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**ROLE OF GREEN PROCUREMENT ON ORGANIZATIONAL PERFORMANCE OF MANUFACTURING FIRMS IN KENYA: A CASE OF COCACOLA COMPANY**

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**ABSTRACT**

*Green procurement has impacted not only performance of organizations, but also on the brand reputation. It has become increasingly significant for organizations facing competitive, regulatory, and community pressures to balance economic and environmental performance. A challenge facing Coca-Cola Company is the issue of carbon footprints in their drinks, but also working to the carbon footprint of the drink in their drinks by year 2020. The purpose of this study was to establish the role of green procurement practices on organizational performance of private sector in Kenya. The specific objectives were to establish the role of reverse logistics on organizational performance of Coca-Cola Kenya and to determine the influence of supplier assessment on organizational performance of Coca-Cola Kenya. The study used descriptive research design. A population of 642 respondents constituting all level of workers in Coca cola was used. The study used stratified random sampling. The study used a sample size of 64 staffs. The study used both open and close ended questionnaire. Qualitative data was analyzed using Statistical analysis which was carried out using Statistical Packages for Social Science (SPSS) version 23, while qualitative data was analyzed using content analysis. The study established that there existed a positive relation between reverse logistics and organizational performance of Coca-Cola Company. On supplier assessment, it was concluded that there existed a strong positive relation between supplier assessment and organizational performance of Coca-Cola Company. The study further concluded that the suppliers are also assessed based on their ability to control pollution and hence a safe environment. The study further concluded that the cost in the organization influences performance, sustainable procurement enhances organizational operations improving organizational performance, Availability of resources influence organization Performance. The study recommends that the Coca-Cola Company adopt green procurement practices in all their operations and processes. This is because green procurement management is associated with economic benefits to the company.*

**Key Words:** Reverse Logistics, Supplier Assessment, Organizational Performance

## INTRODUCTION

The economic growth increases the level of energy and material consumption, which contribute to the environmental issues and resource depletion problems. It has become increasingly significant for organizations facing competitive, regulatory, and community pressures to balance economic and environmental performance. Nowadays, most organizations are starting to go green in their business as concern to environmental sustainability (Shultz & Holbrook, 2000)

Green procurement is the purchase of environmentally friendly products and services, the selection of contractors and the setting of environmental requirements in a contract. Green procurement steams from pollution prevention principles and activities. Also known as green or environmental purchasing, green procurement compares price, technology, quality and the environmental impact of the product, service or contract. Green procurement policies are applicable to all organizations, regardless of size (Coddington, 2013). Green procurement programs may be as simple as purchasing renewable energy or recycled office paper or more involved such as setting environmental requirements for suppliers and contractors. Green products or services utilize fewer resources, are designed to last longer and minimize their impact on the environment from cradle to grave. In addition, green products and services have less of an impact on human health and may have higher safety standards. Whilst some "green" products or services may have a greater upfront expense, they save money over the life of the product or service. (Min & Galle, 2005). Stock, (2004) concluded that green purchasing can improve a firm's economic position, by reducing disposal and liability costs, conserving resources, and improving an organization's public image. Min and Galle (2005), found out that the two most highly rated obstacles to effective implementation of green purchasing was cost and revenue.

Green procurement is becoming a cornerstone of environmental policies both at European Union and Member State level (Tukker *et al.*, 2008). Since the International Conference on Environment and Development at Rio de Janeiro in 1992, the awareness on the role of green procurement in supporting sustainable consumption and production patterns strongly increased and, today, is spreading through the public authorities both as a policy instrument and as a technical tool. Wang (2009), states that as the effects of environmental problems on the living conditions of the world's population become more apparent, an emphasis on environmental awareness has become more prominent.

Marron, (2013) states that environmental issues have become a subject of critical concern for businesses in recent years worldwide. Environmental obligations have grown substantially as society becomes more conscious of its environment and legislation relating to the environment is increasing in number that requires companies to be environmentally responsible (Zhu, Sarkis & Geng, 2009). In light of increasing costs of waste management, environmental degradation, public health concerns, climate change, resource depletion, and persistent global poverty, the supply management profession is increasingly being called upon to contribute to broader organizational goals of sustainable development through the inclusion of social and environmental criteria within procurement processes (Srivastava, 2013).

In North America, governments (on all levels) spent US\$3 trillion out of the total US\$11 trillion economy in 2002, according to The Economist. In the US, the federal government purchases more than US\$200 billion in goods and services each year. When the amounts are aggregated, US federal, state and local governments spend more than \$385 billion, equal to one of every five dollars spent in the US economy every year (The Environmental Magazine, 2002). These figures illustrate the potential influence governments

have over economic markets and over the environmental and social performance of companies operating in those markets. Recognizing this influence and in response to a number of factors, many North American government agencies are implementing purchasing practices that include environmental (and social) considerations—green procurement.

While Green Public Procurement is still a relatively new concept in South Africa, environmental criteria have, to a certain extent, started playing a role in public procurement decisions. For larger development projects, all state entities in South Africa already consider environmental criteria through environmental impact assessments that are required by national law. Beyond this, several provinces and municipalities are pursuing the development and/or implementation of a green procurement policy (Public Sector Procurement, 2002).

The Kenya government has put in place a wide range of policies, institutional and legislative to govern all business activities to ensure there is protection of the environment (Odhiambo, 2008). These include Environmental Management and Coordination Act (EMCA) 1999 that provides for the establishment of an appropriate legal and institutional framework for the management of the environment and related matters. All organizations within the country are obliged to comply with the Act (Martin, 2012). According to Kenya Solid Waste Management (2013), industrial wastes constitute about 23% of the total waste generated in the Nairobi city, only about 25% of the estimated 1,500 tonnes of solid waste generated daily get collected.

Many private firms in Kenya are working to improve the environmental performance of their operations and products and green procurement has been a logical extension of this work. Similar to public buyers, private sector organizations have in the last two decades adopted green procurement practices for specific products (e.g., recycled-content office paper, renewable energy,

paints, cleaners, etc.), with a few others have developed green procurement policies that cover a wider range of products, services and environmental issues (Odhiambo, 2008). As the business benefits of these efforts become better known, green procurement is continuing to grow in the private sector (Lucas, 2007).

The Coca-Cola Company is the world's largest beverage company, refreshing consumers with more than 500 sparkling and still brands. Led by Coca-Cola, one of the world's most valuable and recognizable brands, the Company's portfolio features 20 billion-dollar brands including, Diet Coke, Fanta, Sprite, Coca-Cola Zero, vitamin water, POWERADE, Minute Maid, Simply, Georgia, Dasani, FUZE TEA and Del Valle.

Globally, the company is No. one provider of sparkling beverages, ready-to-drink coffees, and juices and juice drinks. Through the world's largest beverage distribution system, consumers in more than 200 countries enjoy our beverages at a rate of 1.9 billion servings a day. With an enduring commitment to building sustainable communities, the Company is focused on initiatives that reduce our environmental footprint, support active, healthy living, create a safe, inclusive work environment for our associates, and enhance the economic development of the communities where the operate. Together with their bottling partners, the rank among the world's top 10 private employers with more than 700,000 system associates. Coca-Cola started operations in Kenya in 1948, on a Nairobi plot measuring just a quarter of an acre. The new beverage proved so popular that another production line was commissioned almost immediately in the coastal town of Mombasa. Coca-Cola Sabco's acquired Nairobi Bottlers Limited in 1995. Coca-Cola Sabco's Kenyan plant in Embakasi, Nairobi, employs approximately 642 people. It is one of the biggest bottling plants in the group. This state-of-the-art facility was officially opened in 2005. The establishment of the Embakasi plant was made

possible by the tremendous success of its predecessors, Nairobi Bottlers Ltd (NBL) and Flamingo Bottlers Ltd in Nakuru, which together contributed almost 50% of the country's total volume (company website).

### **Statement of the Problem**

According to Buchalcevova and Gala (2012), procuring organizations and other supply chain partners are more seriously involved in designing and implementing green procurement Policies focusing on how environmental issues and issues relating to other aspects of the sustainable development pillars (Society and Economy) can be integrated in the procurement process activities (Humphreys, 2013). The need to improve organizational efficiency, reduce waste, overcome supply chain risk, and achieve competitive position has made companies to start considering environmental issues from a competitive view point.

Access to energy and water are a key business challenge for Coke, which works with 300 'bottling partners' in 200 countries, Coca cola company therefore aims to increase its water efficiency by 25% by year 2020, improving on the 21.4% target it achieved between 2004-2012, and also to use at least 25% recycled or renewable material in plastic bottles by 2015. The current percentage is 5%. (Choudhury, 2013). Another challenge facing Coca-Cola Company is the issue of carbon footprints in their drinks (Choudhury, 2013). A study done by Brammer and Walker (2011), on sustainable procurement in the public sector, the study concluded that some Sustainable procurement practices are evident in public sector procurement practice and that the extent and nature of Sustainable. Another study done by Nderitu and Karanja (2014), on effects of green procurement practices on an organization performance in manufacturing industry revealed that performance of manufacturing industry is a contribution of more than one factor.

A study done by Hussein and Shale (2014), on effects of sustainable procurement practices on organizational performance in manufacturing sector in Kenya agreed that corporate social responsibility, product re-usability, supplier involvement and ethical practices contribute to green procurement in the firm. With all these studies shows that little research have been conducted on role of green procurement itself. With these knowledge gaps this study therefore tends to investigate the Role of green procurement on organizational performance of Coca Cola Company.

### **Objectives of the Study**

The main objective of the study was to determine the role of green procurement on organizational performance of Coca-Cola Company. The specific objectives were:

- To determine the role of reverse logistics on organizational performance of Coca-Cola Company
- To establish the role of supplier assessment on organizational performance of Coca-Cola Company

## **LITERATURE REVIEW**

### **Theoretical Framework**

#### **Systems Theory**

Systems theory describes the interrelatedness of all parts of an organization and how one change in one area can affect multiple other parts (Li & Geiser, 2009). According to Walker & Brammer (2009), organization act as systems interacting with their environment. Any equilibrium is constantly changing as the organization adapts to its changing environment. The foundation of systems theory is that all the components of an organization are interrelated, and that changing one variable might impact many others (Maignan *et al.*, 2012). Organizations are viewed as open systems, continually interacting with their environment. They are in a state of dynamic

equilibrium as they adapt to environmental changes.

According to Lozano and Valles (2013), system theory views organizational structure as the established pattern of relationships among the parts of the organization. of particular importance are the patterns in relationships and duties. These include themes of 1) integration (the way activities are coordinated), 2) differentiation (the way tasks are divided), 3) the structure of the hierarchical relationships (authority systems), and 4) the formalized policies, procedures, and controls that guide the organization (administrative systems) (Maignan *et al.*, 2012). Organizations are open systems and depend on their environment for support. The relationship between an organization and its environment is characterized by a two-way flow of information and energy (Marron, 2013). Most organizations attempt to influence their environment. While Stafford and Harthman, (2010) were among the first to explain the adoption of practices within the environmental context, several scholars have subsequently investigated the positive impact of these institutional pressures on green procurement (Zhu *et al.*, 2009). Thus systems theory supports corporate social responsibility where organizations interact with their respective environments as a system to enable them collaborate.

The theory is important to the study because, reverse logistics which is part of organizational structure has impact on organization financial position and organizations are open systems and depend on their environment for support. Focusing on the movement and management of products and resources after the sale and after delivery to the customer. Reverse logistics is a process that enables organizations to become more environmentally capable through recycling, reusing and reducing the amount of materials used (Marron, 2013).

### **Legitimacy Theory**

The starting point for understanding this intriguing question is Suchman's assertion (1995) that legitimation has a crucial influence on 'how the organization is built, how it is run, and simultaneously, how it is understood and evaluated'. Legitimacy may serve as either a source of additional external resources (Bitektine, 2011) or as a tool for consolidating organizational reputation, either externally or internally.

Legitimacy implies the existence of a social contract between an organization and its constituents (or stakeholders). Though scholars define it with varying degree of specificity, one of the broadly adopted definitions of legitimacy is that it is a general perception or assumption that the actions of an entity are appropriate within some socially constructed system of norms, values, beliefs, and definitions (Scott, 2004). Given its unique ability to connect organizational actions to stakeholder expectations, there is a widespread support for the notion that legitimate behaviour can lead to superior rewards and benefits. Legitimacy of organizations has historically been approached from two opposing theoretical perspectives – institutional and strategic. From the institutional perspective, legitimation is envisioned as a process of institutionalization, whereby external norms and beliefs are adopted without much thought. On the other hand, the strategic theoretical perspective envisions legitimacy as instrumental, proactive, and more importantly, a deliberate pursuit that can ultimately enhance external beliefs, thereby creating newer and enhanced levels of legitimacy.

Given its ability to explain organizational initiatives that do not follow the norms of profit-maximization, the legitimacy-based view provides a sound theoretical basis for explaining environmentally-oriented initiatives. Studies relying on the institutional theory suggest that pressures from a firm's institutional field will drive it to seek legitimacy in the eyes of its stakeholders. In the words of Oliver, (2005), a firm's response to external institutional pressure

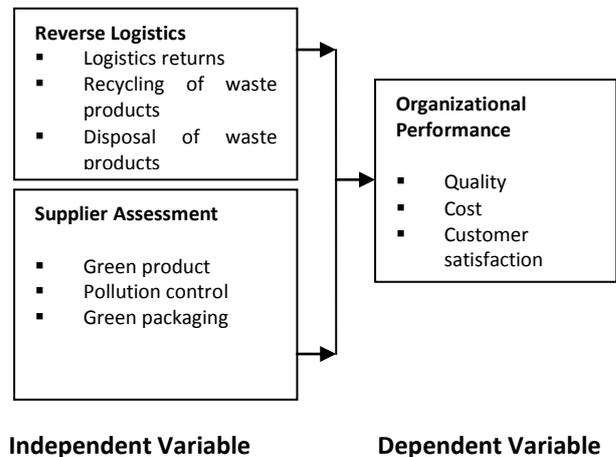
“emphasizes the importance of obtaining legitimacy for purposes of demonstrating social worthiness”. At the same time, given that institutionalization highlights “organizational scepticism” when legitimacy-seeking behaviours conflict with other firm objectives such as profit maximization, institutional theory also signals that firms might pursue only basic environmental initiatives that could sufficiently satisfy stakeholder needs

Following these ideologies within the institutional view of legitimacy, extant research has identified regulatory compliance, competitive advantage, and social concerns as key proponents of corporate environmental initiatives. More importantly, organization theorists contend that the visibility of an organization can invite increased institutional pressure to pursue environmentally sound practices. Organizational visibility suggests that an organization is publicly recognized, and hence more closely scrutinized by external stakeholders – customers, media, environmentalists, as well as government agencies when it comes to environmental issues. Accordingly, visible organizations will have to consciously respond to stakeholder demand to maintain their reputation and legitimacy (Scott, 2004). With regards to this theory, suppliers are key stakeholder in every organization. Their reputation will determine whether the purchasing organization will do business with them hence legitimacy theory is linked to green supplier assessment.

The theory is used in this study to bring out the role of corporate social responsibility. This ensures that the long-term viability of company business is maintained by being proactive and innovative in protecting the environment and be recognized as one of the most responsible corporate citizens by all stakeholders. In the Coca-Cola Company supplier guiding principles communicate the values and expectations of suppliers and emphasize the importance of responsible workplace practices that respect

human rights and comply, at a minimum, with applicable environmental and local labor laws and core international conventions (Gala, 2012). The supplier guiding principles is aligned with the human rights policy and reflects the commitment to respecting human rights across our business system and global supply chain.

### Conceptual Framework



**Figure 1: Conceptual Framework**

### Reverse Logistics

Reverse logistics is more than reusing containers and recycling packaging materials. Reverse logistics also involves recycling of waste products, monitoring of logistics returns and proper disposal of waste products redesigning packaging to use less material, or reducing the energy and pollution from transportation are important activities, but they might be secondary to the real importance of overall reverse logistics. Reverse logistics also includes processing returned merchandise due to damage, seasonal inventory, restock, salvage, recalls and hazardous material programs, obsolete equipment disposition and asset recovery. One of the more interesting and significant trends in supply chain management is the recognition of the strategic importance of reverse logistics operations. (Stock *et al.*, 2006). These reverse logistics operations support a variety of activities ranging from what is termed “green logistics,” i.e., “efforts to reduce the environmental impact of the supply chain” to activities that encompass

product returns, repairs, and refurbishment (Srivastava, 2013). The prominent environmental issues in logistics are consumption of non-renewable natural resources, air emissions, congestion and road usage, noise pollution, and both hazardous and non-hazardous waste disposal (Russo & Cardinali, 2012).

Reverse logistics practices can reduce the customer's risk when buying a product, and increase the customer value (Russo & Cardinali, 2012). However, the success of reverse logistics implementation requires the coordination of forward and backward flows of both materials and information. The reverse flow of products entering the chain impacts the dynamics of SC members' inventories. This, in turns, affects the dynamics of order placed to suppliers and, thus, impacts the performance of the entire SC in terms of the order and inventory variance amplification. (Stock *et al.*, 2006)

### **Supplier Assessment**

Green supply chain management (GSCM) is generally understood to involve screening suppliers based on their environmental performance and doing business only with those that meet certain environmental regulations or standards. In supplier assessment, most companies put into consideration several factors including green product pollution control green packaging. Supplier selection and evaluation is a multi-criteria decision-making (MCDM) approach that provides an effective framework for comparing suppliers by considering the qualitative characteristic of environmental performance as an indicator in green supplier selection (Huang & Keska, 2007).

Supplier selection has a critical effect on the competitiveness of the entire supply chain network. Research results indicate that the supplier selection process appears to be the most significant variable in deciding the success of the supply chain. Additionally, selection of suppliers is

one of the most important aspects that firms must incorporate into their strategic processes. As organizations become more and more dependent on suppliers, the direct and indirect consequences of poor decision making in selecting the suppliers will become more critical (Chan *et al.*, 2008). Apart from the common criteria such as cost and quality, this paper discusses the "green" issues which can play an important role in sourcing, and try to suggest critical environmental variables which can be used in supplier selection.

Pollution control is an important parameter which should be accomplished to get priory selected as supplier. More and more companies want to deal with suppliers which have some special values. Supplier's attitude toward the pollution is determining for working together. Solid wastes are the wastes disposed to the environment in solid form and cause pollution. Related to the negative effect of pollution the nations, municipalities, corporations and humans create the solid waste management systems. The incorrectly removal of the solid waste leads to the damage of the health, environment, resource, economy and aesthetic. Thereby, it is obligatory that the wastes should be controlled and regulated by particular programs and directives (Marshall & Farah bakhsh, 2013).

With the growing production rate in the world energy consumption grows quickly. By the production process the pollution is the by-product of energy use. It has been known that the pollution costs both a great deal of money and also destroys the environment in an irreparable manner. Therefore pollution control programs that imply a proper usage of energy consumption are promulgated (Early, 2003). To reduce the pollution, the use of harmful material has to be limited. Companies demand from their suppliers some checklists which prohibit using the harmful substances. The reduction of the use is on the priority list of these companies. Obviously, harmful materials are the great parts of the pollutants.

In the recent years, there is a “green” competency between vendors and suppliers, which has a strategically value and stands high in companies favor. In addition to the traditional selection criteria like costs, flexibility, quality, lead time, and new factors are considered more precious. Green product is an unusual agent to be applied. Green packaging is a type of packaging which aims to protect the environment by using environmental friendly material. Its main characteristic is to get dissolved or disappeared in nature rapidly without harming any damage. Green packaging can be attained in 4R1D way. 4R1D is the abbreviation of reduce, reuse, reclaim, recycle, degradable (Zhang & Zhao, 2012).

### **Organizational Performance**

Organizational performance is the ability of an organization to fulfil its mission through sound management, strong governance and a persistent rededication to achieving results. Sarkis *et al.*, (2010), proposed that firms delivering services must broaden their examination of productivity from the conventional company-oriented perspective to a dual company-customer perspective. This broadened approach can help reconcile conflicts or leverage synergies between improving service quality and boosting service productivity.

Bobis and Staniszewski, (2009), observed that Sustainable procurement has emerged as a major paradigm for planning .Significant research has been undertaken on performance measurement and management on internal organizational operations; however on supply chain performance measurement especially in the inter-organizational focus, where organizations deal with other organizations in another tier, has been relatively limited (Kabergey & Richu 2015),

To examine the Performance impacts of green procurement and green supplier development, resource-based view is drawn since these

initiatives represent a set of socially-created as well as path-dependent capabilities that can ultimately result in sustainable competitive advantage. Even though institutional pressures can lead to the adoption of green practices, it is important that firms develop resources and capabilities that can help them to respond to these forces and ultimately result in superior performance (Sarkis *et al.*, 2010).

Kennard, (2006) said that sustainable procurement is the process whereby economic development, social development and environmental protection are balanced against business needs. He outlines the benefits of adopting a sustainable procurement policy as a cost control, improved internal and external standards through performance assessment and compliance with environmental and social legislation. Green Procurement as it is, according to Bobis and Staniszewski, (2009) is not a new phenomenon but rather a concept that has been ongoing.

### **Empirical Review**

#### **Reverse Logistics**

Muttimos (2014), conducted a study on relationship between reverse logistics practices and organizational performance of manufacturing firms in Kenya, where increased organizational performance of manufacturing firms were found to be dependent on increased adoption of remanufacture and recycling reverse logistics practices with minimal adoption of reuse reverse logistics practice.

According to Kabergey & Richu (2015), on effect of reverse logistics on operational performance of sisal processing firms in Nakuru County, Kenya, the study revealed that product recovery and product reuse both have positive effect on operational performance of sisal processing firms. The study recommended that management of processing firms should look at reverse logistics as

a strategy to achieve competitive advantage and manage it strategically just like other key management areas. Further study should be conducted on the relationship between reverse logistics and social performance of processing/manufacturing organizations. Lastly, further study should be conducted on the role of top management in adoption of reverse logistics practices.

Gitau and Shalle (2014), studied on effects of reverse logistics adoption on supply chain performance in the manufacturing sector in Kenya: a case of Hewlett Packard Kenya agreed that reverse logistics adoption has a significant impact of the supply chain performance in the manufacturing industry; the reverse logistics variables had a statistically significant impact on supply chain performance both independently and as a result of their interaction, three variables; product returns, End of Life (EOL) Management and product repairs were highly correlated and therefore had the most significant influence on supply chain performance both independently and as a result of their interaction.

### **Supplier Assessment**

A study done by Agarwal and Vijayvargy (2012), on supplier assessment in environmentally responsive supply chains through analytical network process found that Supplier assessment is also necessary for sustainable supply chain analysis based on the analytical network process (ANP) and environmental factors. Since environment protection has been concern to public in recent years, and the traditional supplier selection did not consider about this factor; therefore, this paper found introduces green criteria into the framework of supplier selection criteria, hence this criteria is very important for organizational performance. Liao and Rittscher (2007), on green suppliers with environmental performance in the supply chain perspective he found out that GSCM lead to material cycles in the supply chains managed in an environmentally,

socially, and economically responsible manner that is, the product must generated as little waste as possible and conserve energy ate each stage of the product's life cycle.

Green supplier management, has captured significant interest in the current literature Hall, (2006) applied analytical hierarchy process. (AHP) to measure a multi objective project to help to evaluate and coordinate green supplier further with this study, to reduce the subjective types in designing a weighting system, buzzy logic process is used to modify the AHP. Geffen and Rothenberg (2000), find that paint shop suppliers can create new automotive products to achieve cost and environmental efficiencies facility-wide.

### **Organizational Performance**

Organizational performance is the concept of measuring the output of a particular process or procedure, then modifying the process or procedure to increase the output, increase efficiency, or increase the effectiveness of the process or procedure. According to Zhu *et al.*, (2007), one of the most common challenges in the organization is how to measure organizational performance. Different organizations use different parameters but the most common measures are qualitative characteristics such as job satisfaction or quantitative measures like profit, operating costs, earnings per share etc. Due to differentials from firms to firm, managers ought to utilize a method that is best suited for their particular firm

Nderitu & Ngugi, (2014) studied effects of green procurement practices on an organization performance in manufacturing industry and concluded that Green procurement attributes contributes to performance excellence. Hussein & Shalle, (2014) researched on effects of sustainable procurement practices on organizational performance in manufacturing sector in Kenya: a case of Unilever Kenya limited and concluded that the Green procurement initiatives appear to

be instrumental for improving supply chain performance, by harmonizing purchases, launching co-ordination initiatives, setting standards and building skills. Nasiche and Ngugi (2014), studied determinants of adoption of green procurement in the public sector: a case study of Kenya Pipeline Company and found out that the success of green public procurement relies heavily on enhancing the internal capacity of the organization.

### RESEARCH METHODOLOGY

The study adopted a descriptive study design to justify the relationship between the independent and dependent variables. The target population of this study was 642 management staff working with Coca Cola Company (Coca-Cola 2015). The unit of analysis of this study was Coca Cola Company, while the unit of observation was the employees of Coca Cola Company at management level. Questionnaires were used to collect required data for this study; the questionnaires used for the study comprised of open and close ended questions. A pilot test was conducted in order to test the validity of the questionnaire. The data collected from the field was analysed qualitatively and quantitatively. For quantitative data analysis, coding and entry was done in electronic spread sheet with the aid of Statistical Package for Social Sciences (IBM SPSS Version 23). Qualitative data was analysed using content analysis.

**Table 1 : Reverse Logistics**

Statements	Mean	Std deviation
Our organization keeps a safe environment to ensure customer satisfaction	4.29	0.24
Proper warehousing management in our organization enhances productivity	4.31	0.24
Our organization ensures timely deliveries of materials hence a safe environment	4.38	0.25
Our company maintains proper manufacturing cycle	4.35	0.25

### RESEARCH FINDINGS AND DISCUSSION

The study targeted a sample size of 234 respondents from which 208 filled in and returned the questionnaires making a response rate of 89.06%. The study sought to establish the demographic information of the respondents in terms of, level of education, job category and period of service. On respondents' level of education attained, the study revealed that most of the respondents 50.89% had attained university degree, whereas 33.33% of the respondents had attained college diplomas and 15.78% of the respondents had attained secondary level education. On job category the findings revealed that most of the respondents 38.59% were in the middle level management, whereas 36.85% of the respondents were in the lower level management and 24.56% of the respondents were in the top-level management. On the period of service, the study revealed that majority of the respondents 50.87% had served the company for 9-11 years 24.56% of the respondents had served the company for a period of 6 to 8 years, 10.52% had served the company for more than 12 years, 8.77% had served the company for 3 to 5 years and only 5.28% of the respondents had served the company for a period of 1 to 2 years.

#### Reverse Logistics

The study sought to establish the extent to which respondents agreed with the below statements relating to reverse logistics.

Recycling enhances productivity in our organization.	4.44	0.23
Our company maintains proper transit time	4.26	0.21

From the research findings, majority of the respondents strongly agreed that; recycling enhanced productivity in our organization. (M=4.44, SD=0.23); the organization ensures timely deliveries of materials hence a safe environment (M=4.38, SD=0.25). The findings were in line with Gitau and Shalle (2014), who established that reverse logistics adoption had a significant impact of the supply chain performance in the manufacturing industry.

The respondents further agreed that the company maintained proper manufacturing cycle (M=4.35, SD=0.25); proper warehousing management in our organization enhances productivity (M=4.31, SD=0.24); the organization keeps a safe environment to ensure customer satisfaction (M=4.29, SD=0.24); the company maintained proper transit time (M=4.26, SD=0.21). The respondents further revealed that the bottles were recycled in the company. The findings concurred with Kabergey and Richu (2015), who argued that the reverse logistics variables have a

statistically significant impact on supply chain performance both independently and as a result of their interaction.

The study further revealed that the most effective way to apply best practices in waste management for most organizations was through working with an industry leader in waste management. This reduced company cost and managing high quality, optimal efficiency service levels. The findings were in line with Hussein and Shalle, (2014) who established that waste management incorporates collection, transportation, processing and disposal of the waste. Waste management also includes strategies for reducing the amount of waste to be disposed of. Sustainable solid waste management enhanced maintenance of a healthy, aesthetic, and ecologically sound environment.

### Supplier Assessment

The study sought to establish the extent to which respondents agreed with the below statements relating to supplier assessment.

**Table 2 : Supplier Assessment**

Statements	Mean	Std deviation
Our suppliers are assessed based on their ability to supply green products and hence safe environment	4.38	0.18
Green supplier evaluation system is necessary for firm productivity.	4.17	0.19
Our suppliers are also assessed based on their ability to control pollution and hence a safe environment	4.39	0.17
Pollution control by the suppliers results in improved productivity	4.11	0.20
Supplier assessment results in the overall performance of our organization	4.23	0.22
Our supplier selection and evaluation ensures they provides an effective green packaging	4.29	0.21

From the research findings, majority of the respondents strongly agreed that; the suppliers were also assessed based on their ability to control pollution and hence a safe environment (M=4.39, SD=0.17).The suppliers were assessed

based on their ability to supply green products and hence safe environment (M=4.38, SD=0.18); supplier selection and evaluation ensured they provided an effective green packaging (M=4.29, SD=0.21). The findings were in line with Agarwal

and Vijayvargy (2012), who argued that on supplier assessment in environmentally responsive supply that supplier assessment was also necessary for sustainable supply chain analysis based on the analytical network process and environmental factors.

The respondents further agreed that supplier assessment results in the overall performance of the organization (M=4.23, SD=0.22); green supplier evaluation system was necessary for firm productivity. (M=4.17, SD=0.19); pollution control by the suppliers results in improved productivity (M=4.11, SD=0.20). The findings confirmed Liao

and Rittscher (2007), findings on green suppliers with environmental performance in the supply chain perspective that GSCM lead to material cycles in the supply chains managed in an environmentally, socially, and economically responsible manner that is, the product must generated as little waste as possible and conserve energy at each stage of the product's life cycle.

### Organizational Performance

The study sought to establish the extent to which respondents agreed with the below statements relating to organization Performance.

**Table 3: Organizational Performance**

Statements	Mean	Std deviation
The quality of procured contributes to organizations performance	4.47	0.21
The cost in our organization influences performance	4.43	0.20
Customer satisfaction contributes to improved organizations performance	4.45	0.23
Sustainable procurement enhances organizational operations improving organizational performance	4.41	0.23
Availability of resources influence organization Performance	4.40	0.22

From the research findings, majority of the respondents strongly agreed that the quality of procured goods and services contributed to organizations performance (M=4.47, SD=0.21), customer satisfaction contributed to improved organizations performance (M=4.45, SD=0.23), the cost of goods procurement in the organization influences performance (M=4.43, SD=0.20), sustainable procurement enhances organizational operations improving organizational performance (M=4.41, SD=0.23), Availability of resources influenced organization Performance (M=4.40, SD=0.22). The findings concurred with Nderitu & Ngugi, (2014) who studied effects of green procurement practices on an organization performance in manufacturing industry and concluded that Green procurement attributes contributes to performance excellence.

The respondents further revealed factors influencing organizational performance which include staff motivation, working environment training and development, and management involvement contributes to organization performance in the company. The findings concur with Hussein and Shale (2014), that training and development is related to organizational performance in many ways. First the training programmes can increase the firm specificity of employee skills, consecutively, increase employee productivity as well as reducing job dissatisfaction that results in employee turnover. Second, training and development internal personnel reduces the cost and risk of selecting, hiring and internalizing people from external labour market, which again increases employee productivity and reduces turnover.

## Findings

### Reverse Logistics

The study found that taking all other independent variables at zero, a unit increase in Reverse logistics will lead to a 0.651 increase in the organizational Performance. The findings were in line with Carter (2008), reverse logistics is more than reusing containers and recycling packaging materials. Redesigning packaging to use less material, or reducing the energy and pollution from transportation are important activities, but they might be secondary to the real importance of overall reverse logistics. Reverse logistics also includes processing returned merchandise due to damage, seasonal inventory, restock, salvage, recalls and hazardous material programs, obsolete equipment disposition and asset recovery.

The study further revealed that recycling enhances productivity in the organization. The organization ensures timely deliveries of materials hence a safe environment. The study further revealed that the most effective way to apply best practices in waste management for most organizations is through working with an industry leader in waste management. This reduces company cost and managing high quality, optimal efficiency service levels. The findings are in line with Gitau and Shalle (2014), studied on effects of reverse logistics adoption on supply chain performance in the manufacturing sector in Kenya: a case of Hewlett Packard Kenya agreed that reverse logistics adoption has a significant impact of the supply chain performance in the manufacturing industry.

### Supplier Assessment

On the other hand, the study revealed that a unit change in supplier assessment while holding the other factors constant would lead to an increase in organizational performance by a factor of 0.571. The findings confirmed the work of Liao and Rittscher (2007), on green suppliers with environmental performance in the supply chain

perspective he found out that GSCM lead to material cycles in the supply chains managed in an environmentally, socially, and economically responsible manner that is, the product must have generated as little waste as possible and conserve energy ate each stage of the product's life cycle.

The study further established that the suppliers are also assessed based on their ability to control pollution and hence a safe environment. The suppliers are assessed based on their ability to supply green products and hence safe environment, supplier selection and evaluation ensures they provides an effective green packaging. The study findings concur with Handfield (2012), competency between vendors and suppliers, which has a strategically value and stands high in companies favour. The study established that the organization has a procedure to re-using used materials ,proper returns management is done ,there is collection of expired goods from customers for proper disposal ,reverse logistics is done in the organization ,implementation of green technology reduces CO2 emissions ,there is waste management in the organization by use of green technology ,green technology has been adopted through green technology our organization has waste management measures and organization uses renewable energy

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

The objective of the study was to determine the role of green procurement on organizational performance of Coca-Cola Company. The study established a strong positive relationship between reverse logistics and organizational performance of Coca-Cola Company. The study further established that purchasing of commodities is done with keen attention to quality of supplies, the organization frequently participates in award winning environmental programmes.

On the other hand, the study established a strong positive relationship between supplier assessment and organizational performance of Coca-Cola Company. The findings confirm the work of Liao and Rittscher (2007), on green suppliers with environmental performance in the supply chain perspective he found out that GSCM lead to material cycles in the supply chains managed in an environmentally, socially, and economically responsible manner that is, the product must have generated as little waste as possible and conserve energy at each stage of the product's life cycle.

### **Conclusion**

This study provided a comprehensive review of role of green procurement on organizational performance of Coca-Cola Company. Based on the findings of this study, the study concluded that there existed a positive relation between reverse logistics and organizational performance of Coca-Cola Company. The study also concluded that purchasing of commodities is done with keen attention to quality of supplies, the organization frequently participates in award winning environmental programmes.

On supplier assessment, concluded that there existed a strong positive relation between supplier assessment and organizational performance of Coca-Cola Company. The study further concluded that the suppliers are also assessed based on their ability to control pollution

and hence a safe environment. The suppliers are assessed based on their ability to supply green products and hence safe environment.

### **Recommendations**

The study recommended that the managers of the coca cola company should adopt reverse logistics practices to increase organizational performance. The increased adoption of remanufacture and recycling reverse logistics practices with minimal adoption of reuse reverse logistics practice ensures maximization of resources.

Further, since environment protection has been concern to public in recent years, the study recommended that the government should create policies governing suppliers in the manufacturing industries. Supplier assessment is necessary for sustainable supply chain analysis based on the analytical network process and environmental factors.

### **Suggestions for Further Studies**

The study focused on green procurement and organizational performance of Coca-Cola Company in Kenya. Similar study should be done on green supply chain management and economic performance of service industry in Kenya.

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