiator for companies, which can be critical in today's environment, (Parsons, 2011).

Supply chain management concept is closely related with the concept of best practices. Adopting supply chain management (SCM) initiatives first and the most importantly requires that companies should have a long-term view as well as an extensive focus, on all the channels that are employed in the transformation process of the raw materials to end-user products. Top management commitment is also essential at this point. Organizations should redesign how business is done at every level in and outside the organization, (Tummala *et al.*,2006).

Supply Chain Performance leads to a better understanding of the system and the introduction of common standards. Despite the challenges that are created, developing an effective and efficient supply chain can become a core competency or even a distinctive competency, Barrett, (2000). A core competency is any function, which a firm does well at performing. Core competencies are the processes which are primary business activities that enable companies to obtain a better average degree of business success over long term. In management discipline "core competencies" refers to focusing and exploring particular strengths within the company and formulate strategies which helped in increasing market share and profits, (Morgan, 2006).

On the other hand, a distinctive competency is a function that is performed well and is unique. Literature has shown that the basis of competition in many industries in the future will revolve around supply chain development (Das & Narasimhan, 2000). Supply chain analysis promotes reducing non-core processes (waste) and synchronizing the supplier and logistics network. Successful supply chain practices were first seen in aerospace and automotive industries where good constructed supply systems led to the concept of Lean production to grow. The information and communication technologies provide a backbone support to distribute and share information real-time for effective decision making by supply chain partners, (Morgan, 2006).

Making changes to supply chain helps to lower costs and enables a firm to more easily compete on the basis of price. Supply chain performance measures can be classified broadly into two categories qualitative measures such as customer satisfaction and product quality and quantitative measures such as order-to-delivery lead time, supply chain response time, flexibility, resource utilization, and delivery performance. In this study the researcher consider only the quantitative performance measures. Improving supply chain performance requires a multi-dimensional strategy that addresses how the organization will service diverse customer needs. While the performance measurements may be similar, the specific performance goals of each segment may be quite different, (Atkinson, 2003).

#### 1.1.3 Kenyan Energy Sector

Energy in Kenya describes energy and procurement on the energy sector and electricity production, consumption, import and export in Kenya. Kenya's current effective installed (grid connected) electricity capacity is 1,533 MW. Electricity supply is predominantly sourced from hydro and fossil fuel (thermal) sources. Just until recently the country lacked significant domestic reserves of fossil fuel. The country has over the years had to import substantial amounts of crude oil and natural gas.

Kenya has an installed capacity of 214 GW. Whilst about 57% is hydro power, about 32% is thermal and the rest comprises geothermal and emergency thermal power. Solar PV and Wind power play a minor role contributing less than 1%. However, hydropower has ranged from 38-76% of the generation mix due to poor rainfall. Thermal energy sources have been used to make up for these shortfalls, varying between 16-33% of the mix.

Kenya's current effective installed (grid connected) electricity capacity is 1,533 MW. Electricity supply is predominantly sourced from hydro and fossil fuel (thermal) sources. This generation energy mix comprises 52.1% from hydro, 32.5% from fossil fuels, 13.2% from geothermal, 1.8% from biogas cogeneration and 0.4% from wind, respectively. Current electricity demand is 1,191 MW and is projected to grow to about 2,500 MW by 2015 and 15,000 MW by 2030. To meet this demand, Kenya's installed capacity should increase gradually to 19,200 MW by 2030, (Morgan, 2006).

The key players in the energy sector are KPLC, KENGEN, ERB, MOE, Geothermal, and Independent Power Producers (IPPs). KPLC is 48.4 percent government-owned and is the only licensed public electricity transmitter and distributor. The generation of electricity in Kenya has several players, chief among them being the state-owned KENGEN, and three IPPs. KPLC has power purchase contracts with KENGEN and the IPPs. KENGEN accounts for more than 82 percent of the country's total installed generation capacity, (Atkinson, 2003).

IPPs entered the domestic market in late 1997 when Iberafrica and Westmont began commercial production with a combined capacity of 87 MW. The entry of IPPs was a response to crippling shortages in power supply. IPPs are largely foreign-owned, their contracts are rigid and the unit cost of their electricity is very high (Ikiara & Mutua, 2003). Currently, there are three large IPPs (Iberafrica, Tsavo Power, and or Power Inc.) each with an installed capacity in excess of 10 MW. Westmont did not renew its license with ERB after 2004. Kenya Electricity Generating Company (KenGen) manages and develops all public power electricity generating facilities. It sells electricity in bulk to Kenya Power.

Kenya Renewable Energy Portal, the purpose of the portal is to provide easy access to relevant information about administrative entry requirements and procedures for operating a power plant based on renewable energy, the legal and regulatory framework for such investments (e.g., tariff regulation) and relevant market information. Energy Regulatory Commission (ERC) reviews electricity tariffs and enforces safety and environmental regulations in the power sector as well as safeguarding the interests of electricity consumers.

Ministry of Energy formulates policy on the energy sector, in addition to administering the Rural Electrification Scheme. Rural Electricity Authority (REA) implements rural electrification projects on behalf of the government. Kenya Electricity Transmission Company (KETRACO) is mandated to construct new transmission lines with government funding to accelerate infrastructure development, (Ciano, 2005).

Geothermal Development Company (GDC) is tasked with developing steam fields to reduce upstream power development risks so as to promote rapid development of geothermal electric power. Kenya Nuclear Electricity Board (KNEB): Established in 2010, the board is tasked with driving the nuclear energy generation programme for Kenya. This was achieved through development of a road map for the realization of the requirements and guidelines by the International Atomic Energy Agency (IAEA), (SBO Research Limited, 2010).

#### 1.2 The Research Problem

Ethical procurement practices prohibit breach of the public's trust by discouraging a public employee from attempting to realize personal gain through conduct inconsistent with the proper discharge of the employee's duties.

Ethical procurement best practice starts with the employees in procurement following an ethical code which dictates their behavior and actions while conducting business. Ethical procurement practices should be extended to all stakeholders in the procurement cycle. The concept of the linking ethical procurement practices to supply chain performance help in the better understanding of the system of supply chain performance and the introduction of common standards. There are a lot of challenges that are created including developing an effective and efficient supply chain which can become a core competency or even a distinctive competency, Barrett, (2000). A core competency is any function, which a firm does well at performing. The researcher sought to establish whether ethical procurement practices affects supply chain performance.

Contextually, the Government of Kenya in 2003 began to implement reforms to address inefficiency in the use of public resources and weak institutions of governance especially in the energy sector. Reforms included the development of anti-corruption strategies to facilitate the fight against corruption and the enactment of the Public Officer Ethics Act 2003, the Anti-Corruption and Economic Crimes Act 2003, the Financial Management Act 2004, and the Public Procurement and Disposal Act 2005. The latter will make the public procurement process more transparent, ensure accountability, and reduce wastage of public resources in the procurement department of the energy sector. The researcher chose the energy sector since it was more prone to supply chain challenges and the study will offer probable solutions to the looming challenges.

A number of studies have been carried out on the issue of ethical practices in business. Koufteros & Umphress (2011) noted that with business firms facing increasing demands for cost reductions and unattainable goals, supply chain personnel may succumb under such pressure, engaging in unethical practices.

Locally, Odhiambo and Kamau (2005) point that the bulk of corrupt practices in Kenya have occurred in public procurement and caused by opaque and unaccountable regulations. Some of the corrupt individuals include the procurement that is influenced by self interests and by external forces. Abdi (2012) studied procurement practices in Kenya's Public Corporations and found that employees understand what each suppose to do, there is also segregation of duties thus there are incidences of collusion among them. Okwiri (2012) studied of the roles of ethics in Supply Chain Management of oil corporations and found that employees should be ethical responsible to enhance the performance of procurement in institutions. In their study Ogolla and Kinyua, (2013) found out that despite the existence of devolved funds, internal inefficiencies among the firms have made them not to achieve the desired results. A study by Wanjiru, 2008, found out that poverty levels have increased from 56% in 2002 to 60% in 2008, public service delivery has failed, inequalities in resource distribution prevails and funds meant for community use have been routed by corrupt civil servants and politicians. An audit carried out by TISA shows that sh.242 million of the sh.1.2 billion allocated to the CDF in the period 2010/2011 is either misappropriated or unaccounted for. This study seeks to fill in the research gap for procurement competences provide knowledge standard and management knowledge standard of procurement and supply of goods and services. This kind of knowledge includes; management of integration, scope, time, quality, human resource communication, risk and procurement.

Looking at the above studies, the issue of ethics in procurement has been considered by different researchers but none has looked at the effect of ethical procurement practices on the supply chain performance in the Kenyan energy sector. It is on the basis of this gap that the present research will seek to fill this by answering the question: what is the relationship between ethical procurement practices and supply chain performance of firms in the Kenyan energy sector?

#### 1.3 Objectives of the study were:

- To establish the ethical procurement practices commonly used by firms in the Kenyan energy sector; and
- ii. To determine the relationship between ethical procurement practices and supply chain performance of firms in the Kenyan energy sector.

#### 1.4 Value of the Study

The study is expected to be useful to various parties, and especially the following: First this study shall be very significant to the academicians and researchers of all institutions in both Kenya and Liberia. The research findings are expected to contribute to a better understanding of ethical procurement practices and supply chain performance of Kenyan energy sector. In so doing, they can contribute to the available body of knowledge.

The existing management in various firms in the Kenyan energy sector, in pursuit of their organizational goals and objectives also benefit by the knowledge of how they can harness their autonomy into their leadership styles, which led to good governance, improved creativity and innovativeness, and eventually improved performance.

Finally; Policy Makers in Kenya and Liberia improved the policy making capacity and also apply innovation in policy implementation in areas of training and capacity building and performance management. Policies were formulated to enable the accommodation of every aspect of autonomy in public service management both in Kenya and Liberia. Liberia being am emerging country just from fourteen (14) years of senseless civil war helped to build the

potential of decision makers in public sector mainly in the energy sector, public and private run institutions, ministries and agencies of government as well as the state own university.

#### **CHAPTER TWO: LITERATURE REVIEW**

#### 2.1 Introduction

This chapter reviews past studies pertinent to the study problem. The chapter explores the theories that have been advanced in relation to the study problem. This chapter also looks into the empirical literatures as developed by the recent researchers. In addition, this chapter develops the conceptual framework that guides the approach of the research and the dependent and independent variables that constitutes the model of study.

#### **2.2 Ethical Procurement**

Ethics has been defined as the activity of examining the moral standards of a society and asking how these standards apply to one's life and whether these standards are reasonable (Sacconi, 2010). Ethics constitute: a system of moral principles by which human actions and proposals may be judged good or bad, or right or wrong; and the rules of conduct recognized in respect of a particular class of human actions and moral principles as of an individual. Ethical codes alone are insufficient to ensure ethical conduct and they need to be complimented with the assignment of functional responsibility (Ethical Officer) and employer training (Han et al, 2010).

As guided by vertical accountability theory, citizens and their organizations need more access to information and decision-making. One crucial instrument is a freedom of information law. This has been passed but must be made functional. Malfeasance thrives in secrecy and obscurity. The more that government transactions and operations are transparent and visible, open to scrutiny, the more feasible it is to expose, deter, and contain corruption.

For this reason, citizens must have the legal right to request and receive information on all functions and decisions of government that are not a matter of national security or that do not infringe on individual rights of privacy. In the fight against corruption, the public availability of information on government finance, procurement, and contracting is particularly important. Ideally, such information should be posted on the Internet, (Andereck & Vogt 2000). In particular, all government procurement above a certain (modest) level should be done through competitive bidding that is advertised on government websites. Parsons (2011) note that those parts of the organization most exposed to procurement was under pressure to deviate from any organizational policies or rules defining acceptable behavior.

Procurement competences provide knowledge standard and management knowledge standard of procurement and supply of goods and services (Celentani, & Ganuza, 2009). This kind of knowledge includes; management of integration, scope, time, quality, human resource communication, risk and procurement. Additionally, competent procurement managers have been described by different attributes as the key aspects of procurement success. The core skills are in the areas of budgeting, scheduling, and resource allocation as well the key tools related to these areas such as resource loading networks and resource - loading chats. Management of customer satisfaction which involves identifying who the customer is and understanding what leads to customer satisfaction (Parsons, 2011).

Kenneth, (2006) explains that it is not evident, though, that the various individuals who play a role in procurement see themselves as part of a large procuring entity, a cohesive team, because a procuring team is often an abstract as the team members see only part. Frame, (2005) also argues that bribery and other unethical practices in procurement has largely been an empirical one and as such has missed out the normative dimension (Ntayi, 2009).

Even if it is that the benefits of bribery outweigh the costs in terms of loss of trust and reputation that would not tell us whether it is competent. What case can be made for practices such as bribery, if any, and what arguments can be made against them? Frame, (2005) also emphasizes that to be effective through a procurement performance, management system must focus on "measuring the correct things" (Procurement competences). There has been little specific discussion on public procurement performance management.

Kenneth, (2006) advocated that when designing performance metrics it is important to consider the audience, even though in their development of metrics they do not appear to have consulted with procuring organizations. Morgan, (2006) provided a case study on the application of a balanced scorecard approach; although that scorecard included "leadership", "policy and strategy" in procurement. The study by Wilson, (2010) it appears to imply that procurement's customers are actually internal departments.

#### 2.3 Ethical Procurement Practices

Ethical procurement practices are acceptable norms that supply chain professionals and institutions should adopt to ensure flawless supply process. Kelman, (2009) sets out step-by-step procedures related to the notice and advertisement of tenders, leaving little choice as to when, where, and how to advertise procurement events. Part V clause 54 (1) on advertisement. "The procuring entity shall take such steps as are reasonable to bring the invitation to tender to the attention of those who may wish to submit tenders. If the estimated value of the goods, works or services being procured is equal to, or more than the prescribed threshold for national advertising, the procuring entity shall advertise, at least twice in a newspaper of general nationwide circulation which has been regularly published for at least two years before the date

of issue of the advertisement, and on its website in instances where the procuring entity has a website, and the advertisement shall also be posted at any conspicuous place reserved for this purpose in the premises of the procuring entity as certified by the head of the procurement unit", (Walker, & Sidwell, 2006).

The great part about having an ethics policy is that the rules are in tangible, indisputable form. The unfortunate part is that no one reads ethics policies! Supplement an ethics policy with procurement ethics training for anyone who is involved with the purchase of products or services and/or who meets with suppliers. Some organizations appoint an ethics ombudsman - person in the organization with whom an employee can confidentially communicate any real or perceived ethical violations. Because it is difficult to confront internal customers who may be more "politically powerful," having an ethics ombudsman can make procurement employees more comfortable in revealing behaviors of questionable ethics. Every major procurement should require management review to confirm that all guidelines were followed and that no ethical violations have occurred or will occur. Periodically, audits should be performed to verify that all procurement activities were conducted ethically and in accordance with procedures. Audits also serve as a deterrent to future unethical behavior, (Morgan, 2006).

#### 2.3.1 Transparency Procurement Practices

Transparency in the context of ethical procurement practice refers to the ability of stakeholders to know and understand the actual means and processes by which contracts are defined, awarded and managed. A key challenge across countries has been to define an adequate level of transparency to ensure fair and equal treatment of providers and integrity in public procurement. Transparency in public procurement bears an immediate cost both for government and bidders.

However, it is a key element to support fundamental principles of the public procurement system, especially competition and integrity, (D'Aveni, 2012). All suppliers should be treated fairly and even-handedly at all stages of the procurement process.

This means being open with all those involved, so that everyone, especially suppliers, understands the elements of the process, that is, the procedures, timescales, expectations, requirements, criteria for selection and so on. Supplier confidentiality should be safe-guarded, and unsuccessful suppliers should be debriefed with as much transparency about the procurement process as can be provided, for example, on the weaker aspects of their tender.

Governments need to find an adequate balance between the objectives of ensuring transparency; it also requires that the selection and award processes are based on known criteria. This means that the criteria for assessing the suitability of bidders and for assessing the tenders in order to award a contract must form part of the minimum information contained in the letter of invitation or contract notice. It also means that, where the award was made to the most economically advantageous tender, all criteria the contracting authority is intending to apply must be stipulated, where possible, in descending order of importance providing equal opportunities for bidders, and other concerns, in particular efficiency, (Han, Wilson & Dant, 2010).

#### 2.3.2 Accountability Practices in Procurement

Accountability is key ethical procurement practice. Accountability in public procurement essentially means to be responsible for our actions and decisions, and having the obligation to report and/or answer to a designated oversight entity (and the public) on the consequences of those actions and decisions.

As public servants procurement practitioners, and others involved in the public procurement process, are accountable and thus exposed to sanctions as a remedy for any behavior that contravenes the public procurement legal framework and principles. Procurement officials are in the public eye because of the significant impact of procurement on the economy.

The cornerstone of a public procurement system operating with integrity is the availability of mechanisms and capacity for ensuring effective internal control and audit. Furthermore, mechanisms for lodging complaints and challenging administrative decisions contribute to ensuring the fairness of the process. In order to respond to citizens' demands for greater accountability in the management of public expenditures, some governments have also introduced direct social control mechanisms by closely involving stakeholders not only the private sector but also end-users, civil society, the media or the public at large – in scrutinizing integrity in procurement, (Ayuso, 2006).

Accurate records are a pre-condition for accountability and control, these are written records of the different stages of the procedure are essential to maintain transparency, provide an audit trail of procurement decisions for controls, serve as the official record in cases of administrative or judicial challenge and provide an opportunity for citizens to monitor the use of public funds. Agencies need procedures in place to ensure that procurement decisions are well documented; justifiable and substantiated in accordance with relevant laws and policies in order to promote accountability, (Dant, 2010). When defining priorities, policy makers need to decide what stakeholders public procurement primarily serves end-users, government, the private sector, the media, or the public at large. Public procurement is increasingly regarded as a core element of accountability of the government to the public on how public funds are managed. Governments have reinforced their control and accountability mechanisms on public procurement in recent

years. A key challenge is to define a clear chain of approval and responsibility in the public procurement process in a context of devolved procurement.

Furthermore, some countries have indicated the difficulty of coordinating internal controls and external audits in procurement. There has been growing recognition that internal controls and external audits should be based on a more risk-based approach in order to help prevent and detect corruption in procurement, based on the type of procurement (e.g. specificity, complexity, value and sensitivity) and the vulnerable points in the procurement process.

#### 2.3.3 Integrity Practices in Procurement

Integrity in the context of public procurement implies that procurement procedures are transparent and promote fair and equal treatment for bidders. Public resources linked to public procurement are used in accordance with intended purposes. UNCITRAL rules on request for proposals also provide for use of the kind of two-envelope procedure found also in the principal method for procurement of services in the selection procedure with simultaneous negotiations (Article 43 of the Model Law), (Robert, 2008).

Thus, for the purpose of evaluating the final proposals, Article 48(3) provides that the effectiveness of the proposal is to be evaluated separately from the price, and that the price is to be considered only after the completion of the evaluation. The reasons for such a two-envelope procedure are the same as with the principal method for procurement of services, namely to ensure that appropriate weight is given to the different criteria and to prevent the deliberate abuse of discretion. A very important objective of many public procurement systems and of public procurement regulation is to ensure integrity in the system. This refers, first, to the idea that

procurement should be carried out without any influence of corruption. Corruption can cover various types of practice, (Sacconi, 2010).

Many such practices involve various forms of collusion between government and bidders, notably in awarding contracts on the basis of bribes; to firms in which one has a personal interest; to firms in which one's friends, family or business acquaintances have an interest; and to political supporters (e.g. to firms who have provided financial support; or to regions which have voted for a particular political party). Such corruption can occur in the execution as well as award of contracts e.g. officials can collude with bidders to allow them to claim extra payments for non-existent work, (Parsons, 2011).

Ethical procurement best practices starts with the employees in procurement following an ethical code which dictates their behavior and actions while conducting business. Walker, & Sidwell, (2006), posts that ethical procurement practices should be extended to all stakeholders in the procurement cycle. Ethical procurement should also include an understanding of suppliers' operations and the procurement professional should offer guidance and support when improvement is necessary or appropriate.

#### 2.3.4 Confidentiality Practices in Procurement

Maintaining confidentiality in a procurement process ensures success of the whole procuring procedures thus confidentiality is a fundamental arm of ethical procurement practice. Entities should consider whether the nature of the procurement may raise confidentiality issues for potential suppliers. Such issues can arise in a number of ways including where: potential suppliers include commercially sensitive information as part of a submission; the preferred supplier sought to protect commercially sensitive information contained in the contract; or the

preferred supplier sought to protect commercially sensitive information during and after the performance of the contract, (Sacconi, 2010).

Where procurement may give rise to specific claims for confidentiality by potential suppliers, the planning of the procurement should take account of this by: Managing the extent to which potential suppliers are required to submit commercially sensitive information in their submissions; assessing whether any potential claims to confidentiality would be consistent with the requirements of the particular procurement. For example, if an entity is engaging a consultant to write a report that the entity intends to publish or use in other ways, a potential claim for confidentiality by a supplier to protect intellectual property in relation to the report would be inconsistent with the entity's requirements for a published work; assessing the longer-term implications of protecting information as confidential, (Parsons, 2011).

For example, determining whether the information would need to be provided to a third party during a transition to a new supplier; and clearly informing potential suppliers, for example in request documentation, of the entity's position in relation to supplier claims for confidentiality. It is also open to the entity to evaluate submissions having regard to potential suppliers' claims for confidentiality where this is consistent with the stated evaluation criteria. The extent to which potential suppliers seek protection of particular information, such as intellectual property, may impact on the overall cost and risk of the proposal, for example transition and maintenance costs.

#### 2.3.5 Procurement Professionalism Practices

Public procurement is increasingly being recognized as a profession that plays a significant role in the successful management of public resources. In the last decade reform efforts have often occurred in cycles, as public procurement has gone through substantial changes in terms of priorities, needs and capacity. Staffing levels (e.g., ratio of procurement practitioners to contract actions) and budget resources. As countries have become more aware of the importance of procurement as an area vulnerable to mismanagement and potentially corruption, they have recently initiated efforts to integrate procurement in a more strategic view of government actions, (Ayuso, 2006).

This has also led some countries to recognize procurement as a strategic profession rather than simply an administrative function. This requires specific guidelines as well as restrictions and prohibitions to ensure that public funds are used for the purposes intended, public officials to adapt in a changing environment and minimize the potential for corruption, (Parsons, 2011).

Governments and procurement departments around the world face real challenges in delivering good quality products and services, including challenges of mounting debt and budget cuts, (American City & County, 2012). In some areas of the world, immaturity or corruption in purchasing departments compound the difficulty. Good practices do exist, however, despite media reports of waste and inefficiency. Excellent results are being achieved around the world using best practice principles. Capturing these best practices and sharing them more widely with anyone responsible for procurement in the public sector can have a real impact on standards and change.

To that end, NIGP: The National Institute of Governmental Purchasing and the United Kingdom's Chartered Institute of Purchasing and Supply (CIPS) have jointly released Ten Global Public Procurement Practices. Part of a larger shared initiative to define and formalize global professional standards for government procurement officials, these ten standard practices provide high-level guidance across the following procurement activities: Strategic Procurement Planning; Performance Measurement; Performance Metrics; Use of Cooperative Contracts; Transparency; Risk Management; Ethical Procurement; Procurement Policy Manual; Performance Management; and Performance-Based Contracting, (American City & County, 2012).

Public entities at all levels of government perform many of the same procurement activities, yet their methodologies and outcomes differ because each entity's practices have been defined based on their unique operating environments. Creating a reference of formalized standard practices, established through the collaboration of public sector professionals around the world, provides agencies an authoritative resource to define professional standards of practice across critical public procurement functions.

As political leaders draw increasing scrutiny and voter pressure to demonstrate fiscal responsibility, procurement professionals must ensure that they maximize the value of every tax dollar. U.S. governments spend a combined seven trillion dollars, Canadian governments 360 billion dollars, and U.K. governments more than 500 billion pounds. Consistent and professional procurement practices across governments can positively impact the effective expenditure of public funds, (American City & County, 2012).

#### 2.4 Supply Chain Performance

Effective supply chain performance contribute to the strategic evaluation of purchase decisions, primarily in terms of the development and pursuit of competitive strategies, "make – versusbuy" decisions, and the choice between market and relational forms of exchange. These decisions are crucial to the development of a particular form of buyer- seller relationship within procurement (Parsons, 2011). Acquisition of human- specific assets, when acquisition of knowledge on processes and other forms of procurement knowledge is desired, firms may integrate backward into supply, or form strategic alliances.

Given that knowledge so desired may often reside within personnel rather than as blue-prints, integration into supply results not only in the ownership of physical assets of the acquired firm but also in the acquisition of knowledge possessed by the acquired firm's employees (Pope, 2010). When such integration is not feasible, or when transfer and use of specific knowledge rather than its ownership is desired, strategic alliance with a supplier may be a better alternative than integration thus Strategic alliances are formed explicitly for learning, (Sacconi, 2010).

The effective stage of supply chain performance is characterized by a fundamental, end-to end transformation of the supply chain. Organizations now focus on high-quality, cost-effective, profitable supply chain performance, not mere compliance. They also identify and exploit value creation through economies of scale and innovative operating models. At this stage, the supply chain is incorporated into the organization's business strategies. Traditional silos of processes and knowledge are broken down, and both staff and supply managers can collaborate across functions to support the efficiency metrics are broader in scope but are not linked to financial key performance indicators (KPIs) or the strategic objectives of the organization. Effectiveness

metrics represent a quantum leap in integration, visibility and alignment with overall supply chain performance. In the effective stage, the focus shifts from discrete functions to integrated processes. Metrics are multidimensional and span the entire supply chain, including others across the supply chain, (Han, Wilson & Dant, 2010).

#### 2.5 Conceptual Model

This part of the research will seek to give clear and consistent definition of the research questions. It was used to show the relationship between dependent variables which is the research problems and independent variables.

A conceptual model explains the study variables and the presumed relationships among them (Miles *et al*, 1994). It also represents a synthesized and integrated way of understanding of issues which enables the researcher to address the research problem (Liehr *et al*, 1999). The conceptual framework for this study was formulated after a review of literature and empirical studies revealed some knowledge gaps. Based on the identified gaps, it was necessary develop by the researcher's own assumptions of the relationships among the study variables. These assumptions were used to formulate the research questions, research objectives, research hypotheses and conceptual framework.

# Ethical Procurement Practices Transparency Procurement Practices

- Accountability Practices in Procurement
- Integrity Practices in Procurement
- Confidentiality Practices in Procurement
- Procurement Professionalism Practices

#### **Independent Variables**

Figure 2.1: Conceptual Model

Source: Researcher (2015)

#### Firm's Supply Chain Performance

- Financial Perspective
- Customer Perspective
- Internal Business Processes
- Employee Dynamics

**Dependent Variable** 

## **CHAPTER THREE: RESEARCH METHODOLOGY**

#### 3.1 Introduction

The methodology presents a description of how the study approached. It presents the plan of the research, that is, the research design, how data was collected and from whom, and the data analysis technique that was adopted to analyze the data in order to generate the findings of the study.

#### 3.2 Research Design

This study adopted a descriptive research design. Descriptive research design is a design that is used when the researcher wants to describe specific behavior as it occurs in the environment (Greener, 2008). The aim of the study is to evaluate the ethical procurement practices and supply performance in the energy sector. According to Mugenda & Mugenda (2003) the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study. Borg & Gall (1996) note that descriptive survey research is intended to produce statistical information about aspects of a study that interest policy makers. This type of research can be used to describe characteristics that exist in a population, determine cause-and-effect relationships between different variables, and make inferences about possible relationships or to gather preliminary data to support further research and experimentation.

### 3.3 Population of the Study

The study was undertaken in all firms in the energy sector in Kenya; namely Geothermal Development Company, Kenya Electricity Generating Company Limited, Kenya Power and Lighting Company, Kenya Electricity Transmission Co. Ltd., Kenya Renewable Energy Portal, Independence Power Producers, Energy Regulatory Commission, Ministry of Energy, Rural Electricity Authority and Kenya Nuclear Electricity Board. The study targeted respondents from all the key departments of management namely: procurement department, finance department or their equivalents. These departments are considered to be the most knowledgeable on the ethical practices in the firm. Given the small number a census was conducted. According to energy regulation commission there are ten main energy firms in Kenya (see appendix i).

#### 3.4 Data Collection

The study used both primary and secondary data which was largely quantitative and descriptive in nature. The questionnaire was designed to solicit data on competitive forces that shape competition in an industry (Orodho, & Kombo,2002) points out that, questionnaires are appropriate for studies since they collect information that is not directly observable as they inquire about feelings, motivations, attitudes, accomplishments as well as experiences of individuals. Secondary data was on the other hand acquired from the inspectorate of listed firms in energy sector.

Respondents were presented with descriptive statements in a 5-point Likert scale on which they were required to rate by scoring the extent to which they perceived a particular statement is descriptive of the force in the corporations. The questionnaires were administered through "drop and pick later" method.

### 3.5 Data Analysis

After data collection, the filled-in and returned questionnaires was edited for completeness, coded and entries made into Statistical package for social sciences (SPSS version 18). This ensured that the data are accurate, consistent with other information, uniformly entered, complete and arranged to simplify coding and tabulation. With data entry, the data collected was captured and stored.

Descriptive and inferential analysis was conducted. Descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage). Mean and standard deviations were used as measures of central tendencies and dispersion respectively. Regression and correlation analysis were used to assess the strength of the relationships between the specified variables. Various statistics were extracted and interpreted with respect to the various models. Inferential analysis was done, thus, testing the hypotheses of the study.

The regression equation assumed the following form

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where Y = Supply Chain Performance

 $\beta_i$  = (i = 0 - 6) = Regression Coefficient

 $X_1$  = Transparency Procurement Practice

X<sub>2</sub> = Accountability Practice in Procurement

X<sub>3</sub> = Integrity Practices in Procurement

X<sub>4</sub> = Confidentiality Practices in Procurement

X<sub>5</sub> = Procurement Professionalism Practices

 $\varepsilon$  = Unexplained variables not explained by the model

# 3.6 Operationalization of the Study Variables

This section deals with the Operationalization of the study variables, along with other components of the conceptual framework. The independent variable is the ethical procurement. The dependent variables are indicators of supply chain performance. The following is the summary of operationalization of the study variables. The operational definition of independent variable, Ethical Procurement Practices which comprised of five indicators namely; Transparency Procurement Practices, Accountability Practices in Procurement, Integrity Practices in Procurement, Confidentiality Practices in Procurement and Procurement Professionalism Practices and secondly the operational definition of dependent variable which is the Firm's Supply Chain Performance which comprised of four indicators and they are Financial Perspective, Customer Perspective, Internal Business Processes and Employee Dynamics. The details of these operational definitions are summarized in table 3.1.

**Table 3.1 Operationalization of Study Variables** 

Variable	Indicators	Measure	Questionnaire Item	Analysis Techniques
Ethical Procurement	* Transparency Procurement Practice	Liker-type scale	Questionnaire	Frequencies
Practices	*Accountability Practices in Procurement		Part – B	Means
(Independent)	* Integrity Practices in Procurement		Q5,6,7,8,9	Correlation
	*Confidentiality Practices in Procurement			F - Test
	* Procurement Professionalism Practices			T - Test
Firm's Supply Chain	* Financial Perspective	ROI, Gross Sales	Questionnaire	Regression
Performance	* Customer Perspective	Customer	Part – C	Correlation
(Dependent)	* Internal Business Processes	Satisfaction Index	Q10	F - Test
		Cost Efficiency	Questionnaire	T - Test
	* Employee Dynamics	Capacity Utilization	Part – D	
		Employee Productivity	Q11	
		Employee Satisfaction		

Source: Research Data (2015)

# CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION

#### 4.1 Introduction

This chapter is a presentation of results and findings obtained from field responses and data, broken into two parts. The first section deals with the background information, while the other section presents findings of the analysis, based on the objectives of the study as explored by the questionnaires where both descriptive and inferential statistics have been employed.

# 4.2 Response Rate

It was noted from the data collected, out of the 32 questionnaires administered to the procurement directors, finance directors and administration departments in each of the energy sector firms, 30 questionnaires were filled and returned. This represented a 93.75% response rate, which is considered satisfactory to make conclusions for the study. According to Mugenda and Mugenda (2003) a 50% response rate is adequate, 60% good and above 70% rated very good. This also collaborates Bailey (2000) assertion that a response rate of 50% is adequate, while a response rate greater than 70% is very good. This implies that based on this assertion; the response rate which was calculated in this case was according to Mugenda and Mugenda and Bailey excellent.

This high response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method where the questionnaires were picked at a later date to allow the respondents ample time to fill the questionnaires. The demographic data sought to establish the general information of the respondents. From the questionnaire, the following demographic statistics were established, age

bracket of the respondents, length of continuous service and the length of existence in the energy firms. They are explained in the subsections below.

### 4.3: Age brackets of the respondents

This section sought to determine the ages of the respondents of the firms in the energy sector.

The findings are shown in figure 4.1

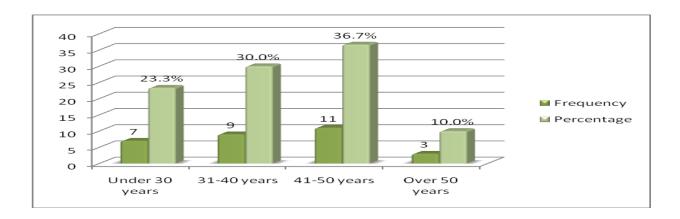


Figure 4.2: Age bracket of the respondents

From the findings, it was noted that most respondents were aged between the ages of 41 to 50 years old. This was noted from a frequency of 11 respondents. This was calculated to approximately 36.7% of the total respondents. This age bracket was closely followed by respondents who stated that they were aged between 31 to 40 years which covered 30.0% of all the respondents. This age bracket was noted to have a frequency of 9 respondents. 23.3% of all the respondents were noted to be under the age of 30 years old. This was calculated from a frequency of 7 respondents. The least frequency of 3 respondents indicated that they were aged over 50 years. From the findings, it can be inferred that the respondents were old enough to provide reliable insights relevant to the study.

## 4.3.1 Length of continuous service

The study sought to determine the length of continuous service the respondents had in the energy sector. The figure 4.2 shows the findings from the analysis of the questionnaires.

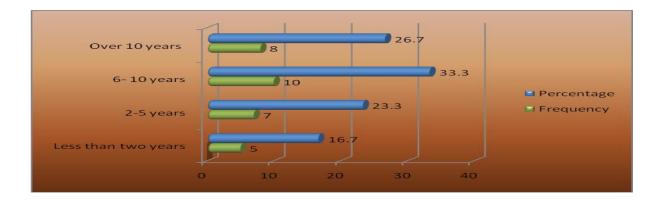


Figure 4.3: Length of continuous service

From the responses in the questionnaires it was noted that majority of the respondents (33.3%) had been in the firms for a continuous period of 6-10 years. This was closely followed by respondents who stated that they had been in the firms for a period of over 10 years.

This covered a frequency of 8 respondents which calculates to 26.7% of the total respondents. Respondents who stated that they had been in service for a period of 2-5 years followed closely after carrying 23.3% of the total respondents. The least frequency (5) was of respondents who stated that they had been in continuous service for a period of less than two years.

# **4.3.2:** Length of existence of the organization

The study sought to determine how long the firms of the respondents had been in existence. The findings are shown in the figure 4.3below.

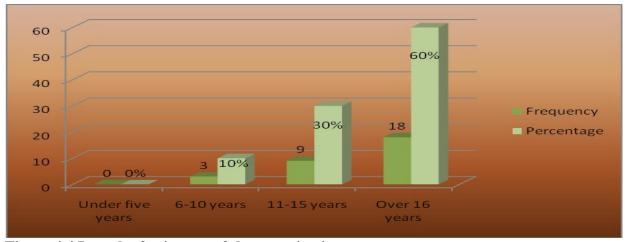


Figure 4.4 Length of existence of the organization

From the study it was noted that majority of the respondents (60%) indicated that their firms had been in existence for a period of over 16 years. This was closely followed by respondents who stated that their energy firms had been in existence for a period of 11 to 15 years, and covered 30% of the total respondents. It was noted from the findings that 10% of the respondents stated that their firms had been in operation for a period of 6-10 years. None of the respondents indicated that their firms had been in existence for less than 5 years.

### 4.4: Ethical Procurement Practices in Kenyan Energy Sector

The main objective of the study was to establish the ethical procurement practices and supply chain performance of the Kenyan energy sector. From the analysis of the data, the following was established.

The respondents were asked to Rate how they feel about different variables related to ethical procurement practices and supply chain performance of the Kenyan energy sector in a five point Likert scale. The range was from 'a very great extent' (5) to 'No extent' (1). A standard deviation of >1.5 implies a significant difference on the impact of the variable among respondents.

# 4.4.1: Transparency procurement practices used by firms in Kenyan energy sector

The firms in Kenya Energy Sector use transparency procurement as an ethical procurement practice.

The respondents were asked to indicate the extent of used of transparency procurement practices by the firms in the Energy sector in Kenya. The study used 5-point Likert scale in collection and processing of data ranging from no extent which had 1-no extent, little extent - 2, moderate extent - 3, great extent - 4, and very great extent - 5. The Table 4.2 below shows the findings of the respondents. The research findings are presented in table 4.2 below showing the resultant means and standard deviations of the variables.

**Table 4.2 Transparency Procurement Practices** 

Transparency Procurement Practices		Mean	Std.
			Deviation
The Agreement on Government Procurement (GPA)	32	4.98	0.331
guarantees transparency in public tendering procedures in the			
energy sector			
The firms procurement process has provided access to reliable	32	4.77	0.399
information about the activities of the procurement			
organization in the energy sector.			
The firms in the energy sector always ensure that the	32	4.73	0.376

objectives of transparency are carefully implemented in all			
procurement activities.			
In cases where the award wishes to get the lowest bid, all the	32	4.67	0.432
criteria that the firm wishes to achieve is clearly stipulated in			
the tendering documents, specifically in descending order of			
importance			
The firm debriefs all its unsuccessful suppliers on the weaker	32	4.65	0.984
aspects of their tender documents.			
There exist fair and equal treatment of providers and integrity	32	4.52	0.458
in the firms procurement process and there exist no preference			
to any group of suppliers			
In the firms' procurement process, the criteria for assessing the	32	4.49	0.421
suitability of bidders and for assessing the tenders in order to			
award a contract forms part of the minimum information			
contained in the letter of invitation or contract notice.			
The firms in the energy sector integrate and utilize technology	32	4.40	0.272
systems to enhance transparency in the procurement process			
The firms stakeholders such as suppliers, customers,	32	4.32	0.845
employees and government know and understand the actual			
means by which contracts are evaluated and awarded			
The firm suppliers have been treated fairly and even-handedly	32	4.29	0.346
at all stages of the procurement process			
There has been established and posted entity statement of	32	4.28	0.396
commitment to a Code of Ethics on the government			
procurement site			
Transparency in the firm procurement process bears an	32	4.22	0.367
immediate cost both for government and bidders.			
The firm safe-guarded supplier confidentiality.	32	4.15	0.325
The energy sector firms has an adequate level of transparency	32	3.77	0.424
to ensure fair and equal treatment of providers and integrity in			

public procurement			
To ensure transparency, the firms has establish and posts	32	3.49	0.403
Terms of Use on the procurement sites to discourage fraud and			
misuse of information			
Overall Mean		4.382	

To a very great extent  $(4.49 \le \text{mean} \le 4.98)$  the government owned entities in the energy sector guarantee transparency in public tendering procedures, provides access to reliable information and ensure objectives of transparency are carefully implemented. Notwithstanding; in case where the award wishes to get lowest bid, the energy sector firm debriefs all its unsuccessful suppliers on the weaker aspects of their tender documents, there exist fair and equal treatment of providers and that firm in the energy sector assessing the tenders in order to award a contract. This is an indication that the firms straightly adhere to transparency in public tendering process, provides access to reliable information and ensure that the objectives of transparency procurement are carefully implemented to a very great extent.

This finding compares to those of several authors. Morgan (2006) established that ethical procurement practices seeks to promote fair and open competition for business while minimizing fraud and other corrupt practices. Odhiambo and Kamau (2005) agree that ethical procurement has promoted transparency and minimized the opaque processes that encouraged malfeasance. The study established that transparency procurement practices of the firms in the energy sector in Kenya is characterized by transparency, supplier confidentiality, accessibility to reliable information about the procurement by all players (suppliers), and communication with both succeful and unsuccessful bidders.

Furthermore; the respondents agreed to a great extend  $(3.77 \le \text{mean} \le 4.40)$  that firm in the energy sector integrate and utilize technology system to enhance transparency, the firms stakeholders know and understand the actual means by which contract are evaluated and awarded and the firm suppliers have been treated fairly. In addition; the firm established and posted entity statement of commitment to a Code of Ethics on the government procurement site, transparency in the firm procurement process bears an immediate cost, the firm safe-guarded supplier confidentiality and has an adequate level of transparency to ensure fair and equal treatment of providers. This means that the firms in the energy sector integrate and utilize technology system to enhance transparency procurement practices used by firms in the Kenyan Energy Sector to a great extent.

This finding is in line with Sacconi (2010) opines that ethical procurement should be characterized by transparency, devoid of corruption and open to scrutiny. This implies that transparency in the firm procurement process bears an immediate cost both for government and bidders.

In overall the firms in the energy sector conform to transparency procurement practices, provide access to reliable information, ensure that the objectives of transparency are carefully implemented and that the firm debriefs all its unsuccessful suppliers to a great extend with an overall mean of (4.382).

# 4.4.2: Accountability practices in procurement used by firm in Kenyan energy sector

Accountability is one of the practices in procurement used by firms in the Kenyan Energy Sector.

The respondents were asked to indicate the effect of accountability practices in procurement used by firm in Kenyan energy sectors. The study also used a 5-point Likert scale in the data collection and analysis. The research findings are illustrated in Table 4.3 below showing the resultant means and standard deviations of variables.

**Table 4.3 Accountability practices in procurement** 

Accountability Practices in Procurement	N	Mean	Std. Deviation
The firm keeps accurate records of all transactions which provide an audit trail of all the procurement decisions as well as serving as official record in case of administrative or judicial challenge	32	4.79	0.09
The firm has clearly expressed readily available regulations, policies and procedures in the energy sector.	32	4.69	0.493
The energy sector firms has enhance accountability in the procurement process	32	4.61	0.523
The firm is always liable to sanctions as a remedy for any behaviour that contravenes the public procurement legal framework and principles.	32	4.33	0.48
To ensure accountability in the energy sector, the information provided in procurement is complete, timely, and accurate	32	4.29	0.483
The firm is accountable to the regulatory authorities such as the ministry of energy and the Energy regulatory board	32	4.26	0.21
The firms maintain legal confidentiality in the procurement process	32	4.24	0.303
The firms ensure accountability in the procurement process in the energy sector	32	4.10	0.453
The energy sector firms keep accurate records as a pre-condition for accountability and control	32	4.02	0.429
The firm in the energy sector has open frequent communications between procurement personnel and suppliers community	32	3.99	0.378

The firm is a member of PIEA which has put in place mechanisms for lodging complaints and challenging administrative decisions made by the firm which contribute to ensuring the fairness of the process.	32	3.98	0.79
The energy sector firms has created and publish annual reports of procurement activities and spending in a format that is accessible and easy to understand	32	3.93	0.287
The firms has put in place direct social control mechanisms by closely involving stakeholders into the procurement process		3.61	0.459
Overall Mean		4.218	

To a very great extent  $(4.61 \le \text{mean} \le 4.79)$  the firms in the energy sector keep accurate records of all transactions, clearly expressed readily available regulations, policies, procedures and enhance accountability in the procurement process. This is an indication that the firms straightly adhere to regulations, policies, procedures and judicial decision in ensuring accountability in the procurement process to a very great extent.

The findings are in line with Walker and Sidwell (2006) findings that procurement officers need to be accountable and are exposed to sanctions as a remedy for unaccountable behavior. They further postulates that procurement system needs internal control and audit which should be based on a more risk-based approach so as to prevent and detect corruption.

Notwithstanding, to a great extent  $(3.61 \le \text{mean} \le 4.33)$  the firms in the energy sector are always liable to sanctions, the information provided in procurement is complete, timely and accurate. In addition; the energy sector firm is accountable to regulatory authorities, maintain legal confidentiality, ensure accountability in the procurement process, keep accurate records, has open frequent communications, the firm is a member of PIEA (Petroleum Institute of East Africa), the firms has created and publish annual reports of procurement activities and put in place direct social control mechanisms.

This means that the firms in Kenyan energy sector keep accurate records, open frequent communications and place in direct social control mechanisms in accountability practices in procurement to a great extent.

This finding is in line with Dant, (2010) study established that accurate records with verifiable audit trails are a pre-condition for accountability in public procurement. Furthermore, Ayuso (2006) also found that direct social control mechanisms should be observed by involving stakeholders in the procurement process. The findings affirm that accountability practices in Energy sector regarding procurement include keeping accurate records with audit trails, procurement procedures, regulations and policies are well articulated, open communications between the procurement department and suppliers and the firms publish their annual accounts.

In overall the firms in the energy sector comport to involving stakeholders in its accounting systems in the procurement process so as to enhance accountability practices to a great extend with an overall mean of (4.218).

#### 4.4.3: Integrity practices in procurement used by firm in Kenyan energy sector

Integrity practice is one of the practices in procurement used by firms in the Kenyan Energy Sector.

The respondents were asked to indicate the extent of adoption of integrity practices used by firm in Kenyan energy sector. The study used five-point Likert scale (1-no extent, 2-little extent, 3-moderate extent, 4-great extent, 5-very great extent) in collecting and analyzing the data. The findings are illustrated in table 4.4 below showing the resultant means and standard deviations of the variables.

**Table 4.4 Integrity Practices in Procurement** 

Integrity Practices in Procurement	N	Mean	Std. Deviation
To ensure integrity in the energy sector, procurement proffessionals attitude and behaviour has coincide with the goals of the firms they represents	32	4.92	0.399
The firms ethical procurement process has included an understanding of suppliers' operations	32	4.83	0.382
The firm's Employees in the procurement department in the energy sector follow an ethical code which dictates their behavior and actions while conducting business	32	4.73	0.402
The firms have adopted independent internal control systems in order to strengthen integrity and detect corruption or fraud in the energy	32	4.64	0.391
The energy sector firms' have procurement process that give rise to specific claims for confidentiality by potential suppliers	32	4.42	0.333
The energy sector procurement systems and of public procurement regulation is to ensure integrity in the system	32	4.38	0.412
The firm's evaluation process of the tender documents and its effectiveness is evaluated separately from the price, and that the price is considered only after the completion of the evaluation	32	4.35	0.94
The energy sector firms' endeavors to understand suppliers' operations and offers guidance and support when improvement is necessary or appropriate.	32	4.34	0.443
In cases where one member of staff of the firm has personal interest in the tendering process, the firm has stipulated that such member of staff declares the same and is excluded in the process	32	4.25	0.58
The firm's employees in the energy sector have subscribed to stated code of conduct in term of execution of duties	32	3.96	1.85
To ensure integrity in the energy sector, institutional and administrative infrastructure has been adopted in the firms in order to pose restrictions on how to structure the procurement process	32	3.77	0.451
In order to ensure integrity of the firms in the energy sector, monitoring, supervision and sanctions has been practiced in order to decrease engagement in corrupt activities.	32	3.72	0.231
Overall Mean		4.669	

To a very great extent  $(4.64 \le \text{mean} \le 4.92)$  the firms in the energy sector ensure that procurement proffessionals attitude and behaviour coincide with the goals, undertsnading of the suppliers' operations, employees in the procurement department follow an ethical code and that the firms have adopted independent internal control systems to strengthen integrity and detect corruption or fraud. This means that integrity practices were being undertaken by the firms in Kenya Energy Sector to a very great extent.

The findings underscore the fact that procurement proffessionals of the firms in the energy sector have ethical attitude and behaviour and a code they are expected to abide by. In agreement with the study's findings, Parsons (2011) reveal that without a proper integrated codes of ethics, corruption can occur in the procurement processes ranging from officials colluding with bidders for payments for non-existent work, awarding contracts on the basis of bribes, or awarding a firm in which one has a personal interest, belonging to one's friends, family or business acquaintances.

Moreover; the respondents agreed to a great extent  $(3.77 \le \text{mean} \le 4.42)$  that the firms in the energy sector ensure that procurement process give rise to specific claims for confidentiality and public procurement regulation is to ensure integrity in the system. Further; that evaluation process of the tender documents and its effectiveness is evaluated separately from the price, firms' endeavors to understand suppliers' operations and offers guidance, in cases where one member of staff of the firm has personal interest in the tendering process, the firm has stipulated that such member of staff declares the same and is excluded in the process, the employees in the energy sector have subscribed to stated code of conduct and the firms pose restrictions on how to structure the procurement process. This is an indication that public procurement regulation is to ensure integrity in the system to a great extent.

The findings, further, reveals that internal control system and regulations of the procurement process have been instituted to enhance intergrity. Robert (2008) findings established that internal controls within the procurement enhances of performance as firms get value for money, encourages competition and eradicate wastages.

In overall the firms in the energy sector conform to ethical procurement practices, understanding of suppliers' operations and follow an ethical code to ensure integrity practices in procurement to a very great extend with an overall mean of (4.669).

# 4.4.4: Confidentiality practice in procurement used by firm in Kenyan energy sector

Confidentiality practice is one of the practices in procurement used by firms in the Kenyan Energy Sector.

The respondents were required to indicate the extent to which confidentiality practice in procurement used by firm in Kenyan energy sector. The respondents were asked to indicate whether the firm maintaining confidentiality in a procurement process ensures success of the whole procuring process in the energy sector. A five-point likert scale was used where no extent -1, little extent -2, moderate extent -3, great extent -4, very great extent -5. The findings are illustrated in the table 4.5 below showing the resultant means and standard deviations of the variables.

**Table 4.5 Confidentiality Practices in Procurement** 

Confidentiality Practices in Procurement	N	Mean	Std. Deviation
The need for access to information by the firms has balanced by clear requirements and procedures for ensuring confidentiality in the energy sector	32	4.88	0.422
The firm maintaining confidentiality in a procurement process ensures success of the whole procuring procedures in energy sector	32	4.44	0.353
The energy sector has adopted procedures to ensure the security and confidentiality of documents submitted has help guide officials in handling sensitive information and in clarifying what information should be disclosed	32	4.39	0.273
A quality check of the firm procurement process is essential in order to confirm the suitability of the goods in question	32	4.28	0.472
The firms in the energy sector are open to evaluating submissions having regard to potential suppliers' claims for confidentiality where this is consistent with the stated evaluation criteria.	32	4.05	0.85
The firms in the energy sector protects commercially sensitive information provided by a supplier during the tendering process	32	3.91	0.56
Any employee of the firm who breaches the provisions of confidentiality was guilty of gross misconduct and any breaching of confidentiality has been disqualified by the firm	32	3.90	0.263
Rules on request for proposals also provide for use of the kind of two-envelope procedure in the energy sector	32	3.87	0.89
The firms in the energy sector manage the extent to which potential suppliers are required to submit commercially sensitive information in their submissions	32	3.72	0.378
Overall Mean		4.16	

To a great extent  $(4.39 \le \text{mean} \le 4.88)$  confidentiality practice was one of the practices in procurement used by firms in the energy sector, the respondents agreed that the need for access to information by the firms has balanced, that the firm maintaining confidentiality in a procurement process ensures success of the whole procuring procedures and that the energy sector has adopted procedures to ensure the security and confidentiality of documents submitted. This is an indication that the need for access to information, maintaining confidentiality, handling sensitive information and in clarifying what information should be disclosed to a great extent.

The findings showed that procedures and policy on information access are put in place to ensure that firms sensitive information and supplier information during the tendering process are kept confidential, quality check of the firm procurement process is essential in order to confirm the suitability of the goods in question. The findings agrees with Sacconi's (2010) assertion that confidentiality in procurement process ensures success function and is a fundamental arm of ethical procurement practice as suppliers could put commercially sensitive information or intellectual property in the contract or procurement document.

In furtherance to; the respondents agreed to a moderate extent  $(3.72 \le \text{mean} \le 4.28)$  that a quality check of the firm procurement process is essential, that the firms are open to evaluating submissions, its protects commercially sensitive information, and not withstanding; any employee of the firm who breaches the provisions of confidentiality was guilty of gross misconduct, that the rules on request for proposals also provide for use of the kind of two-envelope procedure and the extent to which potential suppliers are required to submit commercially sensitive information. This means that the firm in the energy sector protects commercially sensitive information to a moderate extent.

The findings also reveal that firms in the energy sector, further, manage the extent to which potential suppliers are required to submit commercially sensitive information in their submissions. Parsons (2011) notes that put confidentially clause could deter procuring firms from potential claim for confidentiality by a supplier to protect intellectual property. This also includes information on the need to provide a third party with information during a transition to a new supplier.

In overall the firms in the energy sector straightly adhere to providing access to information, maintaining confidentiality and protecting commercially sensitive information to a moderate extend with an overall mean of (4.16).

### 4.4.5: Procurement professionalism practices used by firm in Kenyan energy sector

Procurement professionalism is one of the practices used by firm in Kenyan energy sector.

The respondents were asked to indicate the extent to which procurement professionalism practices used by firm in Kenyan energy sector. The study used five point likert scales in collecting and analyzing the data. The findings are illustrated in the table 4.6 below showing the resultant means and standard deviations of the variables.

**Table 4.6 Procurement Professionalism Practices** 

Procurement Professionalism Practices	N	Mean	Std. Deviation
The firm procurement professionals requires prioritization of areas associated with ethical issues which might be of greater risk to the firms in the energy sector	32	4.830	0.3884
For one to become professional in the firm, candidates must have a combination of education and work experience in procurement.	32	4.825	0.246

Procurement professionalism in the energy sector has taken place in parallel with the development of monitoring procedures	32	4.623	0.3523
The firm procurement professional is responsible for the purchasing activity of a business or organization	32	4.586	0.384
The firm uncertainty and unrealistic timelines can undermine market confidence, discredit a purchasing process and devalue the outcome of the procurement.	32	4.542	0.303
The firms procurement professionals in the energy sector follow ethical code which dictates their behavior and actions while conducting business.	32	4.401	0.3784
The firm's procurement professionalism has focused on high risk areas, understand suppliers' operations and offer guidance	32	4.353	0.623
The firm purchasing process has been cost effective for both public authorities and suppliers.	32	4.290	0.472
The firms' reform efforts often occur in cycles, as public procurement has gone through substantial changes in terms of priorities.	32	4.23	0.456
Energy firms have become more aware of the importance of procurement as an area vulnerable to mismanagement and potential corruption	32	4.02	0.354
To ensure procurement professionalism in the energy firms compliance may take time or need to be introduced in phases	32	4.0274	0.483
Most firms in the energy sector has also initiated efforts to integrate procurement in a strategic view of government actions	32	3.997	0.389
The firm has therefore recognized international bodies that have championed professionalism in various related disciplines	32	3.723	0.308
The firm's procurement professionals in the energy sector has focus on ensuring compliance with their ethical code and the policies that it touches upon	32	3.334	0.354
The firm public procurement is increasingly being recognized as a profession that plays a significant role in the successful management of public resources	32	3.25	0.464
Overall Mean		4.202	

To a very great extent  $(4.542 \le \text{mean} \le 4.830)$  the firm procurement professionals requires prioritization of areas associated with ethical issues, to be professional in the firm, candidates must have a combination of education and work experience in procurement and procurement

professionalism in the energy sector has taken place in parallel with the development of monitoring procedures. In addition to; procurement professional is responsible for the purchasing activity of a business, and the uncertainty and unrealistic timelines can undermine market confidence. This is an indication that Procurement professionalism practices were being embark on by firms in the Kenyan Energy Sector to a very great extent.

The findings confirm that the procurement professionals of firms in the energy sector should prioritize areas associated with ethical issues. In concurrence, Parsons (2011) noted that procurement is increasingly being seen as a strategic profession rather than an administrative function. He found out that professionalization of procurement was integral in stemming corruption and integrating it with ethics. The study's findings established that the professional must ensure they have both education and work experience in procurement, understand suppliers' operations and offer guidance.

In addition to; the respondents agreed to a great extent  $(3.723 \le \text{mean} \le 4.401)$  that firms in the energy sector follow ethical code, focused on high risk areas, cost effective for both public authorities and suppliers, the firms' reform efforts often occur in cycles and that energy firms have become more aware of the importance of procurement as an area vulnerable to mismanagement. Notwithstanding; the firms in the energy sector ensure compliance, initiated efforts to integrate procurement in a strategic view of government actions and that the firm has therefore recognized international bodies that have championed professionalism in various related disciplines. This means that the procurement professionalism practices initiated efforts to integrate procurement in a strategic view of government actions by firms in the Kenyan energy sector to a great extent.

The findings confirm that Ayuso (2006), in agreement, found out that procurement needs formalized standard practices involving collaboration of public sector professionals and defining professional standards of practice across critical public procurement functions. The firms also recognized international bodies enhance procurement professionalism.

In overall the firms in the energy sector straightly adhere to prioritization of areas associated with ethical issues and initiated efforts to integrate procurement in a strategic view of government actions in maintaining confidentiality to a great extend with an overall mean of (4.202).

# **4.4.6: Supply Chain Performance**

Supply chain performance is one of the factors that are influenced by ethical procurement practices of Kenyan energy sector.

The respondents were asked to indicate the performance of their organization's supply chain in terms of percentage improvement. The study used the averages of the percentage provided by the respondents from the financial statements as indicated in Table 4.7 below showing the resultant means and standard deviations of the variables.

Table 4.7: Analysis on information on supply chain performance

Criteria	5 Year Achievements in Percentage					
Unit of Measurement	2010	2011	2012	2013	2014	
A. Financial Perspective						
Return on Investment	0.72	-0.01	0.63	0.65	0.66	
Gross Sale	0.33	0.39	0.45	0.48	0.52	

B. Customer Perspective						
Customer Satisfaction Index	0.11	0.12	0.26	0.44	0.54	
Customer Complaints Resolution	0.01	0.13	0.24	0.29	0.34	
C. Internal Business Proc	esses					
Cost Efficiency	0.23	0.34	0.44	0.45	0.49	
Capacity Utilization	0.25	0.37	0.39	0.42	0.44	
D. Employee Dynamics						
Employee Productivity	0.33	0.38	0.48	0.56	0.66	
Employee Satisfaction	0.12	0.33	0.44	0.45	0.49	

From the analysis of the findings, it was noted that looking at the firms supply chain performance at the financial perspective, there was a progressive increase in return on investment for the five year period analysis. With the base being 2009, 2010 was noted to have an increase of 0.72%, 2011 had a decrease of 0.01%, 2012 had 0.63%, 2013 had a 0.65% increase, while 2014 had a 0.66% increase. Gross sales were also noted to have progressively increased from 0.33% in 2010 to a 0.52% increase in 2014 as a result of effective supply chain performance. The study also noted that looking at the customer perspective, there was an increase in the customer satisfaction index from 0.11% in 2010 to 0.54% increase in 2014. A similar case was noted to the customer complaint resolution which indicated a 0.01% increase in 2010 to 0.34% increase in 2014. Looking at the internal business processes, cost efficiency was noted to have a progressive increase from 0.23% in 2010 to a 0.49% increase in 2014. Capacity utilization was noted to have progressively increased from 0.25% in 2010 to a 0.44% increase in 2014.

The study also established that in relation to employee dynamics, there was a progressive increase in employee productivity in the five year study period from 0.33% in 2010 to 0.66% in 2014 as a result of the firm's supply chain performance. The study also noted that employee

satisfaction with 2009 being the base year indicated a progressive increase from a 0.12% increase in 2010 to a 0.49% increase in 2014.

#### 4.5 Inferential Statistics

This section presents a discussion of the results of inferential statistics. Correlation analysis was used to measure the strength of the relationship between the independent variables i.e. the relationship between transparency procurement practices, accountability practices in procurement, integrity practices in procurement, confidentiality practices in procurement, procurement professionalism practices and the firm's supply chain performance. Regression analysis established the relative significance of each of the variables on the firm's supply chain performance.

### 4.5.1 Regression Analysis

The study sought to establish the effect of various ethical procurement practices on the performance of firm's supply chain. These factors include: transparency procurement practices, accountability practice in procurement, integrity practices in procurement, confidentiality practices in procurement and procurement professional practices. The regression model was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Whereby Y represent the firms supply chain performance,  $X_1$  is Transparency Procurement Practice,  $X_2$  is Accountability Practices in Procurement,  $X_3$  is Integrity Practices in Procurement,  $X_4$  is Confidentiality Practices in Procurement and  $X_5$  is Procurement Professionalism Practices  $\beta 0$  is the model's constant, and  $\beta_1$ - $\beta_5$  are the Regression Coefficients while  $\epsilon$  is the model's significance from f-significance results obtained from analysis of variance (ANOVA).

**Table 4.8: Model's Goodness of Fit Statistics** 

		Adjusted R	Std. Error of		
R	R Square	Square	the Estimate	<b>Durbin-Watson</b>	
.834ª	.695	.653	.1752	1.421	

a. Predictors: (Constant), transparency procurement practices, accountability practices in procurement, integrity practices in procurement, confidentiality practices in procurement and procurement professionalism practices.

## b. Dependent Variable: Firm's supply chain performance

Table 4.8 shows that there is a good linear association between the dependent and independent variables used in the study. This is shown by a correlation (R) coefficient of 0.834. The determination coefficient as measured by the adjusted R-square presents a moderately strong relationship between dependent and independent variables given a value of 0.653. This depicts that the model accounts for 65.3% of the total observations while 34.7% remains unexplained by the regression model.

Durbin Watson test was used as one of the preliminary test for regression which to test whether there is any autocorrelation within the model's residuals. Given that the Durbin Watson value was close to 2 (1.421), there was no autocorrelation in the model's residuals.

**Table 4.9: Analysis of Variance (ANOVA)** 

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.164	4	.541	11.657	.039 <sup>a</sup>
Residual	9.775	115	.085		
Total	11.939	119			

a. Predictors: (Constant), Transparency practice in procurement, Accountability practice in procurement, Integrity practices in procurement, Confidentiality practices in procurement, professionalism practices in procurement.

# b. Dependent Variable: Firm's supply chain performance

The ANOVA statistics presented in the table above was used to present the regression model significance. An F-significance value of p = 0.039 was established showing that there is a probability of 3.9% of the regression model presenting a false information. Thus, the model is significant at  $\lambda=5\%$ .

**Table 4.10: Regression Coefficients** 

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	T	Sig.
(Constant)		2.914	.425		8.545	.045
Transparency I Practices	Procurement	.541	.154	.656	5.574	.035
Accountability Procurement	ractices in	.644	.874	.241	2.486	.049
Integrity Practi	tices in	.148	.441	.282	1.031	.038
Confidentiality P Procurement	ractices in	.504	.685	.257	2.412	.043

Procurement	Professionalism	0.497	0.184	0.274	1.784	0.024	ı
Practices							ı

a. Dependent Variable: Firm's supply chain performance

The following regression result was obtained:

$$Y = 2.914 + 0.541*TPP + 0.644*APP + 0.148*IPP + 0.504*CPP + 0.497*PPP$$
 P=0.039

From the model, when other factors (transparency procurement practices, accountability practices in procurement, integrity practices in procurement, confidentiality practices in procurement and procurement professionalism practices) are at zero, the firms' supply chain performance was 2.914. This depicts that without ethical procurement, supply chain performance would be low. Holding other factors constant, a unit increase in transparency procurement practices would lead to 0. 541 (p=.035) increase in firms supply chain performance. This concurs with D'Aveni, (2012) findings that transparency improves performance as it ensures that the procuring firm gets value for money as it promotes both competition and integrity.

Besides, holding other factors constant, a unit increase in accountability practices in procurement would lead to a 0.644 (p=0.049) increase in firms supply chain performance. Ayuso (2006) similarly established that accountability through effective internal control and audit enhances performance. This owes to the fact that it minimizes money loses through fraudulent means.

Holding other factors constant, a unit increase in integrity practices in procurement would lead to a 0.148 (p=0.038) increase in firms supply chain performance. Robert (2008) supported the findings that integrity in procurement promotes fair and equal treatment for bidders leading to selection of the most competitive supplier, thus, enhancing performance.

The findings, further shows that unit increase in confidentiality practices in procurement would lead to a 0.504 (p=0.043) increase in firms supply chain performance. Just as the study's findings, Sacconi (2010) notes that the procurement professionals should protect confidential information and intellectual property so as enhance performance. The finding further noted that a unit increase in procurement professionalism practices would lead to a 0.497 (p=0.024) increase in firms supply chain performance. Ayuso (2006) states that integrating procurement with strategic functions of government other than administrative act leads to improved performance. The regression results, thus, illustrates that transparency, accountability, integrity, confidentiality and professionalism jointly leads to improved performance. However, accountability and transparency led to higher performance than other factors.

CHAPTER FIVE: SUMMARY, CONCLUSION AND

RECOMMENDATIONS

5.1 Introduction

On the basis of the research results and analysis, discussions have been made which contained in

this chapter. The study there on makes conclusions based on the specific objectives of the study.

These were to establish the ethical procurement practices commonly used by firms in the Kenyan

energy sector and to determine the relationship between ethical procurement practices and supply

chain performance of firms in the Kenyan energy sector. Finally, recommendations also provided

for in this chapter.

**5.2 Summary** 

The study sought to determine the extent of use of transparency procurement practices by the

firms in the Energy sector in Kenya. From the findings, the following statements: the

government owned entities in the energy sector guarantee transparency in public tendering

procedures; provides access to reliable information and ensure objectives of transparency are

carefully implemented; in case where the award wishes to get lowest bid; the energy sector firm

debriefs all its unsuccessful suppliers on the weaker aspects of their tender documents; there

exist fair and equal treatment of providers and that firm in the energy sector assessing the tenders

in order to award a contract indicate that the firms straightly adhere to transparency in public

tendering process; provides access to reliable information and ensure that the objectives of

transparency procurement are carefully implemented to a very great extent  $(4.49 \le \text{mean} \le 4.98)$ .

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From these findings the study generally established that transparency procurement practices had a significant influence of the firms' supply chain performance in the energy sector.

The study sought to establish the effect of accountability practices in procurement used by firm in Kenyan energy sectors. Based on the responses from the respondents, it was clear that most respondents indicated that the firm keep accurate records of all transactions, clearly expressed readily available regulations, policies, procedures and enhance accountability in the procurement process. This is an indication that the firms straightly adhere to regulations, policies, procedures and judicial decision in ensuring accountability in the procurement process to a very great extent  $(4.61 \le \text{mean} \le 4.79)$ . The study generally thus noted that accountability practices in procurement had a significant effect on the performance of energy firms in the energy sector.

The study sought to establish the extent of adoption of integrity practices used by firm in Kenyan energy sector. The findings established that the firms in the energy sector ensure that procurement proffessionals attitude and behaviour coincide with the goals; undertsnading of the suppliers' operations; employees in the procurement department follow an ethical code and that the firms have adopted independent internal control systems to strengthen integrity and detect corruption or fraud. This means that integrity practices were being undertaken by the firms in Kenya Energy Sector to a very great extent  $(4.64 \le \text{mean} \le 4.92)$ . It was thus clear from the descriptive analysis that integrity practices in procurement had a significant influence to the performance of firms in the energy sector.

The study sought to determine the extent to which confidentiality practice in procurement used by firm in Kenyan energy sector. The findings reveal that: confidentiality practice was one of the practices in procurement used by firms in the energy sector; the respondents agreed that the need for access to information by the firms has balanced; that the firm maintaining confidentiality in a procurement process ensures success of the whole procuring procedures and that the energy sector has adopted procedures to ensure the security and confidentiality of documents submitted. This is an indication that the need for access to information, maintaining confidentiality, handling sensitive information and in clarifying what information should be disclosed to a great extent  $(4.39 \le \text{mean} \le 4.88)$ . The study thus established that confidentiality practices in procurement as ethical practices were influential to energy sector firms supply chain performance.

The study sought to determine the extent to which procurement professionalism practices used by firm in Kenyan energy sector. The analysis of the findings noted that the firm procurement professionals requires prioritization of areas associated with ethical issues; to be professional in the firm, candidates must have a combination of education and work experience in procurement and procurement professionalism in the energy sector has taken place in parallel with the development of monitoring procedures. In addition to; procurement professional is responsible for the purchasing activity of a business, and the uncertainty and unrealistic timelines can undermine market confidence. This is an indication that Procurement professionalism practices were being embark on by firms in the Kenyan energy sector to a very great extent  $(4.542 \le \text{mean} \le 4.830)$ . The study generally established that procurement professionalism practices had a significant influence in the firms supply chain performance in the energy sector.

The study also sought to establish the effect of various ethical procurement practices on the performance of firm's supply chain. These factors included: transparency procurement practices, accountability practices in procurement, integrity practices in procurement, confidentiality practices in procurement and procurement professionalism practices using a regression analysis.

A good linear association between the dependent and independent variables used in the study was established. This was shown by a correlation (R) coefficient of 0.834. The determination coefficient as measured by the adjusted R-square presented a moderately strong relationship between dependent and independent variables given a value of 0.653%. This depicts that the model accounts for 65.3% of the total observations while 34.7% remains unexplained by the regression model.

An F-significance value of p = 0.039 was established in the analysis of variance showing that there is a probability of 3.9% of the regression model presenting a false information. Thus, the model is significant these results thus show that when acting jointly, transparency procurement practices, accountability practices in procurement, integrity practices in procurement, confidentiality practices in procurement and procurement professionalism practices would improve the energy sector firms supply chain performance.

#### **5.3 Conclusion**

On the basis of the study findings, it is concluded that for there to be effective supply chain performance in the energy sector firms, there has to be an effective transparency practices in procurement. All suppliers should be treated fairly and even-handedly at all stages of the procurement process. This means being open with all those involved, so that everyone, especially suppliers, understands the elements of the process, that is, the procedures, timescales, expectations, requirements, criteria for selection and so on. The study concluded that supplier confidentiality should be safe-guarded, and unsuccessful suppliers should be debriefed with as much transparency about the procurement process as can be provided, for example, on the weaker aspects of their tender.

The study also concluded that supply chain performance is also influenced by accountability practices in procurement. The study concluded that accurate records which are a pre-condition for accountability and control, should be written records in different stages of the procedure in order to maintain transparency, provide an audit trail of procurement decisions for controls, serve as the official record in cases of administrative or judicial challenge and provide an opportunity for citizens to monitor the use of public funds.

The study also established that integrity practices in procurement should be adopted in the energy firms in order to ensure supply chain performance. The study concluded that ethical procurement best practices starts with the employees in procurement following an ethical code which dictates their behavior and actions while conducting business. The study concludes that ethical procurement practices should be extended to all stakeholders in the procurement cycle. Ethical procurement should also include an understanding of suppliers' operations and the procurement professional should offer guidance and support when improvement is necessary or appropriate.

Confidentiality practices in procurement were also concluded to have a significant effect on supply chain performance. The study concluded that maintaining confidentiality in a procurement process ensures success of the whole procuring procedures thus confidentiality is a fundamental arm of ethical procurement practice. Entities should consider whether the nature of the procurement may raise confidentiality issues for potential suppliers.

Also established from this analysis was the fact that procurement professionalism practices had also significant influence on the firms supply chain performance. The study concluded that Public entities at all levels of government perform many of the same procurement activities, yet

their methodologies and outcomes differ because each entity's practices have been defined based on their unique operating environments. The study concluded that creating a reference of formalized standard practices, established through the collaboration of public sector professionals around the world, providing agencies an authoritative resource to define professional standards of practice across critical public procurement functions.

#### **5.4 Recommendations**

The study recommended that leading companies in the energy sector should understand that they have a role to play throughout the lifecycle of their products and services. Supply chain sustainability management is key to maintaining the integrity of a brand, ensuring business continuity and managing operational costs.

The study also recommended that additional empirical study is required to extend the results of the current study to broader spectrum of firms and functional areas incorporating management of supply chain for stronger causal inferences with more related variables like corporate social responsibility and suppliers performance with regards to ethical supply chain management.

The firms in the energy sector should devise comprehensive customer oriented organizational culture for competitiveness in the longer run to help steer and guide usual working relations. A people oriented organization espouses values such as fairness and the aspiration to be a good corporate citizen, thus this desire leads to considerably superior levels of ethical procurement practices.

The study recommends that procurement teams in the energy sector should adopt transparency procurement practices, accountability practices in procurement, integrity practices in procurement, confidentiality practices in procurement and procurement professionalism practices

so as to effectively and efficiently improve on the supply chain performance. Ethical levels of behavior of procurement staff must be ensured as it influences the performance in the company. Finally the study recommends that the firms' resources need to be dedicated to the practices that enhances the functioning of best procurement practices for development and maintenance of profitability.

#### 5.5 Limitation of the Study

The study relied on both primary and secondary data which were largely quantitative and descriptive in nature. The questionnaires were designed to solicit data on competitive forces that shape competition in an industry. Some of the respondents were not willing to provide full information to evaluate ethical procurement practices and supply chain performance of firms in the Kenyan energy sector and thus the sample size expressed were carried on 93.75% respondents who returned their questionnaires.

#### **5.6 Suggestions for further Research**

Study need to be carried out or conducted that would investigate interaction of other variables that evaluate ethical procurement practices and supply chain performance of Kenyan energy sector. The study was guided by following specific objectives; to establish the ethical procurement practices commonly used by firms in the Kenyan energy sector and to determine the relationship between ethical procurement practices and supply chain performance of firms in the Kenyan energy sector. These variables were two and thus the researcher suggests other variables to be used to evaluate ethical procurement practices and supply chain performance.

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#### **APPENDICES**

#### APPENDIX I: LIST OF ENERGY SECTOR IN KENYA

- 1. Geothermal Development Company (GDC)
- 2. Kenya Electricity Generating Company Limited (KENGEN)
- 3. Kenya Power and Lighting Company (KPLC)
- 4. Kenya Electricity Transmission Co. Ltd (KENTRACO)
- 5. Kenya Renewable Energy Portal (KREP)
- 6. Independent Power Producers (IPPs)
- 7. Energy Regulatory Commission (ERC)
- 8. Ministry of Energy (MoE)
- 9. Rural Electricity Authority (REA)
- 10. Kenya Nuclear Electricity Board (KNEB)

**Source: Energy Regulatory Commission (ERC 2015)** 

APPENDIX II: COVER LETTER

Aaron B. Sengbeh, II

P.O. Box 30197-00100

Nairobi, Kenya

July 15, 2015

To the respondent

RE: RESEARCH SURVEY QUESTIONNAIRE

I am a Master of Business Administration Degree student, and part of the requirement for the

award of the degree is to carry out a management research in an area of interest relevant to your

major discipline. This is what I wish to accomplish with this questionnaire and you have been

identified to participate in the survey.

Kindly complete the attached questionnaire which was picked as soon as you finish the exercise.

Please note that our interactions during the interview were confidential. This exercise is purely

academic and will not cause any harm to your institution and said information was only used for

purposes of this study. I gratefully anticipate your cooperation.

Thank you for your precious time.

Aaron B. Sengbeh, II

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# APPENDIX III: RESEARCH QUESTIONNAIRE

# PART A: DEMOGRAPHIC AND RESPONDENTS PROFILE

1.	INa	me or your organization	on (Optional)						•
2.	Wh	nat is your age bracket	t? (Tick as appl	icable).					
	a)	Under 30 years	[ ]	b) 31 – 40 years [	]				
	c)	41- 50 years	[ ]	d) Over 50 years [	]				
3.	Lei	ngth of continuous ser	evice with the or	rganization?					
	a)	Less than two years	[ ]	b) 2-5 years [	]				
	c)	6- 10 years	[ ]	d) Over 10 years [	]				
4.	For	how long has your or	rganization bee	n in existence?					
	a)	Under 5 years [ ]		b) 6-10 years [	]				
	c)	11-15 years [ ]		d) Over 16 years [	]				
				IENT PRACTICES  Inted transparency procurement pr	ractice	in aı	n eff	ort	to
	imp	prove the performance	e of Kenyan ene	ergy sector?					
	5) `			3) Moderate extent; 2) Little ex	xtent;	1) No	o ex	tent	
		Transparency Prod	curement Prac	cuce	5	4	3	4	1
	i.		and understar	opliers, customers, employees and the actual means by which					
	ii.		_	nt of providers and integrity in the here exist no preference to any					
i	ii.	The firm safe-guard	ed supplier con	fidentiality.					

iv.	The firm debriefs all its unsuccessful suppliers on the weaker		
	aspects of their tender documents.		
v.	In the firms' procurement process, the criteria for assessing the		
	suitability of bidders and for assessing the tenders in order to award		
	a contract forms part of the minimum information contained in the		
	letter of invitation or contract notice.		
vi.	In cases where the award wishes to get the lowest bid, all the criteria		
	that the firm wishes to achieve is clearly stipulated in the tendering		
	documents, specifically in descending order of importance		
vii.	Transparency in the firm procurement process bears an immediate		
	cost both for government and bidders.		
viii.	The firms in the energy sector always ensure that the objectives of		
	transparency are carefully implemented in all procurement activities.		
ix.	The energy sector firms has an adequate level of transparency to		
	ensure fair and equal treatment of providers and integrity in public		
	procurement		
х.	The firm suppliers have been treated fairly and even-handedly at all		
	stages of the procurement process.		
xi.	The Agreement on Government Procurement (GPA) guarantees		
	transparency in public tendering procedures in the energy sector		
xii.	The firms in the energy sector integrate and utilize technology		
	systems to enhance transparency in the procurement process		
xiii.	There has been established and posted entity statement of		
	commitment to a Code of Ethics on the government procurement		
	site		
xiv.	To ensure transparency, the firms has establish and posts Terms of		
	Use on the procurement sites to discourage fraud and misuse of		
	information		
XV.	The firms procurement process has provided access to reliable		
	information about the activities of the procurement organization in		
	the energy sector.		

**6.** To what extent has your firm implemented accountability practice in procurement in an effort to improve the performance of Kenyan energy sector?

	Accountability Practices in Procurement	5	4	3	2	1
i.	The firm is accountable to the regulatory authorities such as the ministry of energy and the Energy regulatory board					
ii.	The firm is always liable to sanctions as a remedy for any behavior that contravenes the public procurement legal framework and principles.					
iii.	The firm is a member of PIEA which has put in place mechanisms for lodging complaints and challenging administrative decisions made by the firm which contribute to ensuring the fairness of the process.					
iv.	The firm keeps accurate records of all transactions which provide an audit trail of all the procurement decisions as well as serving as official record in case of administrative or judicial challenge					
V.	The firms has put in place direct social control mechanisms by closely involving stakeholders into the procurement process					
vi.	The energy sector firms keep accurate records as a pre-condition for accountability and control					
vii.	The firms maintain legal confidentiality in the procurement process					
viii.	The energy sector firms has created and publish annual reports of procurement activities and spending in a format that is accessible and easy to understand					
ix.	The firm has clearly expressed readily available regulations, policies and procedures in the energy sector.					
Х.	The firms ensure accountability in the procurement process in the energy sector					
xi.	To ensure accountability in the energy sector, the information provided in procurement is complete, timely, and accurate					
xii.	The firm in the energy sector has open frequent communications between procurement personnel and suppliers community					

xiii.	The	energy	sector	firms	has	enhance	accountability	in	the			
	procu	irement j	process									

**7.** To what extent has your firm implemented integrity practice in procurement in an effort to improve the performance of Kenyan energy sector?

	Integrity Practices in Procurement	5	4	3	2	1
i.	effectiveness is evaluated separately from the price, and that the price is considered only after the completion of the evaluation					
ii.	In cases where one member of staff of the firm has personal interest in the tendering process, the firm has stipulated that such member of staff declares the same and is excluded in the process					
iii.	The firm's employees in the energy sector have subscribed to stated code of conduct in term of execution of duties					
iv.	The energy sector firms' endeavors to understand suppliers' operations and offers guidance and support when improvement is necessary or appropriate.					
V.	The energy sector firms' have procurement process that give rise to specific claims for confidentiality by potential suppliers					
vi.	The energy sector procurement systems and of public procurement regulation is to ensure integrity in the system					
vii.	The firms ethical procurement process has included an understanding of suppliers' operations					
viii.	The firm's Employees in the procurement department in the energy sector follow an ethical code which dictates their behavior and actions while conducting business					
ix.	The firms have adopted independent internal control systems in order to strengthen integrity and detect corruption or fraud in the energy sector.					
х.	To ensure integrity in the energy sector, institutional and administrative infrastructure has been adopted in the firms in order to pose restrictions on how to structure the procurement process					
xi.	To ensure integrity in the energy sector, procurement proffessionals attitude and behaviour has coincide with the goals of the firms they					

	represents			
xii.	In order to ensure integrity of the firms in the energy sector, monitoring, supervision and sanctions has been practiced in order to			
	decrease engagement in corrupt activities.			

**8.** To what extent has your firm implemented confidentiality practice in procurement in an effort to improve the performance of Kenyan energy sector?

	Confidentiality Practices in Procurement	5	4	3	2	1
i.	The firms in the energy sector protects commercially sensitive information provided by a supplier during the tendering process					
ii.	The firms in the energy sector are open to evaluating submissions having regard to potential suppliers' claims for confidentiality where this is consistent with the stated evaluation criteria.					
iii.	Rules on request for proposals also provide for use of the kind of two-envelope procedure in the energy sector					
iv.	A quality check of the firm procurement process is essential in order to confirm the suitability of the goods in question					
v.	The firm maintaining confidentiality in a procurement process ensures success of the whole procuring procedures in energy sector					
vi.	The firms in the energy sector manage the extent to which potential suppliers are required to submit commercially sensitive information in their submissions					
vii.	Any employee of the firm who breaches the provisions of confidentiality was guilty of gross misconduct and any breaching of confidentiality has been disqualified by the firm					
viii.	The need for access to information by the firms has balanced by clear requirements and procedures for ensuring confidentiality in the energy sector					
ix.	The energy sector has adopted procedures to ensure the security and confidentiality of documents submitted has help guide officials in handling sensitive information and in clarifying what information should be disclosed					

**9.** To what extent has your firm implemented procurement professionalism practice in an effort to improve the performance of Kenyan energy sector?

	<b>Procurement Professionalism Practices</b>	5	4	3	2	1
i.	The firm public procurement is increasingly being recognized as a profession that plays a significant role in the successful management of public resources					
ii.	The firms' reform efforts often occur in cycles, as public procurement has gone through substantial changes in terms of priorities.					
iii.	Energy firms have become more aware of the importance of procurement as an area vulnerable to mismanagement and potential corruption					
iv.	Most firms in the energy sector has also initiated efforts to integrate procurement in a strategic view of government actions					
v.	The firm purchasing process has been cost effective for both public authorities and suppliers.					
vi.	The firm uncertainty and unrealistic timelines can undermine market confidence, discredit a purchasing process and devalue the outcome of the procurement.					
vii.	The firm has therefore recognized international bodies that have championed professionalism in various related disciplines					
viii.	The firm procurement professional is responsible for the purchasing activity of a business or organization					
ix.	For one to become professional in the firm, candidates must have a combination of education and work experience in procurement.					

х.	The firm's procurement professionalism has focused on high risk areas, understand suppliers' operations and offer guidance			
xi.	The firm's procurement professionals in the energy sector has focus on ensuring compliance with their ethical code and the policies that it touches upon			
xii.	Procurement professionalism in the energy sector has taken place in parallel with the development of monitoring procedures			
xiii.	To ensure procurement professionalism in the energy firms compliance may take time or need to be introduced in phases			
xiv.	The firm procurement professionals requires prioritization of areas associated with ethical issues which might be of greater risk to the firms in the energy sector			
xv.	The firms procurement professionals in the energy sector follow ethical code which dictates their behavior and actions while conducting business.			

#### PART C: SUPPLY CHAIN PERFORMANCE

10) Below are some of the benefits on the supply chain performance that arises from practicing ethical procurement practices. In a scale of 1-5, please indicate the extent to which the following supply chain performance has been affected by the ethical practices

# 5) Very great extent; 4) Great extent; 3) Moderate extent; 2) Little extent; 1) No extent

### Please choose (by ticking) only one option that suits you.

NO		5	4	3	2	1
1	There is an improved critical analysis of business activities that					
	affect the firms supply chain due to the ethical orientation of the firm					
2	The process of selecting suppliers to the firm has improved due to the code of ethics process employed in identifying the same					
3	Effective management of supply chain improves the quality of goods					
4	There has been an improvement in supplier relationship due to observance of ethical code of conduct by the firms employees					
5	Management of suppliers has improved and this has resulted in reduced operating costs					
6	The time service has been able to be delivered in the firm					
7	Increased competitiveness					

# PART D: SUPPLY CHAIN PERFORMANCE INDEX

11. Please provide the following information on supply chain performance.

	Unit of			5 Year Achi	evements					
Criteria	Measurement	2010	2011	2012	2013	2014				
E. Finan	cial Perspective									
Return on	%									
Investment										
Gross Sales	%									
F. Customer Perspective										
Customer	%									
satisfaction										
index										
Customer	%									
complaints										
resolution										
G. Intern	nal Business Process	ses								
Cost	%									
Efficiency										
Capacity	%									
Utilization										
H. Empl	oyee Dynamics									
Employee	%									
Productivity										
Employee	%									
Satisfaction										

THANK YOU FOR YOUR TIME