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Factors Influencing Implementation of Green Procurement by Manufacturing Companies in Kericho County

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Abstract

The study sought to investigate the factors influencing implementation of green procurement by manufacturing companies. The specific objectives of the study included: to establish the extent to which legal and regulatory framework, the availability of substitute products, financial resources and how pressure groups affect the implementation of green procurement by manufacturing companies in Kericho County. The study will be of great significant to the future researchers, the government, and procurement practitioners. The study was limited by confidentiality of information. The study employed descriptive research design and stratified random sampling method to pick respondents. The study targeted top level managers, procurement staff and supply clerks in six manufacturing companies namely: Kenya Tea Development Agency (KTDA), Unilever, James Finlay, George Williamson, Kaisugu and Mau Tea Companies. The study targeted population of 150 employees and a sample of 60 respondents were picked. Primary data was collected using close and open ended questionnaires. Descriptive statistics and factor analysis were used to analyze data. The findings indicated that the existing legal framework does not support implementation of green procurement, availability of substitute products are not sufficient, firms do not avail financial resources and pressure groups need to do more to push for firms to embrace green procurement.

Key words: *Green Procurement, Pressure Groups, Financial Resources, Manufacturing Companies, Substitute Products, Laws and Regulations, Implementation, Environmental Conservation*

1. Introduction

Over the years there has been a repeat of events such as the energy crisis and prevailing consumerist behavior which encourages high demand especially for raw materials by individuals and organizations alike. This has led to diminishing sources of raw materials and hence the focus has been on conservation and use of recycled materials. Green procurement is a holistic approach in that it encompasses organization, people, processes and technology. Some companies realized a long time ago efficiency in energy usage, waste generation and water consumption along with use of recycled materials resulted in reducing costs (Green & Morton, 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. 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).

It is important we make our procurement processes environmentally friendly and climate neutral, a process we can call 'Green Procurement'. Factors such as the efficient use of energy and resources, reclamation of mined sites, reforestation and eliminating wasteful practices that could lead to global warming and environmental pollution should be adopted. We need to develop green procurement guidelines which will establish the criteria that may be used by any organization or procurement entity for the procurement of local order categories of goods, works and services in Kenya. This we will say will be a good pacesetter towards being mindful and conscious about the environment in the sub-region, an example others will follow.

In the European Union (EU), the potential of green public procurement was first underlined in the European Commission's announcement from 2003 concerning integrated product policies, encouraging member states to adopt national action plans for such procurements before the end of 2006. The new European Legal Framework for Public Procurement contains instructions on how public procurers can include environmental considerations in their processes and procedures.

In Africa, various studies have been done on green procurement policy. According to research undertaken by Harpe, (2008) stated that the municipalities of South Africa committed themselves at the World Conference on Sustainable Development (2002) to some form of green procurement. While certain government bodies seem to have progressed in developing green procurement policies, the implementation of these policies appears to be less than complete. Where other government policies exist that support green public procurement, these have not been explicitly developed for the purpose of green procurement or recognised as supporting green procurement. This suggests that the process of developing and implementing environmental procurement criteria has not been effectively rolled out within the mentioned government bodies.

In Kenya few studies have been done on various organisations pertaining to the green procurement. A study done at Kenya Pipeline Corporation on determinants of adoption of green procurement revealed that incentives and pressures (Bjorklund, 2011) and organization green capacity (Iraldo et al., 2007; Hart, 2005; Francesco et al., 2012) are the main determinants of green public procurement adoption at KPC. According to Odhiambo, (2008) 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 (for example, recycled-content office paper, renewable energy, paints and cleaners), with a few others have developed green procurement policies that cover a wider range of products, services and environmental issues (Odhiambo, 2008). In Kericho county most studies have been done on tea firms especially on IT (Information Technology) sector but very little study has been done on green procurement.

2. Problem Statement

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 green development through the inclusion of social and environmental criteria within procurement processes (Srivastava, 2013).

Public and private organizations procure goods, works and services without consciously taking into consideration its impacts on the environment. Legislations to green procurement in Kenya are not clear cut, thus making the implementation process a cumbersome one. Despite the important role green procurement plays in ensuring environmental performance and public health and safety, most of the studies on this subject had been conducted in developed countries, yet not much research has been conducted in Kenya leading to insufficient empirical literature on green procurement (Stephen & Helen, 2011). Green procurement research within manufacturing sector is particularly important considering recent studies which indicate a rise in costs of waste management, worker safety and public health concerns both locally and globally, implying that it is an area that still needs addressed. It is for these reasons that the present study sought to fill the gap by investigating the factors affecting the implementation of green procurement by manufacturing companies in Kericho County.

3. Objectives of the Study

3.1 General Objective

The overall objective of the study was to investigate the factors influencing the implementation of green procurement by manufacturing companies in Kericho County.

3.2 Specific Objectives

The specific objectives of the study were:

- i. To establish the extent to which legal and regulatory framework affect the implementation of green procurement by manufacturing companies in Kericho County.
- ii. To determine the effect of the availability of substitute products on implementation of green procurement by manufacturing companies in Kericho County.
- iii. To establish the influence of financial resources on the implementation of green procurement by manufacturing companies in Kericho County.
- iv. To examine how pressure groups influence the implementation of green procurement by manufacturing companies in Kericho County.

4. Significance of the Study

Manufacturers need appropriate information on the best supply chain mix to respond to the ever-changing business and natural environment. This study revealed that green manufacturing and reverse logistics were popular green strategic options which firms leveraged. The study revealed a lack of awareness by most of the stakeholders and as envisaged they will now be in a better position to learn from a myriad solution offered by the market in this era of green hype. Governments can thus leverage on the information generated through research to formulate the right policies and regulations to respond to green issues and to improve the economic and social welfare of its citizens. Lastly, academicians and researchers will also benefit because the final report of this study on green procurement will act as future reference materials, scholars and future researchers in this area will use this study as a reference in their studies.

5. Review of Literature

5.1 Theoretical Review

5.1.1 Institutional Theory

Certain key drivers motivate firms to adopt green supply chain initiatives or strategy, and from a theoretical perspective, the effect of the drivers can be explained in terms of the institutional theory. The drivers studied include regulations and customers' pressures considered as coercive isomorphism, social responsibility considered as normative isomorphism and expected business benefits considered as cultural-cognitive isomorphism. Zhu and Sarkis (2007) utilized institutional theory to evaluate how various green supply chain management (GSCM) practice adoptions influenced operations and manufacturing management. The institutional pressures they studied include: normative (market) pressure where firms conform to be perceived as more legitimate, coercive (regulatory) pressure which occurs through influence exerted by those in power and mimetic (competitive) pressures which occur when firms mimic the actions of successful competitors in the industry.

The normative pillar refers to norms (how things should be done) and values (the preferred or desirable), social obligation being the basis of compliance (Preuss, 2013). The cultural-cognitive pillar rests on shared understanding (common beliefs, symbols, shared understanding). According to Stephen & Helen, (2011) the Kenyan Government has put in place a wide range of policy, institutional and legislative frameworks to address the major causes of environmental degradation and negative impacts on ecosystems emanating from industrial and economic development programmes. This theory links the objective one: Legal and regulatory framework influence implementation of green procurement.

5.1.2 Green Productivity Theory

Green product design whereby improvement in creating green product and process designs that fully meet customer requirements with minimum use of input materials and the specification of materials that are environmentally friendly. The choice of raw materials that are environmentally friendly as well as creating designs that minimize the quantity of materials utilized must equally be factored in. Green procurement assures that the movement of these materials from supplier locations to the manufacturing site is done in ways that create minimal environmental impact (e.g. energy consumption and emissions) and waste (e.g. product damage, disposable packaging material) (Tuttle and Tebo, 2007).

Input material processing encompasses use of efficient processes in the production of error free components or materials with zero waste and zero emissions. The additional concerns are with minimizing energy utilization and ensuring that closed cycle production processes are utilized when necessary for materials that are hazardous to people or the environment. There must be an emphasis on reducing the cycle time of production processes and the detection and elimination of waste in all forms (Tuttle and Tebo, 2007). Manufacturing process concerns are the utilization of manufacturing processes that produce defect-free products with zero waste and zero emissions. This theory links the objective two: Availability of substitute products and influence on implementation of green procurement.

6.1.3 Resource-Based View Theory

This Resource Based View Theory (RVBT) is an economic tool used to determine the strategic resources available to a firm. The main principle of the RBVT is that the basis for a competitive advantage of a firm lies primarily in the application of the bundle of the valuable resources at the firm's disposal. To transform a short-run competitive advantage into a sustained competitive advantage requires that these resources are heterogeneous in nature and not perfectly mobile (Peteraf, 2005). Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable without great effort (Hoopes, 2003). If these conditions hold, the firm's bundle of resources can assist the firm in sustaining the above average returns.

The resource-based view of the firm emphasizes that valuable, rare, imperfectly imitable, and non-substitutable firm's resources result in competitive advantage (Miles & Covin, 2010). These resources can consist of assets, capabilities, organizational processes, information, etc. and are classified into tangible and intangible resources (Dickinson et al., 2010). The theoretical mainstays are the resources that are entirely controlled or owned by the focal organization should be cultivated in order

to enhance their contribution to the organization's competitive advantage in its industrial context (Hoffman & Sandelands, 2005).. This theory links the objective three: Financial resources influence the implementation of green procurement.

6.1.4 Legitimacy Theory

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, legitimization 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.

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. This theory links the objective four: Pressure groups influence on implementation of green procurement.

6.2 Empirical Review

Dolva (2008) made an assessment of Green Public Procurement in Norway and an analysis of perceived drivers and barriers for implementing more Green Public Procurement. The results revealed that 60% of all tender documents included some kind of environmental criteria but 1/3 were doubtful. This indicated that lack of knowledge, focus on economic considerations and product functionality, and work pressure were five main barriers preventing Green Public Procurement. Increased co-operation, increased focus from management, simplification of criteria and more available products with environmental labels were identified as drivers. The author recommended the labeling of products and making visible more environmental friendly alternatives available in trying to find a way to reach a better co-operation in the procurement process, supporting initiatives for Environmental Management Systems and standards, and striving to make the possibility to include Green Public Procurement as simple as possible.

Stephen & Helen, (2011) study proposed a conceptual framework that explains the implementation (or lack thereof) of green procurement. The propositions steamed from, firstly, a differentiated materialist viewpoint on organizational culture to understand the level of desire exhibited by the organization and by the procurement department (Theyel, 2010). Secondly, the study drew upon the resource-based view of the firm to explain how the procurement manager's capability to respond to a given level of desire moderates the degree to which that desire is realized in the organization's procurement activity (Stafford et al., 2010).

The framework drew upon the political theory of the firm as defined by Miles and Covin, (2010) to explain a lack of or illegitimate engagement in GP activities and that effort to remedy any misalignment between organizational subcultures and/or the procurement manager's inability to respond due to a lack of resources is a potential solution (Barney, 2001; Lucas, 2007).

6.3 Conceptual Framework

A conceptual framework refers to a set of comprehensive concepts and ideologies extracted from or taken from a particular area of study and forms or acts as guidelines in following presentations. It is believed that it assists the researcher during his/her investigation. The independent variables for the study were legal and regulatory framework, availability of substitutes, pressure groups and financial resources while on the other hand dependent variable was implementation of green procurement.

Legal and regulatory framework encompasses relevant laws that facilitate implementation of green procurement. Substitutes refer to products that can be utilized and foster environmental safety thus leads to adoption of green procurement. Financial resources are key ingredients in implementation of green procurement in that some of the materials involve use of finance to acquire. On the other hand, pressure groups include community, NGOs and other activist groups who agitate for safe environment through procurement activities. Leadership is believed to be a moderating factor in the study because it is linked to the implementation aspect of the organization's procurement activities.

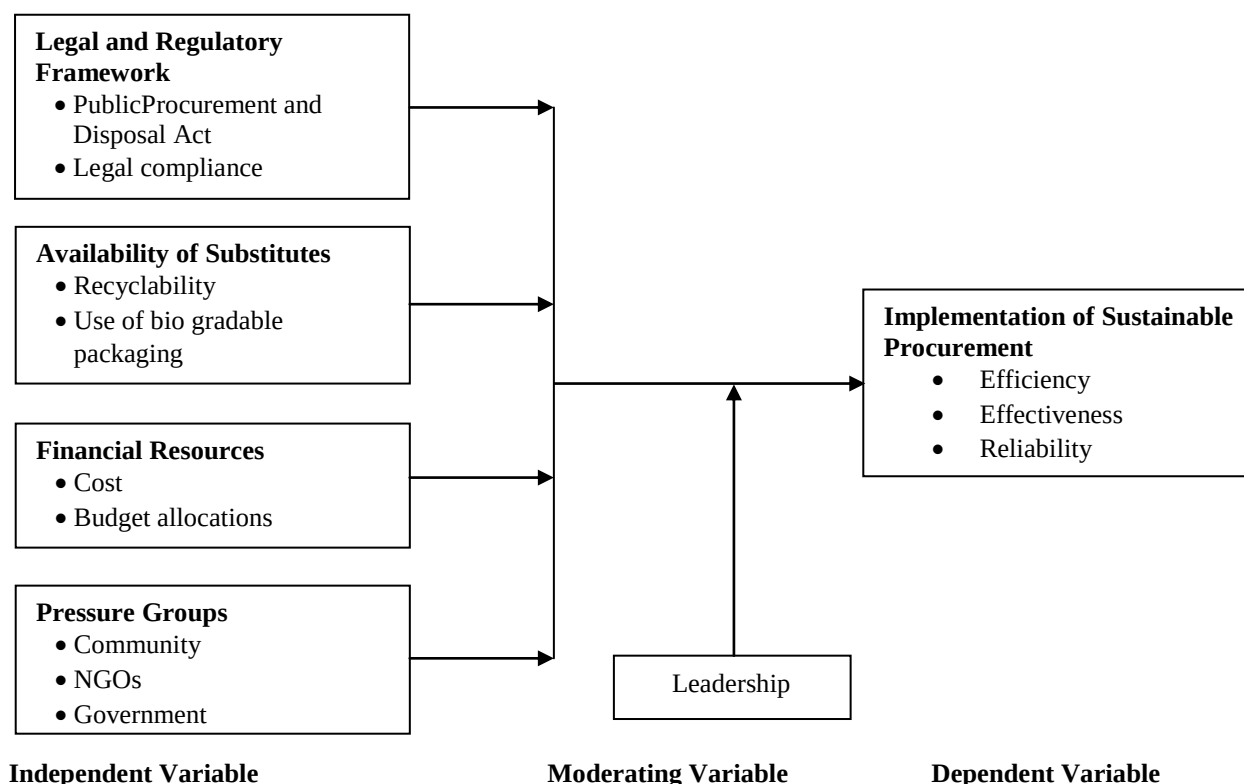


Figure 1 Conceptual Framework

7. Research Methodology

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 2004).

The descriptive research design was adopted based on the research objectives and the fact that data and information can be obtained using the method without changing the environment (Deyrup, 2013). The choice of this design was appropriate for the study since it utilized a questionnaire as a tool of data collection and in data analysis of factors affecting implementation of green procurement in manufacturing firms in Kericho County.

Target population is the set of elements, items or objects or individuals with similar identity characteristics. The term also refers to the entire group of individuals or objects to which a researcher is interested in generalizing the results of the study and having observable same characteristics (Mugenda and Mugenda, 2003). The study targeted 150 employees as the population of interest, dealing with public procurement matters which included purchasing or procurement managers, procurement staff and supplies clerks in six manufacturing companies in Kericho County namely: Kenya Tea Development Agency (KTDA), Unilever, James Finlay, George Williamson, Kaisugu and Mau Tea Companies.

Table 1 Target Population

Department	Target population	Percentage
Top-level managers	10	16.6
Procurement staff	40	26.7
Supplies clerks	100	66.7
Total	150	100.0

The study used stratified random sampling since the target population is manageable and easily accessible. The researcher utilized the stratified sampling technique where sampled respondents are given fair chance of being selected for the study according to their levels in the six organizations. The representative sample was chosen using Slovin's formula: $n = N / (1 + Ne^2)$ and a sample size of 60 was obtained at confidence level of 90%.

8. Research Findings and Analysis

8.1 Descriptive Statistics

The study used descriptive statistics to present the mean and standard deviation of the gathered data on factors influencing the effective implementation of green procurement in manufacturing firms in Kericho County.

8.1.1 Legal and Regulatory Framework and Implementation of Green Procurement

The respondents were asked to indicate the level of agreement with various statements that are indicators of legal framework and implementation of green procurement. The indicators were based on a 5-point Likert scale i.e. (1= Very strongly disagree, 2= disagree, 3= moderately agree, 4=agree, 5=strongly agree).

Table 2 Legal and Regulatory Framework and Implementation of Green Procurement

	N	Mean	Std. Deviation
Established laws and regulations regarding procurement are effective	51	4.1176	1.3364
Regularly review the procurement regulations	51	4.0392	1.3109
Carry out supplier analysis	51	3.9608	1.3706
All regulations have been implemented	51	3.7255	1.0969
Train suppliers on procurement laws and regulations	51	3.7255	1.2342

The finding indicated that majority of the respondents agreed with all the statements as follows; established laws and regulations regarding procurement are effective (mean=4.1176, standard deviation = 1.3364) regularly review the procurement regulations (mean=4.0392, standard deviation = 1.3109) carry out supplier analysis (mean=3.9608, standard deviation = 1.3701) all regulations have been implemented (mean=3.7255, standard deviation = 1.0969) and train our suppliers on procurement laws and regulations (mean=3.7255, standard deviation = 1.2342). Standard deviation does not show big variation which implies they all agreed with the statements.

8.1.2 Availability of Substitute Products and Implementation of Green Procurement

The aspect of availability of substitute products was measured using five indicators namely: substitute products are available, availability of substitute product affect sustainability, substitute products play a role in green procurement, consider environmental impact when designing substitute products and substitute products play a role in green procurement.

Table 3 Availability of Substitute Products and Implementation of Green Procurement

	N	Mean	Std. Deviation
Substitute products are available in your company	51	3.9412	1.31775
Availability of substitute product affect sustainability	51	3.6471	1.21365
Substitute products contributed to the green procurement	51	3.7647	1.28978
Consider environmental impact when designing substitute products	51	3.9216	1.24649
substitute products play a role in green procurement	51	4.0784	1.27817

The findings showed that majority of the respondents agreed with the statement given as follows: substitute products are available (mean=3.9412), availability of substitute product affect sustainability (mean=3.6471), substitute products play a role in green procurement (mean=3.7647), consider environmental impact when designing substitute products (mean=3.9216) and substitute products play a role in green procurement (mean=4.0784). The standard deviations do not show big variation which implies they agreed with the statements.

8.1.3 Financial Resources and Implementation of Green Procurement

The study inquired from the respondents' financial resources implication on green procurement.

Table 4 Financial Resources and Implementation of Green Procurement

	N	Mean	Std. Deviation
consider financial implication of green procurement practices	51	3.7922	1.5110
require financial resources when implementing green procurement	51	3.6275	1.1994
Lack of financial resources affect implementation	51	3.5098	1.1895
Inadequate financial resources affect full implementation	51	1.9608	1.2800
The company has steady source of funds to implement GP	51	1.8431	1.1726

According to the findings, the majority moderately agreed that they considered financial resources implication with a mean of 3.7922 but most of them agreed that they require financial resources when implementing green procurement with a mean of 3.6275 and lack of financial resources affect implementation with a mean of 3.5098. However, majority of the respondents disagreed that inadequate financial resources affect full implementation with a mean of 1.9608 and that the company has steady source of funds to implement green procurement with a mean of 1.8431. The standard deviations do not show big deviation which implies that the respondents agreed with the statements.

8.1.4 Pressure Groups and Implementation of Green Procurement

Respondents were asked questions related to influence of pressure groups on green procurement.

Table 5 Pressure Groups and Implementation of Green Procurement

	N	Mean	Std. Deviation
Pressure groups are critical in procurement processes	51	3.9804	1.22458
Pressure groups affect procurement of products and services	51	3.9608	1.23225
Pressure groups agitate for green procurement	51	3.8039	1.20033
Pressure groups play role in green procurement	51	3.9216	1.18056
NGOs have contributed to green procurement	51	3.7843	1.25401

Majority of the respondents agreed with all statements on table 1.11 as follows: believed that pressure groups are critical in procurement processes with a mean of 3.9804, procurement of products and services (mean=3.9608), pressure groups agitate for green procurement (mean=3.8039), pressure groups play role in green procurement (Mean=3.9216) and NGOs have contributed to green procurement (mean=3.7843). The standard deviation does not show big deviation which implies that the respondents agree with the statements.

8.2 Coefficient of Determination

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.758	.397		1.90	.002
Legal framework	.201	.212	.216	.947	.008
Availability of substitute product	.578	.256	.563	2.25	.009
Availability of financial resources	.057	.115	.069	.493	.024
Pressure groups	.019	.093	.018	.201	.002

a. Dependent Variable: implementation of green procurement

The coefficient for the intercept is 0.758 implies that if the factors (legal framework, availability of substitutes, financial resources, pressure groups) are equated to zero then the implementation of green procurement will improve by a margin of 0.758. The beta coefficient of legal framework is 0.201 implying that a unit increase in legal framework will lead to an increase in implementation of green procurement by a margin of 0.201. Similarly, the beta coefficient of availability of substitute products is 0.578 meaning that a unit increase in availability of substitute products leads to an increase in implementation of green procurement by a margin of 0.578. The beta coefficient of availability of financial resources is 0.057 implies that a unit increase leads to increase in implementation of green procurement by a margin of 0.057. The beta coefficient of pressure groups is 0.019 a unit increase in pressure groups leads to a decrease in implementation of green procurement by a margin of 0.019.

9. Discussion of Key Findings

9.1 Legal and Regulatory Framework and Implementation of Green Procurement

The findings indicated that majority of the respondents agree that the established laws and regulations regarding procurement are effective in directing the implementation of green procurement in manufacturing firms. The results also indicated that most of the manufacturing firms undertake regular review of the procurement regulations. It also emerged from the study that supplier analysis was carried out in order to ensure compliance with green procurement laws. It was found out that most of the regulations have been implemented by manufacturing firms and that majority trains their suppliers on procurement laws and regulations. The research found out that Legal and regulatory framework has a positive effect on implementation of green procurement. This indicated that there is a notable absence of regulation to mandate manufacturing firms and business green purchasing activities. A supportive legal & regulatory framework on environment management enhances effective implementation of green procurement.

9.2 Availability of Substitute Products and Implementation of Green Procurement

On the matter of availability of substitute products, the findings showed that majority of the respondents agreed that substitute products are available in manufacturing companies and that their availability play a role in green procurement. Furthermore, most of the manufacturing firms consider environmental impact when designing substitute products and that substitute products contributed to the implementation of green procurement.

9.3 Financial Resources and Implementation of Green Procurement

The study inquired from the respondents about financial resources implication of green procurement practices where the majority moderately agreed that they consider financial implication but most of them agreed that they require financial resources when implementing green procurement and that lack of financial resources affect implementation of green procurement. However, majority of the respondents disagreed that inadequate financial resources affect full implementation and that the company has steady source of funds to implement green procurement. The study established that insufficient financial resources had a significant negative effect on implementation of green procurement in manufacturing sector. The results suggested that allocation of meager financial resources to support green procurement affect implementation of green procurement. To overcome this challenge there is need for allocation of sufficient funds to support green procurement activities by the manufacturing firms.

9.4 Pressure Groups and Implementation of Green Procurement

The findings further showed that pressure groups are critical in procurement processes, procurement of products and services and pressure groups agitate for green procurement. It was further revealed that NGOs have contributed to green procurement.

10. Conclusions and Recommendations

10.1 Conclusions

From the findings of the study, it was concluded that implementation of green procurement was influenced by legal and regulatory framework, availability of substitute products, availability of financial resources and the influence of pressure groups.

Based on the research findings it is logical to conclude that effective implementation of green procurement in manufacturing sector can be enhanced. Given the backdrop that the implementation of green procurement in manufacturing sector is poor, the findings indicated that currently there is lack of organizational support in implementation of green procurement, poor legal and regulatory framework, unavailability of substitute products, lack of pressure group support and the resources required to implement green procurement are limited in manufacturing sector.

It is logical to articulate that the current phenomenon of poor implementation of green procurement in manufacturing sector can be reversed if the government and other stakeholders ensure that pressure groups support implementation of green

procurement, improvement of legal and regulatory framework on environment, availability of substitute products associated with green procurement and allocation of resources necessary for effective implementation of green procurement. It was concluded that existing legal and regulatory framework could facilitate the implementation of green procurement if manufacturing firms could adhere to them as required. It was also considered crucial for the laws to be regularly reviewed to cater for the new challenges in implementation of green procurement.

Based on the findings of the study, the availability of substitute products and financial resources are key determinants in implementation of green procurement by manufacturing firms. Manufacturing firms greatly depend on the availability of substitute products in order to fully implement green procurement. Finally, it was concluded that pressure groups played a significant role in implementation of green procurement by being at the fore front.

10.2 Recommendations

To facilitate the implementation of green procurement, the manufacturing firms should dedicate enough financial resources for the acquisition of substitute products. The government should impose strict compliance with the laws regarding green procurement practices in all manufacturing related industries. Pressure groups such as NGOs should be at the fore front in agitating for green environment through procurement practices. Public awareness on the need to conserve environment through green procurement should be raised by all the stakeholders.

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