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**GREEN PROCUREMENT STRATEGIES AS DETERMINANTS OF FINANCIAL PERFORMANCE: EVIDENCE FROM SMALL AND MEDIUM ENTERPRISES IN UASIN-GISHU COUNTY, KENYA**

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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.*

**Key Words:** Financial performance, SME's, Recycling of Waste, Non-Pollutants, Waste Management, Energy saving products.

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## INTRODUCTION

Environmental concerns have increasingly emerged as a major concern to both the political leaders across the world and increasingly among the business executives. 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 as cited by 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 proactively 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) argued 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.

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.

### **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.

### **Literature Review**

#### **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).

**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 this leads us to our first hypothesis.

*H<sub>01</sub>: There is no significant relationship between recycling of waste and SMEs financial performance.*

### **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 this leads us to our second hypothesis.

*Ho<sub>2</sub>: There is no significant relationship between non pollutants use and SMEs financial performance.*

### **Non Pollutants Use and Financial 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<sub>2</sub> 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).

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 this leads us to our third hypothesis.

*Ho<sub>3</sub>: There is no significant relationship between waste management and SMEs financial performance.*

### ***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 this leads to our fourth hypothesis.

*Ho4: There is no significant relationship between use of energy saving products and financial performance of SMEs.*

## **MATERIALS AND METHODS**

The study employed mainly explanatory survey design to show the causal relationship. Simple random and systematic sampling techniques were used to select a sample of 277 employees from supermarkets and hotels and restaurants within Uasin-Gishu County who participated in the survey.

The study relied on primary sources of data in order to achieve the set objectives. Consequently, 277 structured questionnaires were administered in order to collect the prerequisite data of the study. The structured questionnaires were self-administered to employees to gather primary quantitative data. Descriptive and inferential statistics were used in data analysis. Descriptive statistics was in form of indices that described the sample and include measures of central tendency, frequency tables a coefficient and a correlation table.

## **RESULTS**

### **Waste Recycling and financial performance of SMEs**

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. The study further 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

### **Waste Management and Financial Performance of SMEs**

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

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

### **Non Pollutants Use and Financial Performance of SMEs**

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.

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.

### **Energy Saving Products and Financial Performance of SMEs**

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

The study further 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

### Correlation Results

The Pearson Moment 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 1: 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

### Regression Results

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 2: 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 <sup>a</sup>	.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 <sup>a</sup>
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 B	Std. Error	Coefficients 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.

## CONCLUSION

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.

## 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.

#### **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.

#### **REFERENCES**

- Adesola S & Higson M., (2005). Strategic positioning an integrated decision process for manufacturer. *International Journal of operations & production Management* Vol. 25 no. 2 pp 180 – 201
- Allred, J. K., (1997). "Looking at the Returns on Assets." *Modern Materials Handling*
- Amvx, D.A., Dejong, P.F., Lin, X., Chakraborty, G. and Weiner, J.L. (1994). "Influencers of purchase intentions for ecologically safe products: an exploratory study", in Park, C.W. and Smith, D.C.(Eds), *Marketing Theory and Applications: The Proceedings of the 1994 American Marketing Association's Winter Educator's Conference*, Vol. 5, AMA, Chicago, IL, 341-7.
- Anderson, W.T. Jr, Henion, K.E. II, and Cox, E.P. "Socially vs. ecologically concerned consumers", *American Marketing Association Combined Conference Proceedings*, Vol. 36 (Spring and Fall), 1974. 304-11.
- Antil, J.A. "Socially responsible consumers: profile and implications for public policy", *Journal of Macromarketing*, Fall, 1984. 18-39.
- Babbie E.R (1975). *The Practice of Social Research* .SAGE Publications
- Bloomberg D (2002). *Logistics Management* Mc gnaw Hill
- Burt E et al (2004). *Supply Chain Management* Mc gnaw Hill Singapore
- Bearden, W.O., Netemeyer, R.G. and Mobley, M.F. (1993). *Handbook of Marketing Scales: Multiitem Measures for Marketing and Consumer Research*, Sage, Newbury Park, CA.



- Bernstein, V., Hakel, M.D. and Harlan, A.(1975). "The college student as interviewer: a threat to generalizability?", *Journal of Applied Psychology*, Vol. 60 pp 266-8.
- Bloomberg D, (2002). *Logistics Management* McGraw Hill.
- Bohlen, G.M., Schlegelmilch, B.B. and Diamantopoulos, A. (1993). "Measuring ecological concern: a multi-construct perspective", *Journal of Marketing Management*. Vol. 9 No. 4, October pp 415-30.
- Brooker, G. (1976). "The self-actualizing socially conscious consumer", *Journal of Consumer Research*, Vol. 3, September, 107-12.
- Capital Markets Authority. (2011). *SME Exchange*. Retrieved November 28, 2013, from <http://kenyaembassy.com/pdfs/diaspora/Kenya%20Vision%202030%20-%20SMEX%20-%20Capital%20Markets%20Authority.pdf>
- Capital Markets Authority. (2011). *SME Exchange*. Retrieved November 28, 2013, from <http://kenyaembassy.com/pdfs/diaspora/Kenya%20Vision%202030%20-%20SMEX%20-%20Capital%20Markets%20Authority.pdf>
- Carter, B. and Kutty, R. (1993). 'Approaches to Industrial Pollution: Towards an Environmental Strategy for Asia', World Bank Discussion Papers.
- Chang, C & Chen, Y. (2013). *Green organizational identity and green innovation*. Retrieved November 28, 2013 from [www.emeraldinsight.com/0025-1747.htm](http://www.emeraldinsight.com/0025-1747.htm).
- Chien M. K. and Shih L. H., (2007), *An empirical study of the implementation of green supply chain management practices in the electrical and electronic industry and their relation to organizational performances*, Int. J. Environ. Sci. Tech.
- Coddington, W. (1993). *Environmental Marketing: Positive Strategies for Reaching the Green Consumer*, McGraw-Hill, New York, NY.
- Cope, D. and Winward, J. (1991). "Information failures in green consumerism", *Consumer Policy Review*, Vol. 1 No. 2, April, 83-6.
- Corrado, M. and Ross, M. (1990). "Environmental issues in the 1990s: green issues in Britain and the value of green research data", *ESOMAR Annual Congress*, Vol. 43, September, 347-69.
- Crosby, L.A., Gill, J.D. and Taylor, J.R. (1981). "Consumer/voter behaviour in the passage of the Michigan container law", *Journal of Marketing*, Vol. 45, Spring, 19-32.
- Daily Nation (2011). *Smart Company: How Green is your Product*. Nation Media Group.
- Dainelli, F & Bini, L. (2011). *The Informational Capacity of Financial Performance Indicators in European Annual Reports* Maggioli Editore
- Dana L (1995). *Entrepreneurship in a Remote Sub Arctic Community* Singapore
- Early, J. (2003). *Green Procurement in Trade Policy* 19 p Montreal CEC T. Kay environmental public procurement. Belgium. P 4 – 5.
- European Commission.(2004).. *Buying Green. A handbook on Financial Sector Deepening Kenya*. (2005).*SME trade finance review of facilities available in Kenya*. Retrieved November 28, 2013, from [http://www.fsdkenya.org/pdf\\_documents/09-07-21\\_SME\\_Trade\\_Finance.pdf](http://www.fsdkenya.org/pdf_documents/09-07-21_SME_Trade_Finance.pdf).
- Gray, K, Cooley, W & Lutabingwa, J. (1996). *Small-scale manufacturing in Kenya: characteristics, problems and sources of finance*. Retrieved October 28, 2012, from <http://www.sbaer.uca.edu/research/usasbe/1996/pdf/23.pdf>.
- Greene C & Dimitri C (2003). *Organic Agriculture, Gaining Ground*, Amber waves, retrieved February 23, 2004.

- Hawthorne L (2000). Business Environment Report Student Assignment How Nature is the Green Logic. Entrepreneurship, Theory & Ethics, Sheffield
- Hershman, S & Mazero, J.(2008). Financial Performance Representations: The New and Updated Earnings Claims. American Bar Association
- Hill T (1993). *Manufacturing Strategy*, McGraw Hill
- Holt, D. Stewart, A. and Howard, V. (2000). Supporting Environmental Improvements in Small and Medium-Sized Enterprises in the UK, Greener Management International,
- Isaac R, (1998). *Green Logic – Entrepreneurship, Theory & Ethics* McGraw-Hill
- Kapolon, J. (2010). Small Medium Enterprises “Cleaner Production” pg 47 - 48 vow No. 39 Kenya Institute of Management Journal Issue Number 2074 – 1802 April 2010 pg 7.
- Lee, K. (2009). *Why and how to adopt green management into business organizations? The case study of Korean SMEs in manufacturing industry*. Retrieved November 28, 2013 from [www.emeraldinsight.com/0025-1747.htm](http://www.emeraldinsight.com/0025-1747.htm)
- Lois du Toit, J. (2010). *A typology of designs for social research in the built environment*. Retrieved November 28, 2013 from [scholar.sun.ac.za/bitstream/handle/10019.../dutoit\\_typology\\_2010.pdf](http://scholar.sun.ac.za/bitstream/handle/10019.../dutoit_typology_2010.pdf).
- Markley M. J. and Lenita Davis, (2007). *Exploring future competitive advantage through sustainable supply chains*, Department of Management and Marketing, Culverhouse College of Commerce and Business Administration, The University of Alabama, Tuscaloosa, Alabama, USA
- Oxborrow & Brindley. (2013). *Adoption of “eco-advantage” by SMEs: emerging opportunities and constraints*. Retrieved November 28, 2013 from [www.emeraldinsight.com/1460-1060.htm](http://www.emeraldinsight.com/1460-1060.htm).
- Rigoberto I. Delgado (2009). Financial Performance Drivers and Strategic Control: The Case of Cancer Treatment Centers ProQuest, 2009.
- Thobane, A. (2009). *The feasibility of a green procurement practice for low cost housing in the City of Tshwane Metropolitan Municipality*. Retrieved November 28, 2013.
- Toor, M. "ISBA's green code delays government legislation", *Marketing*, 30 January, 1992. 8.
- Van Dam, Y.K. (1991). "A conceptual model of environmentally-conscious consumer behavior", *Marketing Thought around the World - Proceedings of the 20th European Marketing Academy Conference*, Vol. 2, Michael Smurfit Graduate School of Business, University College, Dublin, 463-83.
- Witherspoon, S. and Martin, J. (1992). "What do we mean by green?", *British Social Attitudes: The 9th Report*, Social and Community Planning Research, Hants, 1- 26.
- Wongtada, N., Rice, G. and Sammartino, C. (1992). "Emerging issues in green marketing: trends and their implications in Europe", paper presented at *The Academy of International Business Conference*, Brussels, Belgium, November, 20-22.