

**SUSTAINABLE PROCUREMENT PRACTICES IN THE
PUBLIC WATER SECTOR INSTITUTIONS IN KENYA**

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**RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF MASTER IN BUSINESS
ADMINISTRATION DEGREE IN THE SCHOOL OF BUSINESS UNIVERSITY OF
NAIROBI**

2014

DECLARATION

STUDENT'S DECLARATION

I declare that this project is my original work and has never been submitted for a degree in any other university or college for examination/academic purposes.

Signature:Date:.....

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SUPERVISOR'S DECLARATION

This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I dedicate this work to my wife Maureen and my daughter Akeelah.

ACKNOWLEDGEMENTS

I take this opportunity to give thanks to the Almighty God for His sufficient grace and blessings upon my life and for seeing me through the completion of this project and my education as a whole. The work of carrying out this study needed adequate preparation and therefore called for collective responsibility of many personalities. The production of this research document has been made possible by invaluable support of many people. While it is not possible to name all of them, recognition has been given to a few. I am greatly indebted to my supervisor Dr. Onserio Nyamwange for his professional guidance, advice and unlimited patience in reading through my drafts and suggesting workable alternatives, my profound appreciation to you.

The Procurement professionals in the public water sector institutions especially Water Resources Management Authority cannot pass without my special acknowledgement for taking time off their busy schedule to provide me with all the information I needed in the course of the research. Without their immense cooperation, I would not have reached this far.

A special thanks to my family. Words cannot express how grateful I am to my wife, for all of the sacrifices that you've made on my behalf. Your immense support and prayers sustained me this far. I can't thank you enough for encouraging me throughout this experience. To my beloved children; Williams Franklin and Angel Akeelah, I would like to express my thanks for assisting me in many different ways, handling the paperwork and always cheering me up.

To my friends Bonnie Ng'eno and Walker Bundi, there is no better way to repay you for your unfailing support whenever I was stuck through this journey. You were always willing to help and give your best suggestions.

Thank you all. May the Almighty God bless you abundantly.

ABSTRACT

The activities of individuals and organizations all over the world are increasingly raising concern over their impact on the environment. Governments spend between 12% to 30% of their GDP buying goods and services which indicate their power of the public purse as an enabler in ensuring markets transition towards a greener economy. It's in this regard that this study was undertaken with an objective of identifying the extent to which sustainable procurement practices have been implemented, drivers of sustainable procurement and the challenges facing the implementation of sustainable procurement in an effort to contribute towards implementation of sustainable procurement practices in the public sector to help preserve the environment. The study mainly focused on the Kenyan public water sector institutions with a questionnaire targeting procurement professionals in these organizations. The research employed a case study to achieve the objectives of the study.

The study concluded that sustainable procurement practices are being considered in the public sector organizations. Sustainable procurement delivers savings and cost reduction objective to public organizations. The study nevertheless, highlights that there are many challenges to SP practices implementation in the public sector institutions and that minimal progress has so far been realized in resolving the challenges. Very few organizations have put in place a policy committing their organisations to a programme of environmental improvement. The study recommended that organizations sustainable procurement agenda needs be engraved in its organizational policy to succeed and that a lot of improvements need to be done to improve the progress in handling implementation challenges to sustainable procurement practices.

In conclusion, the study emphasized that green procurement practices were important with the increased concern to environment degradation and that NGO's and media, which have not been vigorous in environmental advocacy in Kenya should be more vocal in advocating for sustainable procurement practices.

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ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
AU	African Union
CEO	Chief Executive Officer
CIPS	Chartered Institute of Purchasing and Supply
CSR	Corporate Social Responsibility
DEFRA	Department for Environment, Food & Rural Affairs
EU	European Union
GDP	Gross Domestic Product
GSCM	Green Supply Chain Management
IWRM	Integrated Water Resources Management
MTF	Marrakech Task Force
PPAB	Public Procurement Advisory Board
PPARB	Public Procurement Administrative Review Board
PPOA	Public Procurement Oversight Authority
SP	Sustainable Procurement
SPP	Sustainable Public Procurement
SPPI	Sustainable Public Procurement Initiative
SPTF	Sustainable Procurement Task Force
TBL	Triple bottom line
UN	United Nations
UNEP	United Nations Environment Programme
WASREB	Water Services Regulatory Board
WLC	Whole Life Costing
WRMA	Water Resources Management Authority

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Governments spend between 12% to 30% of their GDP buying goods, services and infrastructure, goods and services typically account for 10-15% of GDP for developed countries and as much as 20% for developing countries (Supplement to the 2012 Annual Statistical Report on United Nations Procurement, 2013). This clearly indicates the power of the public purse as an enabler in ensuring markets transition towards a greener economy. It is important to note however, that the current world consumption and production levels are 25 percent higher than the earth's sustainable carrying capacity (Schaefer et. al, 2006).

Procurement as defined by Public Procurement and Disposal Act (2005) is the acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise, or by any other contractual means of any type of works, assets, services, or goods including livestock or any combination. According to World Bank (2005) Public procurement is the acquisition of goods and services and works by a procuring entity using public funds. Sustainable procurement is thus the application of sustainable development principles in the procurement function. Sustainable procurement isn't simply about being "green". Sustainable procurement is about: socially and ethically responsible purchasing, minimising environmental impact through the supply chain, delivering economically sound solutions and good business practice (CIPS, 2014). Sustainable procurement draws its roots from the broad concept of sustainable development but the focus of sustainable procurement is far broader than just the development, it aims at meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity (CIPS, 2014).

In efforts towards building up a case for sustainable procurement UNEP (2012) highlights the development and implementation of sustainable public procurement policies in 17 to 20 countries in Europe, Southern cone, ASEAN countries and Africa have had an impact on sustainable development when the impacts of Sustainable Public Procurement policies measured on sustainable development. – Green Economy and market changes has had the following results; Institute of Electricity of Costa Rica, through SPP practices in tire management, it has achieved overall annual cost savings of 20%. Transport costs have decreased by a factor of 4, resulting in a reduction in emissions of 953 teq CO² between 2008

and 2010. Further, the co-processing methods used for the end-of-life of tires have prevented 206.6 tons of waste, while increasing energy efficiency by 15.6%. This research shall explore the drivers, impacts and challenges of Sustainable Procurement practices and the extent to which the public procuring entities have achieved sustainable procurement.

1.1.1. Sustainability and Sustainable Procurement

Public procurement in Kenya has come a long way and evolved from a system with no regulations governing its operations to an orderly legally regulated procurement system. The commendable steps have been advanced since the enactment of the Public Procurement and Disposal Act of 2005 which became operational on 1st January, 2007 with the gazetement of the Public Procurement and Disposal Regulations, 2006. The Public Procurement and Disposal Act, 2005 created the Public Procurement Oversight Authority (PPOA), the Public Procurement Advisory Board (PPAB) and the continuance of the Public Procurement Complaints, Review and Appeals Board as the Public Procurement Administrative Review Board (PPARB). The public buying in Kenya has been used as a medium to achieve various social objectives, such as, reducing unemployment, providing employment to disabled individuals, youth, and women and to marginalized areas and regions in the country, promoting gender and ethnic equality. In general, the focus has largely been on social aspects of sustainability, other aspects need equally the same emphasis as the latter (PPOA, 2014).

Sustainability has fast tracked to becoming an essential market force that is being driven by customers, shareholders and stakeholders increasingly changing demands as a result of being informed more than before. In the contemporary society, a business that is purely driven by maximizing profits without due consideration for its environmental impact stands meager chances of prospering in a sustainable future. Corporate leaders continue to face the challenge of running competitive and profitable organizations while meeting broad social and ethical responsibilities (Morimoto et al., 2005).

Many individuals and organizations have diverse opinions on what sustainability is all about. This has been shaped through their respective unique values and needs which shapes their different definitions of Sustainability. Much more emphasis has been put on sustainability issues related to the environment and thus UNEP's contribution in relation to sustainability cannot be ignored. For the purpose of this study however, sustainability shall be developed in the business context of sustainable procurement and thus sustainability application in the purchasing and supply management environment.

The concept of sustainability owes its origin to forestry and was originally used for the first time by the then mining governor Hans Carl von Carlowitz when he was referring to a situation of not cutting down more trees in a forest than can grow back (Brundtland & World Commission on Environment and Development, 1987). Brundtland Commission explained sustainability to be how biological systems remain diverse and productive giving examples of long-lived and healthy wetlands and forests for sustainable biological systems. The commission further developed the sustainability concept to sustainable development which became one of the most successful approaches and concepts to be introduced in many years in the world. The commission defined sustainable development as “development which meets the needs of current generations without compromising the ability of future generations to meet their own needs”. This definition has as well been endorsed by the International Institute for Sustainable Development and many other authorities in sustainable development. The argument presented was that economic and social well-being cannot be improved with measures that destroy the environment and that all developments had to take into account their impact on the opportunities for the future generations.

Srivastara (2007) proposed that Sustainable Procurement is synonymous to Green Supply Chain Management (GSCM) and defined GSCM as integration of environmental thinking into supply chain management. This includes products design, material sourcing and selection, manufacturing process, delivery of the final product to the consumer and end-of-life management of the product after this useful life. Sustainable procurement (SP) as defined by UN Procurement Practitioner's Handbook (2014) is synonymous to Green Procurement as widely adopted and regards to the way Organizations meeting their needs for goods, services, utilities and works not on a private cost-benefit analysis, but with a view to maximising net benefits for themselves and the wider world.

Sustainable procurement is about taking social and environmental factors into consideration alongside financial factors in making procurement decisions. It involves looking beyond the traditional economic parameters and making decisions based on the whole life cost, the associated risks, measures of success and implications for society and the environment. Making decisions in this way requires setting procurement into the broader strategic context including value for money, performance management, corporate and community priorities (CIPS, 2014).

For the purposes of this research, we shall adopt the definition of sustainable procurement used by the Sustainable Procurement Task Force (SPTF), a task force that was established by the UK Secretary of State for the Environment and the Chief Secretary to the Treasury with the objective of developing a National Action Plan for UK in sustainable procurement in an effort to making UK a leader in sustainable procurement in the European Union by 2009 (DEFRA, 2005, pg. 10). SPTF defined sustainable procurement;

“ as a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing damage to the environment”

SPTF further elaborated on the meaning of ‘whole life basis’ by stating that “sustainable procurement should consider the environmental, social and economic consequences of design; non-renewable material use; manufacture and production methods; logistics; service delivery; use; operation; maintenance; reuse; recycling options; disposal; and suppliers’ capabilities to address these consequences throughout the supply chain” Procurement has been seen as a key driver for delivering this commitment.

1.1.2. Water Sector Institutions

In 2002, the Kenyan Parliament enacted the Water Act of 2002 which gave legal force to the National Water Policy objectives (outlined in the National Policy on Water Resources Management and Development Sessional Paper No. 1 of 1999) as a result of the water sector reforms. The Act was gazetted in October 2002 and later gained legislative force in 2003. The National Policy on Water Resources Management and Development Sessional Paper No. 1 of 1999 and the Water Act of 2002 spearheaded the water sector reforms in Kenya.

The Water Act introduced new water management institutions to govern water and sanitation which were referred as water sector institutions. Water reforms saw the introduction of the commercialization of water resources as a result of the decentralization process and the involvement of stakeholders in the management of national water resources. The split-up of policy and regulatory responsibilities and the devolution of responsibilities for water resources management and water services provision to local level functions has been the principal mechanism for improving accountability and transparency in the water and sanitation sector (Hakijamii Trust, 2014)

The now Ministry of Environment, Water and Natural Resources was vested with the responsibility for overall sector oversight including policy formulation, coordination and resource mobilisation. Under the Water Act, 2002, water and sewerage services are separated from water resources management to minimize conflicts of interests between allocation and Service provision. There are three tiers of institutions for water and sewerage: Water Services Regulatory Authority, Water Services Boards and Water Services Providers. Under Water Resources Management, new institutions have been established to give greater attention to the management of water resources. The institutional framework for water resources consists of: The Water Resources Management Authority, Catchment Area Advisory Committees, Water Resources Users Associations and Water Services Trust Fund.

Established water sector institutions thus include: Water Services Regulatory Board (WASREB) to set standards and regulate the sub-sector; Water Appeal Board (WAB) to adjudicate on disputes; Seven Water Services Boards (WSBs) to be responsible for the efficient and economical provision of water services; Water Services Trust Fund (WSTF) to finance pro-poor investments; Water Services Providers (WSPs) to be agents in the provision of water and sewerage services; Water Resources Management Authority (WRMA) to manage and protect Kenya's resources; Catchment Area Advisory Committees (CAAC) support the WRMAs at the regional Level and Water Resource Users Associations (WRUA) established as a medium for cooperative management of water resources and conflict resolution at sub-catchment level.

In summary, SP in the public sector is dependent on incorporating an appreciation of the wider goals of society into procurement. By using SP to promote the goals of sustainability, social, environment and economic in the water sector, the government shall have played role in fostering a better society, composed of sustainable communities, more able to respond to the global economic market. The research project thus aims at improving SPP of innovation in the water sector, exploring barriers to effective procurement of innovation and methodologies to overcome them.

1.2 Statement of the Problem

A number of studies have been done in the field of sustainable procurement all over the world. A great number of this research has been undertaken in the developed economies as would be discussed below and a few in the developing economies although the research topic has generally attracted great interest in researchers in the contemporary society.

Lutz (2009) explored on the different approaches in which public procurement can support sustainable development in the England local governments. This research contributed immensely in identifying areas where procurers have adopted a range of initiatives to address all aspects of sustainability which include encouraging first-tier suppliers to make use of small local businesses as their sub-contractors on economic side, contracting with voluntary organizations on the social side or replacing hazardous materials in products and services on the environmental side.

Amann et al (2013) surveyed 281 procurement files from 2007-2009 relating to eight product categories with the intention of establishing evidence of connections between sustainability policy goals included in public procurement tenders and offers and their achievement through contract award. They found out that public procurement was more effective at influencing socially responsible goals than environmental goals and that vendor are more progressed in delivering green than socially responsible operations. The research suggested to Public procurement practitioners and sustainability policy makers to consider the use of public procurements as a lever to attain environmental and socially responsible goals. They documented sufficient evidence that demonstrated the strategic use of public procurement impacts on environmental and socially responsible goals thereby benefiting society.

Stephen and Walker (2007) international comparative study on sustainable procurement practice in the public sector reveals that a wide range of sustainable procurement practices are embedded to some degree in public sector procurement practice around the world and that governments are widely using the power embodied in public procurement activities to further social and environmental policy goals. They however, agree that significant variation across countries in the extent and emphasis of sustainable procurement practices occur.

Muraguri (2013) contributions towards Sustainable Procurement in Kenya cannot go unmentioned. He study was on the implementation of the preference and reservation regulation of 2011 and the focus was on state owned enterprises in Nairobi. Some of the study's recommendation was anchored in operationalization of the regulation. Amina (2013) researched on green supply chain of personal care manufacturing firms in Nairobi, targeting procurement managers as one of the study's respondents found out that managers were well aware of the threats that firms have on the environment resulting from supply chain waste. The study found out that although most firms were aware, they did not use environmental

issues in the criteria for selecting suppliers and that a great percentage of these firms did not have professional personnel to coordinate environmental purchasing efforts.

Green supply chain management practices by manufacturing firms in Kenya, in an unpublished thesis by Mukiri (2007) study the way the practices and the challenges faced by manufacturing firms and found out that the practice that received least consideration was the reverse logistics and that multinationals were more aware of the practice than the locals.

Khatra (2012) in his study ‘Green Supply Chain Management and the Performance of the Manufacturing firms in Mombasa, Kenya’ sought to identify the green supply chain practices and challenges. He found out that the practices have a positive impact and also highlighted the relevance of Green supply chain in overcoming environmental challenges was highly appreciated by manufacturing firms in Mombasa.

These research narrows down to Kenyan public procurement organizations in the effort to evaluate the extent to which sustainable procurement practices have been operationalized. The research was intended to carry out a survey on public water sector institutions in establishing the extent of sustainable procurement practices adopted with an effort to stimulating competitive impacts of public procurement policies that enhance sustainable procurement practices in Kenya. From the above identified study Gap, the research sought responses to the following research questions; first, what are the drivers of sustainable procurement practices in the Kenya’s Public organizations; secondly, what different sustainable procurement practices being adopted by the public organizations in Kenya and thirdly, the challenges of adopting sustainable procurement practices by public organizations in Kenya.

1.3 Objectives of the study

- i. To establish the drivers of sustainable procurement practices by public organization’s in Kenya.
- ii. To establish the different sustainable procurement practices used by the public organizations in Kenya.
- iii. To establish out the challenges of adopting sustainable procurement practices by public organizations in Kenya.

1.4 Significance of the study

This research paper finding serve to be applied in Public Procurement Oversight Authority in regard to initiating public procurement policy and assisting in the implementation and operation of the public procurement system in focus of Sustainable procurement, a new aspect of procurement that is shaping the trends in procurement system.

Further, this research tends to offer guidance on the operationalization of the sustainable procurement principles into practice in an effort to realizing sustainable procurement which otherwise is widely embraced theoretically.

Public Procurement and oversight Authority in fostering academic as well as regulatory engagement in the field of public procurement regulation in Kenya as well as the African continent at large. Elsewhere, other scholars and researchers may use the findings as a source of reference as well as to measure and report on sustainability performance.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This chapter presents previous studies that have been done and theories advanced towards sustainable procurement practices. Therefore it has theoretical review focusing on theories that explain sustainable procurement practices. Secondly, it has empirical review of the studies that have been done on sustainable procurement practices. A conceptual framework has been included to summarize the literature reviewed.

2.2. Theoretical Review

A theoretical framework refers to how the researcher develops thoughts on what the possible answers could be, these thought and theories are then clustered into themes that frame the subject. This research mainly focused on sustainable procurement practices in Kenya. The underpinning theories include; Stake holder theory, Resource based view and institutional theory.

Freeman (1984) defines a stakeholder as any individual, organization or institution that is associated with a firm, and is either affected by the firm in some way, or affects the firm's action and goals. On the other hand Hart (1995) argues that firms that seek to develop and implement a proactive strategic environmental commitment are considered to be more aware of stakeholder needs than those that are only concerned with meeting minimum environmental regulation requirements.

Stakeholder theory describes the purpose and strategic direction of the firm through the concept that managers need to simultaneous incorporate the legitimate interests of all appropriate stakeholders when making business decisions.

Meyer and Rowan (2006) on Institutional Theory argue that the institutional environment strongly influence the development of formal structures in an organization more than market pressures. To improve efficiency in organizations innovative structures are legitimized. Ultimately this innovations reach a level of legitimization where failure to adopt them is seen as 'irrational and negligent'. Here, new and existing organizations will embrace the structural form even if it doesn't boost efficiency. This means that the 'institutional myths' are ceremoniously accepted so that organizations maintain legitimacy in the institutional environment with 'vocabularies of structure such as job titles, procedures and roles. In the

long run, this formal structure of legitimacy reduces efficiency and become an impediment to the organizations competitive position in their technical environment. To avert these, organizations will decouple their technical core from these legitimizing structures to maintain external and internal confidence informal structures while reducing their efficiency impact.

The resource based view holds that firms can earn sustainable supra normal returns if and only they have superior resources and those resources are protected by some form of isolating mechanism preventing their diffusion through industry (Barney, 1991)

Danny (2003) study of a number of firms in strategic management shows how some of those firms were able to build on asymmetries as opposed to resources and capabilities. Asymmetries are assets, processes and skills that firm's competitors do not and cannot copy at a cost that affords economic rents. Asymmetries are rare, non-substitutable, and inimitable although not connected to any engine of value creation and often act as liabilities. Through discovering and re-conceptualizing these asymmetries within a complementary organizational design across appropriate market opportunities, many firms turned asymmetries into sustainable capabilities.

2.3. Sustainable Procurement Practices

Stephen and Walker (2007) assert that there exist substantial differences across public sector agencies in the nature of sustainable procurement practices. They propose that Local authorities are predominantly robust on buying from local and small suppliers relative to other sectors. Health, on the other hand looks generally lower in many categories and education appears to have something of prominence on environmental aspects of sustainable procurement. Cost and top management support were the leading barriers to sustainable procurement.

Sustainable procurement practices have been implemented through various approaches as Product lifecycle concept, the cycle starts at the designing of product. According to (Srivastara, 2007), literatures related to green design emphasize both environmentally conscious design and life cycle assessment/analysis. In designing a product, the designing team can change the raw materials or substances used during the manufacturing to be less toxic, more environmental friendly. Some terminologies are related to design for green such as design for environment or Eco Design. An example of green product is hybrid Due to the increasing demand and decreasing amount of petroleum, automobile manufacturers needed to

redesign the engine that consumes no or less gas ending up with a hybrid car out of the production. On automobile design, McAuley (2003) discussed the green design of automobile, which tend to change to advanced lightweight materials and fewer materials in vehicle design. In designing a product, the manufacturing company needs a high level of cooperation with their suppliers. An example for the research on supplier-manufacturer cooperation in Eco Design is (Stevens, 2002). He also presented two examples of successful green supply agenda between manufacturer and suppliers.

Further, in the manufacturing process, a manufacturing company may apply green principles by several methods to reduce the energy and resource consumption. This is referred to as reuse and recycling. On green practices, (DuberSmith, 2005) suggested some practices that included reducing energy consumption, recycle and reuse, using biodegradable and non-toxic materials, minimize harmful emissions, and minimize or eliminate waste. In one of a Chinese sugar manufacturer; Guitang Group, the company could reduce wastes and improve their financial performance by using waste from the upstream as raw materials for downstream production (Qinghua & Raymond, 2004). Other departments in an organization that are involved with the green principles include purchasing which is a very important agent for change regarding environmental initiatives in the supply chain (Preuss, 2001). In (Walton, 1998) article, he conducted a qualitative study to explore the primary areas for change to increase purchasing impact on environment.

As mentioned earlier, not only manufacturer, other supply chain roles got impact from GSCM also. For a largest retailer in the U.S., Wal-Mart has an interesting story of adopting GSCM to their organization. In October 2005, Wal-Mart CEO committed the company to 3 goals: to be supplied 100% by renewable energy; to create zero waste; and to sell products that sustain Wal-Mart's resources and the environment, and Wal-Mart was launching a business sustainability strategy to dramatically reduce the company's impact on the global environment and become "the most competitive and innovative company in the world (Plambeck, 2007).

2.4. Drivers of Sustainable Procurement Practices

Helen (2010) observed that governments have the opportunity of utilizing its procurement spend and power to motivate the development of Markets for sustainable products and services. Moreover, the government should do much in regard to regulating the environment that emboldens, empowers or necessitates the private sector to implement sustainable

procurement practices by use of policy tools such as tax incentives, regulations and provision of tools and information. The author further suggested that governments should consider embracing a strategic approach to its procurements activities to conform to the requirements of the EU procurement directives. This would integrate to government aspects of strategic procurement found in the private sector. As Belfitt et al. (2011) confirmed that if companies are legally required to purchase sustainably, for instance, this will compel them to look at their supply chain at least to meet the specifications of legislation. Emphasis on the role of government to sustainable procurement was further addressed by McCrudden (2004) who argued that governments, using their power embedded in public procurement activities should foster social and environmental policy goals by placing special emphasis on the importance of national policy environments regarding sustainable procurement facilitated by factors that surround organizational environment, ensuring successful implementation of concrete policy and legislation with respect to aspects of sustainable procurement.

With specific reference to Kenya and the government being a large purchaser and consumer of goods, it has a role to play in embedding and promoting sustainable procurement. This is by ensuring that the government entities buys more sustainable and efficient products and engages with suppliers to promote sustainability, Kenya would be at a better place in championing and realizing sustainable procurement as well as a great step in understanding and reducing supply chain impacts on our environment.

Belfitt et al (2011) observed market differentiation as a driver that encourages companies to adopt sustainable procurement practices. If an opportunity for a company to market itself as having a completely sustainable supply chain arises, the company would opt to utilize these opportunity to attract business from customers who value this. In today's business world, the competition among companies is at cut throat; very high and intense. Competition is not only tagged on the traditional principles of price, quality, reliability, accessibility among others but on greener issues. To attract more customers, the company needs to make themselves standing out from others and sustainability has been the latest trend in the business community. Being environmental friendly is one way to differentiate them from the competitors. Furthermore, when competitors have already adopted GSCM, the company gets a pressure to adopt it and it is good ideas to implement GSCM no matter whether the competitors have adopted it or not. Customers also affect the company's decision to adopt the GSCM. In many cases, customers are the one who require special treatment or special products. Increased stakeholder expectations and awareness generates greater pressure on

organizations to consider the environmental, economic and social aspects of business and to implement sustainable initiatives. Organizations should recognize the need to foster stakeholder goodwill and proactively and effectively address expectations and concerns in regard to sustainable procurement. A company therefore needs to address environmental issues to satisfy its customers and retain them. In Kenya, many companies as Unilever are leading the way in incorporating green strategies in their production and manufacturing.

Koplin et al (2007) discussed brand reputation and image suggesting that focal companies are held responsible for the environmental and social impacts of the entire supply chain and indeed this is true with companies who possess strong brands. The impact of this will rely heavily on impact of brand image as circumvent negative brand attention and direct positive attention to their brands through sustainability purchasing initiatives. Boost in brand image has been attributed to sustainability purchasing, as they can both evade negative brand attention and direct positive attention to their brands through sustainability purchasing initiatives. Consequently “earned media” from sustainability efforts offers better brand enhancement and recognition than paid advertising (Amy & Coro, 2008)

Jonas and Tom (2014) argue that with Strong media attention and growing awareness among consumers about the need for sustainability initiatives, a company’s reputation and brand image has become critically dependent on the inclusion of sustainability in sourcing decisions. Companies are now under close watch in the implementation of sustainable practices throughout their supply chain and in fact these organizations dread being caught on unethical or illegal practices.

Company is a driver from within. Organizational policy commitments and targets which is an expression of the culture, values, and vision by which an organization operates should be supported by procurement and reflected in procurement policy, strategy objectives, business practice and decision making. Numerous studies support that adopting GSCM can result in financial wins; provides the delivery of operational cost savings through more efficient goods, works and services; challenging demand at source to ensure need; reducing end of life disposal costs; driving efficiency in the supply chain; and developing market capacity, innovation and competitiveness. Sustainable procurement should reduce waste which, in turn, reduces cost (DuberSmith, 2005; Stevels, 2002; Gunther, 2006). There are other reasons such as increase efficiency, eliminate waste and pollution and generation of brand reputation. In terms of human resources, (DuberSmith, 2005), mentioned that more sustainability enhances

employee morale from some green programs such as wellness programs and ergonomic work environment.

There are several studies about the factors or benefits that make the company apply GSCM. Zhu and Sarkis (2007), in their survey which integrated 341 Chinese manufacturers to examine the relationships between GSCM practice, environmental and economic performance, incorporating 3 moderating factors market, regulatory, and competitive institutional pressures. Results showed that they experienced increasing environmental pressure to implement GSCM practices. Market and government pressures through regulation influenced them to improve environmental performance. Another study of this kind is (Hu & Hsu, 2006); they develop a set of critical factors of GSCM practices that could be used by managers. They surveyed in the electrical and electronics industries in Taiwan. Results showed that there were four critical factors: supplier management, product recycling, organization and involvement and life cycle management.

Zhu and Lai (2008) argue that factors and drivers to adopt GSCM in different industries are different. Green Supply Chain Management Implications for "Closing the Loop", they developed a survey to 4 industries in Chinese to evaluate their perceived GSCM practices and relate them to closing the supply chain loop. Results showed that automobile industry lagged behind the other industries, power generating, chemical/petroleum and electrical and electronic. They assumed that the reason may result from a high level of complexity in the adoption of GSCM practices.

CIPS and NIGP (2010) propose that risk factors are another key factor for consideration. Significant sustainability impacts should be identified and addressed as part of any comprehensive risk management strategy. Such risks may include legal risks, financial liabilities, moral/ethical risks, security of supply risks, price volatility risks and risks to reputation. An organization's risk profile will continue to evolve based in part on the rapidly changing environments and the growing public awareness and appetite for sustainable solutions.

2.5. Impacts of Sustainable Procurement Practices

2.5.1 Economic Impact of Sustainable Procurement

SP can contribute directly to economic (financial) outcomes such as cost savings. The research proposes procuring goods and services that are more efficient to operate and thereby

reduce operating costs. Examples cited are; capital procurement that achieves reduced through-life costs, e.g. through reduced annual operating and maintenance costs; re-examining requirements and where appropriate challenging demand at source, so as to avoid procurement in excess of needs; reducing end of life disposal costs and impacts and driving supply chain efficiency and developing market competitiveness, innovation and capacity. Queensland Government Chief Procurement Office (2012)

Consumer knowledge on environmental hazards like global warming influences their considerations on environmental effects of their consumption. Kotler (2004) mentioned that traditional companies were judged by their clients according to quality of their products, responsiveness in offering customer solutions and the degree of fairness. But today companies are measured and judged according to environmental ethics.

Lemmet (2012) Study documented a number of direct economic impacts. These included support to small business activity in Scotland, support to local industries in Costa Rica, and financial savings done by the State of São Paulo, Brazil. Indirect impacts as well were demonstrated such as tax benefits linked to the employment of disabled people.

2.5.2 Environmental Impact of Sustainable Procurement

Lemmet (2012) study revealed a diversity of environmental impacts at various stages of a products' life cycle. The purchase of remanufactured ink cartridges by the French Ministry of Education has led to a decrease in the amount of waste generated at the manufacturing stage. The construction (Yorkshire and Humber Region, UK, and Oregon, USA) demonstrate significant impacts related to the reduction of CO₂ emissions, of waste production, and of water consumption. The Ferrara study (Italy) and the recycled paper case (São Paulo, Brazil) show positive environmental impacts distributed throughout the life-cycle.

Vincent and Abbie (2011) proposed that sustainable procurement practices necessitates the appropriate order in pursuit of procurement activities to match with policies and best practices as to first conform with and surpass all relevant legislation and regulatory requirements including environmental, social, health and safety policies. Secondly, it's to cut on environmental impact while maximizing economic and social advantage through entrenching appropriate sustainability standards within the procurement practice. Thirdly, come up with sustainable procurement awareness and skills amongst all stakeholders and further build a stronger base on policy and strategy understanding while stimulating

sustainability in the market place, involving current and upcoming suppliers on best practice in sustainability along the supply chain. That is ensuring sustainability is the criteria in all phases of procurement through the integration of environmental, social and economic aspects in procuring supplies and services. In addition, assess the growth of sustainable procurement with a view to positive progress and work together with other organizations and to research best practice.

2.5.3 Social Impacts of Sustainable Procurement

Goswami, A., Diljun, G., M., & Srivastava N., (2013) in their policy brief of India, argue that public buying has been used as a medium to achieve various social objectives, such as, reducing unemployment, providing employment to disabled individuals, and to backward regions in the country, promoting gender and ethnic equality, etc. The focus has largely been on social aspects of sustainability. They advance that there is currently no public procurement law at the national level in India and that preference for certain kinds of products and services in the procurement process has therefore been introduced through policy measures and guidelines which are primarily department led and focus on promoting procurement from micro and small enterprises (MSEs) or give preference to indigenous procurement in the defense sector. There have been also provisions for earmarking certain share of annual purchase from MSEs owned by SC/ST entrepreneurs.

Government of Kenya (2005) has advanced employment and social inclusiveness issues to be considered essential by the public entities who promote these priorities through their procurement processes. The Public Procurement and Disposal Act (Preference and Reservations) Regulations, 2011 reserving 30% of total value of public spend for the youth, women and people with disabilities to enhance access to public tenders by youth, women and people with disabilities owned business enterprises. Lemmet (2012) researching on social impacts of SP agrees that although the social component of sustainable development has often been considered as the most neglected one, the eight case studies she carried out indicated that a strong commitment from public purchasers to tackle social issues exist and that employment and social inclusiveness issues are considered essential by the public entities. She further argues that some of the social impacts are directly targeted by tenders, such as the participation of companies employing disabled persons.

Queensland Government Chief Procurement Office (2012) advances the social impact by fair trade and ethical sourcing practices; ensuring that purchases are ethical and support fair trade

and that supply chains do no harm in terms of labour standards; promoting workforce welfare (e.g. health and safety, trade union membership); creating employment and training opportunities (particularly among disadvantaged groups such as people with disability or mental illness, migrants, Indigenous); social inclusion, ensuring that marginalized groups are included and have opportunities to participate in local community and economy; diversity and equality in the supplier market, encouraging a diverse base of suppliers (e.g. minority or under-represented suppliers) and local sustainability, building and maintaining healthy, strong communities, support social inclusion and enhancing wellbeing of local residents by generating local employment.

2.6. Challenges to sustainable procurement

Cao, Yuying and Fen (2012) documented the challenges facing the implementation of SP in China as follows; First, the means to implement SP being limited to that of the Energy Conservation Products List for Government Procurement (ECP List) and Environment-labeled Products List for Government Procurement (ELP List) only and the implementing effect of the systems themselves is doubtful. Secondly, the compulsory procurement system has too strong an effect of exclusion and has a problem of legitimacy under the Chinese laws on government procurement and accreditation. Thirdly, the parallel legal framework for the Chinese public procurement may present some problems for wider application of the green procurement policy; fourth, the existing procuring function and its organization is weak and uncertain greatly weaken the possibility for the whole procurement links to consider sustainable factors. Finally, the inherent conflicts between sustainable procurement objective and other objectives may also bring difficulties for implementation of this policy, setting challenges for the implementing capability and development of professionalism.

Belfitt et al (2011) argues that SP could be challenged by the fact that sometimes the returns of adopting sustainable procurement decisions may not be received by those that experience the additional cost. For instance, while the end user may benefit from lower energy demand or the final owner may benefit from the design of a construction, the client or the person who constructed may not even benefit from any of this. In case of any adjustments on the cost to the higher side, the organization would not have the requisite motivation to adopt a new approach as opposed to the traditional capital cost based one.

Morgan (2010) noted that conflict of incentives is indeed a challenge to sustainable procurement. Staff Members involved may feel compelled to make decisions that are not in

line with sustainable procurement strategy. This therefore implies that they are uncomfortable and they would rather hold more to their traditional strategy. Interestingly enough is the degree to which these strategies have on the procurement decisions within an organization, while the real business decisions would be based on the number of divergent pressures and on the way in which they connect will be instrumental to the final decision making.

Belfitt et al (2011) also discuss resistance as a challenge. Although change is inevitable, more often motivation of individual employees may prove a challenge and impediment to adoption of new methods to improve sustainability. Primary to this is unraveling and understanding the structure of the organization and how that structure influences procurement decisions. This understanding would be key if new practices are to be accepted and successfully implemented.

Mensah and Ameyaw (2012) identify absence of internal management structures as a barrier towards sustainable procurement. Without proper structures, organizations will face complications in making its business more sustainable, since sustainability demands elaborate and updated structural systems within the supply chain like quality control systems.

Rice et al (2005) assert that although returns from supply chain investment could be massive, challenges are colossal too. This could be one of the barriers to the institutionalization of sustainable procurement practices.

Helmsing and Knorringa (2008) identified lack of social drive as a challenge arguing that private actors act in solitude and neither are they involved in the development of NGO's policies nor do they influence monitoring and evaluation systems. This absence of private efforts (an external force) that would demand for quality and traceability and mount market pressure on the relevant institutions to ensure sustainability in the procurement of construction works, which will in turn fulfill corporate social responsibility breeds laxity in the implementation of sustainable procurement practices

2.7. Summary of Literature Review

There exist differences across public sector agencies in the nature of SP practices (Stephen and Walker, 2007) and that SP practices have been implemented through various approaches of design and lifecycle approaches (Srivastara, 2007; McAuley, 2003; Stevels, 2002; DuberSmith, 2005; Qinghua & Raymond, 2004 ; Preuss, 2001 and Plambeck, 2007).

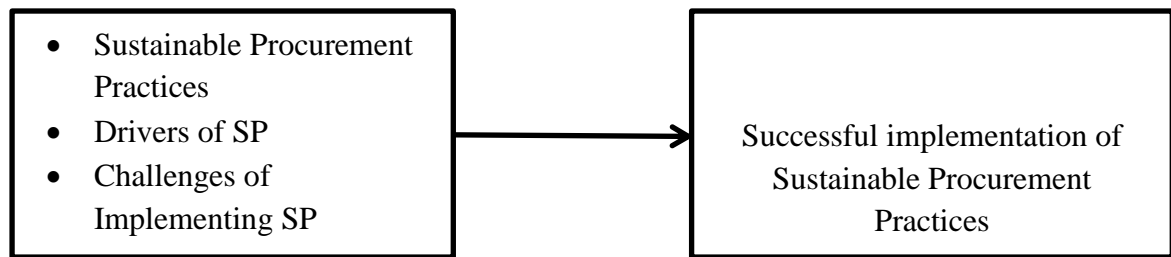
Drivers of SP Practices are; The government (Helen, 2010; Belfitt et al. 2011; McCrudden, 2004) by its spend power, regulation, and by use of policy tools; Market differentiation and Market pressures (Belfitt et al., 2011); Brand reputation and Image (Koplin et al., 2007) ; Media attention and growing awareness among consumers on sustainability initiatives (Jonas & Tom, 2014) and Quick WINS/ financial wins providing the delivery of operational cost savings (DuberSmith, 2005; Stevels, 2002; Gunther, 2006). However, factors and drivers to adopt GSCM in different industries are different (Zhu & Lai, 2008).

Impacts of SP on Economic contributes directly to economic/financial outcomes such as cost savings (Queensland Government Chief Procurement Office, 2012); Consumer knowledge on SP shaping their consumption (Kotler, 2004) and support to small business activity and local industries resulting in financial savings and demonstrated tax benefits linked to the employment of disabled people (Lemmet, 2012). Impact on Environment leads to decrease in waste, reduction of CO2 emissions, of waste production, and of water consumption (Lemmet, 2012; Vincent & Abbie, 2011). In addition, social impacts on achieving various social objectives as; reducing unemployment, providing employment to disabled individuals, and to backward regions in the country/county, promoting gender and ethnic equality among others (Goswami, A., Diljun, G., M., & Srivastava N., 2013). Similarly to Kenya, Preference and Reservations Regulations of 2011 reserving 30% of total value of public procurement spend for the youth, women and people with disabilities. Lemmet (2012) agrees that employment and social inclusiveness issues are considered essential by the public entities.

In conclusion, challenges for implementing SP have been documented. These are: inherent conflicts between SP objective and other objectives (Cao, Yuying, & Fen, 2012); returns of adopting SP decisions (Quick wins) not being received by those that experience the additional cost (Belfitt et al., 2011) ; conflict of incentives (Morgan, 2010); resistance (Belfitt et al., 2011) ; absence of internal management structures (Mensah & Ameyaw, 2012) and lack of social drive especially by the private actors. (Helmsing & Knorringa, 2008).

2.8. Conceptual Framework

Figure 2.1 on Procurement Professionals Perception of Drivers of Sustainable Procurement



Source: Research data (2014)

Figure 2.1 depicts the sustainable procurement practices, drivers and challenges in successful implementation of sustainable procurement.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology that was followed in achieving the objectives of the study. The subsections covered here are research design and data collection

3.2 Research design

The researcher used case study. A case study is an empirical inquiry that “investigates a contemporary phenomenon within its real-life context especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003)

Hartley (2004) explains a case study as a research strategy which involves detailed investigation of phenomena where the aim is to understand how behavior and/or processes are influenced by and influence context, and where context is deliberately part of the design. Moreover, it is a study in gaining detailed information by using triangulation in data collection during a period of time. This shall help the researcher monitor the behavior of the variables and hence present an opportunity to challenge theoretical assumptions. The design of the study involved examining sustainable procurement practices, drivers and SP implementation challenges of public water sector institutions. It was therefore most appropriate to use case study design since the study sought to examine the practices of a single sector.

3.3 Data collection

The study utilized primary data. Primary data was obtained through use of structured and semi-structured questionnaires which were issued to procurement professionals and picked up later by the researchers. Closed-ended questions were used to capture the respondents' perception of the various variables that constituted sustainable procurement practices at the public water sector institutions for the research to achieve its objectives.

3.4 Data analysis

Questionnaires were edited for completeness and consistency. The data collected was analyzed through quantitative techniques. The research used statistical package for sciences (SPSS 19) for analysis. The data was first coded to allow for analysis. The data that was collected in Part I of the questionnaire was used for profiling respondents and the information that was gathered in Part II was used to address the objectives of the study which was to determine the respondents perception of public water sector institutions' sustainable procurement practices.

Data was then presented in form of tables and bar chart for ease of interpretation. The final report was compiled using Microsoft word after subjecting data into thorough analysis. Table 3.1 summarizes the objectives and questions answering them with analysis carried out.

Table 3.1 Summary of objectives and questions answering them with analysis carried out

No.	Objective	Questionnaire	Analysis
1	Establish Drivers of Sustainable Procurement Practices	Part I & II	Descriptive
2	Establish Challenges of adopting Sustainable Procurement Practices	Part III, IV	Descriptive
3	Establish Sustainable Procurement Practices	Part V, & VI	Descriptive

Source: Research data, 2014

CHAPTER FOUR: RESEARCH FINDINGS

4.1 Introduction

This chapter presents data that originated from the findings of the research. The content was analyzed according to the responses provided by the questionnaire respondents. The analysis and interpretation was done with the aid of secondary data in order to authenticate the results found.

The research data was collected using closed ended questionnaires that were covering the three different dimensions of sustainable procurement being the focus of the study. This made it possible to get clear responses from the procurement professionals on their perception of sustainable procurement in the public water sector institutions in Kenya. The questionnaires were distributed to public procurement professionals according to their different levels of management in the public water sector institutions and collected in the same manner and the analysis of the data was based on a general weight of 1 to 5 (5- excellent, 4-very good, 3-good, 2-fair and 1-poor / 5-a great deal, 4-much, 3-somewhat, 2- little and 1-never / 5-always, 4-very often, 3- seldom , 2-rarely and 1-never / 5- very important, 4- important, 3-moderately important, 2-of little importance and 1-unimportant)

4.2 General Information

The data was collected from 83 (81.4%) out of the target population of 102 procurement professionals from the public water sector institutions. The questionnaires were collected according to the three levels of management as summarized in Table 4.1.

Table 4.1 Levels of management frequency data

Respondents levels of management	Target	Achieved	Percent
Junior Level Management	34	26	76.5
Middle Level Management	34	31	91.2
Top Level Management	34	26	76.5
Total	102	83	81.4

Source: Research data, 2014

The proportion of feedback from the procurement professionals' responses of 83% as indicated in Table 4.1 is a fair representation since there were an equal number of feedbacks from all the three levels of management.

4.3 Factors affecting Sustainable Procurement

The study sought to establish the drivers of sustainable procurement practices by public organizations in Kenya. The respondents were asked to state the extent to which various factors drive sustainable procurement practices at their organization. The factors were put in a scale of 1-5 where 1 meant never, 2- little, 3- somewhat, 4- much and 5- a great deal in driving sustainable procurement practices in the organizations.

Table 1 Procurement Professionals perception of drivers of Sustainable Procurement

	Mean	STD EV
Compliance to new regulations	4.45	0.75
Meet your clients expectations	4.29	0.67
Reduce costs of services/products	4.22	0.70
Provides operational cost savings	4.04	0.90
Provides new market opportunities	3.96	0.67
Anticipating resources scarcity / depletion	3.71	0.97
Avoid supply chain disruption	3.66	1.24
Avoid risk to brand Image	3.61	1.01
Presenting an environmental/ socially responsible image	3.57	1.10
Influence suppliers in developing environmentally friendly goods	3.43	0.95
Develop competitive advantage compared to competition	3.43	1.03
Industrial professional group activities	3.30	0.95
Cost for disposal of hazardous materials	3.28	0.75
This is the right thing to do for the planet and society	3.27	1.43
Respond to investors' pressure	3.27	1.06
Influence of your own suppliers that provide goods and services to your organization.	3.17	1.20
Cost of environmentally friendly materials and goods	3.13	0.93
Culture of the organization promotes environmental responsibility	3.08	1.17
Respond to increased activism from NGOs and social media	2.58	1.43
Grand Mean	3.55	

Source: Research data.

The table 4 above shows various ranked drivers of sustainable procurement. The respondents expressed much confidence in four (4) factors which they considered as major drivers to sustainable procurement drivers. These are; compliance to new regulations with the highest mean of 4.45 (stdev of 0.75), meeting clients expectations with a mean of 4.29 (stdev 0.922), reducing costs of services/products with a mean of 4.22 (stdev 0.70) and provision of

operational cost savings with a mean of 4.04 (stdev 0.90). This implies that most organizations sustainable procurement was majorly driven by regulatory requirements and client expectations which are external forces and cost implications which are internal forces. Fourteen factors were ranked fairly with means ranging from 3.96 to 3.08.

These were; provision of new market opportunities, anticipation of resources scarcity / depletion, avoidance of supply chain disruption, avoidance of risk to brand image, presenting an environmental/ socially responsible image, influencing suppliers in developing environmentally friendly goods, developing competitive advantage, industrial professional group activities, cost for disposal of hazardous materials, the right thing to do for the planet and society, respond to investors' pressure, influence of own suppliers, cost of environmentally friendly materials and goods and culture of the organization in promoting environmental responsibility. Response to increased activism from NGOs and social media was never considered as a driver to sustainable procurement with a mean of 2.97 (stdev 1.402). Overall, the ranking of the SP drivers has a mean of 3.55.

The research findings are consistent with Helen (2010), Belfit et al. (2011) and McCrudden (2004) whose arguments support that the government has the biggest role to play in implementing sustainable procurement practices in both private and public sector through regulating the environment. Moreover, DuberSmith (2005), Stevels (2002) and Gunther (2006) supported efficiency, competitiveness and reduction of cost as drivers of sustainable procurement. Their findings are comparable to the findings of this study which consider reduction of services/products costs and operational cost savings as major drivers of sustainable procurement. However, contrary to Jonas and Tom (2014) study which showed that strong media attention and growing awareness among customers greatly influenced the need for sustainability procurement, this study found out that increased activism from NGO's and social media had no influence on the need for implementation of sustainable procurement.

4.4 Policies monitoring and managing supply chain

The study sought to examine the policies that monitor and manage supply chain in the public sector. The respondents were asked to indicate their levels of agreement on the extent to which the policies monitor and manage supply chains on the scale of 1-5 where 1- never, 2 – rarely, 3- seldom, 4-very often and 5- always. The dimensions used in the research to evaluate the extent to which policies monitor and manage supply chain regarding

environmental issues are; applying of environmental criteria when making purchasing decisions, purchasing “green” (recyclable, reusable, non-toxic, bio-degradable, and made from 100% post-consumer recycled materials) supplies, products and materials and partnering with sustainable suppliers or utilize suppliers who share in the sustainability commitment as highlighted in Table 5.

Table 2 Policies monitoring and managing supply chain

To what extend does the following policies monitor and manage your supply chain regarding environmental issues?	Mean	STDEV
We apply environmental criteria when making purchasing decisions.	3.71	1.08
We purchase “green” (recyclable, reusable, non-toxic, bio-degradable, and made from 100% post-consumer recycled materials)	3.04	0.99
We partner with sustainable	2.95	1.45
Grand Mean	3.23	

Source: Research data

In table 5 above, applying of environmental criteria when making purchasing decisions is rated highly by a mean of 3.71 (stdev 1.08), followed by purchasing “green” supplies, products and materials with a mean of 3.04 (stdev 0.99) and lastly partnering with sustainable suppliers who share in the sustainability commitment with a mean of 2.95 (stdev 1.45). The averages among the three policies are regarded highly by a mean of 3.23 indicating policies regarding environmental issues in monitoring and managing supply chains is high with a mean consistently higher than 3.0.

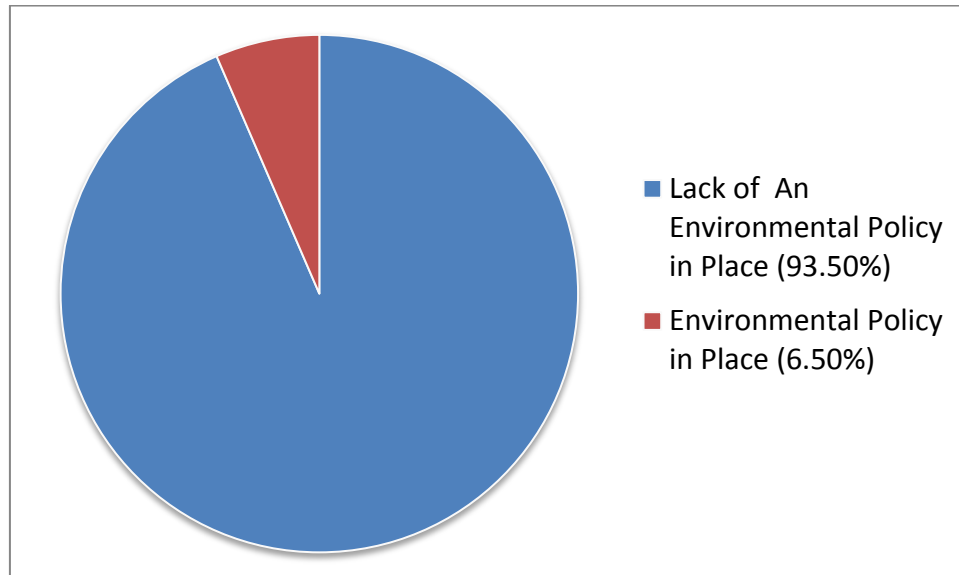
The findings of this study are in harmony with Vincent and Abbie (2011) argument that sustainable procurement practices should match with policies and best practices laid down by organisations. as to first conform with and surpass all relevant legislation and regulatory requirements including environmental, social, health and safety policies. Secondly, it’s to cut on environmental impact while maximizing economic and social advantage through entrenching appropriate sustainability standards within the procurement practice.

Environmental Policy

The study further sought to assess whether the public institutions had put in place an environmental policy that committed the organization to a programme of continuous environmental improvement.

The results are as displayed in the tables 4.2.1.

Figure 3 Illustrating the percentage of procuring organizations with an environmental policy in place



Source: Research data

From Figure 6 above, only 6.5% of the respondents indicated to have an environmental policy in place committing their organization to a programme of environmental improvement, 93.50% of the respondents however indicated lack of such a policy in place.

4.5 Challenges encountered in implementing Sustainable Procurement Policy

The study sought to establish challenges facing the implementation of sustainable procurement practices. The respondents were asked to rank the challenges encountered in the implementation of SP practices to a scale of 1-5 where 1- never, 2 – rarely, 3- seldom, 4-very often and 5- always. Implementation challenges dimensions used in the study include; lack of budget for internal or external support, resistance from suppliers, lack of support from the top management, lack of internal expertise on sustainability topics, contradictory objectives (short-term savings versus qualitative or longer term results), lack of metrics (KPI) to measure and monitor progress, lack of information on suppliers corporate social responsibilities practices, inadequate training of procurement staff, failure to have effective monitoring and evaluation of procurement activities, lack of information and knowledge about the environmental impact of the company, lack of relevant legislation and legal

enforcement, high prices of green products, unavailability of green products in the local market and lack of environmental specifications on products offered.

Table 4 Respondents perception on implementation challenges of Sustainable Procurement

How often do you encounter the following challenges in implementing your Sustainable Procurement policy?	Mean	STDEV
Lack of budget for internal or external support	3.49	1.16
Lack of metrics (KPI) to measure and monitor progress	3.42	1.48
High prices of green products	3.40	1.13
Unavailability of green products in the local market	3.18	1.04
Lack of support from the top management	3.10	1.09
Resistance from suppliers	3.10	1.10
Lack of relevant legislation and legal enforcement	3.08	1.08
Lack of internal expertise on Sustainability topics	3.07	1.43
Contradictory objectives	3.07	1.46
Lack of information on suppliers Corporate Social Responsibilities practices	3.00	1.33
Lack of information and knowledge about the environmental impact of the company.	2.94	1.19
Failure to have effective monitoring and evaluation	2.93	1.13
Inadequate training of procurement staff	2.83	1.21
Lack of environmental specifications on products offered	2.71	1.23
Grand Mean	3.09	

Source: Research data

Most respondents acknowledged that they encountered the following challenges occasionally in the process of implementing sustainable procurement practices. These were; lack of budget for internal or external support (3.49), lack of metrics (KPI) to measure and monitor progress (3.42), high prices of green products (3.40), unavailability of green products in the local market (3.18), lack of support from the top management (3.10), resistance from suppliers (3.10), lack of relevant legislation and legal enforcement (3.08), lack of internal expertise on sustainability topics (3.07), contradictory objectives (3.07) and lack of information on suppliers corporate social responsibilities practices (3.00). On the other hand, lack of information and knowledge about the environmental impact of the company (2.94), failure to have effective monitoring and evaluation (2.93), inadequate training of procurement staff (2.83) and lack of environmental specifications on products offered (2.71) were hardly faced.

This study identified lack of information on supplier's corporate social responsibilities as one of the challenges. Similarly, Helmsing and Knorrunga (2008) identified lack of social drive as a challenge in their study arguing that private actors are never monitored to ensure that they

have policies on CSR practices. Additionally, Cao, Yuying and Fen (2012) in their study found that inherent conflicts between sustainable procurement objective and other objectives bring difficulties when implementing policies. This concurs with this study findings which found out that contradictory objectives was one of the challenges faced.

4.6 Progress on the challenges encountered in implementing SP Policy

The research sought to establish the level of progress made in dealing with challenges facing SP practices. The respondents were asked to rank which issues and challenges that they (organization) have made significant improvement or compacted it. The factors considered in evaluating the progress made in mitigating the challenges faced in implementing sustainable procurement practices are the same as the ones used in Table 7 above.

Table 5 Progress the organisation has been able to make in 2013

Which issues/challenges that the organization has been able to make significant progress in 2013 and to what extent?	Mean	STDEV
Lack of environmental specifications on products offered	2.76	0.96
Existence of unethical behavior and corruption	2.71	1.04
Failure to have effective monitoring and evaluation	2.65	1.04
Lack of support from the top management	2.64	0.67
Lack of information and knowledge about the environmental impact	2.60	0.96
Lack of government legal enforcement	2.57	1.06
Unclear ownership of this process	2.46	0.82
Lack of relevant legislation	2.43	1.08
Existence of political interference	2.35	1.09
Incompetency of procurement staff	2.29	0.96
High prices of green products	2.29	1.03
Lack of budget for internal or external support	2.29	0.99
Lack of information on suppliers CSR	2.28	0.94
Availability of green products in the local market	2.25	0.96
Inadequate training of procurement staff in our organization has affected the implementation of SPP	2.20	1.04
Resistance from suppliers	2.16	0.83
Lack of metrics (KPI)	2.16	0.80
Lack of internal expertise on Sustainability topics	2.13	0.97
Contradictory objectives	2.08	0.83
Grand Mean	2.38	

Source: Research data

Respondents perception to mitigating of challenges to the implementation of sustainable procurement practices has generally been rated low with the highest rating being significant progress in existence of environmental specifications on products offered with a mean of 2.76 (stdev 0.96) followed by

existence of ethical behavior and low corruption with a mean of 2.71 (stdev 1.04). Incompetency of procurement staff with a mean of 2.29 (stdev 0.96) falls in the middle. The lowest ranked is contradicting objectives having a mean of 2.08 (stdev 0.83). The grand mean 2.38 is generally low indicating that the organizations have made little or no effort to counter the challenges they have been facing towards the implementation of sustainable procurement practices.

4.7 Sustainable Procurement Objectives in the Public Sector

The research further sought to establish sustainable procurement objectives that are important in the public sector. The respondents were asked to rank their procurement objectives followed by ranking the SP practices implemented to a scale of 1-5, where 1- unimportant, 2- of little importance, 3- moderately important, 4- important and 5- very important.

According to this research, the dimensions used to evaluate the SP objectives are; savings & cost reduction, reducing supply chain risks, contributing to the development of innovative products/services, compliance to preference and reservation regulation of 2011, implementing sustainable procurement practices and compliance to other new regulations.

Table 6 Sustainable Procurement Objectives in the Public Sector

	Mean	STDEV
Savings & Cost reduction	4.14	0.93
Reduce supply chain risks	3.84	0.90
Contribute to the development of innovative products/services	3.65	1.03
Compliance to Preference and Reservation Regulation of 2011	3.55	1.59
Implement Sustainable Procurement practices	3.48	1.06
Compliance to other New regulations	2.99	1.29
Grand Mean	3.61	

Source: Research data

From the research findings, savings and cost reduction objective was appraised as important with a mean of 4.14. The following four (4) objectives were considered to be of moderate importance. These are; reducing supply chain risks, contribution towards the development of innovative products/services, compliance to preference and reservation regulation of 2011 and implementation of sustainable procurement practices while compliance to other new regulations was considered unimportance with a mean of 2.99.

This study finding are consistent with Queensland Government Chief Procurement Office (2012) study findings which supported cost savings as an important objective to sustainable

procurement practices i.e. proposed procuring goods and services that are more efficient to operate and thereby reduce operating costs. Additionally, the study findings are also in line with Lemmet (2012) study findings which proposed support to small business activity in Scotland, local industries in Costa Rica and financial savings.

4.8 Green procurement practices implemented

The research further sought to establish sustainable procurement practices that were implemented in the public sector. The respondents were asked to rank their sustainable procurement practices implemented to a scale of 1-5, where 1- not considering it, 2- planning to consider it, 3- considering it currently, 4- initiating implementation and 5- implementing successfully.

Table 7 Procurement professional's perception in regard to tangibles

	Mean	STDEV
Giving preference to Youth, Women and People with Disabilities access public procurement	3.93	1.15
Working With Suppliers (Establish published supplier engagement programme including 'meet the buyer' events)	3.88	0.90
The need for cost-effective requirements	3.80	1.24
Measuring Performance (measure against sustainable procurement criteria in the Best Practice Indicators and the Procurement Capability Assessment model)	3.78	0.95
Sustainability in The Procurement Process	3.78	0.98
Your organization makes use of collaborative contracts and framework	3.60	1.04
Regularly review/audit your processes of systems internally	3.53	1.07
Supporting the inclusion of sustainability aspects	3.52	0.79
Organization shares the drive, responsibility and the commitment of SP	3.30	0.97
Developing a bias for Products that disclose their environmental effect	3.28	0.75
Develop environmental awareness to staff through training	3.22	1.02
Making the Commitment Public	3.19	1.44
Ensuring requirements (design specification)	3.16	1.27
Adopting the "Buy Sustainable - Quick Wins"	3.12	1.05
Have processes or systems implemented	3.05	1.31
Environmental Audit for suppliers	2.98	1.24
Insist on procuring green products for reuse, recycle among others	2.84	1.19
ISO Certification 14001	2.71	1.25
Grand Mean	3.37	

Source: Research data

Most public organization were considering implementing the following green procurement practices which were; giving preference to youth, women and people with disabilities access public procurement, establishing supplier engagement, the need for cost-effective requirements, measuring performance, including sustainability issues in the procurement process, regular review/audit processes of systems internally, supporting the inclusion of sustainability aspects, sharing the organization drive, responsibility and commitment of SPP, developing bias for products that disclose their environmental effect, developing environmental awareness to staff through training, making the commitment public, ensuring requirements (design specification), adopting the "buy sustainable - quick wins" and have processes or systems implemented with a mean ranging from 3.93 to 3.05. The organizations were further planning to consider environmental audit for suppliers, insisting on procuring green products for reuse, recycling, ISO certification 14001 with means ranging from 2.98, 2.84 and 2.71 respectively. There was a general appreciation of SP practices implemented evidenced by the consistent grand mean of 3.37.

Contrary to this study, which found out that most public organizations were planning to considered insisting on procuring green products for reuse and recycle, Plambeck (2007) who carried out a study on Walmart found out that the company was very keen on procuring 100% renewable energy, creating zero waste and selling products that are environmental friendly.

CHAPTER FOUR: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1.Introduction

This chapter presents a summary of findings and conclusion of the study. The study sought to establish the drivers, sustainable procurement practices and sustainable procurement implementation challenges in public water sector institutions.

5.2. Summary of findings

The study, which was carried out in the public water sector in Kenya was set out to determine the drivers of sustainable procurement practices, outline the challenges that were being faced, whether these organizations had laid down policies on green procurement and extent to which green procurement was being implemented in these organizations.

The study revealed that the push to comply to new regulations, client expectations, reduction in cost of production to produce more affordable goods and services as well as reduction of costs of operation were the major drivers for sustainable procurement practices. Increased activism from the media and non-governmental organizations was not regarded as a driver to the adoption of sustainable procurement practices. In regard to sustainable procurement policies, policies do play a key role in driving the sustainable procurement agenda in organizations as a result of high ranking. However, when it came to organization having the policy committing the organization to sustainable procurement in place, very few have it in the policy in place.

Procurement professionals occasionally face many challenges in the implementation of sustainable procurement practices which include; lack of budget for internal or external support, lack of metrics (KPI) to measure and monitor progress, high prices of green products, unavailability of green products in the local market, lack of support from the top management, resistance from suppliers, lack of relevant legislation and legal enforcement, lack of internal expertise on sustainability topics, contradictory objectives and lack of information on suppliers corporate social responsibilities practices. Nevertheless, minimal progress has been realized in the managing and minimizing these implementation challenges in public organizations. The major objective of sustainable procurement in the public sector was established to be savings and cost reduction.

Furthermore, most public organization were considering implementing various sustainable procurement practices which include: giving preference to youth, women and people with disabilities access public procurement, establishing supplier engagement, including sustainability issues in the procurement process, regular review/audit processes of systems internally, developing bias for products that disclose their environmental effect just to mention but a few.

5.3. Conclusion

The study concludes that sustainable procurement practices are being considered in the public sector organizations. Sustainable procurement delivers savings and cost reduction objective to public organizations thus public sector institution which are considering SP have put their SP objectives at the core of their operations and incorporate them as at strategic levels of their organization The study nevertheless, highlights that there are many challenges to SP practices implementation in the public sector institutions. In tracing the progress made in handling the challenges however, the study concludes that minimal progress has so far been realized in resolving the challenges. The study further concludes that organizations sustainable procurement agenda needs be engraved in its organizational policy to succeed. Very few organization however, have put in place a policy committing their organisations to a programme of environmental improvement. A lot of improvements need to be done to improve the progress in handling implementation challenges to sustainable procurement practices.

5.4.Recommendations

The study makes a number of recommendations for policy and for practice. With so much built up pressure on the environment warranting for sustainable solutions for the planet, there is need for public sector institutions in Kenya to adopt sustainable procurement practices. The legislature needs to enact laws to govern sustainable procurement and such laws be enforced to enhance compliance. Implementation process faces many challenges which have slowed down the progress. The study recommends sustainable procurement practices to be studied and analyzed critically to identify sources and causes of implementation challenges in an effort to minimize the hurdles of implementation. The study as well recommends that the government needs to enact environmental legislations and policies that promote sustainable procurement and those that already have such policies need to be reviewed and revised to integrate sustainable procurement issues and other sustainability issues.

5.5.Limitations of the study

The study was limited in several aspects, scope being one of them. The study focused on water sector institutions in a public domain with various sectors whose attention would have added or provided a unique and interesting perspective altogether to highlight the case in other sectors.

5.6.Suggestions for further studies

The researchers suggest that further studies be done to investigate various ways of minimizing and handling the challenges of implementation of sustainable procurement whose progress was poorly rated by the procurement professionals. This study will be able to propose best measures on how to achieve successful implementation of SP practices as well as offer policy directives on the same. This kind of study would thus build on the existing body of knowledge and give greater insights on improving progress on implementation of sustainable procurement. Further studies could be done to establish sustainable procurement practices across different industries in an effort to developing specific industry benchmarks.

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APPENDICIES

APPENDIX I: QUESTIONNAIRE

SUSTAINABLE PROCUREMENT PRACTICES IN THE PUBLIC SECTOR:

A CASE STUDY OF WATER SECTOR INSTITUTIONS IN NAIROBI

Dear respondent,

This questionnaire is designed to collect information on sustainable procurement practices in Public organizations. The information obtained will only be used for academic purposes and shall be treated in confidence.

Your participation in facilitating the study is highly appreciated.

PART 1: DEMOGRAPHIC DATA (Please tick where appropriate)

1. Name of the Organization (Not Mandatory):

.....

2. Respondents levels of Management

Top Level Management ()

Middle Level Management ()

Junior Level Management ()

3. Age Category

Below 20 ()

20 – 30 ()

31 – 40 ()

41 & above ()

PART II: PERSON IN CHARGE OF SUSTAINABLE PROCUREMENT WITHIN THE ORGANIZATION (DEDICATED MANAGER/OFFICER) IF SUCH A FUNCTION EXISTS PERCEPTION OF THE ORGANISATIONS SUSTAINABLE PROCUREMENT PRACTISES

Please tick as appropriate in the spaces provided the extent to which you are confident with your organization sustainable procurement practices approach with respect to each of the following aspects.

Drivers of Sustainable Procurement						
		A Great Deal	Much	Somewhat	Little	Never
I.	To what extent do the following factors drive Sustainable Procurement practices in your organization?					
	a. Compliance to new regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Reduce costs of services/products procured (i.e. maximize reuse, limit usage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Avoid risk to brand/image associated with bad social/environmental practices of suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Avoid supply chain disruption (i.e. suppliers not anticipating new environmental regulations, strikes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. Influence and advance suppliers in developing environmentally friendly goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f. Meet your clients expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g. This is the right thing to do for the planet and society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h. Anticipating resources scarcity / depletion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i. Develop competitive advantage compared to competition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j. Respond to increased activism from NGOs and social media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	k. Respond to investors' pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	l. Industrial professional group activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	m. Cost for disposal of hazardous materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	n. Cost of environmentally friendly materials and goods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	o. Culture of the organization promotes environmental responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	p. Provides new market opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	q. Provides operational cost savings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	r. Influence of your own suppliers that provide goods and services to your organization.	()	()	()	()	()
	s. Maintaining or presenting an environmental or socially responsible image.	()	()	()	()	()
	t. Others, Please specify.....					
		Always	Very often	Seldom	Rarely	Never
II.	To what extent does the following Policies monitor and manage your supply chain regarding environmental issues?					
	a. We apply environmental criteria when making purchasing decisions.	()	()	()	()	()
	b. We purchase “green” (recyclable, reusable, non-toxic, bio-degradable, and made from 100% post-consumer recycled materials) supplies, products and materials.	()	()	()	()	()
	c. We partner with sustainable suppliers or utilize suppliers who share in the sustainability commitment	()	()	()	()	()
	d. Does your organisation have an environmental policy committing it to a programme of environmental improvement? YES () NO () If “yes” please state below what accreditation you have -----					
Implementation challenges						
		Always	Very often	Seldom	Rarely	Never
III.	How often do you encounter the following challenges in implementing your Sustainable Procurement policy?					
	a. Lack of budget for internal or external support	()	()	()	()	()
	b. Resistance from suppliers (cost, lack of sustainability expertise, etc.)	()	()	()	()	()
	c. Lack of support from the top management	()	()	()	()	()
	d. Lack of internal expertise on Sustainability topics	()	()	()	()	()
	e. Contradictory objectives (Short-term savings versus Qualitative or longer term results)	()	()	()	()	()
	f. Lack of metrics (KPI) to measure and monitor progress	()	()	()	()	()
	g. Lack of information on suppliers Corporate Social Responsibilities practices	()	()	()	()	()
	h. Inadequate training of procurement staff in our organization has affected the implementation of Sustainable Procurement Practices.	()	()	()	()	()
	i. Failure to have effective monitoring and evaluation of procurement activities in our organization has affected the implementation of Sustainable Procurement Practices.	()	()	()	()	()
	j. Lack of information and knowledge about the environmental impact of the company.	()	()	()	()	()

	k. Lack of relevant legislation and legal enforcement.	()	()	()	()	()
	l. High prices of green products	()	()	()	()	()
	m. Unavailability of green products in the local market	()	()	()	()	()
	n. Lack of environmental specifications on products offered	()	()	()	()	()
	Others, Please specify.....					
IV.	Of the issues in number 3 above which one have you been able to make significant progress in 2013 and to what extent?					
		75– 100%	50- 75%	25- 50%	0-25%	
	a. Lack of budget for internal or external support	()	()	()	()	
	b. Resistance from suppliers (cost, lack of sustainability expertise, etc.)	()	()	()	()	
	c. Lack of support from the top management	()	()	()	()	
	d. Unclear ownership of this process	()	()	()	()	
	e. Lack of internal expertise on Sustainability topics	()	()	()	()	
	f. Contradictory objectives (Short-term savings versus Qualitative or longer term results)	()	()	()	()	
	g. Lack of metrics (KPI) to measure and monitor progress	()	()	()	()	
	h. Lack of information on suppliers Corporate Social Responsibilities practices	()	()	()	()	
	i. Inadequate training of procurement staff in our organization has affected the implementation of Sustainable Procurement Practices.	()	()	()	()	
	j. Incompetency of procurement staff in our organization has affected the implementation of Sustainable Procurement Practices.	()	()	()	()	
	k. Failure to have effective monitoring and evaluation of procurement activities in our organization has affected the implementation of Sustainable Procurement Practices.	()	()	()	()	
	l. Existence of unethical behavior and corruption in our organization has affected the implementation of Sustainable Procurement.	()	()	()	()	
	m. Existence of political interference in our organization has affected the implementation of Sustainable Procurement.	()	()	()	()	
	n. Lack of information and knowledge about the environmental impact of the company.	()	()	()	()	
	o. Lack of government legal enforcement	()	()	()	()	
	p. Lack of relevant legislation	()	()	()	()	
	q. High prices of green products	()	()	()	()	
	r. Availability of green products in the local market	()	()	()	()	
	s. Lack of environmental specifications on products offered	()	()	()	()	
Sustainable Procurement Practices						
		Very Important	Important	Moderately Important	Of Little Importance	Unimportant
V.	To what extent were the following objectives important to your procurement organization in 2012-13?					

	a. Savings & Cost reduction	()	()	()	()	()
	b. Reduce supply chain risks	()	()	()	()	()
	c. Implement Sustainable Procurement practices	()	()	()	()	()
	d. Contribute to the development of innovative products/services	()	()	()	()	()
	e. Compliance to Preference and Reservation Regulation of 2011: AGPO (Access to Government Procurement Opportunities for Youth, Women and People Living with Disabilities)	()	()	()	()	()
	f. Compliance to other New regulations Please specify.....	()	()	()	()	()
		Implementing successfully	Initiating implementation	Considering it currently	Planning to Consider it	Not Considering It
VI.	To what extent has your organization implemented the following green procurement practices					
	a. <u>Making the Commitment Public:</u> Demonstrated a public commitment to sustainability commitment both to staff and external parties including suppliers and potential suppliers	()	()	()	()	()
	<u>Organizational Buy-In</u>					
	b. Your organization shares the drive, responsibility and the commitment of Sustainable Thinking and is reflected in its policies, strategies and procedures.	()	()	()	()	()
	c. Develop environmental awareness to staff through training	()	()	()	()	()
	d. Developing a bias for Products that disclose their environmental effect.	()	()	()	()	()
	e. Insist on procuring green products for reuse, recycle among others.	()	()	()	()	()
	f. Regularly review/audit your processes of systems internally.	()	()	()	()	()
	<u>Prioritizing</u>					
	g. Your organization makes use of collaborative contracts and framework agreements which already offer sustainability advantages	()	()	()	()	()
	h. Supporting the inclusion of sustainability aspects into future contracts	()	()	()	()	()
	i. Adopting the "Buy Sustainable - Quick Wins"	()	()	()	()	()
	j. Environmental Audit for suppliers	()	()	()	()	()
	k. Have processes or systems implemented to manage your environmental impact	()	()	()	()	()
	l. ISO Certification 14001	()	()	()	()	()
	<u>Specifying Sustainably</u>					
	m. Ensuring requirements (design specification) take of account of social, economic and environmental issues where appropriate	()	()	()	()	()

n.	The need for cost-effective requirements taking account of whole life costs including purchase, installation, running costs including energy costs and disposal costs	()	()	()	()	()
o.	Giving preference to Youth, Women and People with Disabilities access public procurement	()	()	()	()	()
p.	<u>Sustainability in The Procurement Process:</u> Organizational procedures to emphasize the ability to specify sustainable options and the need to do so reinforced in policy documents and delivery plans	()	()	()	()	()
q.	<u>Working With Suppliers:</u> Establish published supplier engagement programme including 'meet the buyer' events	()	()	()	()	()
r.	<u>Measuring Performance:</u> Measure performance against sustainable procurement criteria in the Best Practice Indicators and the Procurement Capability Assessment model	()	()	()	()	()

Thank you for your participation.

APPENDIX II: INTRODUCTION LETTER



UNIVERSITY OF NAIROBI
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DATE 29 / SEPTEMBER 2014

TO WHOM IT MAY CONCERN

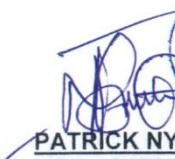

The bearer of this letter MR. ROY SASAKA TELEWA
Registration No. DGI/60799/2013

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.



PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS