GREEN PROCUREMENT STRATEGIES AS DETERMINANTS OF FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN ELDORET TOWN, KENYA

BY

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DECLARATION

DECLARATION BY CANDIDATE

This thesis is my original work and has not been presented for any degree or other presentation in any other university or educational institution. No part of this project should be produced without my approval or that of Moi University.

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To my lovely Husband, Mohammed Bashir, My son Bashir and Daughter Fatma

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ABSTRACT

Owing to strong influence on economic and social issues, environmental impact attributed by SMEs activities is significant, not only for their magnitude but also in diversity. However SMEs are often unaware of their environmental impact and lack the resources to implement environmental initiatives and since their environmental footprints are small and localized they easily go unnoticed. Nevertheless the cumulative environmental impacts of countless SMEs constitute major environmental challenges to both regulators and stakeholders. Environmental issues is now considered strategic and there has been debate all over the world concerning environmental issues (Green procurement).Many SMEs are reluctant to adopt green procurement strategies until they find financial benefit for themselves. Thus the general objective of the study was to determine if green procurement strategies had an effect on SMEs financial performance. The specific objectives were to determine the extent to which recycling of waste, use of non pollutants, waste management and use of energy saving products determined SMEs financial performance in Eldoret town, Kenya. The study area was Eldoret town, Kenya and the research design adopted was explanatory research design (bivariate analysis) because it compares two variables, the dependent variable being financial performance and independent variable is green procurement strategy. The research used stratified and simple random sampling and Hotels, restaurants, bars and supermarkets were the study units. There are more than 8175 SMEs in Eldoret town and the researcher used stratified sampling and targeted 80 respondents in supermarkets and 197 respondents in hotels/restaurant/bars. Data collection instruments used was five point likert scale questionnaire and structured interview. Data analysis used was descriptive statistics, explanatory factor analysis, Pearson Moment correlation and regression model analysis. Data was presented using tables, figures and in prose form. The study showed that there is a relationship between green procurement strategies adopted by SMEs on their financial performance and it found that most SME's in Eldoret have an understanding of what green products are, recycling of wastes, what pollution is and what needs to be done to curb pollution and lastly about waste management and the need to use energy saving products to reduce on the cost of energy. From multiple regression tests the study findings; $r=0.509$ and $r^2=0.740$, which shows that 74% of the growth of financial performance can be explained by the adoption of green procurement. The findings show that the null hypotheses were rejected in each hypothesis and thus there was a relationship. The study recommends that an awareness programme should be organized in schools, offices, through multimedia houses to educate the masses on the need to recycle waste and thus save on their costs and as a way to generate income. The study further recommends that SMEs require greater access to financial services and investment capital. The study will be useful to various stakeholders such as the government, policy makers and purchasing managers who will benefit on knowing that green procurement strategy is an important aspect in any organizations and it can impact environmental and financial performance of SMEs as well as all organizations.

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LIST OF ABBREVIATIONS

KCC   Kenya Cooperative Creameries'

NEMA   National Environment Management Authority

OPEC   Organization of Petroleum Exporting Countries

SMEs   Small and medium Enterprises

OPERATIONAL DEFINITIONS OF TERMS

For the purpose of this research project, the following meanings will be attached for the following terms: -

Green procurement strategy: It involves the integration of environmental issues into purchasing decisions based on price, performance and quality. It will include recycling of waste, using non pollutants, waste management and use of energy saving products.

Supply chain management: It is that network of organization that are involved through upstream and downstream linkages in the different processes and activities that produce value in the form of products and services in hands of ultimate customer.

Pollution: It is the act of contaminating, fouling or making unclean.

Reverse logistics: It refers to all logistics activities and management skills used to reduce, manage, and dispose of waste from packaging and products.

Small and Medium Enterprise: An SME is a formally registered entity with 5 to 150 employees and a turn over below US$ 5 million. The company should have an asset base below US$100,000 and financial requirements between US$ 5,000 and US$00,000

CHAPTER ONE:

INTRODUCTION

1.0 OVERVIEW

This chapter covers background of the study, statement of the problem, research objectives, research hypothesis, and justification, significance of the study and scope of the study.

1.1 Background of the study

Environmental concerns have increasing emerged as a major concern to both the political leaders across the world and increasingly among the business executives. For example, in a survey undertaken by McKinsey on 2,192 executives in 1998, over 80 percent of the executives anticipated the emergence of some kind of environmental issue within the next five years in countries where their companies operate (Lee 2009). The concerns by the organizations on the environmental issues and attempts to proactively consider the environment in their business or organizational activities have led to emergence of green concepts. Green concepts include green supplies, green procurement and generally green management amongst other concepts. Green procurement is defined as taking into account environmental criteria for goods and services to be purchased in order to ensure that the related environmental impact is minimized (Thobane 2009).

The environmental concerns and the attempts to proactive consider the impact of business activities on the environment affects the financial performance of the companies and more so Small and Medium Enterprises (SMEs). For example, Chang & Chen (2013) argue that Companies' key stakeholders, such as consumers and

employees, have perceived the importance of environmental issues and they are prone to boycott the companies' irresponsible environmental activities. Melnyk *et al* (2001) and Sharma *et al* (2010) as cited by Oxborrow & Brindley (2013) argue that discussions of environmental sustainability in business have developed rapidly since the mid-1990s, in response to changes in government and international regulations, emerging compliance standards, opportunities for positive publicity and increasing expectations of customers and consumer.

The SMEs adoption of green policies such as green procurement could also expose the enterprises to new business opportunities that have a direct influence on their financial performance. In this context, Oxborrow & Brindley (2013) argue that purchase or use of environmentally friendly products, such as solar panels, changing processes to reduce waste, more energy efficient warehousing or a multitude of other sustainability initiatives would lead to cost cutting leading to competitive advantage in the business arena referred to as eco-advantage. The need to embrace eco advantage to increase business competitiveness among the SMEs can't be overemphasized. In this context, Esty & Winston (2009) as cited by Oxborrow & Brindley (2013) notes that businesses need to adopt eco-advantage, which takes the concept of sustainability in business further to include economic and stakeholder gain.

The European Union (EU) has enacted laws that encourage green procurement in the union. These laws and regulations include the Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substance (RoHS), and Eco-design for Energy using products (EuP) amongst other laws (Lee 2009). This has an impact on the procurement of the raw and secondary materials among the SMEs within the EU

zone as final manufacturers often exercise buying power to pressure their suppliers to achieve superior environmental performance (Lee 2009). Cusack & Perret (2006) as cited by Lee (2009) observe that as part of RoHS regulations many firms in the EU are forced to ask their supplier to verify parts and components compliance to the regulations. A majority of these firms are SMEs as it is estimated that 99 percent of the business in the EU are in the SME sector (Lee 2009).

The United Kingdom has put in measures in place to facilitate and enhance green procurement. In 2005, the United Kingdom created the Sustainable Procurement Task Force (SPTF) to help the UK become a leader in sustainable procurement within the European Union (Action sustainability, 2010). One of the strategies used by the SPTF is the UK Government Sustainable Procurement Action Plan in 2007 for localized governments (Action sustainability, 2010). The Action Plan makes six key recommendations; lead by example, set clear priorities, raise the bar, build capacity, remove barriers, and capture opportunities (Action sustainability, 2010). The ultimate goal of this plan was to move towards a sustainably built and managed central government estate that minimizes carbon emissions, waste and water consumption and increases energy efficiency (in line with Departmental sustainable operations targets) (DEFRA, 2007). A strategy for local governments in response to the Sustainable Procurement Action Plan includes constructing green buildings, buying local produce and energy efficient products, involving the public sector, and increasing employment to handle these needs (Gunderson, Maurer & Wzorek 2008).

The United States and China has traditionally been the largest foreign trading partners for Costa Rica (Gunderson, Maurer & Wzorek 2008). However, in a bid to diversify

on the foreign investments and expand the opportunities available for the SMEs, Costa Rica is increasingly targeting the European Union's 490 million population (Gunderson *et al* 2008). However, in order to tap into the EU market Costa Rica has been forced to adapt to the EU stringent green policies in its manufacturing SMEs in order to access the EU market. In this context, Gunderson *et al* (2008) notes that by utilizing the green procurement criteria for the EU public market, Costa Rican companies could ensure that their products meet the standards and thus, export to a new sector of the European economy.

Despite the pressure to adapt to EU stringent green policies, Costa Rica is a leader on business sustainability and green policies in its own right. There are cases in which the country has performed better than most EU countries on some green policies metrics. Up to 80 percent of energy used in Costa Rica comes from clean sources such hydroelectricity, geothermal energy, and wind power (Oxborrow & Brindley 2013). This percentage is higher compared with 12 percent in Spain, 5 percent in Germany, 17 percent in Italy, and 11 percent in France (Lee 2009).

Kenyan government has not been left behind in looking at the issues concerning green procurement practices. The government has introduced energy saving bulbs to conserve energy, According to KPLC (2010) in Nairobi more heat than light is being generated by the free energy-saving-bulbs project launched in March 2010. The Sh460 million Kenya Power and Lighting Company project was to distribute free 1.25 million energy saving bulbs in the country which will save the national power grid some 60MW.

Kapolon (2010) asserts that SMEs however are reluctant to establish green procurement activities unless they clearly demonstrated business benefits for themselves and/or their customers. In Eldoret town the municipality has a daunting task concerning waste management especially generated by small and medium enterprises (Duhole (2010). SMEs in Eldoret town are contributors to developing economy of the town. Certain type of SMEs such as Hotels and supermarkets also threaten community wellbeing by pollution.

According to Burt *et al* (2004) economic growth and environmental management are two conflicting goals. Environmental care and economic growth are mutually exclusive goals. The environmental management approach adopted by large scale industries and SMEs differ considerably. Most of the large scale industries are well organized and structured and are sometimes backed up by international reputable mother companies. Kapolon (2010) comments that SMEs have unique characteristics which inhibit the implementation of environmental management systems and some are reluctant to adopt green procurement strategy until they find financial benefits for themselves.

1.2 Statement of the Problem

While SMEs contribute significantly towards economic activities in any given country, they nevertheless significantly contribute to the environmental challenges such as pollution (Kapolon 2010). The green concepts such as green supplies, green procurement, green public procurement and green management amongst other aspects have often been studied and analysed in respect to large companies. However, the same aspects have hardly been studied among the SME sector leading to a gap in the

knowledge and literature on the same. In this context, Oxborrow & Brindley (2013) notes that little research has been undertaken into the SME sector especially in terms of SMEs' capability to innovate in respect of the green agenda. Lee (2009) also notes that studies of green management in relation to small and medium enterprises (SMEs) are very scarce in business and management literature. Thus the study assessed green procurement strategies as determinants of SMEs financial performance in Eldoret town, Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The main purpose of the study was to assess green procurement strategies as determinants of SMEs financial performance.

1.3.2 Specific Objectives

The specific objectives to support the general objective include the following

I. To establish the extent to which Recycling of waste is a determinant of financial performance of SMEs.

II. To determine the effects of non pollutant use on financial performance of SMEs.

III. To establish the level to which waste management determines financial performance of SMEs.

IV. To determine how energy saving products is a determinant of the financial performance of SMEs.

1.4 Research hypothesis

H_{o1};   There is no significant relationship between recycling of waste and SMEs financial performance.

H_{o2}:   There is no significant relationship between non pollutants use and SMEs financial performance.

H_{o3}:   There is no significant relationship between waste management and SMEs financial performance.

H_{o4}:   There is no significant relationship between use of energy saving products and financial performance of SMEs.

1.5 Significance of the Study

This study will be of use to different stakeholders both in private and public sectors such as the following: The Government of Kenya (GoK), policy makers, research institutes, purchasing managers, scholars and general public amongst others. This research will enlighten the general public on the general procurement aspects and in particular the green policies and application in procurement.

The Government of Kenya through NEMA and other related agencies formulates policies and enforces the formulated policies in relation to the environmental aspects. This research will be used to these agencies in documenting the progress made in the country in relations to the green procurement and the gaps that are evident in the enforcement of the various existing green policies. Purchasing managers make critical decisions in relations to the purchasing at the organizational level or the way to the departmental level. This research will be useful to this category of professionals as it will expose them to green policies in procurement, the advantages of the same, and

how to implement green procurement policies. This study contributes to the growing literature on the concept of green procurement in the country as such it will be useful to research institutes and scholars.

1.6 Scope of the Study

This study was limited within the geographical scope of Eldoret town. This is due to the vibrant SME sector within the town as well as easy accessibility to the researcher thus lowering the costs of undertaking the research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter covers a review of dependent variable that is financial Performance of SMEs, followed by a review of independent variable including recycling of waste, non pollutants use, waste management and disposal and energy saving products and the relationship with SMEs financial performance. The chapter concludes by discussing the research gaps, conceptual framework and operationalization of the study variables.

2.1 Overview of Small and Medium Enterprises (SMEs)

2.1.1 Concept of SMEs

The concept and notion of Small and Medium Enterprises varies from one geographical entity to another as such there is no consensus among the scholars on a standard definition of SMEs. According to Financial Sector Deepening Kenya (FSDK) (2005) there is no consensus on a single definition of SME in Kenyan context. This opinion is supported by Gray, Cooley & Lutabingwa (1996). However, the definition adopted for SMEs by FSDK (2005) for use in the Kenyan context includes the following parameters. An SME is a formally registered entity with 5 to 150 employees and a turn over below US$ 5 million. The company should have an asset base below US$100,000 and financial requirements between US$ 5,000 and US$ 500,000 (FSDK, 2005).

Capital Markets Authority (CMA) (2011) differentiates between microenterprises, small enterprises and medium enterprises using the following criteria. In the context of number of full time employees, microenterprises, small enterprises and medium enterprises have 1-10, 11-50, and 51-100 full time employees respectively (CMA,

2011). In the context of full time employees, SMEs can thus be described as enterprises having between 11 to 100 employees. CMA (2011) also opines that in terms of turnover, microenterprises, small enterprises and medium enterprises have 0-5,000,000, 5,000,000-50,000,000, and 51,000,000-100,000,000 Kenya shillings in turnover respectively.

2.2 Green Procurement policies

2.2.1 Concept of green procurement

Green procurement is defined as taking into account environmental criteria for goods and services to be purchased in order to ensure that the related environmental impact is minimized (Thobane 2009). On the other hand, the European Union (EU) (2004) considers green public procurement to cover areas such as the purchase of energy-efficient buildings, office equipment made out of environmentally sustainable timber, recyclable paper, environmentally-friendly public transport, organic food in the cafeteria, electricity stemming from renewable energy sources and air conditioning systems complying with environmental solutions.

2.2.2 Achievement of green procurement

A body of literature recommends various steps towards the adoption of a green procurement practice (ICLEI: 1999, European Commission: 2004, World Watch Institute: 2003). Two approaches that are evident from the latter are the "bottom up" approach or alternatively the "top downwards" approach. The various options are briefly discussed by European Commission (2004),

2.2.3 Bottom up approach towards achievement of green procurement

The European Commission recommends the following steps as essential steps towards a green procurement practice:

Step one - The first step recommends the identification of products; services or activities are the most suitable on the basis of their environmental impact and of other factors, such as market availability, available technologies, costs and visibility.

Step two - The second step recommends the identification of institutional needs and expressing them appropriately. This involves selecting a green title to communicate institution's policy to the outside world, ensuring optimum transparency for potential service providers or suppliers and for the citizens the institution is serving.

Step three- The third step recommends the drawing up of a clear and precise technical specification using environmental factors where possible. This step includes a) verifying environmental characteristics in databases/ eco labelling b) learning from best practice c) selecting a scientifically sound life cycle costing approach d) considering product or service environmental performance and e) encouraging innovative green offers considering the use of performance based or functional specifications.

Step four -The fourth step entails the establishment of selection criteria on the basis of exhaustive lists of criteria mentioned in the public procurement directives. Potential service providers or suppliers can be informed that they can use environmental

management schemes or declarations (e.g. ISO 14001) to prove compliance with the criteria.

Step five - The fifth step entails the establishment of an award criteria where the criteria of the "economically most advantageous tender" is chosen, the inclusion of a relevant environmental criteria either as a benchmark to compare green offers with each other or as a way of introducing the environmental element and giving it a certain weighing. Life cycle costing should also be considered.

Step six – The sixth step recommends the setting of a relevant extra environmental condition in addition to the green contract by using contract performance clauses. This step suggests that, where possible, environmentally friendly transport methods must be insisted on.

Step seven - The last step requires the institution to always make sure that everything that has been asked of potential bidders and their offers relates to the subject matter of the contract.

2.2.4 Top down approach

Lamoureux (2008) recommends a ten-step process that an institution can adopt to go green. Summarized discussions of the ten steps are:

Step one – Securing political buy-in and top management commitment for the organization to go green. This entails the creation of green policy and securing green corporate mandate. The latter should come from the top and it should be

communicated to all officials that green procurement is a priority within the organization and that all procurement of services and products must have minimum green requirements.

Step two – The second step requires determining the status quo and the key role-players. Questions to be asked at this step are the following: a) which products or services are procured b) by whom c) when d) what is the environmental impact of these products or services and e) what are important decisions that need to be made in future.

Step three – This step recommends the development of green specifications and standards for every product procured. Based on the status quo analysis, the organization is advised to then prioritize identified products to green and wherever possible make use of existing environmental standards such as environmental management systems, environmental ratings and/or best practices.

Step four recommends the establishment of a green selection criteria and its impact on award decisions. This step entails the alignment and mainstreaming of conventional procurement criteria into green procurement. The latter will include taking a decision on what percentage of the procurement scoring must be based on green considerations i.e. 10%, 20%, 40%. The selection criteria must be outlined, prioritized and weighted.

Step five requires the identification of products and services that are green. This step amongst other things includes considering defining automatic exclusion rules of

suppliers that still employ manufacturing processes that produce banned chlorofluorocarbons and toxic by- products.

Step six recommends that the institution consider the use of the life-cycle costing approach. The organization must consider the environmental impact of the product it is considering from "Cradle to Grave" before making a decision. The analysis must be informed by factors such as efficiency, waste, recyclability, and material composition. With regard to services the environmental impact of such services and the equipment used must be considered.

Step seven recommends the inclusion of green performance clauses in every contract. These step advices the organization, as a precautionary measure to make certain that it incorporates clauses into every contract that allows the enforcement of penalties or termination of the contract should the supplier fail to meet the minimum green and sustainability requirements that they had committed to.

Step eight – The step recommends that once policies and practices are in place, these must be communicated to all levels of staff, suppliers, vendors, politicians and any other stakeholder. In addition efforts must be made to explain the policies as well as the creation of opportunities for training on the complex categories that supplier and procurement officers have to manage on a regular basis.

Step nine - This step recommends the use of green technology and entails considering the use of e-procurement, e-sourcing, and other e-systems, running on energy efficient technology as well as buying online. Furthermore, all policies and manuals must be

maintained in easy to access e-documents on indexes, searchable and easily accessible corporate internet.

Step ten – The final step recommends that the entire process be made easy. This step advice that as far as practically possible every policy, process and system developed and deployed in support of green procurement must be easier to use than the alternatives.

The various steps have common elements namely a) compiling a procurement practice inventory b) securing the political and/or top management support c) setting product specific targets d) dissemination of information e) institutional capacity building f) compiling an action plan g) establishing a monitoring program and reporting results and the world watch institute advices further that a pilot project should be identified and the encountered challenges be used as learning opportunities. The European Commission approach proposes a "bottom up" approach whilst Lamoureux recommends a "top downwards" approach.

2.3 Financial Performance

The word 'Performance is derived from the word 'parfourmen', which means 'to do', 'to carry out' or 'to render' (Hershman & Mazero (2008)). It refers the act of performing; execution, accomplishment, fulfilment, etc. In border sense, performance refers to the accomplishment of a given task measured against preset standards of accuracy, completeness, cost, and speed (Dainelli & Bini 2011). In other words, it refers to the degree to which an achievement is being or has been accomplished. In the words of Frich Kohlar the performance is a general term applied to a part or to all the conducts of activities of an organization over a period of time often with reference

to past or projected cost efficiency, management responsibility or accountability or the like (Delgado 2009). Thus, not just the presentation, but the quality of results achieved refers to the performance. Performance is used to indicate firm's success, conditions, and compliance.

Financial performance refers to the act of performing financial activity (Delgado 2009). In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished (Van der Waldt 2004). It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Delgado 2009).

2.3.1 Financial Performance Measurement

Financial measurement system should provide one with a set of tools and metrics to understand the financial situation (Delgado 2009). Financial performance indicators in the form of ratios cover a number of concepts and are grouped as: Profitability, Liquidity, Utilizations, Financial structure and Investment – shareholder ratios. For the purpose of this study measurement for financial performance of SMEs will be Return on Revenue (ROR) and Return on Assets (ROA).

2.3.2 Return on Assets (ROA)

The Return on Assets (RoA) is a key measurement of operational performance. The higher the value, the more efficiently that a company is utilizing its assets. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a

percentage. Sometimes this is referred to as "return on investment" (Van der Waldt 2004).The ROA ratio is calculated as follows = $\underline{\text{Net Income}}$

Total assets

2.3.3 Return on Revenue (ROR)

The return on revenue (ROR) is a measure of profitability that compares net income of a company to its revenue (Delgado 2009). This is a financial tool used to measure the profitability performance of a company. This is often called net profit margin. The return on revenue (ROR) is tool for measuring the profitability performance of a company from year to year (Van der Waldt 2004). This ratio compares the net income and the revenue. The only difference between net income and revenue is the expenses. An increase in ROR is means that the company is generating higher net income with lesser expenses.

This ratio can help the management in controlling the expenses. It can give indications of rising expenses. If a decrease in return on revenue is observed, the management should know that the expenses are not being managed as efficiently as in the past. The management should find out why the expenses are rising and then take steps to reduce them. An increase in the ROR is an indication that the expenses of the company are being facilitated efficiently (Dainelli & Bini 2011). These insights can help to see a clearer picture of the expenses and it can help to control expenses.

The return on revenue (ROR) is calculated by dividing the net income by the revenue. This can be expressed in the following formula; Return on Revenue (ROR) = Net Income / Revenue

Both of these figures can be found in the income statement. Net income is also sometimes referred to as profit after tax.

2.4 Financial performance of the SMEs as a result of green policies

This section will examine the effect of various green policies such as waste recycling, waste management, use of non pollutants and energy saving products on financial performance of SMEs.

2.4.1 Waste Recycling and financial performance of SMEs

Bloomberg (2002), notes that the logistics systems must take the empty package from the customer and return it to the party responsible in the recycling process. Recycling in supply chains use a four stage process including collecting waste materials from recycling bins and delivering them to the entity responsible for recycling , processing recyclables to create secondary raw materials, using the secondary materials to manufacture new materials and finally returning the products to the marketplace.

Robert (1993) many municipalities institute recycling programs to reduce demands on local landfill and practice environmental responsible conservation techniques. The most common recyclable materials include aluminum, papers, glass and plastics. Often the biggest challenge is not designing effective reverse logistics systems but implementing a system that can handle the growth in volume that recycling programs generate.

Burt *et al.* (2004) Recycling of packaging materials is of particular importance. Primary or closed loop recycling calls for packaging materials to be recycled into its original material or container form. According to Moore (1995) expanding recycling

operations can be very profitable. As a value-added service, recycling has the potential to command premium prices in the marketplace. Over time, recycling collection equipment will become more complex and expensive. This, combined with higher capital costs and technology at the material recovery facility (MRF), will result in a higher barrier to entry for the recycling business. Eventually, higher profit margins will be the outcome.

In Kenya scene investigation of community efforts at environmental management, income generation, and community empowerment through waste management was conducted in Nairobi, Kenya. Several community groups in Nairobi's low-income areas were found to be undertaking composting as an income generating and environmental management strategy. Waste management is identified as one of Nairobi's key environmental issues (Hake 1997). Today, Nairobi's two main images stand in marked contrast to one another. Equally visible nowadays is what Hake (1977) calls the "self-help city". It includes make-shift housing, roadside jua kali shops and industries, and small, cultivated plots along undeveloped or under-utilized urban land. Many of Nairobi's poor engage in waste picking as a means of income generation. Scavengers are estimated to collect 20 tonnes of the approximately 800 to 1000 tonnes generated daily in Nairobi (Syagga, 1992: 34). The degree of scavenging is so intensive at the main Dandora waste disposal site in Nairobi such that a visit to the site during the day appears as if the scavengers are people working in a rice field (Mwaura, 1991: 105)

According to Lyon and Burtford (1993) comments that there are some critics who dispute the net economic and environmental benefits of recycling over its costs, and

suggest that proponents of recycling often make matters worse and suffer from confirmation bias. Specifically, critics argue that the costs and energy used in collection and transportation detract from (and outweigh) the costs and energy saved in the production process; also that the jobs produced by the recycling industry can be a poor trade for the jobs lost in logging, mining, and other industries associated with virgin production; and that materials such as paper pulp can only be recycled a few times before material degradation prevents further recycling. Proponents of recycling dispute each of these claims, and the validity of arguments from both sides has led to enduring controversy.

From the literature reviewed there is no agreed relationship between recycling of waste to show that it determines the financial performance, thus the hypothesis will be there is no relationship between recycling of waste and financial performance.

2.4.2 Waste Management and Financial Performance of SMEs

According to the Kenya Institute Management (2010:2074-7802) Nakumatt supermarkets has partnered with the Kampala City Council to facilitate solid waste management project by KCC as part of regional market development plan. Nakumatt over the last one year has invested more than US$2 million in Kenya, Uganda and Rwanda with the aim of environmental conservation in the three countries.

According to Saunders (1997) concern is growing throughout the world for Green issues and environmental protection and it is an aspect of particular importance for both corporate and purchasing management strategies. Conservation of resources, pollution of air, water and land through operations of firms and the removal and disposal of waste products are items on agenda for attention. There is growing

political interest in the issues concerning green procurement and there are legal measures through which obligation and duties may be imposed on companies. Stren and white (1989) noted that both financially and physically, a city may be unable to provide waste collection, especially to the urban poor occupying peri-urban or other geographically inaccessible areas. The urban poor are left to contend with waste disposal on their own. The lack of support given to the urban poor in this area has serious consequences on their health and on the urban environment .Thus, in cities of the developing world, the management of solid wastes is now an issue of vital importance to urban sustainability.

According to Furedy (1992) as urban environmental problems worsen in developing countries, non-conventional approaches to urban pressure points like waste management will have to be adopted. The recycling of solid and organic waste is one approach which has positive ramifications in creating informal employment and offering an environmentally sound solution to waste management problems. While there is considerable documentation on innovative community-level waste management schemes in Asian and Latin American cities, little research has been done on the importance of, and potential for, waste re-use in African cities .

As a city with critical waste management problems and a burgeoning informal sector, Nairobi possesses both the need and potential for an innovative approach to its waste problems. Waste re-use plays a valuable resource conserving role: by recycling materials, further exploitation of scarce natural resources is minimized, thus containing the spreading ecological footprint of the city. Despite these environmentally and socially beneficial aspects of waste recycling, it is not without its

negative impacts, which include exploitation by waste buyers and poor health and living conditions for the urban poor who deal in waste picking (Furedy, 1992).

Burt *et al.* (2004) argues that companies are committed to waste prevention will often apply statistical procedures to collect data to monitor the process along the value chain with the focus of minimizing the impact of the different process variable. Waste avoidance is a systematic approach to optimizing the efficiency of a given process. The cost of waste is positively correlated to the type of materials entering the waste stream. If waste is hazardous the company has to provide higher level of safety with the collection, sorting, labeling and transporting of the material. The establishment of an effective waste management system and monitoring is crucial for the efficiency of continuous pollution prevention.

Green procurement can also offer cost savings. In particular, buying 'green' usually involves products that are easily recycled, last longer or produce less waste (Burt *et al* 2004). 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. Florida and Davison (2001) exemplify the viability of green procurement strategy within their description of the "three-zero" manufacturing paradigm, where companies attempt to achieve a level of zero defects, zero inventory, and zero waste and emissions. However, lack of a theoretical framework to quantify the relationship between waste management and financial performance has hindered the ability of management to gain support for capital investment that these strategies may require. Thus the hypothesis will be there is no relationship between waste management and SMEs financial performance.

2.4.3 Effects of Non Pollutants Use and Performance of SMEs

Pollution is the introduction of contaminants into a natural environment that causes instability, disorder, harm or discomfort to the ecosystem that is physical systems or living organisms. Pollution can take the form of chemical substances or energy, such as noise, heat, or light. Pollutants, the elements of pollution, can be foreign substances or energies, or naturally occurring; when naturally occurring, they are considered contaminants when they exceed natural levels. Pollution is often classed as point source or non point source pollution (Gina, 2006). According to Burt *et al*. (2004) pollution prevention (P2) generally applies to the practice of setting priorities on how wastes are handled. This is often depicted as the P2 Hierarchy. From top to bottom, the basic philosophy is to reduce, reuse, and recycle, often referred to as the 3Rs. The goal of such a philosophy is to minimize the generation and disposal of waste.

Green procurement is rooted in the principle of pollution prevention, which strives to eliminate or to reduce risks to human health and the environment. It means evaluating purchases based on a variety of criteria, ranging from the necessity of the purchase in the first place to the options available for its eventual disposal (Lacronix 2005).According to Duhole (2010) during heavy rains, most of the waste is carried to rivers in form of leachete and this lowers the water quality for both consumption and other domestic works example washing. It dissolves chemicals from industries and this affects marine life.

According to Gahole (2010) Huruma town is located some few kilometers from Eldoret central business centre. It is a town dominated by slums and shanties. It also has Eldoret towns' major waste disposal grounds where the "municipal waste" is

being discharged. Municipal waste includes both the domestic discharge and commercial waste. Despite it being used by the local authority in the town for the good purpose of disposing the waste, the management system at the site raises many concerns over the waste is being handled.

The town uses crude dumping and indiscriminate burning as the only way of handling the waste. □This leads to many hazardous effects that directly or indirectly affect the people's lives in the surroundings. These effects include; pollution and accidents that cause diseases such as dysentery and tetanus due to cuttings or bricking by sharp objects. This sometimes leads to death. Duhole (2010) notes that air pollution in one of the encounters is the iso- ferocious smell that comes out. Indiscriminate burning also leads to the release of the di-oxyl gas and CO_2 gas that leads to the depletion of the ozone layer. This exposes people to U-V light to which with other carcinogenic gases produced they lead to cancer. Land pollution occurs when the municipal waste scatters all over the place, and the acids from it degenerates the value of the land. Also, the waste occupies much space of which could have been used for more productive things, like agriculture and construction (Duhole 2010).

Lake Naivasha as Daily nation 28th June 2011 Smart Business p 14 quotes as a matter of urgency, the government must intervene in the lake's management for everyone's sake and investigate the claims that fish are dying due to reckless use and disposal of farm chemicals. Heavily polluted and shrinking, Lake Naivasha is in dire trouble. Environmentalists say the cause is clear: flower farms. Some 60 flower farms line the entire lakeside, growing cut flowers for export largely to the EU. While the flowers industry is Kenya's largest horticultural export (405.5 million last year) it may have

also produced environmental nightmare. Environmentalists say that flower farms have taken water from the lake Naivasha for irrigation and then dumped pesticide-waste back into the lake. Long-ignored by policymakers, the situation has recently reached a head due to thousands of fish and other freshwater organisms perishing in the lake. Fishing, once common in the lake, has since been banned. Samples of the water, fish, and sediments have been taken by government agencies for testing. If it turns out that the flower farms are responsible for the lake's pollution problems, the government could revoke farm licenses. A preliminary inquiry has already linked the flower farms to the lake's troubles stating that the fish mortality was likely caused by low levels of dissolved oxygen.

 According to PPOA (2005) Kenya has signed the Kyoto agreement on emission control and taking care of environment. Non   pollutants are very expensive to organization. From literature revisited there is no link between non pollutants and financial performance of SMEs thus hypothesis will be there is no relationship between preference for non pollutants and SMEs financial performance.

2.4.4 Energy Saving Products and Financial Performance of SMEs

Green products are generally produced in a manner that consumes fewer natural resources or uses them more sustainable, as with sustainable forestry (Lacronix and Stamatioux 2006). 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. For example, they may contain recycled material or use less packaging, and the supplier may operate a 'take-back' program.

According to Miller (2006) companies can cut costs by implementing energy saving measures. A report released by McKinsey (2006) found that the U.S. could save $1.2 trillion through 2020 by investing $520 billion by making improvements such as replacing inefficient appliances with new, energy-saving ones.

The industrial sector accounts for 40 percent of end-use efficiency and the commercial sector for 25 percent. "Simple, low-risk, high-return" energy efficiency improvements businesses can make in the following categories: lighting, water heating, refrigeration, equipment, heating and cooling systems (HVAC), and buildings.

Some of the improvements businesses can make include: To save on Lighting, the following measures can be instituted; replace incandescent light bulbs with compact fluorescent light bulbs, replace or retrofit non-energy efficient light fixtures and install occupant sensors to automatically turn lights off and on. For Water heating insulate hot water holding tanks and hot and cold water pipes, let your water heater at the lowest required temperature and install faucet aerators and efficient showerheads. For Refrigeration, turn off the lights in walk-in refrigerators, add strip curtains to refrigerated spaces and retrofit or replace old refrigerators and freezers. For Equipment in the office, turn off office equipment when not in use and use energy efficient computers and office equipments. Repair leaks in system components such as pipes, steam traps or couplings (Miller 2006).

One key way that businesses can cut costs and become more energy efficient is through using less energy. Businesses can save at least 10 percent on their energy bill through using less, according to Gearoid Lane, managing director, British Gas New

Energy. The average energy consumption could be reduced 25 percent by effectively using power management tools, according to the Alliance. The literature on energy saving products has clearly shown that use of these products can cut down costs, thus suggested hypothesis will be there is no relationship between use of energy saving products with SMEs financial performance.

2.5 Research Gaps

The literature reviewed shows there is inadequate literature linking recycling of waste, waste management, using non pollutants and energy saving products to SMEs financial performance in Kenya. Furthermore the literature failed to bring out a clear link between Green procurement strategies on revenues and expenses of small and medium enterprises in Kenyan context.

According to Davison (2001) there is lack of a theoretical framework to quantify the relationship between environmental and financial performance that these strategies may require. The traditional environmentally conscious perspective argues that "greening" is good for society. Corporations, however, are typically motivated to reduce, not social, but organizational costs. As green procurement strategies may require significant capital investment.

2.6 Conceptual Framework

The conceptual framework depicts both dependent and independent variables. The independent variables operationalize the green procurement strategies which include Recycling, non pollutants use, waste management and use of energy saving products. The dependent variable on the other hand is depicted as SMEs financial performance measured in terms of revenues and expenses (return on assets and return on revenues) as a result of SMEs adoption of green procurement strategies.

INDEPENDENT VARIABLE   **DEPENDENT VARIABLE**
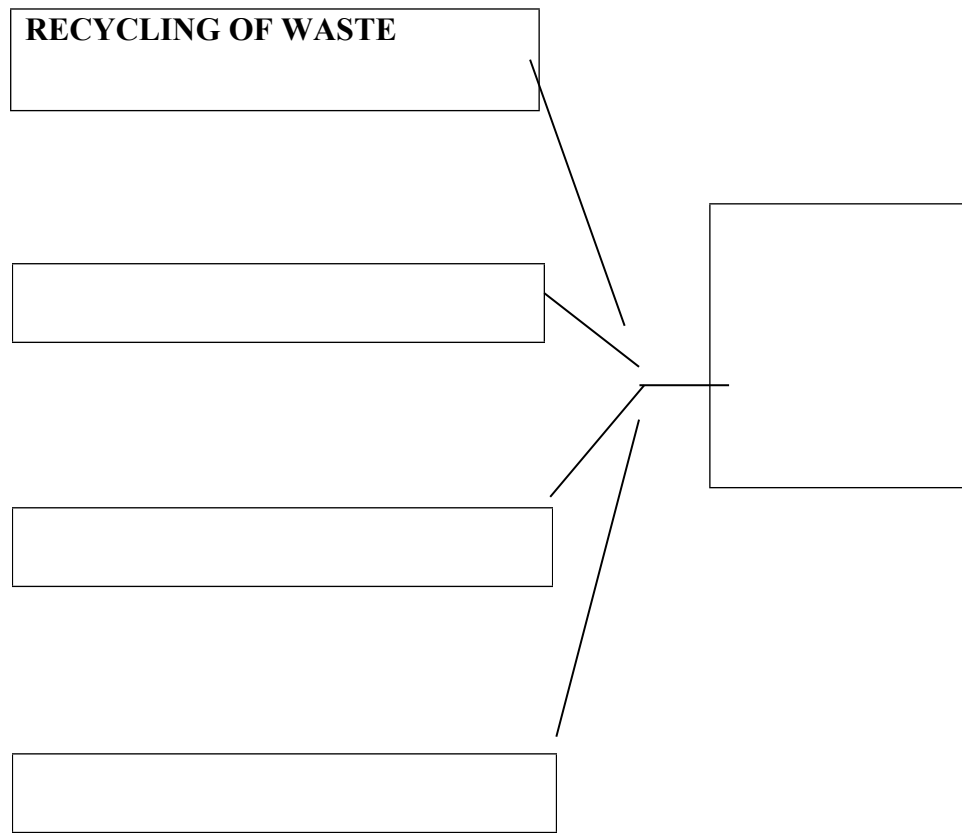
Figure 2.1: Conceptual Framework of the Green Procurement Strategies as Determinants of financial performance of SMEs

Source: Researcher, 2011

Table 2.1: Operationalization of the Study Variables

Variable	Type	Measurement
SMEs financial performance	Dependent variable	Return on revenue Return on assets
Recycling of waste	Independent variable	Entrepreneur rating
Waste management	Independent variable	Entrepreneur rating
Preference for non pollutants	Independent variable	Entrepreneur rating
Energy saving products	Independent variable	Entrepreneur rating

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the study area, research design, population of study, sampling design and sample size, data collection, data analysis and presentation, ethical considerations, limitations of the study and the expected output.

3.1 Research Design

This study utilized explanatory research design. It is also called causal comparative. Explanatory research design is a bivariate analysis and it explores the relationships between variables as advocated by Babbie (1975). The research adopts this design because it determines and explains reasons for causes and for current status of the phenomena under study. The study aimed at collecting information from the respondents on the various types of green procurement strategies that are used in small and medium organizations and its determination on financial performance of these SMEs. This design was adopted because the data collected enabled a comparison of green procurement strategies and financial performance. This approach was also preferred because data obtained from this approach helped in making generalizations to a wide area, for instance, the whole of Kenya.

3.2 Study Area and target population

The study was carried in Eldoret town in Kenya. The location has a large number of small and medium enterprises such as general trade shops example supermarkets hotels, bars and restaurants which are categorized as SMEs thus being the best study location for this research.

The target population of this research was the small and medium enterprises (SMEs) in Eldoret town in Kenya. According to Eldoret municipality records there are more than 8175 SMEs in Eldoret town. (Municipal council of Eldoret- Local Authority integrated Financial Operations 2011)

3.3 Sampling Design and Sample Size

The study used stratified sampling and simple random sampling. The researcher collected and analyzed data from each strata using simple random sampling. In Eldoret town there are more than 26 mega supermarkets and 490 small supermarkets and more than 1087 Hotels/Restaurant/Bars for which green procurement is applicable. The study focused on two categories as they were more viable in terms of green procurement and waste management also with their strong influence on economic and social matters, environmental impacts attributed to supermarkets and hotels/restaurant and bars activities are certainly significant, not only the magnitude but also the diversity. Hence, the study targeted 80 supermarkets and 200 hotels/restaurant/bars by using stratified sampling this is because the researcher wanted to investigate specific sub-groups. The Choice on the sample size of super markets is informed by Gay (1992) who recommends that for small sample size then a sample size of 20% is adequate for the study.

3.4 Data Collection

3.4.1   Type and Sources of Data

The study collected primary data. The instruments for collecting primary data were questionnaires and structured interviews.

3.4.2   Data Collection Instruments

The instruments used to collect primary data were Questionnaires and structured interviews. The use of questionnaires was the chosen method of data collection. The management was interviewed. The method was beneficial to the Study because the researcher had personal encounter with most respondents, which helped in understanding the experience of target group within the study area. In addition, Interviews were conducted purposefully in order to gather important information that might be seen by the interviewees as sensitive to be written in the questionnaire.

3.4.3 Data Collection Procedure

The study utilized primary. Primary data collection tools included questionnaires and structured interviews. The questionnaires and the structured interviews were administered to the management level as they were best suited to understand green procurement procedures and its implications to the financial status of the enterprise. The questionnaires were administered to all the top management and purchasing managers concerned with green procurement activities.

3.4.4 Procedure for Questionnaires

A five point scale likert questionnaire was used to elicit responses from the respondents. This enabled collection of all relevant information from the respondents. A questionnaire was ideal because of its ease in administration, analysis and collection of more information from a large number of respondents. The questionnaire was accompanied with an introductory letter from Moi University, School of Business and Economics indicating the area of research and confirming that the research information was treated with confidentially and used solely for the research purposes.

3.4.5   Procedure for Interview Schedule

This research also utilized structured interviews, which was conducted by the researcher through face to face, to two members of the administration in every SMES. The structured interviews were faster to conduct and thus save the time the researcher spent with the respondents. This is because the management of SMEs is in most cases were busy and thus have less time for the researcher.

3.4.6 Testing for Validity and Reliability

The data collection instruments were tested for their reliability and validity. This was done trough pilot testing. According to Saunders (2003) the purpose of pilot testing was to refine the questionnaire so that respondents had no problems in answering the questions and no problems in recording the data. Validity refers to the extent to which the research instruments collect the intended data, while reliability aims at ascertaining consistency of responses collected by the instruments.

Mitchell (1996) outlines three common approaches to assessing reliability. They include test re-test, internal consistency and using alternative form. The two were tested using the pilot testing technique (test-retest) to ascertain their validity and reliability and SPSS computer software to test for alpha thus ensuring reliability. Thus, reliability can be expressed in terms of stability, equivalence, and consistency. Cronbach Coefficient Alpha (Cronbach, 1951), is a popular method used to check consistency. Unlike test re-test for stability and alternate form for equivalence, only a single test is needed for estimating internal consistency. The reliability coefficient may vary from group to group. On the other hand, Cronbach Alpha is the mean of all possible spilt-half coefficients that are computed by the Rulon method (Crocker &

Algina, 1986).Cronbach coefficient Alpha is a measure of squared correlation between observed scores and true scores. Put another way, reliability is measured in terms of the ratio of true score variance to observed score variance. The theory behind it is that the observed score is equal to the true score plus the measurement error ($Y = T + E$). According to Hair *et al.* (2006) the general agreed upon lower limit for Cronbach's alpha is > 0.70. Using SPSS reliability test results of measurement scales were generated followed by inspection of the Cronbach a coefficient values. Further iterations of the procedure were performed eliminating items with total correlation coefficient of less than 0.70. Scale reliability (The capacity of a measure to produce consistent results) was tested by use of Cronbach's alpha and coefficient was 0.800 for questionnaires and 0.756 for interview schedules, showing the instruments were reliable.

3.5 Data Analysis and Presentation

3.5.1 Data Analysis

After all primary data is collected; the researcher edited the data to check for omissions, completeness, clarity and accuracy and consistency in preparation for analysis. The researcher then use descriptive statistics to summarize the data; exploratory factor analysis to reduce data, Pearson Momment Correlation and Multiple linear regression model to test relationships between variables that is green procurement strategies as independent variable and financial performance of SMEs as dependent variable . The multiple regression equation was as follows;

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \square$$

Where:

Y= Dependent variable (Organization financial performance)

X= Independent variables;

X_1 = Recycling of wastes

X_2 = Effects of non-pollutants

X_3 = Waste management

X_4 = Energy saving products

$\square$ = Error term

3.5.2 Data Presentation

The data was mainly presented using tables, graphs, pie-charts figures and in prose form.

3.6 Ethical issues

To ensure ethical issues are taken into consideration, research plagiarism and fraud was avoided. All scholars who have been cited in text are acknowledged and information given by respondents on questionnaires and interviews is treated with confidentiality. Anonymity and personal consent was upheld when carrying out the research.

3.8 Limitation of the study

The limitations of this study are inherently linked to the disadvantages of the data collections techniques and primarily to the disadvantages associated with the use of questionnaires. sometimes questionnaire respondents may not correctly grasp the intent of the question thus giving out irrelevant answers. Some respondents may introduce bias into the study through answering questions based on personal prejudices as opposed to objectivity of the study.

CHAPTER FOUR

FINDINGS, DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.0 Introduction

This chapter presents an analysis and discussion of the data gathered from managers and employees. The data was collected through structured questionnaires. This chapter is sub-divided according to the study objectives and findings presented using tables and figures.

4.1 Background Information of the SME's

The study obtained information from respondents about the SME's they are operating with diverse characteristics in terms of operation, position, years they have been in business. The questionnaire returned were 272(97.14%).

4.1.1 Category of SME

The study sought to find out which category of SME they belong to and most 169(62.1%) indicated hotel/restaurant and bar with 103(37.9%) stating supermarkets. This implies that most of the SME's in Eldoret fall under the category of hotel/restaurant and bar
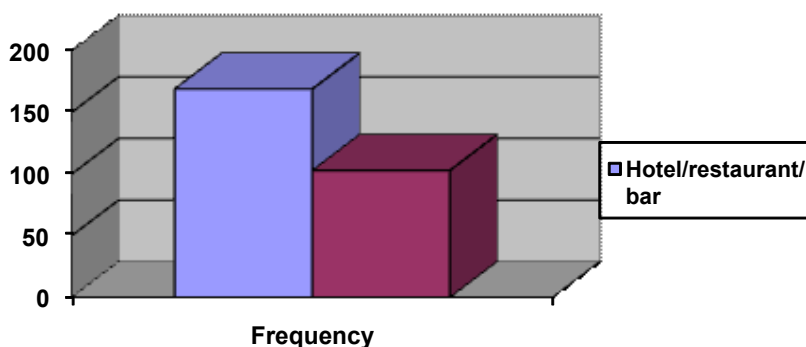
Figure 4.2: Category of SME

Source: Survey Data (2011)

4.1.2 Years in Business

The study sought to find out how long the SME'S have been in business and most of the respondents 135(49.60%) indicated to have been in business between 1-5 years, those who have been in business for 6-10 years were 105 (38.5%) with 29(10.7%) indicating to have been in business between 11-15 years. This implies that most of the SME's have been operational for 1-5 years with some having been in operation for 6-10 years and thus majority have been in existence for ten years as shown in table 4.1..

Table 4.1: Years in Business

Years in Business	Frequency	Percent
1-5	135	49.6
6-10	105	38.5
11-15	29	10.7
16-20	1	0.4
21-25	2	0.8
Total	**272**	**100.0**

Source: Survey Data (2011)

4.2 Green Procurement

The study sought to know if the respondents understood the term green procurement and the majority 171(62.9%) indicated yes, with 94(34.6%) stating no and 7(2.6%) not responding to this query. This implies that most of the SME's have been

operational for quite a number of years. This implies that most of the respondents have heard and know the term green procurement.

Table 4.2: Green procurement

Green procurement	Frequency	Percent
Yes	171	62.9
No	94	34.6
None response	7	2.6
Total	**272**	**100.0**

Source: Survey Data (2011)

4.2.1 Explanation Green Procurement

Most of the respondents 106(39.0) understand the term green procurement as a way of conserving the environment, 94(34.6%) of the respondents have never heard of it and 49(18.0%) stated it is the use of products that conserve the environment. This shows that most of the respondents can explain what green procurement is because they understand the term.

Table 4.3: Explain Green Procurement
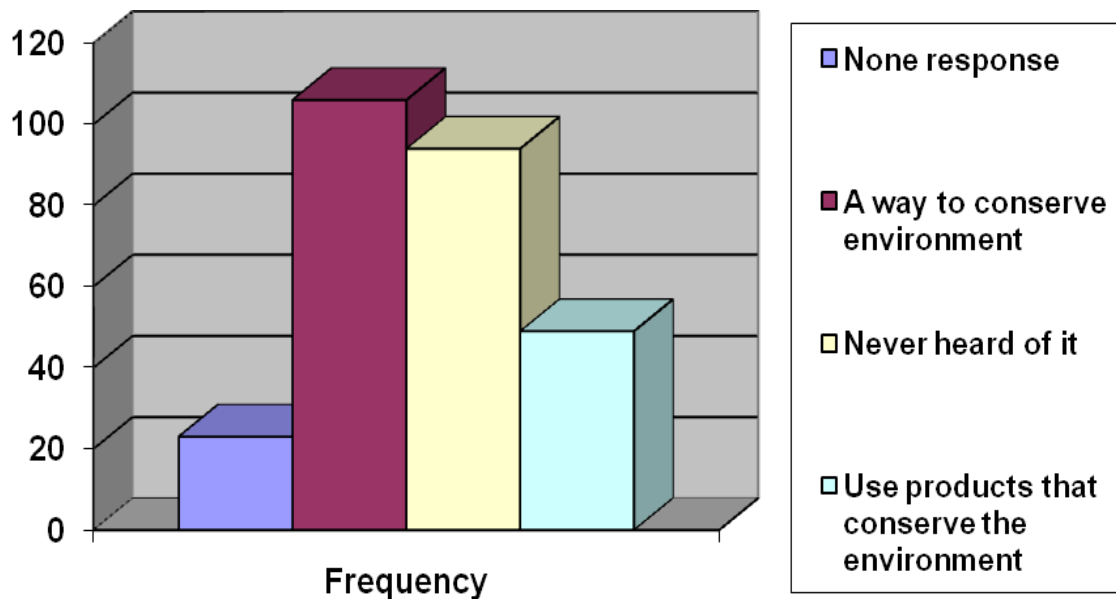
Source: Survey Data (2011)

4.2.2 Source of Knowledge about Green Procurement

The study sought to know the respondents source of knowledge about green procurement and the majority 101(37.1%) did not respond to this query, 90(33.1%) indicated it was because it is a legal requirement and 56(20.6%) stated that it is because of sensitization by the government. This implies that a majority have no idea

where they got to know about green procurement and those that know is because it is a legal requirement and due to sensitization by the government.

Table 4.4: Source of knowledge.

Source of knowledge.	Frequency	Percent
Seminars	25	9.2
Legal requirements	90	33.1
Sensitization by government	56	20.6
None response	101	37.1
Total	**272**	**100.0**

Source: Survey Data (2011)

4.2.3 Enterprise Embracing Green Procurement

When asked if the enterprise is embracing green procurement, the majority 164(60.3%) indicated in affirmative and 108(39.7%) did not affirm. This shows that most of the enterprises embrace green procurement.
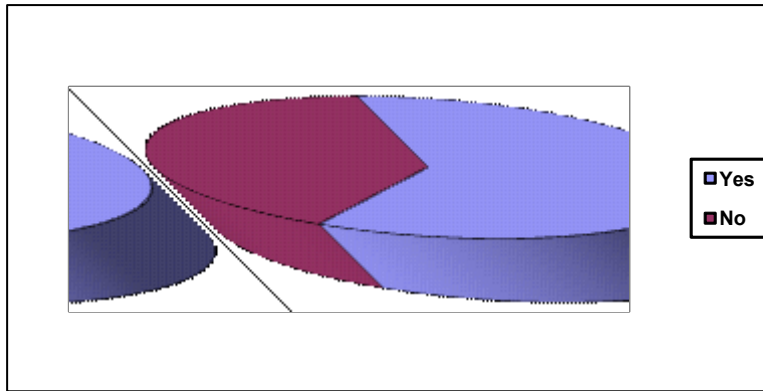
Figure 4.1: Enterprise Embracing Green Procurement

Source: Survey Data (2011)

4.2.4 Reasons Given for Embracing Green Procurement

When asked why they embrace green procurement the majority 151(55.5%) stated that they conserve the energy, with 93(34.2%) indicating they have no idea why they confirm green procurement and 21(7.7%) giving no response. This shows that most of the respondents embrace green procurement because it conserves the energy.

Table   4.5: Enterprise Embracing Green Procurement

	Frequency	Percent
None response	21	7.7
Conserve the energy	151	55.5

Have no idea	93	34.2
No resources	7	2.6
Total	272	100.0

Source: Survey Data (2011)

4.2.5 Green Procurement Procedures Used by the Enterprise

The study sought to know what green procurement procedures are used by the enterprise and the majority 99(36.4%) used recycling, 98(36.0%) stated using energy saving products and 57(21.0%) stated waste management. This implies that recycling and using energy saving products as the major green procurement procedures used by the enterprises.
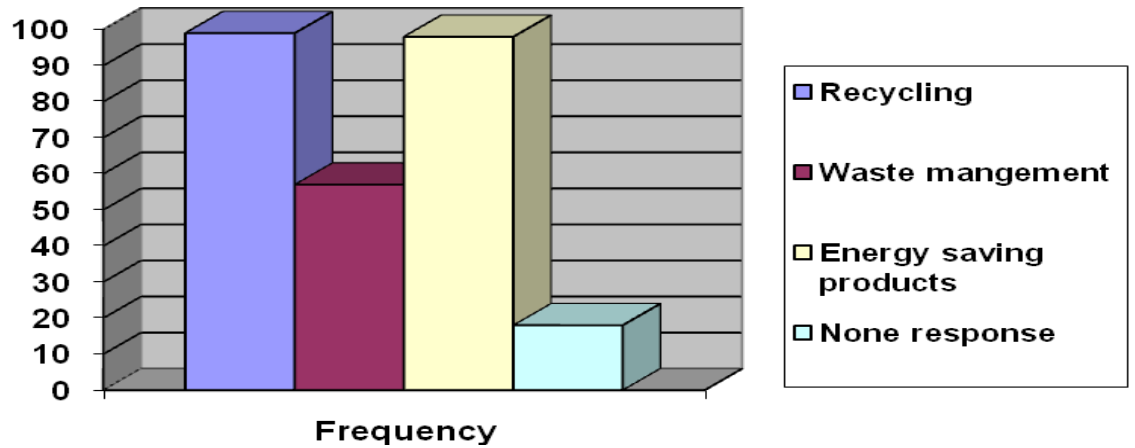
Figure 4.2 : Green procurement procedures used by the enterprise

Source: Survey Data (2011)

4.2.6 Financial Performance of SME's

The respondents were asked to agree or disagree to given statements as they relate to their financial performance. Majority 265(97.5%) agreed that their enterprise has the ability to meet financial obligations, if there is availability of funds to purchase inputs and inventory items in the enterprise all 272(100.0%) of the respondents agree, 251(92.3%) of the respondents agreed that the enterprise is able to repay all debts without any difficulties.

Table 4.6 : Financial performances of SME's

		D	N	A	SA	NR	Mean	Stdv	Skewness		Kurtosis	
									Statistics	std error	Statistics	std error
Our enterprise has the ability to meet financial obligations	Freq		7	196	69		4.23	.478	2.57	.216	7.27	0.428
	%		(2.6)	(72.1)	(25.4)							
We have availability of funds to purchase inputs and inventory items in the enterprise	Freq			265	7		4.03	.159	-2.74	.216	2.18	0.428
	%			(97.4)	(2.6)							
The enterprise is able to repay all debts without any difficulties	Freq	14		196	55	7	4.10	.640	-2.15	.216	3.14	0.428
	%	(5.1)		(72.1)	(20.2)	(2.6)						
The enterprise is able to withstand risks	Freq	7		251	7	7	3.97	.363	1.75	.216	-.943	0.428
	%	(2.6)		(92.3)	(2.6)	(2.6)						
The enterprise is able to operate after a major financial adversity	Freq	14	7	218	33		3.99	.595	0.75	.216	3.175	0.428
	%	(5.1)	(2.6)	(80.1)	(12.1)							
The enterprise is able to pay all Expenses	Freq	7		225	33	7	4.07	.475	0.76	.216	4.17	0.428
	%	(2.6)		(82.7)	(12.1)	(2.6)						
The enterprise is able to repay all indebtness.	Freq	7		265			3.95	.317	2.747	.216	2.34	0.428
	%	(2.6)		(97.4)								
Average Mean							4.05					

Source: Survey Data (2011)

SD-*Strongly Disagree,* D- *Disagree,* N- *Neutral,* A-*Agree,* SA- *Strongly Agree,* NR-*None response*

The majority of the respondents 258(94.9%) agreed that the enterprise is able to withstand risks and a further 254(92.2%) agreed the enterprise is able to operate after a major financial adversity. The respondents 258(94.8%) agreed that the enterprise is able to pay all expenses and 265(97.4%) agreed that the enterprise is able to repay all indebtness. Most of the respondents agreed with all the statements above

4.2.7 Rating the Financial Performance of the Enterprise

The respondents were asked to rate the financial performance of the enterprise and the majority 164(60.3%) indicated very high, those who rated the financial performance as average were 56(20.6%) and 45(16.5%) indicated high. This implies that most of the enterprises do well financially.

Table 4.7: Financial Performance of Enterprise
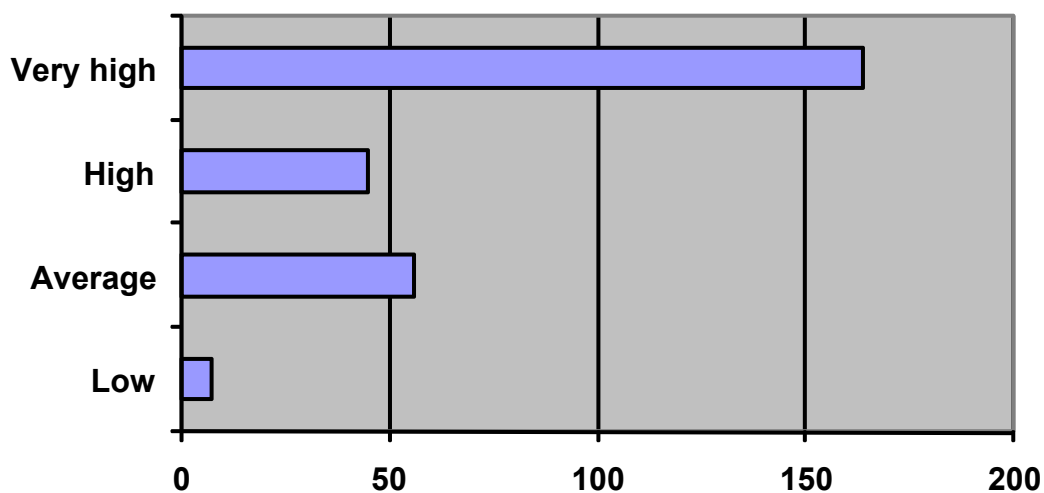
Source: Survey Data (2011)

4.3 Recycling of Wastes

The study sought to establish if the enterprises know about recycling of wastes, how they practice recycling and how they recycle wastes.

4.3.1 Understanding of Term Recycling

The respondents were asked if they understood the term recycling of waste and the majority 213(78.3%) stated yes and 59(21.7%) stated no. This implies that most of the respondents are aware and have an understanding of the term recycling.
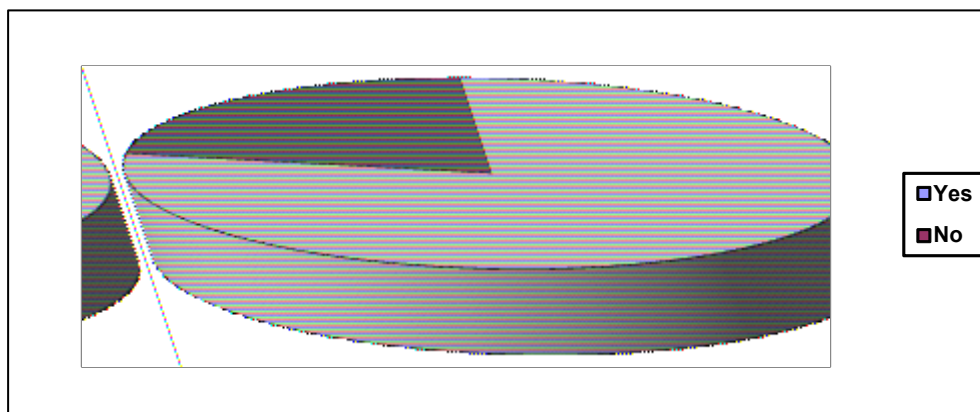
Figure 4.3: Understanding of Term Recycling

Source: Survey Data (2011)

4.3.2 Respondents Understanding of Recycling

When asked to explain the term recycling, most of the respondents 163(59.9%) indicated that it meant conversion of waste to other products, while 70(25.7%) indicated that it meant use of waste to produce other products and 39(14.3%) had no response.
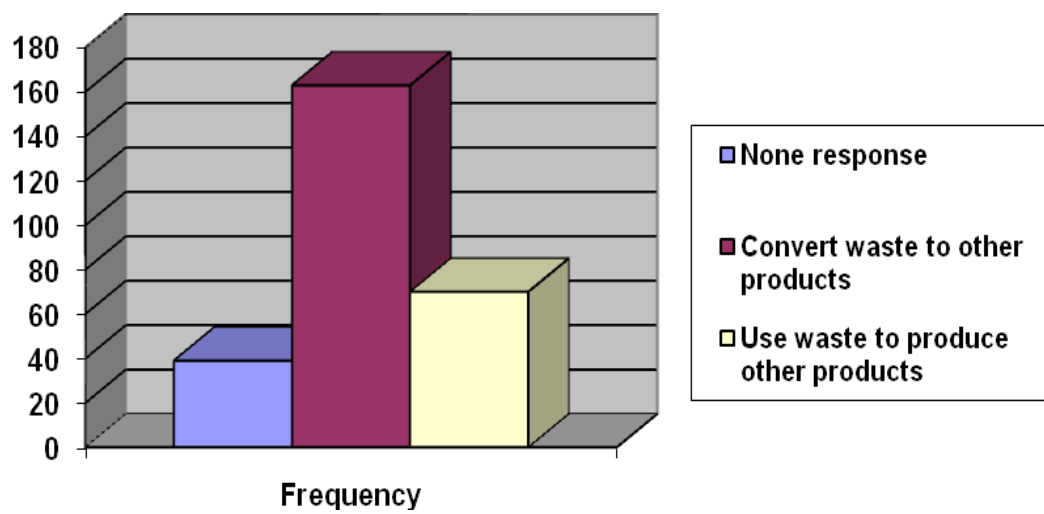
Figure 4.4: Understanding of Term Recycling

Source: Survey Data (2011)

4.3.3 Enterprise Practices of Recycling

The respondents were asked if the enterprise practices any recycling and the majority 209(76.8%) indicated no while 56(20.6%) indicated yes and 7(2.6%) had no response. This implies most enterprises do not practice recycling

Table   4.8: Enterprise practices of recycling

	Frequency	Percent
Yes	56	20.6
No	209	76.8
None response	7	2.6
Total	**272**	**100.0**

Source: Survey Data (2011)

4.3.4 Reasons for Participation in Recycling

When the respondents were asked to give reasons for practicing recycling the majority stated that they have nothing to recycle, those that indicated that they do that to save money were 56(20.6%), while 49(18.0%) indicated that it is expensive and 38(14.0%) it is due to lack of resources. This implies that most of the respondents do not have anything to recycle hence no recycling takes place in the enterprises.

Table 4.9: Reasons for Participation in Recycling

	Frequency	Percent
None response	14	5.1
Because of hygiene	7	2.6

It is expensive	49	18.0
Lack of resources	38	14.0
Nothing to recycle	108	39.7
To save money	56	20.6
Total	**272**	**100.0**

Source: Survey Data (2011)

4.3.5 How to Recycle Waste

The study sought to find out how the enterprises recycle wastes and majority of the respondents, 138 (50.7%) did not respond, 71(26.1%) stated that they do not recycle waste and 56(20.6%) indicated that they convert waste to produce paper bags. Most enterprises do not recycle their waste and they have no facilities to recycle.

Table 4.10: How waste is Recycled

	Frequency	Percent
None response	138	50.7
By burning	7	2.6
Convert waste to produce paper bags	56	20.6
We do not recycle waste	71	26.1
Total	272	100.0

Source: Survey Data (2011)

4.3.6 Relationship between Waste recycling and Financial Performance

The study sought to find out if recycling of waste affects the financial performance and the majority 175(64.3%) indicated no while 97(35.7%) indicated yes. This implies that most enterprises are not affected by recycling of waste as they do not practice recycling.

Table 4.11: Relationship between Waste recycling and financial performance
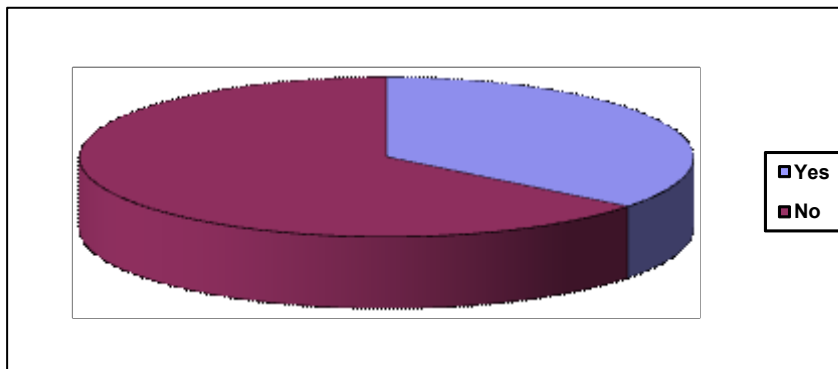
Source: Survey Data (2011)

4.3.7 Reasons for Recycling Waste

Majority of the respondents 90(33.1%) stated that it reduces the profit margin when asked the reason for their answer above (4.4.7), 56(20.6%) stated that it requires little

capital another 56(20.6%) indicated that they recycle no waste. The major reason indicated by the respondents was that it reduces the profit margin.

Table 4.12: Reasons for Recycling Waste

Reasons	Frequency	Percent
None response	14	5.1
Increase expenses	7	2.6
No investment on recycling	49	18.0
Reduces our profit margin	90	33.1
Requires little capital	56	20.6
We recycle no waste	56	20.6
Total	**272**	**100.0**

Source: Survey Data (2011)

4.3.8 Recycling of Waste as a Determinant of Financial Performance of SME's

The study sought to know if the enterprises take empty packages from customers and the majority 258(94.9%) with 237(87.1%) indicating that they return empty packages to the party responsible in the recycling process, another 265(97.5%) agree that they collect waste material from cycling bins. When asked if the waste materials are delivered to the entity responsible for recycling 258(94.8%) agreed while 220(80.9%) indicated that they agree there is always processing of recyclables to create secondary raw materials. When asked if the secondary materials are used to manufacture new materials the majority 213(78.3%) agreed, 192(70.6%) agree that the new materials

are returned to the market place and 213(78.3%) agree that the system that can handle the growth in volume of waste is implemented.   This implies that the respondents agree that recycling of waste is a determinant of financial performance of SME's

Table 4.13: Recycling of Waste a Determinant of Financial Performance of SME's

Statement													
We take empty packages from customers	Freq	14			258			3.87	.565	0.145	0.314	3.17	0.475
	%	(5.2)			(94.9)								
We return empty packages to the party responsible in the recycling process.	Freq	7			237		28	3.94	.335	-2.14	0.314	2.18	0.475
	%	(2.6)			(87.1)		(10.3)						
We collect waste material from cycling bins	Freq		7		258	7		3.97	.358	3.170	0.314	-4.47	0.475
	%		(2.6)		(94.9)	(2.6)							
The waste materials are delivered to the entity responsible for recycling.	Freq		14		194	64		4.13	.652	-2.15	0.314	-5.74	0.475
	%		(5.2)		(71.3)	(23.5)							
There is always processing of recyclables to create secondary raw materials	Freq		52		119	101		3.99	1.068	3.40	0.314	-4.74	0.475
	%		(19.1)		(43.8)	(37.1)							
The secondary materials are used to manufacture new materials	Freq	45	14		143	70		3.66	1.357	3.17	0.314	3.14	0.475
	%	(16.5)	(5.2)		(52.6)	(25.7)							
The new materials are returned to the market place	Freq	45		7	136	56	28	3.65	1.342	4.17	0.314	2.66	0.475
	0/ /o	(16.5)		(2.6)	(50.0)	(20.6)	(10.3)						
The system that can handle the growth in volume of waste is implemented.	Freq		59		143	70		3.82	1.048	3.77	0.314	3.45	0.475

% (21.7) (52.6) (25.7)	
Average Mean	3.88

SD-Strongly Disagree, *D*- Disagree, *N*- Neutral, *A*-Agree, *SA*- Strongly Agree, *NR-No* response

4.4 Preferences for Non-pollutants.

4.4.1 Understanding of pollution

The respondents were asked if they understood the term pollution and all the respondents 272(100.0%) indicated yes. All the respondents know and understand the term pollution

4.4.2 Causes of Pollution

When asked to give the reasons and explanation for pollution the majority 189(69.5%) stated that it is destroying the environment due to human activities, a further 56(19.5%) indicated that it is dirt in the environment and 30(11.0%) did not respond. Most of the respondents do understand the term pollution as can be deduced from the table above and the reasons given by the respondents.
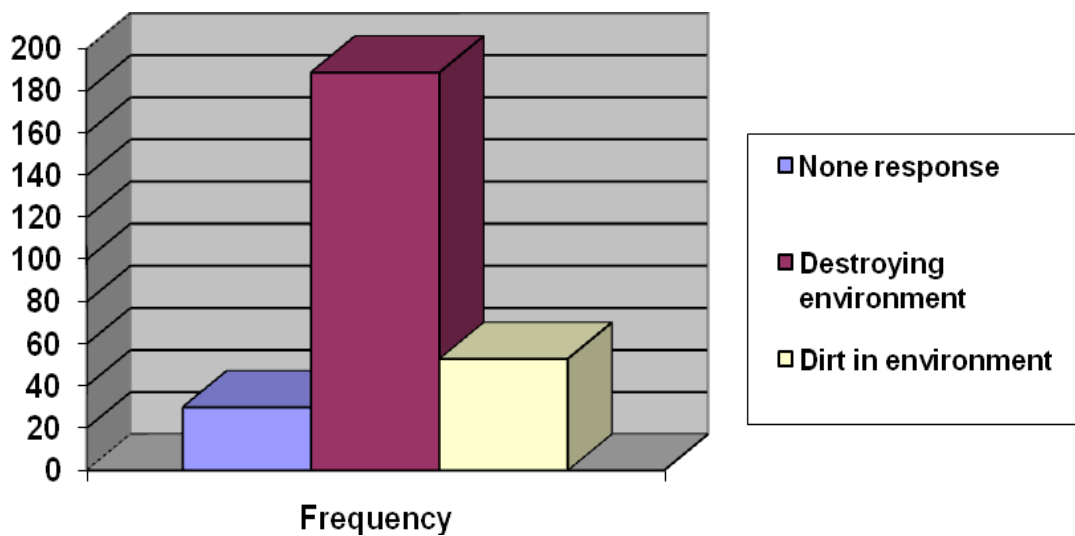
Figure 4.5: Causes of Pollution

Source: Survey Data (2011)

4.4.3 Kind of pollution the organization is likely to cause

Majority of the respondents 120(44.1%) indicated that their organization was likely to cause water pollution with 67(24.6%) indicating land pollution and 63(23.2%) indicating noise pollution.

Table 4.13: Kind of pollution the organization is likely to cause.

	Frequency	Percent
Air	14	5.1
Land	67	24.6
Water	120	44.1
Noise	63	23.2
None response	8	2.9
Total	**272**	**100.0**

Source: Survey Data (2011)

This implies that the major cause of pollution among the enterprises in Eldoret is water pollution.

4.4.4 Measures in your organization to reduce pollution.

The respondents were asked if their organizations has any measures to reduce pollution and the majority 258(94.9%) stated yes they have taken measures to reduce

pollution and 14(5.1%) stated that they have taken no measures to reduce pollution. This implies that most of the organizations take care of their immediate environment by reducing pollution.

Table 4.14 : Measures in your organization to reduce pollution

	Frequency	Percent
Yes	258	94.9
No	14	5.1
Total	272	100.0

Source: Survey Data (2011)

4.4.5 Ways of Waste Reduction

When asked what are their reasons and how do they take of their environment most of the respondents 92(33.8%) indicated they collect waste in dustbins, another 52(19.1%) indicated that they play soft music/sound proof and 51(18.8%) indicated that they drain waste into sewages. This implies that most organizations collect their wastes into dustbins and drain into sewages apart from playing soft music meaning they reduce noise pollution.
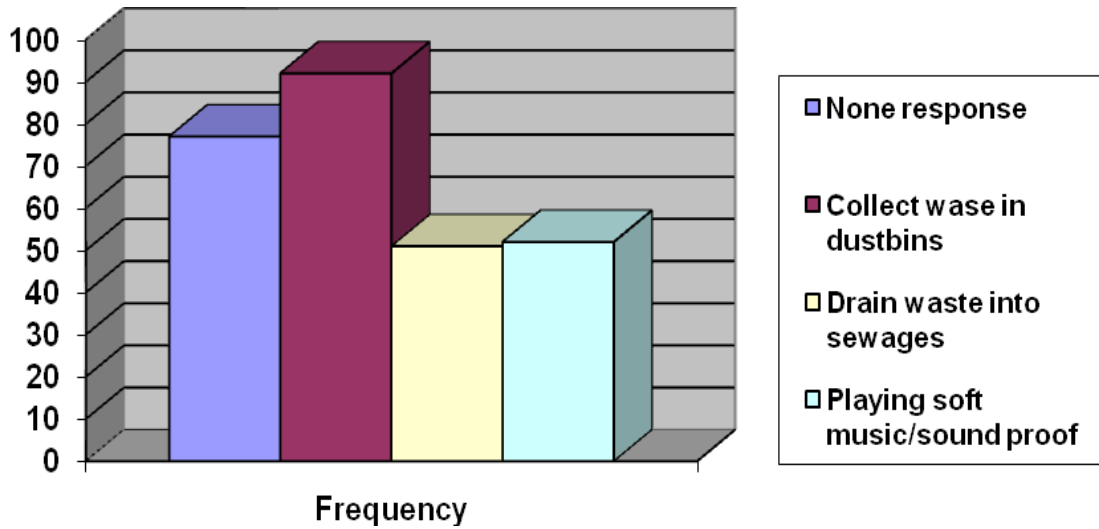
Figure 4.6 : Ways of Waste Reduction

Source: Survey Data (2011)

4.4.6 Using non-pollutant affects your financial performance

The study sought to find out if using non-pollutants affects the organizations financial performance and the majority 237(87.1%) said no while 35(12.9%) agreed. This shows that most of the organizations are not affected financially by using non-pollutant.

Table 4.15: Using non-pollutant affects your financial performance

	Frequency	Percent
Yes	35	12.9
No	237	87.1
Total	272	100.0

Source: Survey Data (2011)

4.4.7 Use of non pollutants affects financial performance of SME's.

When the respondents were asked if they have set priorities on how to handle wastes the majority 209(76.8%) agreed, most 223(82.0%) agreed that they ensure reduced risk to human health and environment, on being asked if they ensure no chemicals are dissolved from the enterprise to water resources 145(53.3%) agreed to this. The respondents were also asked if they have put in place measures to prevent carrying wastes to rivers during heavy rains and the majority 167(61.4%) indicated that they agree and lastly when asked if they use 3R strategy in waste management (reduce, reuse and recycle) the majority 209(76.8%) agreed to this.This implies that majority of the respondents were in agreement to all this statements and that they do care about their environment.

Table 4.17: Effects of Non-pollutant Use on Firms Financial Performance of SME's.

SD-Strongly Disagree, *D*- Disagree, *N*- Neutral, A-Agree, *S A*- Strongly Agree, NR-None response

		SD	D	N	A	SA	Mean	Stdv	Skewness		Kurtosis		
									Statistic s	**std** error	Statisti cs	**std** error	
We have set priorities on how to handle wastes	Freq			14	49	169	40	3.86	.719	-4.17	0.250	0.75	0.475
	%			(5.2)	(18.0)	(62.1)	(14.7)						
We ensure reduced risk to human health and environment	Freq				49	146	77	4.10	.674	-3.14	0.250	2.15	0.475
	0/ /o				(18.0)	(53.7)	(28.3)						
We ensure no chemicals are dissolved from the enterprise to water resources	Freq			56	71	131	14	3.38	.868	-2.16	0.250	3.45	0.475
	%			(20.6)	(26.1)	(48.2)	(5.1)						
We have put in place measures to prevent carrying wastes to rivers during heavy rains.	Freq			72	33	90	77	3.63	1.15 5	-3.16	0.250	3.75	0.475
	%			(26.5)	(12.1)	(33.1)	(28.3)						
We use 3R strategy in waste management (reduce, reuse and recycle)	Freq		49	14		59	150	3.91	1.54 2	0.007	0.250	-4.73	0.475
	%		(18.0)	(5.1%)		(21.7)	(55.1)						
Average Mean								3.77					

Source: Survey Data, 2011

The respondents were also asked to respond to different statements on waste management.

4.5 Category of waste your organization emits.

The respondents were asked which category of waste does their organization produce and the majority 209(76.8%) indicated paper waste with 53(19.5%) stating waste foodstuffs.
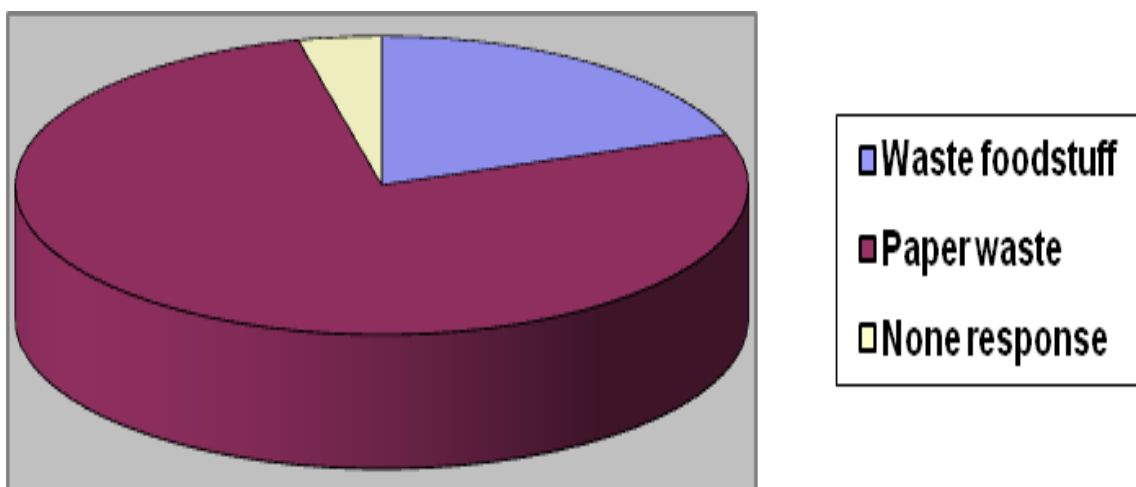
Figure 4.7: Category of waste your organization emits

Source: Survey Data (2011)

This implies that the majority of the wastes produced by the organizations are paper waste.

4.5.1 The waste is biodegradable or non-biodegradable.

The study sought to find out if the wastes produced are bio gradable or non bio gradable and the majority 206(75.7%) indicated yes the waste is bio gradable while 66(24.3%) indicated no the waste is not non bio gradable.

Table 4.16: The waste is biogradable or non-biogradable

	Frequency	Percent
Yes	206	75.7
No	66	24.3
Total	272	100.0

Source: Survey Data (2011)

This implies that the wastes produced are biogradable.

4.5.2 Manage waste in your organization.

When the respondents were asked how they manage the waste in their organization the majority 166(61.0%) stated that they collect waste in dustbins, another 69(25.4%) indicated that they dump them at appropriate location and 30(11.0%) did not respond.
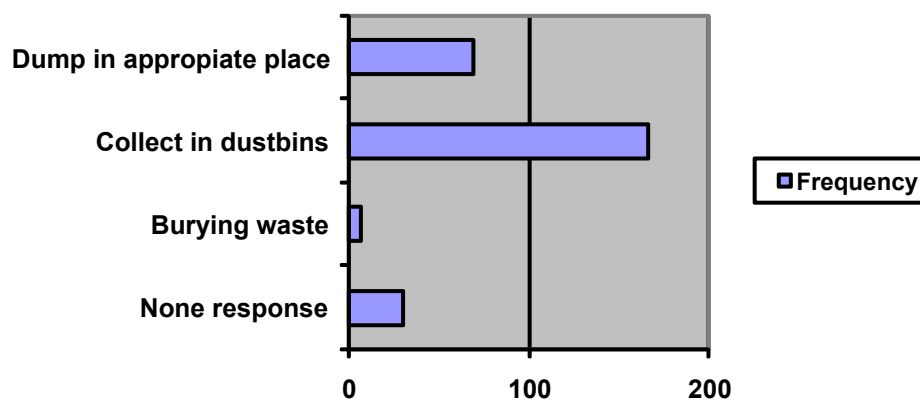
Figure 4.8: Manage waste in your organization

Source: Survey Data (2011)

This implies that most waste are collected in dustbins and dumped in appropriate places.

4.5.3 Keep aside funds to manage waste in the organization.

The study sought to find out if the organization keeps funds aside to manage wastes and 251(92.3%) indicated yes and 21(7.7%) no, that they do not put funds aside to manage waste.

Table 4.17: Keep aside funds to manage waste in the organization.

	Frequency	Percent
Yes	251	92.3
No	21	7.7
Total	**272**	**100.0**

Source: Survey Data (2011)

This implies that most organizations have funds kept aside to manage their waste.

4.5.4 Waste Collection Methods

When asked to state their reasons on how they manage wastes the majority 127(46.7%) indicated that they pay municipal council to collect their waste with 110(40.4) stating that they pay private people to collect their wastes.
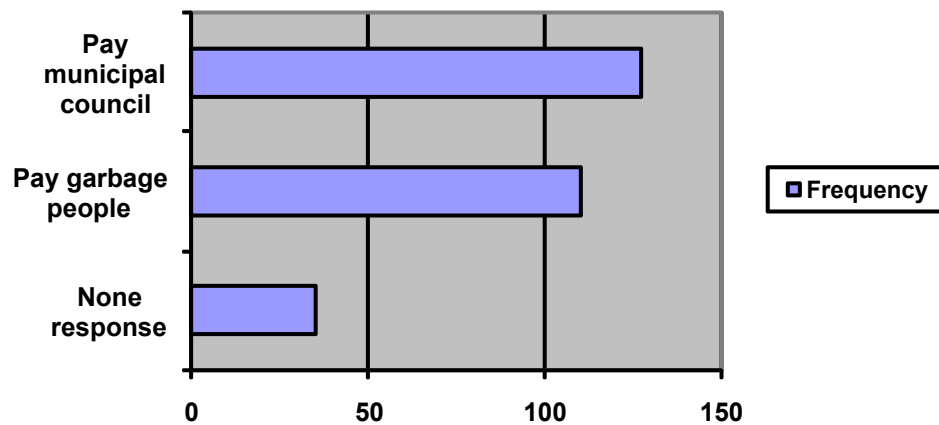
Figure 4.9: Waste Collection Methods

Source: Survey Data (2011)

This implies that the organizations have a system of waste collection and management thus keeping their environment clean.

4.5.5 Waste management affects financial performance.

The study sought to know if waste management affects the financial performance of the organization and the majority 195(71.7%) indicated no while 77(28.3%) indicated yes

Table 4.18: Waste management affects financial performance

	Frequency	Percent
Yes	77	28.3
No	195	71.7
Total	272	100.0

Source: Survey Data (2011)

This implies that managing waste is not that expensive thus viable.

4.5.6 Waste management as a determinant of financial performance of SME's.

The study sought to know if the respondents ensure higher level of safety when collecting, sorting and labeling and transporting wastes and the majority 146(53.7%) disagree, 258(94.9%) disagree that waste management system has been established in the enterprises. The study sought to know if waste monitoring system has been established in the enterprises and the majority 251(92.3%) disagree, a further 178(65.4%) agree that the use of energy saving products provide materials that easily last longer and produce less waste and lastly 258(94.9%) agree that they have provided support for capital investment to implement green procurement strategies

Table 4.21: Waste Management as a Determinant of Financial Performance of SME's.

		SD	D	N	A	SA	NR	Mean	Stdv	Skewness		Kurtosis	
										Statistics	std error	Statistics	std error
We ensure higher level of safety when collecting, sorting, labeling and transporting wastes	Feq		146	1	119			2.90	.984	0.07	0.347	-4.17	0.412
	%		(53.7)	(2.6)	(43.8)								
Waste management system has been established in the enterprises	Feq	115	143		14			1.73	.904	0.75	0.347	-3.14	0.412
	%	(42.3)	(52.6)		(5.1)								
Waste monitoring system has been established in the enterprises	Feq	118	133		7		14	1.60	.636	0.82	0.347	-3.17	0.412
	%	(43.4)	(48.9)		(2.6)		(5.1)						
The use of energy saving products provide materials that easily last longer and produce less waste	Feq	70	24		79	99		3.42	1.644	0.94	0.347	-0.170	0.412
	%	(25.7)	(8.8)		(29.0)	(36.4)							
We have provided support for capital investment to implement green	Feq		7	7	7	251		4.85	.581	0.86	0.347	-0.145	0.412

procurement strategies

| | % | (2.6) | (2.6) | (2.6) | (92.3) |

Average Mean   3.10

Most disagreed that waste monitoring system has been established in the enterprises, higher level of safety when collecting, sorting and labeling and transporting wastes and that waste management system has been established in the enterprises. They agreed that they have provided support for capital investment to implement green procurement strategies and that the use of energy saving products provides materials that easily last longer and produce less waste

4.6 Energy saving products.

4.6.1 Green products

The study sought to find out if the respondents understood the term green products and all the respondents indicated yes they understood the term

Table 4.19: Green products

	Frequency	Percent
Yes	272	100.0

Source: Survey Data (2011)

This implies that all the respondents know what green products are.

4.6.2 Products Used by Organization

When asked to explain what green products are the majority 135(49.6%) indicated they are energy saving products while 98(36.0%) said that they are products that conserve the energy

Table 4.20: Products Used by Organization

	Frequency	Percent
None response.	39	14.3
Energy saving product	135	49.6
Products that conserve energy	98	36.0
Total	**272**	**100.0**

Source: Survey Data (2011)

4.6.3 Extent you use energy saving products.

The study sought to know the extent that the organization uses energy saving products and the majority 258(94.9%) stated very often with 14(5.1%) stating not often
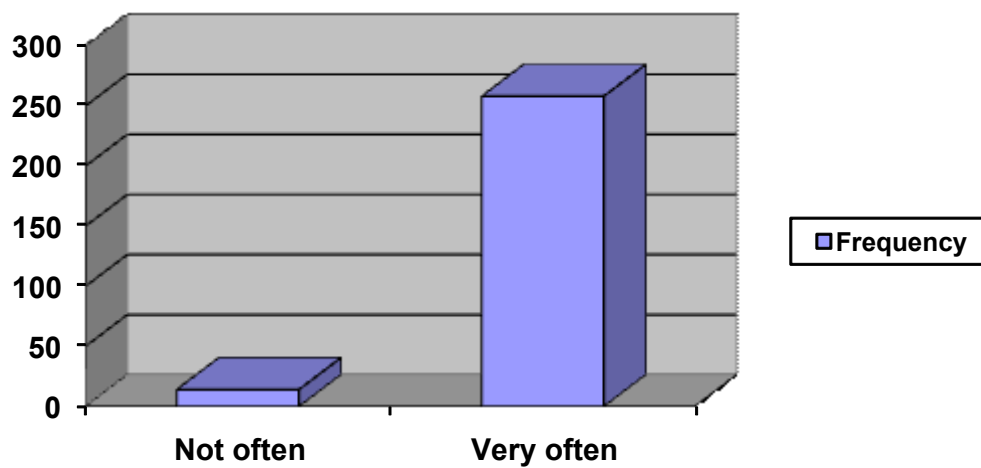
Figure 4.10: Extent you use energy saving products

Source: Survey Data (2011)

This implies that the enterprises use energy saving products very often.

4.6.4 Alternative sources of energy.

The study sought to know if the organization has an alternative source of energy and the majority 146(53.7%) indicated yes while 126(46.3%) stated no.

Table 4.21: Alternative sources of energy

	Frequency	**Percent**
Yes	146	53.7
No	126	46.3
Total	**272**	**100.0**

Source: Survey Data (2011)

This shows that the organizations have an alternative source of energy

4.6.5 Practice energy saving activities

The study sought to know if the enterprises practices energy saving activities and the majority 258(94.9%) stated yes while 14(5.1%) indicated no.

Table 4.22: Practice energy saving activities

	Frequency	Percent
Yes	258	94.9
No	14	5.1
Total	**272**	**100.0**

Source: Survey Data (2011)

This shows that most of the enterprises do practice energy saving activities.

4.6.6 Reasons given

Most of the respondents142 (52.2%) gave the reason for using energy saving activities as using energy saving bulbs with 61(22.4%) stating that they use recycled material.

Table 4.23: Reasons given.

	Frequency	Percent
None response	69	25.4
Use energy saving bulbs	142	52.2
Using recycled material	61	22.4
Total	**272**	**100.0**

Source: Survey Data (2011)

This shows that most enterprises use energy saving materials and bulbs.

4.6.7 Energy saving products affects financial performance.

The study sought to know if energy saving affect financial performance of the energy and the majority 213(78.3%) indicated no and 59(21.7%) stated yes.
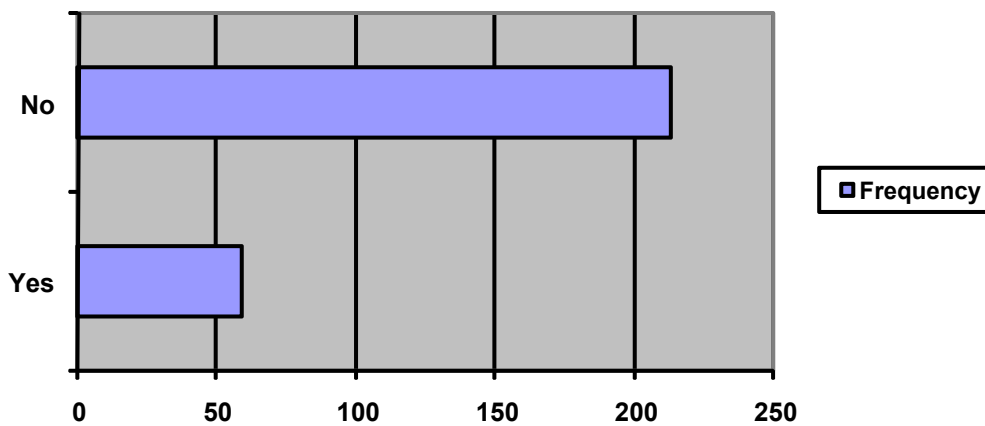
Figure 4.11: Energy saving products affects financial performance

This implies that energy saving products do not affect the financial performance of the organization.

4.6.8 Energy saving products as a determinant of the financial performance of SME's

The study sought to find out if the organizations produce products in a manner that consumes less natural resources and the majority 265(97.4%) agree, another 265(97.4%) agree that their products involve less energy to manufacturer, 272(100.0%) indicated that their products consumes less energy when being used. When asked if their products contain fewer hazardous or toxic materials all 272(100.0%) agree and lastly 225(82.7%) stated that they design their products with intention of reducing amount of waste created

Table 4.24: Energy saving products as a determinant of the financial performance

SD-*Strongly Disagree,* D- *Disagree,* N- *Neutral,* A-*Agree,* SA- *Strongly Agree,* NR-*None response*

		SD	D	N	A	SA	Mean	Stdv	Skewness		Kurtosis	
									Statistics	std error	Statistics	std error
We produce products in a manner that consumes less natural resources	Freq	7			206	59	4.04	.567	-4.14	0.274	3.13	0.374
	%	(2.6)			(75.7)	(21.7)						
Our products involve less energy to manufacturer	Freq		1		225	40	4.06	.678	-3.15	0.274	3.74	0.374
	%		(2.6)		(82.7)	(14.7)						
Our products consumes less energy when being used	Freq				218	54	3.96	1.057	-0.17	0.274	4.47	0.374
	0/ /o				(80.1)	(19.9)						
Our products contain fewer hazardous or toxic materials	Freq				185	87	3.88	.56	0.05	0.274	5.34	0.374
	%				(68.0)	(32.0)						
We design our products with intention of reducing amount of waste created	Freq			47	45	180	3.78	1.22	4.17	0.274	6.27	0.374
	%			(17.3)	(16.5)	(66.2)						
Average Mean							3.90					

Source: Survey Data
(2011)

From this table 4.39 it can be deduced that all the organizations tend to agree that energy saving products are a determinant of the financial performance as the majority agreed with all the statements.

4.7 Correlation analysis

The Pearson Momment correlation was performed to determine the relationship between variables. The ultimate goal of this analysis was to find relations between variables. Correlation coefficient measures the extent of these relations. Each such coefficient must lie between -1 and +1, inclusive. A positive correlation indicates a positive association whereas negative coefficient indicates a negative association between the variables. Pearson correlation coefficient r, determines the strength of linear relationships between variables (Koutsoyannis, 2005). As shown in table 4.4.10 the strength of relations between recycling of waste, use of non pollutants, waste management and energy saving products is shown. Since all r values are positive then the relationships of independent variables with dependent variables are positive.

Table 4.4.10: Correlations matrix

	Financial performance	Recycle wastes	Effects of Non pollutant	Waste management	Energy saving products
Financial performance	1.000				
Recycle wastes	.657	1.000			
Effects of Non pollutant	.505	.485	1.000		
Waste management	.583	.430	.638	1.000	
Energy saving products	.604	.550	.623	.494	1.000

4.8 Regression Analysis on Effects of Green procurement on Financial Performance of SME's

Assumptions of the multiple linear regression models:

Linearity: the relationship between the predictand and the predictors is linear

Nonstochastic X: The errors are uncorrelated with the individual predictors.

Zero mean: The expected value of the residuals is zero.

Constant variance: The variance of the residuals is constant.

Nonautoregression: The residuals are random, or uncorrelated in time

Normality: the Rules and regulations which protect the environment ideally need to cover such aspects as safety and health of workers, resource conservation and recovery; environmental response and compensation, safe transportation of hazardous material and emergency planning and community awareness and use of energy saving products also contribute to financial success of the organization. Error term is normally distributed.

The regression equation was as follows;

$Y = b_o + b_iX_i + b_2X_2 + b_3X_3 + b_4X_4 + a$

Where:

Y= Dependent variable (Organization financial performance)

X= Independent variables;

X_i = Recycling of wastes

X_2 = Effects of non-pollutants

X_3 = Waste management

X_4 = Energy saving products

£ - Error term

A regression test was conducted to establish the effects of Green procurement on financial performance of SME's. The researcher of the study first identified the variable that explains the Green procurement; they were arranged in order of their effects. After the variables were identified and arranged scores were awarded to each variable. Totals were calculated to find the maximum value that one respondent could score. The maximum value was then divided equally into portions that is if maximum value is 80; 1 -20=poor, 21-40=fair, 41-60=good and 61-80= very good. After which they were entered into SPSS version 17 and regression conducted after variables computation.

Table 4.27: Regression analysis of the effects of Waste Management on Financial Performance on SME's

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509[a]	.740	.561	.219

a Predictors: (Constant), Financial performance Source: Survey Data (2011)

anova"

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	4.274	2	4.274	13.850	,001[a]
Residual	11.726	270	.309		
Total	16.000	272			

a. Predictors: (Constant), Financial performance

b. Dependent Variable: Recycling wastes, Effects of non-pollutants, Waste

management and Energy saving products

Coefficients" of the Constructs of Green Procurement Strategies

Model	Unstandardized		Standardized	t	Sig.	p- value
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	5.082	.304		16.735	.000	0.001
Recycle wastes	.534	.144	.517	3.722	.001	0.004
Effects of Non pollutant	.333	.145	.350	2.304	.027	0.016
Waste management	.042	.032	.209	2.320	.003	0.000
Energy saving products	.337	.026	.620	12.804	.003	0.001

a. Dependent Variable: Recycling wastes, Effects of non-pollutants, Waste

management and Energy saving products

From data Xi Recycling wastes, X2 Effects of non-pollutants, X3 Waste
management and X4 Energy saving products, it is therefore concluded that the
four independent variables influences financial performance. The recycling of
wastes contributes to R=
0.509 and 74.0%, this implies that 74.0% of the change in organization
financial performance is explained by the green procurement. These results are
significant as explained by the F-ratio of 13.850 at a p-value =.001.

4.9 Hypothesis Testing

Table 4.5: Hypothesis testing

Hypothesis	Beta	Significance	t statistics	Conclusion
Hoi; There is no relationship between recycling of waste and SMEs financial performance.	.517	0.001	3.722	Reject Ho,
H02: There is no relationship between non pollutants use and SMEs financial performance.	.350	0.027	2.304	Reject Ho,
H03: There is no relationship between waste management and SMEs financial performance.	.209	0.003	2.320	Reject Ho,
H04: There is no relationship between use of energy saving products and financial performance of SMEs.	.620	0.003	12.804	Reject Ho,

Source: Survey, 2010

If the coefficient of the independent variables are not all zero then the F-ratio should be significantly greater than 1.00 which in this case F-ratio =13.850 with a p-value <.001 hence green procurement has significant effect on organization financial performance at a<0.05. Hence the null hypothesis was rejected and the alternative adopted and the end multiple regression equation $Y=b0 + bl_{XI}+ b2_{X2}$

$+b3_{X3}+b4_{X4} + {}^£$ can be explained as $Y=5.082 + 0.534x_{,1} + ,333x_2+ ,042x_3+ 337x_4 + 0.304$.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary of the findings, conclusions, recommendations of the study and suggestions for further studies. The findings are related to the objectives of the study on the green procurement strategy as determinant of financial performance of SME's. The presentation flows in accordance with the study objectives.

5.1 Summary of the Findings

5.1.1 Effects of waste management on financial performance of SME

SMEs have failed to realize on any financial gains from waste management due to lack of waste management systems in a majority of the SMEs (92.3%). On a few of the SMEs with a system of waste management, there is lack of safety measures when collecting, sorting and transportation of waste management among up to 53.7% of the SMEs. This has the effect of increased medical cost to employees and absence from work. There is also a positive correlation between waste management and financial performance of SME's as the r=0.657

5.1.2 Effect of energy savings products on financial performance of SMEs

The study sought to find out if the respondents understood the term green products and all the respondents indicated yes they understood the term, the majority 135(49.6%) explained that green products are energy saving products. The study

sought to know the extent that the organization uses energy saving products and the majority 258(94.9%) stated very often and it also sought to know if the organization has an alternative source of energy and the majority 146(53.7%) indicated yes.

Majority 258(94.9%)of the respondents stated that the enterprises practices energy saving activities and gave the reason for using energy saving activities as using energy saving bulbs as supported by 142 (52.2%)of the respondents, The study sought to know if energy saving affect financial performance of the energy and the majority 213(78.3%) indicated no.

The study sought to find out if the organizations produce products in a manner that consumes less natural resources and the majority 265(97.4%) agree, another 265(97.4%) agree that their products involve less energy to manufacturer, 272(100.0%) indicated that their products consumes less energy when being used. When asked if their products contain fewer hazardous or toxic materials all 272(100.0%) agree and lastly 225(82.7%) stated that they design their products with intention of reducing amount of waste created

5.1.3 Effect of non pollutants use on financial performance of SMEs

The respondents were asked if they understood the term pollution and all the respondents 272(100.0%) indicated yes and for the explanation of pollution the majority 189(69.5%) stated that it is destroying the environment due to human activities. The majority of the respondents 120(44.1%) indicated that their organization was likely to cause water pollution this can be supported from the study conducted (Carter *et al* 1993) small-scale industries have a lot of adverse effects on the environment especially water.

Given their large numbers in developing countries, there is a growing need to address the problems of water pollution, the efficiency of use of energy and raw materials, and the health and safety hazards these industries pose. Policymakers, thwarted by a lack of knowledge of the actual environmental impacts of small-scale producers, have only a limited understanding of how to balance employment creation within SMEs with environmental protection. The respondents were asked if their organizations have any measures to reduce pollution and the majority 258(94.9%) stated yes and when asked how do they take of their environment most of the respondents 92(33.8%) indicated they collect waste in dustbins. The study sought to find out if using non-pollutants affects the organizations financial performance and the majority 237(87.1%) said no.

When the respondents were asked if they have set priorities on how to handle wastes the majority 209(76.8%) agreed, most 223(82.0%) agreed that they ensure reduced risk to human health and environment, on being asked if they ensure no chemicals are dissolved from the enterprise to water resources 145(53.3%) agreed to this. The respondents were also asked if they have put in place measures to prevent carrying wastes to rivers during heavy rains and the majority 167(61.4%) indicated that they agree and lastly when asked if they use 3R strategy in waste management (reduce, reuse and recycle) the majority 209(76.8%) agreed to this.

5.1.4 The recycling of waste as a determinant of financial performance of SMEs

There are several findings made in relations to the recycling of waste as a financial determinant of financial performance of SMEs. Up to 87.1% of the SMEs returned their empty packages to the parties responsible for recycling process and SMEs

generally do collect the empty packages from their customer that is up to 94.9%. 33.1% of the respondents indicated that recycling of waste reduced the profit margin of the company while78.3% of the SMEs indicated that recycled mmaterials are used to manufacture new materials.

The respondents were asked which category of waste does their organization produce and the majority 209(76.8%) indicated paper waste. This made the study look out for the definition of waste and according to White *et al* (1995) waste is anything that "lacks value" or "has useless remains" thus the study sought to find out if the wastes produced are biogradable or non biogradable and the majority 206(75.7%) indicated yes the waste is biogradable and when asked how they manage the waste in their organization the majority 166(61.0%) stated that they collect waste in dustbins.

The study also sought to find out if the organization keeps funds aside to manage wastes and 251(92.3%) indicated yes and the majority 127(46.7%) indicated they do so as to pay municipal council to collect their waste. When asked if they know waste management affects the financial performance of the organization and the majority 195(71.7%) indicated no it does not. The study sought to know if the respondents ensure higher level of safety when collecting, sorting and labeling and transporting wastes and the majority 146(53.7%) disagree, 258(94.9%) disagree that waste management system has been established in the enterprises. The study sought to know if waste monitoring system has been established in the enterprises and the majority 251(92.3%) disagree, a further 178(65.4%) agree that the use of energy saving products provide materials that easily last longer and produce less waste and lastly

258(94.9%) agree that they have provided support for capital investment to implement green procurement strategies

5.2 Conclusions of the study

Recycling of waste products has an impact on the financial performance of SMEs in Eldoret town. According   to multiple regression tests it shows a contribution of 53% to financial performance. The study further revealed that apart from collection of waste and returning of recyclable to the parents companies there is no recycling of waste papers within the SME's and pollution of water can be a major problem if not revised well and strict measures put in place to curb dispensing of waste to water and on to the streets. Hypothesis testing shows that the null hypothesis was rejected and the alternative adopted.

Waste management is also one of the variables that affect financial performance. According to the analysis it contributes by .042. It can be concluded that 42% of changes in the financial performance is attributed to waste management. Many local authorities will be forced to find alternative disposal routes for municipal waste, and are likely to identify other economically viable option, due largely to the income that can be generated as a result of energy production, as well as the reliability of the new technology in waste disposal. According to hypothesis testing it shows waste management has a positive significant relationship on financial performance of SMEs.

Use of non pollutants is seen as also affecting the financial performance of SMEs. It contributes 0.333 according to multiple regression tests. It can be concluded that 33% of changes in financial performance is attributed to the use of non pollutants. Purchasing department should be given the responsibility to dispose off excess stocks

within a company because the department specializes in market conditions, it carries out negotiation for the company products and the responsibility for keeping low inventory is the duty of purchasing. The null hypothesis was rejected and the alternative adopted.

Green products also have effect on the financial performance of SMEs. Its contribution to financial performance is 33.7%.Rules and regulations which protect the environment ideally need to cover such aspects as safety and health of workers, resource conservation and recovery, environmental response and compensation, safe transportation of hazardous material and emergency planning and community awareness and use of energy saving products also contribute to financial success of the organization. According to the hypothesis testing Green products has a positive significant relationship with the financial performance of SMEs.

Green procurement practices are still to be embraced by SMEs because Green issues are expensive and most SMEs do have huge capital outlay. Most of these organizations are family owned and their focus is on profit maximization. There is need for sensitization by the government to SMEs on how to embrace green issues in their activities.

5.3 Recommendations of the Study

The study made the following recommendations to the extension of knowledge and to the practice and policy;

1. An awareness programme should be organized in schools, offices, through multimedia houses to educate the masses on the need to recycle waste and thus save on their costs and as a way to generate income.

2. The study further recommends that SMEs require greater access to financial services and investment capital. Large corporations have little difficulty securing sizeable bank loans and private investments. At the same time, microfinance, consisting of very small loans, tends to benefit individual entrepreneurs. SMEs fall in between and often struggle to obtain credit and loans, SMEs in the developing world are considered high-risk, as their managers are perceived as lacking managerial expertise, credit history, and/or tangible assets to secure loans.

3. Those owner-managers should attend management development courses to enhance their knowledge and skills in terms of managing their businesses in terms of green procurement.

4. Government need to provide support services to SMEs through qualified service providers to allow for growth amongst SMEs.

5.3.1 Recommendations for future research

1. There is need to develop a framework to ease the compliance of green procurement procedures on SMEs.

2. There is a need to explore and focus education and discussion on how "green" procurement activities can be integrated into existing environmental and quality management systems by private and public sector organizations.

3. There is need to identify the role of green purchasing as a tool for gaining competitive advantage.

4. The study further recommends the need to find out which other variables affect financial performance which the instruments did not capture.

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APPENDICES

APPENDIX I: Introduction Letter

Dear respondent,

<u>RE: GREEN PROCUREMENT STRATEGY AS DETERMINANT OF SMEs FINANCIAL PERFORMANCE</u>

I am a master's student in Moi University taking Masters of Business Management (MBM). I am Chepkoech Zurah Mohammed, Reg. NO: SBE/PGM/079/09. The programme requires that I undertake a research in any area of interest. I am, therefore, taking the research in green procurement strategy as determinant of financial performance of SMEs.

I therefore request you to participate in this research by filling the following questionnaire. The information you will provide will be treated with confidentiality and used for the sole purpose of this research. Please note that your name should not be included anywhere in the questionnaire.

Your participation in this study will be valuable as it will contribute to the achievement of the study objectives.

Yours faithfully,

Chepkoech Zurah Mohammed

APPENDIX II: Questionnaire for Management

INSTRUCTIONS; TICK OR USE A MARK TO GIVE ANSWERS

(Information given will be treated with utmost confidentiality)

Section A: Financial Performance of Small and Medium Enterprises

1. Which category of SME do you belong?

| Hotel/Restaurant/ Bar |

| Supermarket |

2. How long have you been in the business years

| Yes |

3. Do you understand the term Green procurement

| No |

 Give reasons

_____

_____

_____

4. What is the source of your knowledge

| Seminars |

| Legal Requirement |

| Sensitization by government |

Any other source, Specify

_____

_____

_____

4. Is the enterprise embracing green procurement? | Yes |

| No |

Gives reasons

_____

_____

_____

5. What green procurement procedures does the enterprise use?

| Recycling |

| Waste mgt |

| Using

Non-Pollutants |

| Using energy saving products |

Any other specify

_____

_____

_____

To what extent do you agree with following as it relates to your financial performance of small and medium enterprises?

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	5	4	3	2	1
Our enterprise has the ability to meet financial obligations					
We have availability of funds to purchase inputs and inventory items in the enterprise					
The enterprise is able to repay all debts without any difficulties					
The enterprise has enough funds to purchase inputs and inventories					
The enterprise is able to withstand risks					
The enterprise is able to operate after a major financial adversity					
The enterprise is able to pay all Expenses					
The enterprise is able to repay all indebtness					

Any other specify……………………………………………………………………

How do you rate the financial performance of your enterprise?

5	4	3	2	1
Very High	High	Average	Low	Very Low

Section B: Recycling of Wastes

1. Do you understand the term recycling of waste? | Yes |

| No |

Give reasons

_____
_____

_____

2. Does your enterprise practice any Recycling | Yes |

| No |

Give Reasons

_____
_____
_____

3. How do you Recycle waste?

_____
_____
_____

4. Does Recycling of waste affect you financial performance | Yes |

| No |

Give reasons for the choice you selected above.

_____
_____
_____

To what extent is the recycling of waste a determinant of financial performance of SMEs?

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	5	4	3	2	1
We take empty packages from customers					
We return empty packages to the party responsible in the recycling process					
We collect waste material from cycling bins					
The waste materials are delivered to the entity responsible for recycling					
There is always processing of recyclables to create secondary raw materials					
The secondary materials are used to manufacture new materials					
The new materials are returned to the market place					
The system that can handle the growth in volume of waste is implemented					

Section C: Preferences for Non Pollutants

1. Do you understand the term pollution?

Yes

No

Give reasons

_____
_____
_____

2. Which kind of pollution does your organization likely to cause

| Air |

| Land |

| Water |

| Noise |

3. Do you have any measures in your organization to reduce pollution?

| Yes |

| No |

Give reasons

_____
_____
_____

4. Does using non-pollutant affect your financial performance?

| Yes |

| No |

The table below provides information on how preference for non pollutants affects financial performance of SMEs. Please tick the extent to which they are equally practiced in your sector.

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	5	4	3	2	1
We have set priorities on how to handle wastes					
We ensure reduced risk to human health and environment					
We ensure no chemicals are dissolved from the enterprise to water sources					
We have put in place measures to prevent carrying wastes to rivers during heavy rains					
We use 3R strategy in waste management (reduce, reuse and recycle)					

Section D: Waste Management

1. Which category of waste does your organization emit?

| Waste food staffs |

| Papers, waste |

Any other specify

_____

_____

_____

2. Are the waste Bio degradable or non-Bio degradable?

_____

_____

_____

3. How do you manage waste in your organization?

_____

_____

_____

4. Do you keep aside funds to manage waste in the organization? Yes

No

  Give reasons

_____

_____

_____

5. Does waste management affect your financial performance? Yes

No

The table below provides information on waste management as a determinant of financial performance of SMEs. Please tick the extent to which they are equally practiced in your sector.

	STATEMENTS	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	We ensure higher level of safety when collecting, sorting and labeling and transporting wastes					
	Waste management system has been established in the enterprise					
	Waste monitoring system has been established in the enterprise					

The use of energy saving products provide materials that easily last longer and produce less waste					
We have provided support for capital investment to implement procurement strategies					

Any other specify…………………………………………………………………………

Section E: Energy Saving Products

1. Do you understand the term Green products (energy saving products)

Yes

No

Give reasons

_____
_____
_____

2. To what extent do you use energy saving products?

Not often

Verv Often

3. Do you have alternative sources of energy?

Yes

No

4. Does your enterprise practice energy saving activities

Yes

No

Give reasons

_____

_____

_____

5. Does using energy saving products affect your financial performance?

Yes

No

Please tick the extent to which you agree or disagree with the following as it pertains

to energy saving products as a determinant of the financial performance of SMEs.

STATEMENTS	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	5	4	3	2	1
We produce products in a manner that consumes less natural resources					
Our products involve less energy in manufacture					
Our products products consumes less energy when being used					
Our products contain fewer hazardous or toxic materials					
We design our products with intention of reducing amount of waste created					

APPENDIX: III. Interview Schedule for the Management

1. Do understand the term green procurement strategies?

2. Have you implemented green procurement strategies in your enterprise?

3. Does green procurement affect financial performance of your enterprise?

4. If Yes how does it affect the financial performance of your enterprise?

5. Is waste management your initiative as the management?

6. If Yes what are some of strategies used to ensure waste management in your enterprise?

7. What are some of the challenges faced in trying to implement the green procurement strategies?

8. How do you rate the financial performance of your enterprise?

5	4	3	2	1
Very high	High	Average	Low	Very low