IMPACT OF GREEN PROCUREMENT PRACTICES IN SMALL AND MEDIUM ENTERPRISES IN NAIROBI

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DECLARATION

I hereby certify this project is my original work and has not been presented for examination in any institution of higher learning.

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This research project has been submitted for examination with my approval as the above named student supervisor.

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DEDICATION

I dedicate this work to Lord Almighty, my parents, aunts, uncle, and my close friends for their support, encouragement and patience during the entire period of my study and also for their prayers towards the successful completion of this course.

I also dedicate this work to hardworking; goal oriented and determined Kenyans who is willing and wants to change the world and its environment for the better of all. If you have a dream, pursue it. Do not limit yourself but go beyond your abilities and fulfill your dreams. There is nothing impossible under the sun.
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ABSTRACT

The impact of Green Procurement Practices (GPP) in small and medium enterprises involves spending and the investment process typically associated with economic gain and environmental friendly results at the end of the day. GPP among SME’s in Nairobi is not as straightforward as for governments because companies themselves have to be self-motivated to embrace sustainability depending on their mission, vision and objectives. GPP is largely linked to the wider agenda of sustainable development and SME’s practicing sustainable procurement to meet their needs for goods, services, utilities; work not only on a cost benefit analysis, but with a view to maximizing net benefits for themselves and the wider world market. In doing so, SME’s incorporate acquired cost considerations into decisions alongside the procurement criteria of price and quality, and also in the practice of the sustainable impacts of potential supplier’s approach often assessed as a form of quality consideration. These considerations focus on all areas of any organization in terms of the environmental, economic and social effects.

The researcher used the descriptive research design to determine the impact of green procurement practices in Small and Medium Enterprises in Nairobi whereby it was found that; GPP is embedded in the principle of pollution prevention, which strives to eliminate and or to reduce risks to human health and the environment. This means evaluating purchases based on a variety of criteria, ranging from the necessity of the purchase of the product from the first place to the options available for its eventual disposal. Consumers, investors, shareholders and regulatory agencies in SME’s are increasingly demanding that organizations behave in an environmentally responsible manner. Therefore practicing green procurement practices demonstrates an organization's commitment to considering and minimizing the environmental consequences of its activities thus making both environmental and economic sense. The drivers influencing the adoption of green procurement practices by the SMEs are government laws and regulations requirement, changing customer demands and expectations, the company initiatives, global purchase and production standards, employee initiatives and suppliers influence. Conclusions made were green products are generally produced in a manner that consumes less natural resources. They may involve less energy in their manufacture and may consume less energy when being used, and they generally contain fewer hazardous or toxic materials. Green products are also generally designed with the intention of reducing the amount of waste created and may contain recycled material or use less packaging. Green procurement practices also offer cost savings for the organization. Consequently, GPP has benefits for health and safety, both of workplaces and of the wider community. Organizations that practice green procurement are recognized as good corporate citizens, and have influence over other organizations around them.
TABLE OF CONTENTS

TITLE PAGE .............................................................................................................. I

DECLARATION ....................................................................................................... II

ACKNOWLEDGMENTS .......................................................................................... III

DEDICATION ......................................................................................................... IV

LIST OF ABBREVIATIONS ..................................................................................... V

ABSTRACT ........................................................................................................... VI

LIST OF TABLES .................................................................................................. IX

LIST OF FIGURES ................................................................................................. X

CHAPTER ONE: INTRODUCTION .......................................................................... 1

1.1 Background of Study .................................................................................... 1
1.1.1 Green Procurement in Kenya ................................................................. 4

1.1.2 SME’s in Kenya ...................................................................................... 6
1.2 Problem Statement ....................................................................................... 8
1.3 Research Objectives ..................................................................................... 10
1.4 Value of Study ............................................................................................. 11

CHAPTER TWO: LITERATURE REVIEW ................................................................ 12

2.1 Introduction .................................................................................................. 12

2.2 Green Procurement Practices ..................................................................... 12

2.3 Drivers of Green Procurement ................................................................... 14

2.4 Importance of Green Procurement ............................................................. 17

2.5 Green Procurement Initiatives ................................................................... 20

2.5.2 The Potential of Green Procurement ..................................................... 21

2.6 Hurdles to Green Procurement .................................................................. 24

2.7 Conceptual Framework .............................................................................. 27

CHAPTER THREE: RESEARCH METHODOLOGY .............................................. 28

vi
3.1 Introduction....................................................................................................................28
3.2 Research Design...........................................................................................................28
3.3 Population and Location of study................................................................................28
3.4 Sample Size and Sampling Technique........................................................................29
3.5 Data Collection Instruments ......................................................................................29
3.6 Data Analysis ...............................................................................................................29

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION.........................30
4.1 Introduction..................................................................................................................30
4.2 Longevity of Businesses Operations ........................................................................30
4.2.2 Type of Small and Medium Enterprises Business Activities.................................32
4.3 Organizational Commitment to Green Procurement Practices ..................................33
4.4 Green Procurement Policies .......................................................................................35
4.4.2 Areas of Green Procurement Practices ....................................................................36
4.5 Criteria for Procurement from Suppliers ....................................................................37
4.6 Green Procurement Practices .....................................................................................38
4.6.2 Drivers Influencing the Adoption of Green Procurement Practices .........................40
4.6.3 Benefits of Green Procurement Practices .................................................................41
4.6.4 Obstacles hindering Green Procurement Practice in SME’s .....................................43
4.7 Government Laws, NEMA and UNEP influence on Green Procurement Practices ......44
4.8 New Mechanisms to be Initiated on Green Procurement Practice ..............................46

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS ...........48
5.1 Introduction..................................................................................................................48
5.2 Summary .....................................................................................................................48
5.3 Limitations of the Study .............................................................................................50
5.4 Conclusions ................................................................................................................50
5.5 Recommendations ......................................................................................................51
5.6 Suggestions for Further Studies ................................................................................51

REFERENCES ..................................................................................................................52

APPENDICES ..................................................................................................................59
Appendix 1: Questionnaire ...............................................................................................59
Appendix 2: List of Small and Medium Enterprises in This Study ..................................65
Appendix 3: Letter of Introduction ..................................................................................67
Appendix 4: Time Frame ..................................................................................................68
Appendix 5: Budget Estimates ..........................................................................................69
LIST OF TABLES

Table 4.1 Longevity of Businesses.................................................................31

Table 4.2 Type of Small and Medium Enterprises Business Activities...................32

Table 4.3 Green Procurement Policies.............................................................35

Table 4.4 Areas of Green Procurement Practice.................................................37

Table 4.5 Green Procurement Practices.............................................................39

Table 4.6 Drivers leading to Green Procurement Practices among SMEs..................41

Table 4.7 Obstacles hindering Green Procurement Practice in SMEs......................43
LIST OF FIGURES

Eco-procurement-The path to a greener marketplace by ECLEI……………………………….23

Conceptual Framework…………………………………………………………………………27
CHAPTER I: INTRODUCTION

1.1 Background of Study

Green procurement is the purchase of environmentally friendly products and services; the selection of contractors and the setting of environmental requirements in a contract. Green procurement steams from pollution prevention principles and activities. According to Manitoba Green Procurement Network (2008), green procurement is also known as environmental purchasing whereby green procurement compares price, technology, quality and the environmental impact of the product, service or contract. Nowadays, green procurement policies are applicable to all organizations, regardless of size and green procurement programs may be as simple as purchasing renewable energy or recycled office paper or more involved such as setting environmental requirements for suppliers and contractors. Green procurement practice is also described as the integration of environmental performance considerations into the procurement process. Goods and services are considered green when they have a lesser or reduced effect on human health and the environment than competing goods or services that serve the same purpose.

Walker (2008) also suggests, "Green" products or services utilize fewer resources and are designed to last longer and minimize their impact on the environment from inception to grave. In addition, "green" products and services have less of an impact on human health and may have higher safety standards (pg. 5). Whilst some green products or services may have a greater upfront expense, they save money over the life of the product or service. Practicing green
procurement demonstrates an organization's commitment to considering and minimizing the environmental consequences of its activities thus makes both environmental and economic sense.

For the Small and Medium Enterprises (SME's) sector to grow there is a huge need for producing and purchasing of raw materials that are environmental friendly and these small businesses adequately need to strengthen themselves by coming up with solid solutions that can be used when implementing green productions ICPAK (2013). Despite the fact that there are certain self-advanced strategies already adopted by the different sectors, there are also external efforts that need to be taken so as to facilitate the green procurement practice. In this case, various governments like the Kenya Government through Vision 2030 aim to build a just and cohesive society with social equity in a clean and secure environment. Such secure environment can be found through Green Procurement.

According to Federal Acquisition Regulation (FAR, 2005), “Green procurement is described as the purchase of environmentally preferable products and services in accordance with one or more of the established national “green” procurement preference programs. These programs are to prevent waste and pollution, and they require executive agencies to consider environmental impacts, along with price, performance, and other traditional factors, when making purchasing decisions.” The following green procurement programs are preference of many organizations: Products manufactured from recovered materials, environmentally preferable products, Energy efficient products, Biobased products, Alternative fuels and fuel efficient vehicles, and Non-ozone depleting substances (pg. 7).
Various international companies have invested so much in green procurement practice for both long term need and for purposes of meeting their customers’ needs by applying green procurement practices. Organizations like Samsung Group, LG Group, Panasonic Group, TOYOTA Green Car, SAP, Ricoh, Ventura County in U.S.A and Nevada County in the U.S.A. According to California Integrated Waste Management Act (Assembly Bill 939), the County of Nevada acknowledges that in order to support the recycling ethic and to minimize environmental impacts, they will purchase recycled content and environmentally preferred products (pg 8-13).

The County of Nevada recognizes that their employees can make a difference in favor of environmental quality. Therefore, they will purchase recycled content and environmentally preferable products unless such products do not perform satisfactorily and/or are unreasonably expensive.

Organizations like Panasonic Group's has its own Green Procurement Standards Ver. 6 (2012) that requests, “The Panasonic suppliers establish an environmental management system and ensure comprehensive chemical substance management as well as expedite the reduction of greenhouse gas (GHG) emissions, resource recycling and conservation of biodiversity.” Being aware of the need to spread these initiatives across Panasonic supply chain, suppliers have been encouraged to request upstream suppliers to reduce their environmental impact. “We plan to contribute to global environment conservation with our suppliers by promoting eco-conscious procurement activities.”

Non-governmental organizations like the United Nations Environmental Program (UNEP) and United Nations Office for Project Operations (UNOPS); the central procurement resource in the United Nations system, works towards including sustainability considerations in all its procurement. The UN Agencies strive to lead by example in their pursuit of green procurement.
This is through their many and varied UN activities. All UN organizations contribute to sustainable development in one way or another through economic development, poverty alleviation, healthcare, peace building, infrastructure support, or environmental protection. This is by ensuring the United Nations system embarks on a journey to move towards resource efficient management and climate neutrality (pg 3). The benefits to be realized out of this are better risk management, preparing the organization for a resource and carbon-constrained future, improving staff morale, and cutting costs UNOPS Delivering Sustainable Results Annual Report (2011).

The airline industry has also adopted green economy measures whereby in every ticket purchased, passengers are notified how much carbon is emitted to the air due to the type of flight.

1.1.1 Green Procurement Practice in Kenya

Kenyan organizations practice green procurement for various reasons ranging from energy conservation to also lowering of their annual spending levels. Big organizations like Standard Chartered Bank Kenya Head Office in Nairobi adopted a new building, which is “environmentally friendly, energy efficient and has large office areas which are very well laid out.” The building had been built to the Global Office Workplace Standards which are a clearly defined set of standards for all the Group’s new buildings across the world which is in the banks’ commitment to building a sustainable business over the long-term and is trusted worldwide for upholding high standards of corporate governance, social responsibility, environmental protection and employee diversity (Standard Chartered, 2012).
Strathmore Business School recently adopted a green business school building. According to (SBS, 2013) the modern building is multidimensional as it can be used as an auditorium, graduation court or cinema hall. It features an auditorium, chapel, dining area with a lounge and a spill-out balcony, a library completely fitted with indoor air quality designed to meet LEED (Leadership in Energy and Environmental Design) standards with optimum relative air changes controlled using evaporative cooling air units situated at the top of the building. Nakumatt Holdings Limited, East Africa’s leading retail supermarket is another major company practicing green procurement. Besides Nakumatt corporate endeavours towards Green Procurement, Nakumatt operations are tailored to be highly sustainable on all fronts. They take particular effort to ensure that their operations impact positively on their customers and the environment for generations to come (pg 2). “Nakumatt is also an active social development investor, spearheading community development projects on aspects such as health, entrepreneurship, sports, culture, environment, education and urban restoration and given the role that the retail sector is currently playing in the East African economy, Nakumatt is committed to enhancing economic development by adopting world-class retail store management standards. This is a model for how business should be done, and it has undoubtedly contributed to our string of corporate awards, certifications and achievements on coveted and prestigious rolls of honour” (Nakummat Holdings Limited, 2009).

Other organizations practicing green procurement locally are Kenya Airways, Community Cooker Foundation, Fedha Plaza, The Coca-Cola Plaza, Solaris Eco Power Limited among others.
1.1.2 Small and Medium Enterprises (SME’S) in Kenya

There is no standard definition of SME in Kenya. Lenders’ definitions vary, but typically they define SMEs as businesses with six to 50 employees or with annual revenues less than 50 million Kenyan shillings. These small and medium enterprises are based on the criteria of; industry, ownership structure, revenue and the number of employees. For the small enterprises category, organizations have employees ranging between 3-less than even 10 employees. For the medium enterprises category, the number of employees in these organizations range between 10 to 150 according to the Kenya Government Statistics (2011).

The abbreviation "SME" is used in the European Union and by international organizations such as the World Bank, the United Nations and the World Trade Organization (WTO) as Small and medium enterprises or small and medium-sized enterprises whose personnel numbers fall below certain limits. In Kenya, there are about 2.2 million small and medium enterprises according to (Strategic Business Advisors (Africa) Ltd. –SME Banking Sector Report, 2007), of which 88 percent are non-registered.

The development of the Small and Medium Enterprises (SME’s) has been encouraged numerously in Kenya where a modern wage job is a rare opportunity to come by. In this sector, practical skills are being developed at low cost and with financial support and; various types of small scale technologies can be developed for labour-intensive. This has proved that it can be a factor that can boost economic growth. Mutua (2013) notes that, “It is impossible to underestimate the impact of Small and Medium sized Enterprises (SMEs) on the Kenyan economy. In fact, the impact of SMEs in Kenya is such that it has necessitated the creation of a special market segment at the Nairobi Securities Exchange (NSE) targeted at SMEs. The Growth
Enterprise Market Segment (GEMS) is aimed at providing an alternative platform by which SMEs can seek out capital injection for growth.” (pg. 5).

According to Kenya Government Statistics, the SME segment contributes over 80% of the countries employment with majority of new jobs being created in that sector (430,000 out of 503,000 new jobs created in 2011) and contributes about 20% to the country’s GDP. The statistics by Kenya Bureau of Statistics (KEBS, 2011) imply that any serious attempt at creating jobs must take into account that the vast majority of jobs are created at the ‘bottom of the pyramid’, so to speak. “Value creation at the SME-level is critical to moving the country forward. Therefore, this means; promoting a culture of entrepreneurship and innovation, making it easy for entrepreneurs to start up and scale businesses, making it easy for them to acquire factors of production (particularly capital) as well as assisting them to become more efficient in their operations hence growth.” However, the people who run these businesses may lack adequate business skills for the practice of procuring environmentally responsible goods. It is therefore adequate to know how to produce a high quality product that is environmental friendly.

The Kenyan Government, aware of the role Small and Medium Sized Enterprises (SMEs) play in the economy, has taken steps to develop a legal and regulatory framework aimed at guiding and accelerating the growth of this sector. As stated by Syekei (2012) due to Kenya’s per capita income structure, most businesses would fall into the SME strata and as such any attempts by the Government to grow the economy would logically include development and sustenance of the SME sector. An SME operating in Kenya may be registered as a sole proprietorship, partnership or limited liability company (pg 1). In this context, most SMEs thrive on innovative ideas to build goodwill and grow their market share and as such they invariably generate valuable intellectual property (IP). Looking outward, we note that countries that have made great strides
in achieving their national development goals recognize the value of IP to SMEs and as such have clear policies relating to SMEs and IP.

Nowadays Small and Medium enterprises outnumber large companies by a wide margin and also employ many more people. SMEs are said to be responsible for driving innovation and competition in many economic sectors (KEBS, 2011). Small organizations will often require a green procurement program as part of their environmental management systems especially when green procurement offers cost savings. According to (Ngugi 2013), in particular, buying 'green' usually involves products that are easily recycled, last longer or produce less waste. Money is therefore saved on waste disposal. In addition, green products generally require fewer resources to manufacture and operate, so savings can be made on energy, water, fuel and other natural resources. They may involve less energy in their manufacture and may consume less energy when being used, and they generally contain fewer hazardous or toxic materials. The impact of green procurement practice in SME`s is therefore uncertain and this study will address this issue.

1.2 Statement of the Problem

Green procurement is a spending and investment process typically associated with public policy, although it is equally applicable to the private sector. Green procurement practice among companies is linked to the wider agenda of sustainable development.

Some of the past Kenyan researches made about the green procurement practice include; Nabiswa (2012) “Green Procurement in the Public Sector: The Case of Parastatals in Kenya” and “Green Procurement Awareness in Kenya State Corporations” Ondieki (2012). These researches found out that green procurement practice among private and Kenyan state corporations is in the
rise due to consumer demand awareness of “green products”, the government dedication to climate change and environmental maintenance through recycling, reduce and reuse as well as job creation benefits accrued from green procurement practice.

Other international researches on green procurement practice include: Varnäsv, Balfors, Faith-Ell (2009) who in their research and initiatives concerning green procurement explored the current practice, problems and opportunities of green procurement of construction contracts. In particular, the application of environmental criteria for contract awarding was their target.

Another study was by Dolva & Christiane (2008) “Green Public Procurement (GPP): How widespread is Green Procurement in Norway, and what factors are seen as drivers and barriers to green procurement practice?” Dolva et.al found that the purchasing power of the Norway public sector plays an important role in leveraging the market share of environmentally sound products by increasing the level of environmental requirements in public contracts. The aim of the plan was to encourage the public sector to demand environmentally sound products and services. However, several previous studies that have assessed the status of GPP show that, despite efforts to promote environmental considerations, there is a long way to go before these are fully integrated into public procurement practice.

This research will therefore identify the impact of green procurement practices and benefits among SMEs in Kenya. This research aimed to trigger support as well as investigate the procuring, purchase and production of recycled and environmentally preferred products in order to minimize environmental impacts. Many companies recognize that their employees can make a difference in favour of environmental quality production and therefore strongly recommend the procuring and purchase of environmentally preferable products whenever they perform
satisfactorily and are available at a reasonably competitive price. But in informal SME’s, this is not determined.

The research questions of this research included: What are the factors that lead to green procurement among SME’s; What are the different green procurement practices among SME’s; What criteria do SME’s use when green procuring; What standards and policies are used in green procurement; What can be improved by SME’s so as to have efficient green procurement and finally; What are the drivers of green procurement practices.

1.3 Research Objectives

This research aimed to find out if SME’s in Nairobi recognize and appreciate that proper and effective green procurement does not only lead to environmental benefits, but also find out benefits SME’s accrue from green procurement. This research will help:

i. To identify the factors leading to green procurement among SME’s

ii. To investigate the different green procurement practices among SME’s

iii. To determine the criteria SME’s use when green procuring

iv. To determine the impact of green procurement drivers on the efficiency of SME’s
1.4 Value of Study

This research will contribute to the already practiced green procurement activities in Kenya. Organizations practicing green procurement have a lot to benefit as a result; apart from the many opportunities of growth that may come along. Organizations stand a chance of job creation, maintenance of climatic conditions and also saving on costs incurred during production through green procurement theory and practice.

This study will also help current SME’s and other organizations that have not yet structured Green Procuring Policies to come up with programs that will favour the practice of green procurement. The green purchasing policy includes date-stamped priorities and targets, the assignment of responsibilities and accountability and a communication and promotion plan. These facilitates green procurement policies and programs among firms and later help firms reduce expenditure and waste; increase resource efficiency; and influence production, markets, prices, available services and organizational behaviour for the benefit of both the organization and environment.

For implementation of green procurement among firms, this implies that the levels of expenditure in green procurement could significantly reduce the environmental impacts of national activities. Furthermore, these practices relating to green procurement may have significant impact on the adoption of such practices by state and local governments and the private sector. These also may serve to stimulate growth and innovation in green sectors of the national economy, potentially influencing the availability of green products and services in the marketplace and the development of associated industries in Kenya and globally.
CHAPTER II: LITERATURE REVIEW

2.1 Introduction

This section will seek to discuss key findings of other researchers and authors by reviewing reports, studies, books and other information that have been documented relating to the green purchasing initiatives, the advantages and challenges influencing green purchasing. Drivers of green purchasing initiatives for both big organizations and SME’s will also be discussed. This research begins by introducing green procurement among big organizations and their origin then proceed to explain how SME’s can gain from the same practice.

2.2 Green Procurement Practices

Green procurement is a way of using our power as consumers to benefit the environment by buying products that have lesser environmental impacts. And just like individuals, governments, companies, universities, hospitals and other institutions, SME’s make purchasing decisions daily. Large organizations like governments, NGO’s and international companies mainly make a major contribution to improve human health and environment when they put in place a Green Procurement policy, mandating the purchasing of more "eco-friendly" products and services. The North American Green Purchasing Initiative of the Commission for Environmental Cooperation (CEC NAGPI 2004) found that both public and private institutions are identifying and measuring the benefits of their Green Procurement programs. “Governments and companies are buying green because it results in a number of benefits not just because they think it's the right thing to do. Government organizations find that green procurement policies reduce overall
costs, offer significant opportunity to use materials, resources and energy more effectively, improve employee health and stimulate markets for innovative new products and services”

Alternatively (CEC NAGPI 2004) states that, “Private businesses in the face of continued competition, regulations and market pressures-measure a financial payback from purchasing products and services with lower environmental impacts and from selecting suppliers that are committed to improving their own environmental, health and safety performance” (page 3).

A growing number of businesses like the SME’s and government agencies are discovering that the power of their reward can accelerate the availability of greener, cleaner products. By specifying minimum recycled content, improved energy efficiency, or reduced toxicity in their tender specifications, demand from buyers is beginning to dramatically increase the supply and quality of a broad range of environmentally superior products (Walker, 2008).

An expanding number of certification and labeling organizations are available to evaluate supplier claims. Organizations like the U.S. Environmental Protection Agency are also stimulating manufacturers to offer a variety of environmentally friendly improved products and this also applies to SME’s all over. Green product directories, public and private sector purchasing guidelines, and a few of the more innovative trade associations also provide assistance in identifying and obtaining environmentally finer goods and services.
2.3 Drivers of Green Procurement Practices

Customers buying power and demands have mainly been a force influencing greening purchasing choices of individuals, businesses, governments and non-profit organizations. SME’s also face the same influencers for the driving force behind green procurement in their companies. Small and medium enterprises also in response to rising waste disposal costs, stricter environmental legislation, demands for increased corporate accountability, and mounting liability concerns; companies and governments are looking for environmental leverage points in the market place hence reforming traditional business practices. From the rise to new purchasing specifications to threats about taking business elsewhere, buyers are making their new purchasing intentions known. Suppliers therefore respond quickly and effectively to retain valued customers and even increase sales (Eltayeb, 2010).

The other key driver of green procurement practice among SME’s is the National Environment Management Authority (NEMA) is a government para statals established to exercise general supervision and co-ordination over all matters relating to the environment. According to NEMA (2008) the authority and principal instrument of Government in the implementation of all policies relating to the environment; Section 9(2) of EMCA details 17 statutory functions that NEMA shall undertake in regards to “Safeguarding and enhancing the quality of the environment through coordination, research, facilitation and enforcement, while encouraging responsible individual, corporate and collective participation towards sustainable development” and green procurement is inclusive in their aim to be a world-class Environmental Authority that ensures a clean and healthy environment for all.

In Kenya, green procurement practice is a crucial factor for the various organizations, government agencies, private companies, and also small enterprises. For example, The United
Nations Environment Program (UNEP) in Nairobi last year moved into a new green “procured” building. This office is an example of how new technologies can be combined with old to deliver more efficient buildings while challenging the myth that such developments are only for the developed world. The aim was to produce a building that would be capable of being energy neutral. Therefore the building was designed to generate as much energy as the 1,000 occupants and facility operations consume, through the measures for reducing energy demand, promoting energy efficiency, and the installation of a solar photovoltaic system (UNEP, 2013).

Green procurement by non-governmental organizations like the UN is highlighted by many UN agencies in their emissions reduction strategies. UNEP has highlighted procurement as an enabling condition of the green economy and sustainable production and consumption. The UN high level panel has highlighted the potential for procurement across both the public and private sector to serve as an engine for green growth. Green procurement involves the purchasing of goods, services and works that are produced across a range of industrial sectors and influences environmental and social performance of supply chains that span the globe. A concerted effort to embed environmental and social safeguards into procurement decisions will serve as a critical incentive and trigger for green growth (UNEP, 2013).

During the High Level Committee on Management's Procurement Network, sustainable procurement among the strategic priorities, the UN stated; “By some estimates, if public spending in an economy is over around 23 per cent and that spending is greened-purchasing certified products such as wood or fish or clean sources of energy-it can be enough to tip the whole economy into the sustainability space, (Rio+20 Summit United Nations Conference on
Sustainable Development, June 2012). Small and medium enterprises also must adhere to ensure that their products are green certified for competitive advantage purposes.

International Institute for Sustainable Development (IISD) (June 2012), aimed at helping governments provide a strong market incentive for green investment, innovation, production and growth by buying green products and services. IISD states that, “Governments are looking for guidance as green public procurement has become a key driver of international trade, creating value chains that span the world. As countries seek to reposition their comparative trading advantages, domestic sustainable public procurement (SPP) strategies need to be adjusted to address evolving economic realities” (pg. 4). IISD contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change and energy, measurement and assessment, and natural resources management, and the enabling role of communication technologies in the area of green procurement.

Green Procurement Environmentally Preferably Products (EPP) program by the County of Ventura, administered by the Procurement Services Division of the General Services Agency and the Integrated Waste Management Division of the Public Works Agency states that, “The EPP are products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose” (pg 14). Such products or services may include, but are not limited to, those which contain recycled content, minimize waste, conserve energy or water, and reduce the amount of toxics disposed or consumed.
The approach by which Public Authorities integrate environmental criteria into all stages of their procurement process thus encourages the spread of environmental technologies and the development of environmentally sound products, by seeking and choosing outcomes and solutions that have the least possible impact on the environment throughout their whole life-cycle” IISD, (2012). This also applies to SME’s who will also integrate the same criteria when practising green procurement.

Kataoka (2005) affirms that, “To promote the development of environmentally friendly products and services and Green Purchasing activities around the world, we need to collect and share information on global Green Purchasing activities, the best examples, know-how, products information, purchasing policies and recent trends and also harmonize the efforts of Green Purchasing and the development of environmentally friendly products and services from the global viewpoint.”

### 2.4 Importance of Green Procurement Practices

Green procurement practices (GPP) could yield positive economical benefits for private companies in terms of Risk Management, Cost Reduction and Revenue Growth. The advantages of green procurement practices (GPP), policies and programs among organizations like SME’S can help reduce expenditure and waste; increase resource efficiency; and influence production, markets, prices, available services and organizational behaviour. GPP’s assist countries in meeting multilateral requirements such as the Kyoto Protocol and Rotterdam Convention,
International Standards Organization and other bodies that have established guidelines for green procurement programs (Manitoba, 2010).

The Commitment to Buy/Purchase Green encourages organizations to continuously improve the environmental sustainability of their purchasing decisions. Given its business and environmental benefits, Green Procurement has many benefits that it comes along with. For governments, Green Procurement can help to:

Reduce any negative and unintended impacts on the environment like pollution and deterioration of local air quality; Support companies that provide products and services that have fewer environmental impacts and stimulate "green," innovative product development and business development; Save the amount of money spent on cleaning up pollution, by preventing it in the first place; also this Sends a message to manufacturers and service providers that consumers will recognize their environmental efforts; Create a scale effect, thus reducing production costs by the sheer scale of demand for green products; and Fulfill OECD agreements to take greater account of environmental considerations in public procurement of products and services (OECD member countries are to demonstrate their progress by 2005).

For private companies, Green Procurement helps the organization in making the sustainable purchasing choices; establish, implement and evaluate a formalized green procurement strategy; selecting suppliers; and environmental concerns for some key purchasing areas. Benefits of the practice of green procurement by private companies include:
Influencing the Market – Organizations can encourage the production of more sustainable and environmentally friendly products and services by increasing the demand for it, particularly larger firms such as Government; for Financial Benefits – fewer resources are required to produce and use green products, saving money on energy, water, fuel etc. Savings can also be made on disposal through recycling or using products that create less waste; for Organizational Benefits – By setting a standard for themselves, organizations are also more appealing to their own market. Private companies also avoid costs by eliminating or lowering fees for waste management or hazardous material management (like special training, handling and storage), reducing time and costs for reporting and receiving fewer fines; they Save money by conserving energy, water, fuel and other resources; Simplify compliance with environmental regulations; Reduce risk of accidents; reduce liability and lower health and safety costs; Improve image, brand and goodwill; and Improve health of employees and communities, through cleaner air and water, less hazardous wastes to handle and dispose; and also increase shareholder value in some organizations.

Scot (2004) emphasizes green procurement practices are applicable to both the public and the private business sector and certainly the SME’s where its proponents aspire to seeing its application across all areas of the economy. Influencing GPP within SME’s is not as straightforward as for governments because companies themselves have to be self-motivated to embrace sustainability. Green Procurement Practices (GPP) involves spending and the investment process typically associated with public policy, although it is equally applicable to the SME’s.

Therefore this study investigated if SME’s perceive these benefits in the same perspective.
2.5 Green Procurement Initiatives

Sustainable purchasing incorporates both ecologically and socially responsible practices that minimize harmful impacts on natural and human resources. For organizations like Berea College campus, green purchasing policy includes guidelines with sustainable best practices for programs to make informed green purchasing decisions. The selection of all products procured must carefully consider the anticipated energy use and available energy saving devices. Further, all products, appliances, and equipment purchased should be Energy Star qualified wherever practical and/or possible. “Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping to protect the environment through energy efficient products and practices (Purchasing Policy (page 2)).”

As part of (RecycleMania, 2011) by University of Pennsylvania, a series of new initiatives to its Green Purchasing Initiative were announced hence this initiatives help reduce, reuse and recycle to meet Penn’s Climate Action Goals. Reusable delivery packages of office supply orders that weigh less than 20 pounds (and are not self contained) are now being delivered in paper bags rather corrugated cardboard cartons, and transported in reusable delivery packages that protect the product and will be returned to suppliers for reuse. Through this process, the university eliminates tons of wood, carbon dioxide emissions and thousands of pounds of solid waste per year.

Kataoka (2005) further states, through Green Procurement Awareness Programs, customers purchasing decisions have been influenced. Some customers now select the items they wish to
order if the items are environmentally friendly manufactured and they also highly prefer alternative products that nowadays commonly available with a green banner that will appear with suggestions for greener choices (pg. 23).

Other Sustainable Initiatives in Green Procurement practice that also applies to SME’s include; Suppliers being asked to provide information on their company’s green initiatives and environmentally preferable purchasing practices that will then be incorporated into contracts when feasible. Purchasing decisions will consider recycled content, waste minimization and energy efficiency as integral components of the decision-making process. Basic qualities for consideration include: Cost-effectiveness, Recycled content, Energy efficiency, Durability, Solid waste and also Total life cycle impact (manufacturing process, disposal) Eltayeb (2010).

2.5.2 The Potential of Green Procurement

The potential benefit of eco-procurement for our society is impressive. But this potential has to be actively exploited because it will not happen on its own. “Experience shows that even a legal obligation to consider environmental aspects in purchasing does not guarantee success. Rather each authority should set up its own individual eco-procurement policy. Good information sources, training, networking and strategic joint green procurement practices are also necessary” (Erdmenger, 2003).

The effect of green procurement practices can be in many forms. Environmental relief potential of urban action on avoidance and detoxification of waste streams through green procurement
practices in the European Union. The measures needed to achieve these results are as follows:

Buses- All new purchases comply with EURO IV emissions standards instead of EURO III;

Sanitary devices– Replacement of standard 9l-flush toilets, with 6/3l-flushes, and the installation of water-saving taps; computers– All new purchases fulfil better than EnergyStar requirements with TFT monitors; Food– 100% of meat, wheat and milk produced organically; Electricity– 100% switch to renewable electricity. European person equivalents describe the emission of an average European person. Global person equivalents describe the emission of an average person living anywhere in the world Erdmenger (2003).

Erdmenger (2003) further states, sustainable or green procurement aims to integrate environmental considerations into all stages of the procurement processes with the goal of reducing the impact on human health and the environment. Help local and central government organizations (inclusive small and medium enterprises) to adapt their behaviour patterns and effectuate green procurement in practice by: assessing current practices and identify the most relevant product groups for environmental relief, developing methods to analyze and quantify the relief potential, market conditions, calculating the relief of different scenarios for an integrated green procurement strategy, fostering the implementation of recommendations for green procurement policy and guidelines for green procurement practices, and forming a strategy for International Cities for Green Procurement Campaign.
Below is a table of the potential of green procurement practice in the EU and impacts on environmental relief through public green procurement practices.

<table>
<thead>
<tr>
<th>Product</th>
<th>Impact category</th>
<th>Environmental relief through public green purchasing</th>
<th>Corresponding person equivalents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buses</strong></td>
<td>Photochemical ozone formation (tC2H4-equiv.)</td>
<td>-3,350</td>
<td>-134,110 (European)</td>
</tr>
<tr>
<td><strong>Sanitary devices</strong></td>
<td>Water consumption (l)</td>
<td>-190,407,539</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Computers</strong></td>
<td>Greenhouse gas emissions (tCO2-equiv.)</td>
<td>-832,320</td>
<td>-101,503 (Global)</td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td>Nutrification (tPO4-equiv.)</td>
<td>-41,560</td>
<td>-3,676,492 (European)</td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td>Greenhouse gas emissions (tCO2-equiv.)</td>
<td>-61,350,363</td>
<td>-7,481,752 (Global)</td>
</tr>
</tbody>
</table>

The International Green Purchasing Network (IGPN) an organization that promotes green purchasing around the globe by coordinating those who take the initiative in implementing green procurement towards sustainable consumption and production conclude the following on green purchasing Kataoka (2006) as follows;

Governments across the world already started Green Procurement practices and have made considerable successes; Legal framework securing Green Procurement is necessary; Businesses expected to practice Green Procurement as well as to supply eco-products; Provision of product-related environmental information is essential and International sharing of good experiences, information and know-how will contribute to dissemination of Green Procurement (pg 27).

The Commitment to Buy Green, Green Procurement Guide is a useful guide for both purchasers and vendors, this guide provides guidance for organizations interested improving the sustainability of their purchasing choices. It provides practical tips for people who buy products and services for public, private and not-for-profit organizations at various stages of greening their purchasing practices. Some SME’s already have their green procurement guide in place, as a result this study will investigate if and how SME’s in Nairobi are using their green procurement and how are they impacted.

2.6 Hurdles to Green Procurement

Green procurement practice has its own shortcomings that make implementation hard. Some of the hurdles facing green procurement according to The Sustainable Development Act in Manitoba (1998) are:
Price: There is a perception that green products are more expensive than conventional alternatives. This is true in some cases, particularly where development costs are reflected in the price; however, often there is no significant difference. The real problem may simply be that products are being ordered in small quantities, or are not available locally. Sometimes a green product may have a higher up-front purchase price, but will cost less over its lifetime. For example, a non-toxic alternative to a toxic product will cost less to transport, store, handle, and discard. It will require fewer permits, less training for staff, and the consequences of an accident will be greatly reduced. Similarly, a product that uses less packaging and that is easily recyclable or reusable will carry a lower disposal cost.

Lack of corporate commitment: For any organization to implement a green procurement program, it must have commitment from all levels, including senior management and purchasing agents. A policy statement outlining the corporate commitment to green procurement can help. Consequently, SME’s cannot be exempted from this kind of challenge (Manitoba 1998).

Insufficient knowledge: Many organizations are unfamiliar with the concept of green procurement or with the options available to them. For an organization to participate, it must have an understanding of concepts, vocabulary and terms. Another hurdle is availability: Frequently, local distributors do not stock green products, or else they stock only small quantities. This can lead to delays in obtaining the product. Increasing market demand will help to overcome this obstacle. Just like other organizations, some SME’s may as well have insufficient knowledge on understanding the concepts, vocabulary and terms of green procurement policies and standards.
One more challenge is No acceptable alternative: Another barrier to green purchasing can be simply a lack of acceptable alternatives to the present product. For example, a few years ago in the furniture manufacturing industry, the use of water-based finishes as an alternative to solvent-based ones was impeded by the fact that water-based finishes presented technical difficulties which were costly to overcome, and were of lower quality. Growing demand for will stimulate the development of new and better 'green' products (pg 21).

No specifications: It is important that suppliers be asked to provide the environmental specifications of the products they are offering. Purchasers, in the same way, must clearly define their needs and requirements. Purchasing habits of people is also a major hurdle in green procurement in that persons have always done it their way when it comes to purchasing therefore this can be a difficult mentality to overcome. There may also be existing relationships between purchasers and suppliers that make it difficult to switch to alternatives.

The study consequently investigated the same hurdles as applied to Kenyan SME’s.
2.7 Conceptual Framework

Independent Variables

- Green Procurement Areas
- Green Procurement Practices in SME’s
- Green Procurement Criteria used by SME’s
- Green Procurement Drivers
- New Mechanisms initiating efficient Green Procurement Practices

(Source, Author 2013)

Dependent Variables

- Efficient Green Procurement Practices
CHAPTER III: RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives details regarding the procedures and the methodology that was used by the researcher to conduct the study. The section explains the research design, the location, the target population, sample and sampling technique, data collection analysis and presentation techniques applied in this study.

3.2 Research Design

The researcher used the descriptive research design to determine factors the impact of green procurement practices in Small and Medium Enterprises in Nairobi. Descriptive research design involves measuring a set of variables as they exist naturally (Gravetter and Forzano, 2011). A descriptive research design is a conclusive research that aims to describe phenomena associated with a subject population that have certain characteristics. The design provided in depth information about the characteristics of subjects within particular fields and thus it helped to identity relationships between variables.

3.3 Population and Location of Study

The population comprised of Small and Medium enterprises that have at least 5 employees and not more than 40 employees. The study was carried out in Nairobi County.
3.4 Sample Size and Sampling Technique

A sample of 50 Small and Medium enterprises in Nairobi was chosen. The respondents were selected through simple random sampling technique. A sample size of 50 was selected because there is a large number of SME’s in Nairobi, whereas the researcher faced limitations of time as well as financial constraints in undertaking the study.

3.5 Data Collection Instruments

The study used primary data and the researcher used quantitative techniques where questionnaires were administered to collect data. Both closed and open ended questions were used as tools of data collection. The questionnaire comprised of two sections where the first section enquired the respondents’ background information while the second section entailed the organizations commitment to green procurement practices. The use of questionnaires facilitated collection of data from a large sample, and at the same time upheld confidentiality and saved time.

3.6 Data Analysis

Data was analyzed by use of descriptive statistics using the Statistical Package for the Social Sciences (SPSS) and Excel. These methods were used for ease of comparison of the data. These methods were reliable in drawing useful conclusions. Therefore, these techniques were useful in obtaining necessary and sufficient information for the analysis and conclusion to be made.
CHAPTER FOUR:

ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The main objective of the study was to investigate impact of green procurement practices in small and medium enterprises in Nairobi. The research was conducted on sample size of 50 respondents out of which 30 respondents completed and returned the questionnaires duly filled making a response rate of 60%.

Mugenda and Mugenda (1999) stated that a response rate of 50% and above is a good for statistical reporting. The study made use of frequencies (absolute and relative) on single response questions. On multiple response questions, Likert scale was used to collect data where a scale of 5 points was used to compute the mean and standard deviations. These conclusions have been presented in tables, graphs and charts as appropriate with explanations being given in prose. Other researchers on the same topic had a response rate of 50-60% which is interpreted as efficient statistical reporting.

4.2 Longevity of Businesses

The study also sought to establish the number of years that the businesses had been operational. This information aimed at testing the appropriateness of the respondent in answering the questions regarding impact of green procurement practice by the small and medium enterprises in Nairobi. The findings are as shown in Figure 4.1 below.
### Table 4.1 Longevity of Businesses

![Bar Chart]

(Source, Author 2013)

According to the findings, 50% of the respondents had operated their SMEs for a period of 1-5 years, 20% for less than 1 year, 10% of the respondents operated their businesses for a period of 6-10 years while the other 10% were in operation for 10 years and above. This depicted that majority of the SMEs had been in operation long enough to give credible information on the impact of green procurement practice by the small and medium enterprises. In relation to literature review, the researcher noted that, SMEs that had been in operation for more than one year were in a position to state the benefits green procurement practices generated to their final product or service production. SME's recorded increased sales of healthy products and services thus increased annual returns.
4.2.2 Type of Small and Medium Enterprises Business Activities

The study sought to establish the various types of SME’s and their work activities. Below is a diagram describing the type of business Small and Medium Enterprises.

Table 4.2 Type of Business Activities (SME’s)

(Source, Author 2013)

According to the research, SME’s involved were categorized as follows: Plastic Recycling Production Companies (33%), Bulk Printing Service Companies (19%), Food and Beverage Industry Companies (14%), Pharmaceutical and Health Industry Companies (7%), Green Car Repair and Maintenance Industry Companies (6%), Electricity Production from Waste
Companies (5%), Paint Production Companies (4%), Building and Construction Companies (3%), Transport Industry Companies (2%), and others (7%) as shown on Table 4.2.3 above. The “others” contingent (7%) included sourcing and purchasing agents, environmental agency and various researchers. According to the findings, plastic recycling production companies recorded more involvement in green procurement practices. Green car repair and maintenance companies and paint production companies were few in number therefore their involvement in green procurement practices was limited. For example, the researcher found only two operational green car repair and maintenance companies located in the area of study.

4.3 Organizational Commitment to Green Procurement Practices

The study sought to find out what influences the organizations’ commitment towards green procurement practices. According to the findings, SME’s practiced green procurement due to their dedication to environmental conservation and climate change, government policy, rules and regulations, their customers buying power and demand as well as the need to meet local and international standards. According to the findings, SME’s in the Pharmaceutical and Health Industry had written rules and regulations that govern their overall production pattern. For SME’s in this sector to compete effectively with other international SME’s in the same industry, they had to follow the international standards of green production for final products and services. Some of the benefits these SMEs accrued like being ISO Certified thus playing a key role to their businesses. Customers buying power and demand highly influenced the SME’s commitment to green procurement practice. In this regard, customers with high buying power preferred products and services that were manufactured and promoted a green economy.
According to the findings, the respondents indicated that the purchase and production for their end user products and services majorly facilitated their green procurement practice. The respondents further explained that their firms were also motivated to work towards green procurement practices in order to achieving their mission and vision which encouraged a clean and green economy. For example, some SMEs’ trading patterns accompanied by appropriate regulation facilitated the transition to a green economy. This fostered the exchange of environmentally friendly goods and services that increased resource efficiency and generated economic opportunities as well as created employment. For some SMEs, the transition to a green economy provided them with the potential platform to create enhanced trade opportunities by opening new export markets for environmental goods and services. This adoption of resource and energy efficient production methods played an important role in securing access to long-term competitiveness in international markets.

Some of the respondents variably explained that they used solar energy as their source of power; some recycled their own waste materials and made products with the recommended “green content” raw materials; while others disposed their industrial wastes through environmentally friendly ways such as incineration. SME’s that practiced vigorous recycling in their production process as stated above, managed their waste materials efficiently and reduced unnecessary production costs.

4.4 Green Procurement Policies

The research further sought to establish whether the SMEs had green procurement policies.
From the findings, majority of the SMEs (60%) had written green procurement policies while 40% did not have any written green procurement policies in place. According to the respondents, the green procurement policies strive to enable the small and medium enterprises to procure, operate and dispose of their assets in a manner that protects the environment and supports sustainable development objectives. Green procurement practices among the SME’s also facilitated a green economy and this involved waste reduction and/or energy saving strategies and measures, and it usually resulted in cost avoidance and/or savings. Given the various organizations annual procuring volumes, the SME’s have a positive impact in expanding the market for environmentally sound goods and services. The respondents further said, these green procurement policies applies to the procurement of goods, services and construction across all stages of the procurement process, from planning and acquisition through use, maintenance and disposal since this is set within the context of total value for money and life cycle assessment.
According to the objectives of this study, the researcher established that some SME’s already
developed their green procurement policies that guide them and can guide other SME’s
considering to develop their own green procurement policies. The initial and sustained
commitment from top management was critical to the implementation and advancement of green
procurement within the SME’s. Green procurement policies included a commitment on giving
preference to and selecting "greener" products with the intention to stimulate and establish a
green supply chain for now and future reference. After the SME’s launched the green purchasing
program or initiative, it was desirable and logical to put in place means to record, assess and
report on efforts and achievements. At the same time, the objectives and achievement targets
were regularly reviewed in order to plan and implement growth and continuous improvement in
the areas of green procurement practice.

4.4.2 Areas of Green Procurement Practices

From the findings, the SME’s involved in the study implicated that the following areas of green
procurement practices enabled them to achieve their mission and vision in relation to their green
procurement commitment. The main areas of focus for green products or services included:
direct raw materials (26%), packaging materials (24%), indirect materials (16%), transportation
(14%), finished goods and products (13%). This implied that majority of the SME’s involved in
this study concentrate on direct materials for the final production of environmental friendly
products for their customers with their motivation being the satisfaction of customer demand of
value and quality. According to the findings, the reason as to why some SME’s focused highly
on direct materials as compared to other areas of green procurement practices is because the
quality of raw materials has a direct impact on the end product. Therefore, more SME’s mainly focused on direct materials when undertaking green procurement practices.

Table 4.4 Areas of Green Procurement Practices

(Source, Author 2013)

4.5 Criteria of Procurement from Suppliers

According to the findings of this study, the criteria used by SME’s when practicing Green Procurement is relative. Some SME’s strongly ask their suppliers to meet and adopt the following requirements: agreement with clean procurement policy in terms of fair and ethics-based procurement principle; product quality and safety with quality assurance; environmentally consciousness management (green procurement practice policy); full compliance with laws; trade regulations and social ethics and lastly safeguarding of human rights and the health and safety of labour depending on the different small and medium enterprises.
According to the findings, SME’s noted that working together with suppliers is invaluable to their efforts to continually better their service in all of their business areas. Suppliers mainly helped them to develop products that meet the customers’ expectations. This was through the suppliers’ continuous supply of expected raw materials. Therefore, SME’s commitment to creating the value for their customers demand was facilitated by maintaining good relationships of mutual trust with suppliers through joint efforts from the first to last stage of the product process. The SME’s recommended that other SME’s that want to efficiently choose suppliers should first analyze the Corporate Social Responsibility (CSR) management systems of those potential suppliers and determine whether those suppliers practices conform to the law and the CSR standards of their organizations. Consequently, the organization should then measure the environmental and social risk a supplier may impose upon them. Implemented effectively, this method will show whether a supplier meets the environmental standards of the organization, along with the supplier’s standards in regard to the requirements of law. This will also provide guidance and support to any and all parties interested in planning, implementing, practicing and advancing their green procurement criterion on suppliers.

4.6 Green Procurement Practices

Negative impact of goods and services on the environment has become globally recognized and companies are responding to these impacts by reducing their energy consumption, use of recycled materials content, waste prevention among others. This study sought to establish the green procurement practices applied by the small and medium enterprises in Nairobi. The findings are as shown in Table 4.5 below
Table 4.5 Green Procurement Practices

<table>
<thead>
<tr>
<th>Green Procurement Practices</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Saving Production</td>
<td>60</td>
</tr>
<tr>
<td>Waste prevention</td>
<td>40</td>
</tr>
<tr>
<td>Recycling content production</td>
<td>80</td>
</tr>
<tr>
<td>Green Production process</td>
<td>40</td>
</tr>
<tr>
<td>Packaging production</td>
<td>30</td>
</tr>
<tr>
<td>Economic efficient production</td>
<td>40</td>
</tr>
<tr>
<td>Socially friendly production</td>
<td>50</td>
</tr>
</tbody>
</table>

According to the findings the green procurement practices applied by the SMEs were energy saving production (60%), green production process (40%) packaging production (30%), socially friendly production (50%), waste prevention (40%), recycling content production (80%) and economic efficient production (40%). According to this study, Recycling content production and
Energy Saving Production was highly cited by SME’s. This in relation to literature review implied that recycling content production and energy saving production involves waste reduction and/or energy saving strategies usually results in some cost avoidance and/or savings. For example, selecting, purchasing and properly using higher energy efficiency and/or energy saving photocopiers can help reduce applicable electricity costs on a continuous and substantial basis. Similarly, for some SME’s avoiding the purchase and use of products containing hazardous chemicals can protect staff health and safety, but may also reduce waste disposal requirements and associated costs (i.e. it may be easier and cheaper to dispose of non-hazardous wastes only) and may further result in less staff medical expenses claims.

The respondents further elaborated this on the benefits of using green procurement practices to include; reduced cost of production and wastage, increased profitability of the business, better working conditions for the employees due to increased safety, increased sustainability and competitiveness of the business. This has been intensively explained in section 4.6.1.

4.6.2 Drivers of Green Procurement Practices among SME’s

The research further sought to establish the drivers influencing the adoption of green procurement practices among the SME’s.
Table 4.6 Drivers leading to Green Procurement Practices

<table>
<thead>
<tr>
<th>Driver</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers influence</td>
<td>10%</td>
</tr>
<tr>
<td>Employee initiatives</td>
<td>20%</td>
</tr>
<tr>
<td>Global purchase and production standards</td>
<td>40%</td>
</tr>
<tr>
<td>Company initiative</td>
<td>50%</td>
</tr>
<tr>
<td>Customer demands and influence</td>
<td>60%</td>
</tr>
<tr>
<td>Government laws and regulations requirement</td>
<td>70%</td>
</tr>
</tbody>
</table>

(Source Author, 2013)

From the findings, the drivers influencing the adoption of green procurement practices by the SMEs were from government laws and regulations requirement (70%), customer demands and influence (60%), company initiative (50%), global purchase and production standards (40%), employee initiatives (20%) and suppliers influence (10%) respectively.

According to the findings, due to the changing consumer preferences, buyer demands, companies’ initiative, global standards, competitor moves, media attention among other factors, governments and businesses find themselves under pressure to change in conformity and emphasis on resource use efficiency. SME’s cited government laws and regulations requirement as the main driver of green procurement practices. They further explained that the government laws and regulations requirement is to help achieve sustainable value creation by focusing on factors that shape the market now and for future market environments. The drive for renewable energy and materials has been fully endorsed by the government and in some industry’s non-
compliance to government rules and regulations leads to huge fines and penalties as well as revoking of licenses.

### 4.6.3 Benefits of Green Procurement Practices

According to the research findings, the use of green is a relative concept has several potential advantages. Green procurement practice in some small and medium enterprises allows for broad application of practices and standards to different products and services, and for adaptation to the specific conditions faced by the different sectors. Green procurement practice according to some SME’s arguably facilitated the use of performance standard rather than design standard, and the former is generally regarded as preferable. The researcher also found out that green procurement also permits gradual and continual reduction in environmental impact over time for example, gradual reduction in energy use or production of pollutants. Furthermore, green procurement practices are not limited to only one factor or attribute, such as percentage of recycled materials, but it involves integration of several factors across the life cycle of a product or service. According to the respondents, the factors of the product or service life cycles were in the following areas: research and design, raw materials acquisition, manufacturing, distribution, operation or use, and disposal or end-of-life. These in return facilitated the efficient practice of green procurement among the small and medium enterprises. Consequently, the levels of expenditure on green procurement practices within the SME’s implied that greater use of green procurement practices could significantly reduce the environmental impacts of the company’s activities. The study also found out that, green procurement practices might also stimulate growth and innovation in green sectors of the national economy, potentially influencing the
availability of green products and services in the marketplace and the development of associated industries. This is similar to the findings in the literature review.

### 4.6.4 Obstacles hindering Green Procurement in SMEs

The study sought to find out what obstacles hinder green procurement practice. According to the findings, the respondents faced several shortcomings that make implementation of green procurement practice difficult. Below is a table showing the extent to which these challenges affected green procurement practice among the respondents.

**Table 4.7 Obstacles hindering Green Procurement Practice in SMEs**

<table>
<thead>
<tr>
<th>Obstacles hindering Green Procurement Practice</th>
<th>MEAN</th>
<th>STD DEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>3.733333333</td>
<td>0.952311163</td>
</tr>
<tr>
<td>Lack of corporate commitment</td>
<td>3.2</td>
<td>1.540264196</td>
</tr>
<tr>
<td>Insufficient knowledge</td>
<td>3.5</td>
<td>1.358244303</td>
</tr>
<tr>
<td>Availability</td>
<td>2.7</td>
<td>1.178836364</td>
</tr>
<tr>
<td>No acceptable alternative</td>
<td>2.266666667</td>
<td>0.868344971</td>
</tr>
</tbody>
</table>
(Source, Author 2013)

According to the findings of this study, perception of price that green products are more expensive than conventional alternatives was mainly a big challenge. This was translated at a mean of 3.73. This is true in some cases, particularly where development costs are reflected in the price while some respondents said; occasionally a green product may have a higher up-front purchase price, but will cost less over its lifetime. Also, many organizations are unfamiliar with the concept of green procurement or with the options available to them due to insufficient knowledge. Some SME’s noted that, in their industries there are no specifications on what determines a product to be classified as a “green product”. This is in line with data on literature review.

4.7 How government laws, NEMA and UNEP influence on Green Procurement Practices among SME’s

This research further sought to establish how the government laws, NEMA and UNEP influenced green procurement practice among the SMEs. According to the findings, the respondents cited government laws forced them to abide by the green procurement practice. Upon the violation of the laws, some of the SMEs were fined huge fines for non-compliance. Therefore the law enforcement by the government played a major role towards the implementation of green procurement practices by the SMEs. The government has written laws,
regulations and requirements so as to encourage a competitive green economy. The transition to
a green economy, in turn, has the potential to create enhanced trade opportunities by opening
new export markets for environmental goods and services, by increasing trade in products
certified for sustainability and promoting certification-related services, and by greening
international supply chains.

According to the respondents, NEMA also influences green procurement practice in a major
way. Through the set NEMA rules and regulations given, small and medium enterprises achieve
green procurement for the purpose of promoting a green economy for all. They therefore create
awareness and educate the general public on the adverse effects of climate change; Promote
growth of a green economy as a solution to address problems such as creation of green jobs; as
well as change perceptions of the general public towards environmental stewardship.

According to the respondents, the UNEP and other environmental organizations encourage green
procurement practice among small and medium enterprises so as to enhance public participation
in green economy initiatives; and also promote adoption of the best practices and green
initiatives. According to the findings, small and medium enterprises benefit from green
procurement practices by; they support resource-efficient, low-carbon and climate-resilient
growth, creates and sustains decent jobs, and expands other economic opportunities that benefit
the poor, including in the informal economy; Stimulate innovation and adoption of green
technologies that can benefit the society as well as improves health and well-being. It also
facilitates reduction of poverty through the provision of low-cost distributed renewable energy
systems; Increases productivity and efficiency of natural resource use; Reduce pollution and the
impact of natural hazards, and improves management of environmental risk and consequently
invest in restoring and sustaining ecosystem health and resilience.
4.8 New Mechanisms Initiating Efficient Green Procurement Practice

The study further inquired from the respondents on the new mechanisms that can be used to ensure efficient green procurement practices among SMEs. According to the findings, the respondents indicated that the government should ensure stringent measures are put in place to ensure that all the SMEs adhere to the green procurement practices. The SMEs on the other hand should educate their employees on the green procurement practices and come up with policies that can be acceptable by everyone in the supply chain for efficient local and international standardization of goods. This is because, small and medium enterprises are becoming the driving force of the economy and thus for a strong and stable economy to be in place, standardization and quality of the products competing with the market leaders internationally should be encouraged.

According to the study, the management of the SMEs should also allocate adequate financial resources to ensure green procurement practices are implemented. Some SME’s agree with what literature review states on financial allocation of resources, “The government and other businesses need to be focused on trends that will shape the markets of the future; the drive for renewable energy and materials, the demand for greater safety and security, and the need for increased food production.” This is could be met by rethinking delivery processes and methods of sustainable value creation. This is about sharing responsibility and working together. Some SME’s noted, for sustainability of a green economy, businesses will need to do their business best: innovate, adapt, collaborate and execute. As markets gradually change and the environmental global conservation awareness increases; the availability of green products will increase and prices will fall. Governments have written laws, regulations and requirements that govern green procurement
practice so as to encourage a competitive green economy. The transition to a green economy, in turn, has the potential to create enhanced trade opportunities by opening new export markets for environmental goods and services, by increasing trade in products certified for sustainability and promoting certification-related services, and by greening international supply chains.
CHAPTER FIVE:

SUMMARY CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion and recommendations on the impact of green procurement practices by the small and medium enterprises in Nairobi, Kenya.

5.2 Summary

The researcher established that the green procurement practices applied by the small and medium enterprises in this study were in; energy saving production (60%), green production process (40%), packaging production (30%), socially friendly production (50%), waste prevention (40%), recycling content production (80%) and economic efficient production (40%).

The researcher established that majority of the SMEs involved in this study had green procurement policies in place i.e. (60%). The study established that the main drivers influencing the impact of green procurement practices by the SMEs were; government laws and regulations requirement (70%), customer demands and influence (60%), company initiative (50%), global purchase and production standards (40%), employee initiatives (20%) and suppliers influence (10%) respectively. The main hurdle in green procurement practice was the perception held by some persons that the price of green products is very high. This was true in some cases, however the long term benefits of this products was not taken into consideration.
The researcher further established that government laws, regulations and requirements regarding production of green products influenced SMEs to abide by the green procurement practice. Upon the violation of the laws the SMEs were fined huge fines for non-compliance. Therefore the law enforcement by the government played a major role towards the impact of green procurement practices by the SMEs. However, in some scenarios, the measures taken by government were not fully implemented. According to the researcher, NEMA played a bigger role in driving the small and medium enterprises into the green procurement practice. NEMA created awareness and educated the general public on the adverse effects of climate change and how to deal with this menace in the different industries. NEMA also promoted growth of a green economy as a solution to address problems such as creation of green jobs; as well as change perceptions of the general public towards environmental stewardship.

The researchers` conclusion on the new mechanism to be initiated on green procurement practices, some SME`s suggested that, the government and other businesses need to be focused on trends that will shape the markets of the future: the drive for renewable energy and materials, the demand for greater safety and security, and the need for increased food production. Both governments and companies in business should also come up with agreed standards of what defines a green product. This is also in relation to the international standards of green procurement practice. These measures are not only for economical boost purposes but also for the general international and local standards of production and the environmental preservation. The researcher also found out that the existing SMEs on the other hand should educate their employees on the benefits of green procurement practices. The management of the SMEs should also allocate adequate financial resources to ensure green procurement practices are implemented.
5.3 Limitations of the Study

The current research study like any other was not without limitation. According to the researcher, the study did not attain 100% response rate due to unwillingness of some respondents. Also, the researcher did not have enough time to reach targeted respondents. Response time frame period was the main challenge. Most of the respondents took too much time to give feedback. However, these limitations did not negatively affect the quality of the study.

5.4 Conclusions

The researcher concluded that the drivers enhancing green procurement practices was due to the changing consumer preferences, buyer demands, companies’ initiative, global production standards, competitor moves, media attention among other factors. It was highly cited by SME’s that government laws, regulations and requirements was the key driver of SME’s to go green. The government is therefore endorsing a green economy for the SME’s and other companies on general. Green procurement practices applied by the SMEs were in; energy saving production, production and packaging production, socially friendly production, waste prevention, recycling content production and economic efficient production respectively. The UNEP and other environmental organizations encourage green procurement practice among small and medium enterprises so as to enhance public participation in green economy initiatives; and also promote adoption of the best practices and green initiatives. Green procurement practices according to some SME’s facilitates reduction of poverty through the provision of low-cost distributed renewable energy systems; Increases productivity and efficiency of natural resource use; Reduce
pollution and the impact of natural hazards, and improves management of environmental risk and consequently invest in restoring and sustaining ecosystem health and resilience.

5.5 Recommendations

The recommendations made from these findings are that the government should ensure stringent measures are put in place to ensure that all the SMEs adhere to green procurement practices. This will not only help the production standards of goods but also increase competitive advantage among the firms and preservation of the environment.

The researcher also recommends that the management of SMEs should first educate their employees on the best green procurement practices to be applied in their different organizations. The study also recommends that the management of the SMEs should allocate adequate financial resources to ensure green procurement practices are implemented. An extensive background check of suppliers should be done so as to make efficient decisions on which supplier is reliable for effective business operations.

5.6 Suggestions for Further Studies

Since this study was on the impact of green procurement practices by the small and medium enterprises, a case study of SMEs in Nairobi, the researcher recommends that;

• Similar study should be done in other SMEs outside Nairobi for comparison purposes and to allow for generalization of findings on the impact of green procurement practices by the small and medium enterprises.
REFERENCES

Annika, V. (2009).” Enhancing Environmental Performance by Green Procurement: A study of environmental procurement preferences in the construction industry”.


Christiane, D. (2008).” Green Public Procurement (GPP): How widespread is Green Public Procurement in Norway, and what factors are seen as drivers and barriers to a greener procurement practice?”

Clement, S., Erdmenger, C., and Ochoa, A. (2003). “*Eco-Procurement- The Path to a Greener Marketplace*.” The International Council for Local Environmental Initiatives, European Eco-


Syekei, J. and Opiah, D. Kenya’s Vision 2030: Creating more dinner space for smes on the IP table.


Appendix I: Questionnaire

IMPACT OF GREEN PROCUREMENT PRACTICES IN SMALL AND MEDIUM ENTERPRISES IN NAIROBI

INSTRUCTIONS

Below are questions regarding the impact of green procurement practices in small and medium enterprises in Nairobi, kindly complete all the questions below by ticking inside the boxes where applicable. The data collected will be treated with a very high degree of confidentiality and it is meant for academic purpose only

SECTION 1: RESPONDENTS PROFILE

1). What is your age bracket?

20 - 30 years (   )

31 - 40 years (   )

41 - 50 years (   )

51 – Above Years (   )

2). How long has this business been operational?

3). What kind of business activities is your organization practicing?
4). How many Employees are in this company?

___________________________________________________ ________________________

SECTION 2: ORGANIZATION COMMITMENT TO GREEN PROCUREMENT PRACTICES

5). What motivates your organization towards green procurement practise in relation to your company mission and vision?

___________________________________________________ ___________________________

___________________________________________________ ___________________________

6). Do you have green procurement policies in your organization? If Yes, explain.

YES ( ) NO ( )

___________________________________________________ ___________________________

___________________________________________________ ___________________________

7). What areas does your organization practice green procurement for the efficiency of your organizations duties?

___________________________________________________ ___________________________

___________________________________________________ ___________________________

8). How do you procure/purchase your goods from suppliers? (What criterion is used?)

___________________________________________________ ___________________________

___________________________________________________ ___________________________
9). To what extent does your company engage in the following green procurement practices so as to give your customers environmental friendly products? Tick where appropriate. The scale below will be applicable: 1= To a very large extent 2= Large extent 3= moderate extent 4= small extent 5=very small extent

<table>
<thead>
<tr>
<th>Energy Saving Production</th>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Waste Prevention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production Process</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Packaging Practices</td>
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<td></td>
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<tr>
<td>Recycling Content Production</td>
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<tr>
<td>Environmental Healthy Production</td>
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<tr>
<td>Economic Efficient Production</td>
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<td></td>
</tr>
<tr>
<td>Socially Friendly Production</td>
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</tbody>
</table>
10). What are the key drivers that influence your organization in green procurement practices?

Tick where appropriate. On a scale of 1-5; 1 representing the strongly agree drive factor, 2 representing moderately agree factor, 3 representing agree and 4 the not agree drive factor.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Moderately Agree</th>
<th>Agree</th>
<th>Not Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Laws</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Customer Demand &amp; Influence</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Company Initiatives</td>
<td></td>
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</tr>
<tr>
<td>Global Purchase</td>
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<tr>
<td>Production Standards</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Employee Initiatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Suppliers Influence</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Others (Explain Below)</td>
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</tbody>
</table>
11). What are the benefits your organization receives from green procurement practices?

____________________________________________________________________________________________________________________

____________________________________________________________________________________________________________________

____________________________________________________________________________________________________________________

12). Do the following obstacles hinder the implementation of green procurement practices in your company? To what extent do they hinder Green Procurement Practice? Tick where appropriate. (On a scale of 1-5, 5 being highest and 1 being lowest)

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of corporate commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insufficient knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No acceptable alternative</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>No specifications “green products”</td>
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</tbody>
</table>
13). How does Government Laws and Regulations, NEMA, UNEP and other environmental organizations influence your company’s green procurement policy and practice?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

14). What new mechanisms/initiatives can be used to ensure efficient green procurement practices among SME’s and monitor its effects?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

THANK YOU FOR TAKING PART IN THIS RESEARCH PROJECT
Appendix II:

LIST OF SMALL AND MEDIUM ENTERPRISES IN THIS STUDY

1. Across Kenya Pharmaceutical Ltd
2. Adix Plastics Ltd
3. African Horizon
4. African Paintings Gallery
5. Anycar Auto
6. Arichem Ltd
7. BBC Auto Spares Ltd
8. Big Mama Restaurant
10. Ceragem
11. Chemical Solutions Services
12. Chuma Fabricators Ltd
13. Dae Jang Geum
14. Divino Restaurant
15. Flooring & Interiors Ltd
16. Furniture International
17. GoldRock International
18. Hardware & Welding Supplies
19. Joint Supplies Ltd
20. Kandia Fresh Produce Supplier Ltd
21. Limelight Creations Ltd
22. Mamuwa Wood Furniture
23. Modana Pharmaceuticals Ltd
24. NugaBest International
25. PathCare Kenya Ltd
26. Sarang Africa
27. Salco Furnishing Enterprise
28. Solai Paints Ltd
29. Quest Laboratories Ltd
30. Window Plus E.A Ltd
Appendice III: Introduction Letter

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

DATE: 14 August 2013

TO WHOM IT MAY CONCERN

The bearer of this letter, WENDY MUTUOMO KAMONYA
Registration No. DE1 68200 2011

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
Appendix IV: Timeframe

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</tr>
</thead>
<tbody>
<tr>
<td>Research Proposal</td>
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<td></td>
<td></td>
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<tr>
<td>Project Research</td>
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</tbody>
</table>
## Appendix V: Budget Estimates

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AMOUNT (KSH.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing and Photocopying</td>
<td>1000</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>2000</td>
</tr>
<tr>
<td>Travelling &amp; Lunch</td>
<td>1500</td>
</tr>
<tr>
<td>Internet Costs</td>
<td>1000</td>
</tr>
<tr>
<td>Binding of final copies (7 Copies)</td>
<td>3000</td>
</tr>
<tr>
<td>Typing</td>
<td>1200</td>
</tr>
<tr>
<td><strong>TOTAL COST</strong></td>
<td><strong>10,700</strong></td>
</tr>
</tbody>
</table>