

Green Procurement in an Organization: A Case Study of Unilever Ghana Limited

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Abstract

Green procurement refers to acquisition of products and services with smaller-than-average environmental footprints. This study analyzed green procurement in manufacturing industry in Ghana, a case study of Unilever Ghana Limited. In addressing the latter, the research aimed at establishing the effect of staff competence in green procurement on performance of Unilever Ghana Limited, to find out the effect of green procurement ICT infrastructure has on performance of Unilever Ghana Limited and to assess the role of supplier participation in green procurement on performance of Unilever Ghana Limited. The beneficiaries will include; the management, employees and stakeholders in Unilever Ghana Limited. Descriptive research design was used and a stratified random sampling method to pick a sample of the respondents who were provided with the questionnaires. The target population comprised over 60 employees from Unilever Ghana Limited. A sample of 20 respondents was selected. The quantitative data generated was keyed in and analysed by use of Statistical Package of Social Sciences (SPSS) to generate information which was being presented using tables, charts, frequencies and percentages. The findings indicated that, currently there is lack of Structural and organizational change to support implementation of green procurement, poor legal and regulatory framework. Moreover, the cost of green procurement is relatively high and the resources required to implement green procurement are limited in manufacturing sector. The study recommended that, the organization and other stakeholders should ensure that there is Structural and organizational change to support; implementation of green procurement, improvement of legal and regulatory framework on environment, reduction of cost associated with green procurement and allocation of resources necessary for effective implementation of green procurement.

Keywords: Green Procurement, Environmental Footprints, Implementation of Green Procurement

1.0 INTRODUCTION

In this study, we are to look at the impact of green procurement practices in an organization. Where we to identify the background, problem statement, objectives of the study, research questions, scope, limitations and organization of the study. The study is to be conducted at Unilever Ghana Limited. 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 on that it encompasses organization, people, processes and technology. It is also known as the sustainable procurement, and some companies realized a long time efficiency in energy usage, waste generation and water consumption along with use of recycled materials resulted in reducing costs (Victor & John, 2009).

Green procurement is based on the belief that companies can simultaneously benefit from elements of economics, environment and society according to IBM Global Business Services (2009). Chartered Institute of Purchasing and Supplies, CIPS (2007), on the other hand defines green procurement as a consideration to the environmental, social and economic consequences of design, materials used (renewable and non-renewable) manufacturing methods, logistics and disposal. Jerry (2000) says, utilization of green procurement has been quite limited such that a decade ago, only some high-profile organizations mainly chemical firms and/or those firms in the consumer goods sectors that have experienced green consumer pressures directly in order to practice it.

Organizational Performance over time has been limited to economic outcomes with dimensions ranging from profitability, liquidity, growth and stock market performance. Growth has been broken into three aspects of size in terms of sales, employees and assets. Higgins (1977) noted that the concept of sustainable growth rate that must be in alignment with overall organization performance, financial policy and dividend payout ratio must be put in place. If an organization grows at a rate above its sustainable growth rate will eventually decrease. The theory of Organizational Performance Management (OPM) applies the approach of systems evaluation, employees' performance and management of departments of the organization as a whole in assessing progress toward goals and identifying and adjusting factors which hinder progress.

Organizational Performance Management in a bid to promote progress towards goals in a business environment, it responds to crisis as they arrive, fixing broken systems, and replaces failing management and redefining un-meet able goals. This is done through techniques for monitoring progress, including the performance of systems, subsystems, departments and employees. It analyzes aggregates of performance data in order to measure progress

toward defined goals. However Organizational Performance Management has been criticized for being able to consider the un-tangible goals and how to measure them.

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. It is observed that Sustainable procurement has emerged as a major paradigm for planning (Campbell 1996; Jepson 2001; Berke 2002). 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 (Gunasekaran et al. 2004)

2.0 LITERATURE REVIEW

This chapter deals with the thematic review of literature related to the specific study, green procurement practice in an organization. The new paradigm for sustainable organizational development

2.1 Definition of Green Procurement

United nation development program.(UNDP), (2008) defined environmental or green procurement as, “the purchase of products and services which have less impact on the environment and human health compared with competing products or services that serve the same purpose”. However, there are others who would argue that green procurement may also be based, not only on purchasing a green product, but on a green process of procurement. This may be done during the supplier appraisal where a supplier is chosen due to (for example) its environmental accreditation (for example implementing ISO (International Organization for Standardization, 14001 standard), or due to its environmental policy. As this ‘green’ criterion results in a supplier’s increased business, it encourages them to continue incorporating ‘greenness’ in their processes and even in their products and it also encourages competitors to implement green business processes (New et al., 2000). Though relatively new, green procurement is an excellent way of increasing environmental awareness which then motivates people to buy environmentally sound products (Environmental Protection Agency EPA, 2007). Other advantages of green procurement is that it improves the market position of environmentally sound products, and as demand for green products increases, it acts as an incentive for technological advancements towards green products (Brander, Olsthoorn, Oosterhuis and Führ, 2003).

Furthermore, purchasing green products may result in lower costs at the organizations, for example purchasing energy and water efficient products would result in lower costs of energy and water (Emmett and Sood, 2010). Green procurement affects the entire supply chain as suppliers/manufacturers are pressured to provide equipment that is environmentally-friendly. To this effect, manufacturers, often in collaboration with their suppliers, opt to design and develop equipment that are easy to disassemble and recycle, and acquire raw materials and other supplies and services that take into consideration environmental aspects (Emmett and Sood, 2010).

Finally, having green qualifications does not necessarily need to be the basis of the final product or supplier used. They can be used as a prequalification amongst other criteria during the procurement process. Thus the final deciding factor on the supplier or product could be a criterion other than its ‘greenness’. Though this may not result in a significant environmental result, it communicates to suppliers that including green aspects in their business or products is important. This approach is fairly simple and it may be considered the best way for a corporation to begin their green procurement journey (New et al., 2000) Other reasons for implementing green procurement in an organization include reduction of potential negative publicity, and green public procurement policies and/or schemes (European Commission, 2011).

2.2 Implementing Green Procurement

When an organization decides to incorporate environmental criteria into its procurement processes, it is difficult to determine how to do it as there are many different ways and sources giving information about it. The European Commission (2011) suggests that the organization should start small and work its way up incrementally. For example starting with the purchase of office paper, an organization can start by purchasing paper with 10% recycled content and with every purchase cycle increase the percentage in 10%-20% increments until they reach their final goal of 100% recycled content. Also, when determining the environmental criteria used during the procurement process, it should be done such that it does not discriminate against potential bidders. For example, requiring the suppliers to have an environmental certificate that is hardly used and that may be region-specific therefore disallowing international suppliers the opportunity to bid (Palmujokki, Parikka-Alhola and Ekroos, 2010). Moreover, it is important to ensure that the purchase acquired is of great value. To that effect, the criteria to focus on in terms of the

cost of the purchase during the procurement process should be the life-cycle costs (or total cost of ownership). Life-cycle costs include all the costs of the different stages in a product's life-cycle from the production costs to the end-of-life costs.

One simplified approach towards identifying the life-cycle costs of a product is to take into account, during the procurement process, the buying price of the product; future additional costs (such as shipment and installation costs); operational costs (includes energy and fuel consumption and maintenance costs); and end-of-life costs (Environmental Protection Agency EPA, 2007). However, many purchasing managers find it easier to simply focus on the price of the purchase. They may presume that they are being effective by choosing the cheaper option, but this may unfortunately result in purchasing a product that has poor quality and is more expensive to maintain and dispose. This point is especially more significant when it comes to costs that deal with environmental issues as they tend to be difficult to measure (New et al., 2000). To determine the possibilities of including environmental aspects as part of a contract, one has to first consider the nature of the content of the contract and the nature of the work that would be carried out based on the contract. In the procurement documents of service contracts, for example, purchasing authorities may ensure that the contract is performed in an environmentally sound mode. For example authorities may ensure that public transport services use low-emission vehicles (Barth and Fischer, 2003).

Procurement Directives (Directive 2004/18/EC and Directive 2004/17/EC) clearly defined the sections where and how environmental criteria can be included in the tender documents during a procurement cycle. These sections include; the subject of the contract, the technical specifications of the product/service/work, the supplier selection criteria and the contract award criteria, and the contract performance clause (Clement et al., 2007). The subject of the contract identifies what is to be purchased. If environmental criteria will be considered during the procurement process. Clement et al. (2007) advised that this should be stated in the subject matter. The environmental specifications will be further outlined as part of the technical specifications, but stating environmental requirements as part of the subject matter ensures that the process is completely transparent and communicates to potential suppliers that the contracting authority intends on buying "green". For example a contracting authority may state in their contract that they wish to purchase "energy-efficient computers", or may have a "contract for the supply of recycled paper for writing, printing and copying purposes" (Clement et al., 2007). In green procurement, the technical specifications can be based on environmental technical standards.

Environmental criteria can also be based on the material that should or should not be included in the product, as well as the methods used in processing and producing the product (Clement et al., 2007). If the contracting authority is not sure whether the products/services/works that they would like to purchase are on the market or if they are not sure about their quality or price, they may ask suppliers to supply "variants". The use of variants is a useful tool that allows contracting authorities to compare products that meet different sets of technical specifications with the same evaluation criteria, especially if the award criterion used is the most economically advantageous offer (award criteria other than the price, are taken into consideration such as life-cycle costs). Contracting authorities can use variants by "setting the minimum (non-environmental) requirements of the product/service to be bought. (Clement et al., 2007) and adding environmental specifications to the minimum requirements in the "environmental" offer. Offers that meet the minimum requirements are selected and when the bids are opened, the contracting authorities have the opportunity to compare conventional solutions and environmentally-friendly ones based on the same set of award criteria (Clement et al., 2007). Contracts awarded are typically based on the lowest price or the most economically advantageous offer. If the final purchasing decision is solely based on the price of the bids then there is no opportunity to include environmental criteria. Thus, a contracting authority should ensure that environmental criteria were included in the technical specifications. If the final purchasing decision is based on the most economically advantageous offer, then criteria other than the price are taken into consideration such as quality, environmental characteristics, technical aspects, and maintenance and other after sale prices (Clement et al., 2007, Parikka-Alhola, Nissinen and Ekroos, 2006).

Additionally, after a contract has been made, contract performance clauses are a way of including additional environmental requirements to it. The contracting authority may specify, for example, how the purchases are to be supplied (the packaging used should be recyclable for example) including the method of transport, and to ensuring that the suppliers take back and recycle their packaging (European Commission, 2004). The contract clauses should not be a way of determining which bidder gets the contract (for example having clauses so specific that only few bidders can fulfil it), thus all bidders should, in essence, be able to follow them (Palmujoki et al., 2010). Wide implementation of green purchasing within a country is possible without needing environmental training for every purchaser. This is done via co-operation, simplification, and information. Co-operation refers to the networking among green purchasers. In the case of public purchasing, the networking can take place on a regional or national scale. Simplification means that not every single possible environmental product choice has to be imposed on the procurement process, but only those that make a difference on a large scale. Thus, a set of guidelines are needed that

focus on one to three 'key' criteria. Information refers to the availability of the needed information for green purchasing. The information on the applicable methods should be readily available in different languages and are typically easily found on the internet (and may also be found via other media) (Erdmenger, 2003).

2.3 Supplier Selection

One method of including environmental criteria in green procurement is via the supplier selection. Murray and Cupples (2001) stated that purchasing should focus on the selection of quality suppliers and thus, successful green supplier appraisal should assess the supplier rather than the product. For example, pinpointed performance criteria that organizations could consider during the green supplier selection process and also suggested methods for effectively selecting suppliers from an environmental viewpoint. In the words of Shen, Olfat, Govindan, Khodaverdi and Diabat (2013), approach for appraising green suppliers (the fuzzy approach uses mathematical strengths to resolve uncertainties of human cognition during the appraisal process.) Due to the wide range of practices and methodologies an organization can choose from, multi-criteria decision support tools have been created as a result. Often, when an organization decides to develop or choose a supplier evaluation and selection method, the organization must first determine what their specific requirements are. It is imperative, therefore, that there is a range of selection methods and applications to choose from as different methods may cater to different requirements (Wu, Zhang, Wu and Olson, 2010; Govindan, Rajendran, Sarkis and Murugesan, 2013).

According to Murray and Cupples, (2001). With Kraljic matrix, cost-effective identification can be done with regards to the types of purchases that are most suitable for supplier appraisal. Murray and Cupples (2001) stated that, using Kraljic's model, purchasers (or purchasing managers) can easily approach green purchasing from a familiar position. They developed two models that purchasers can use to firstly identify where and how they should focus their attention on and secondly to teach them how to approach green supplier appraisal. A green supplier evaluation does not necessarily have to be applied to all contracts. When deciding to which contracts it would be applicable, consideration needs to be taken on the cost of conducting the process. Some of these costs include, the opportunity costs of purchasing, data collecting and analysis costs and travel costs from visiting the supplier sites.

2.3.1 Supplier Codes of Conduct

Perceptions related to sustainable and ethical practices can be extremely diverse in different companies and especially in different parts of the world. Businesses are responding to the challenge of maintaining sustainability in the entire supply chain by developing strategies that stretch beyond the company to reach also their partners. One visible implementation of this is the formation and introduction of supplier codes of conduct, since often sustainability policies are not enough. Codes of conduct specify the requirements and practices that a company expects its suppliers to meet in order to do business with them. Codes of conduct include specific terms and regulations regarding topics such as ethics, environmental issues, waste management, labor conditions and human rights. For instance Walmart and Apple have implemented very strict codes of conduct that the suppliers need to meet in order to do business with them. (Esty and Simmons 2011) Supplier codes of conduct can be extremely useful and beneficial as they establish coherent guidelines and rules to support the creation of common practices throughout the supply chain.

Jiang (2009) argued that long-term relationship is in a vital role when pursuing to improve the performance of the suppliers. The requirements of the codes of conduct might not be immediately met by the suppliers, and therefore it is crucial for the buyer and supplier to work together, share knowledge and communicate in order to solve possible problems. Naturally, introducing codes of conduct is not enough; organizations must also be able to ensure that the suppliers actually comply with them. Audits, unannounced visits and surveys are widely used means of supplier evaluation. (Esty and Simmons 2011)

2.4 Relevance of Green Procurement Practices

Over the years the purchasing function has evolved towards being more strategic due to a growing trend for focusing on core activities while outsourcing most of the non-core ones (Giunipero et al., 2006; Lawson et al., 2009). Such an approach is shifting a large part of the manufacturing activities outside the company boundary and the purchasing function contributes to an increasing impact on the natural environment (Zsidisin and Siferd, 2001). Purchasing serves as a boundary-spanning function within firms and provides an advantageous position based upon which a firm can coordinate a chain of activities to appraise its suppliers from an environmental point of view so as to create conditions for the subsequent activities being green (Enarsson, 1998). The procurement function opens up an important opportunity for integrating environmental aspects into all processes and all units of a company, and contributes to a reduction of the environmental impact caused by business actions. Purchasing therefore is potentially a more powerful agent of change than any other corporate function (Green et al., 1998; Zsidisin Hendrick, 1998; and Preuss, 2001).

In recent years, interest in the cross-disciplinary area of green procurement (used interchangeably with green purchasing, environmental purchasing, sustainable sourcing and supply management) continues to grow in both academia and industry. This is driven mainly by environmental and financial performance in response to competitive, regulatory and community pressures. However, it appears that environmental commitment could be not only a result of regulatory compliance but a source of competitive advantage for a firm (Carter et al., 2000). As procurement processes move towards a more green approach, they contain the potential for integrating environmental aspects into a company's decision making; green procurement may allow senior management to cope with their environmental responsibilities as far as the impact on the whole supply chain is concerned (Guenther et al., 2010). For example, the effect might be greater in the case that one of the leading companies within a supply chain applies green procurement, thus influencing its suppliers. In the process of increasing their own environmental responsibility, leading firms can also raise the environmental activities of other companies within their supply chains.

2.5 Challenges in Green Procurement Practices

In order to implement green procurement, it is important to identify any challenges or hurdles that are likely to be encountered and determine ways of overcoming them. For example, in green public procurement, if a municipality is able to identify the criteria for purchasing environmentally friendly products but contracting authorities refuse to accept or use them then the products will be rendered useless (Günther, 2003). One significant element lacking in green procurement is a mechanism that would be used for calculating or quantifying the environmental benefits. Having concrete and sound data provides decision-makers with stronger arguments for a nation-wide engagement and commitment to green procurement (Ochoa et al., 2003). Another challenge in green procurement is unawareness and/or uncertainty. Many purchasing managers and other purchasing professionals struggle in defining the term "environmentally preferable" and therefore have a difficult time incorporating environmental attributes during their decision making (Emmett and Sood, 2010).

Furthermore, there is the potential for barriers in trade in green purchasing. For example, Eco labels have, in the past, been seen as a "barrier of trade" issue since requesting only products that have an Eco label during the procurement process (particularly during public procurement) may be interpreted as limiting the number of suppliers who can respond to the tender and would thus be viewed as a closed and not "open to all bidders" tender (Emmett and Sood, 2010). Often, environmental information on products and/or services is not provided or may not be sufficient during the procurement process. For many suppliers, this information is not readily available therefore it is challenging for them to provide it to procurement managers, especially during the preliminary stage of procurement where they need to meet the initial specifications demanded by the procurement managers. Thus, including green aspects as part of the initial specifications may prove challenging (Emmett and Sood, 2010).

Moreover, it is difficult to determine what environmental aspects should be considered (i.e. those that are most significant) and which ones should not. To combat this, the Life Cycle Assessment (LCA) process was developed which allows for the environmental impacts of a product to be on a unified basis allowing for the comparison of two different products (Erdmenger, 2003). LCA refers to "the assessment of the environmental impacts of a given product or service throughout its lifespan regarding the raw material production, manufacture, distribution, use and disposal including all intervening transportation steps" (Environmental Protection Agency EPA, 2007). It emerged in the USA at the end of the 1960's, where it was then known as Resource and Environmental Profile Analysis (REPA). Since then, the use and interest in LCA has rapidly grown. Today however, only a few LCA reports are available to the public and it can therefore be difficult to retrieve one specific to one's needs (Schmidt and Frydenal, 2003). Green products are often perceived to cost more, usually because the initial purchasing costs do tend to be higher. This perception is often misconstrued because the overall costs of green products (the life-cycle costs) actually tend to be less as there is compensation in the operation, maintenance, and disposal costs. Thus it is often challenging to change the behavior of procurers so that they focus more on the life-cycle costs and not the purchase costs (European Commission 2015).

The European Commission (2015) also identifies lack of training as a challenge in implementing green procurement. Those responsible for carrying out specific tasks during the procurement may not necessarily have the appropriate skills required, or may not have received the appropriate training. Training that focuses on the concept of life-cycle costs, and the technical and legal aspects of green procurement is generally required. Furthermore it is also important to train the end-user on how to use products sustainably. Finally, environmental criteria differ greatly among product groups such that some product groups are more inclined to have suitable criteria than others (Parikka-Alhola et al., 2006). According to a study by Kippo-Edlund et al. (2005), environmental criteria were used most commonly with such product groups as food products and beverages, office equipment such as paper and computer machinery, repair services, maintenance services, installation services, and disposal services. This implies that it would be difficult to procure products outside these product groups based on environmental criteria.

2.6 Sustainable Procurement

Emmett and Sood (2010) defined procurement as a business process where products, materials, labor and services get into the supply chain from three sectors: primary, secondary and tertiary. Institute for Supply Management (2013) describes sustainability to be “the ability to meet current needs without hindering the ability to meet the needs of future generations in terms of economic, environmental and social challenges.” Procurement that integrates obligations and actions concerning also the environmental, social and economic aspects can be called sustainable. Sustainable procurement aims at cost optimization in an ecological and ethical manner, as well as to utilize resources efficiently while striving for overall quality improvement. (United Nations Global Market Place 2013.)

“Reputation is closely linked to the social, environmental and ethical profile of an organization’s spending. Buying smart isn’t just about lowest cost – it’s about strategically managing spending and supply chains with a sustainability framework”, state Reeve and Steinhausen (2007). Several companies have suffered bad publicity and reputation damage due to corporate malpractices during the past decade (Reeve & Steinhausen 2007). This has allured and also forced numerous companies to scrutinize their sourcing policies and to pay more attention also to the ethical standards of their suppliers more closely (The Economist 2009). Sustainability can also be seen as an important part of a company’s risk management.

2.6.1 Approaches to Sustainable Procurement

There are no straight definitions on how organizations implements sustainable procurements, there are two approaches that can be combined:

Product-Based this is where an organization examines product movements along the supply chain and assesses the environmental credentials of themselves and of other suppliers. This part is commonly used when an organization wishes to understand the impact of a product or product range for strategic and marketing purposes. This approach can also provide a vivid picture of supplier processes.

Supplier-Based an organization may analyze the corporate social responsibility management systems of a supplier and whether its practices conform with law and to the corporate social responsibility standard of “Buying” organizations. Thus, the organization measures the environmental and social activities a supplier may impose upon them. Implemented effectively, this method will show whether a supplier meets the environmental standards of the organization, along with whether suppliers are meeting the requirements of law. In order to assess the corporate social responsibility management systems, companies can use a variety of tools: self-assessment questionnaires and on site audit programs managed internally or through third parties. (International organization for standardization standards for purchases).

2.6.2 Integrating Sustainability in Procurement Decisions

A company is no more sustainable than its supply chain”, argue Krause, Vachon and Klassen (2009). Procurement is in a central position when it comes to creating sustainable development in a supply chain. There are several means for implementing sustainability in procurement decisions. Implementation of a framework, policy or an action plan or setting common commitments for the operations are common means among several others (Sustainable Procurement Guide 2013).

Sustainability should be integrated already in the early stages of purchasing and considered carefully throughout the process. Whenever planning to make a purchase, there are several sustainability issues that should be considered. The first one is simply avoiding unnecessary purchasing by evaluating the need for the product or service. Other issue is taking into consideration the pollution, emissions and water and energy consumption during the product’s whole life cycle. A product with least negative social and environmental impact should be preferred. When it comes to supply chains and for instance outsourcing, it is also crucial to verify that the suppliers actually comply with the existing standards and regulations. Finally, minimizing the usage of hazardous materials as well as considering the reverse logistics issues like disposal, reuse and recycling should also be considered. (Sustainable Procurement Guide 2013)

Steps in creating sustainable competitive advantage. Whether you are pitching investors or launching a new product, success is more likely if you can create and communicate a sustainable competitive advantage. Being first to market is not enough, as someone bigger with something better will come along and leave you in the dust. And it doesn’t matter if there is not a product in the market that is not the same as yours. If another company is solving the same thing you are addressing for the same customers, they are in competition. While creating a sustainable competitive advantage is not easy, the following will ensure you get and remain ahead of the field. (thepitchclinic.com).

Establishing Brand Loyalty. Customers will often remain with a brand they have loyalty towards, even though the company does not offer the cheapest or most efficient products. Focus on building strong relationships with your customers and delivering a great customer experience and service.

Patent you're Products. There has been a lot of debate recently about the true value of a patent. While patents are not a "cure all", they are an important weapon in an entrepreneur's competitive advantage arsenal.

Continually Innovate. Customers like updates and upgrades. Keeping your products fresh and compatible with the market place (Particularly is software) is essential.

Hire "Connected" Team Members. If your market includes large companies and government departments, connections to key individuals within these organizations can dramatically accelerate your ability to meet and secure contracts. Try to have at least one member on your team who is "Connected".

Use Long Term Contracts and Incentives. This step has to be executed carefully, as it can backfire. If you establish a long term contract with your customer, then clearly they are less likely to switch to a competitor. If they only offer long term contracts, however, and your competitors are offering short term contracts, then you are likely to lose business. Ideally, you have to incentivize your customers to enter into a long term contract with you, possibly by providing a slight reduction in cost or a bonus. Equally customers are more likely to be willing to enter into a long term contract if they have just completed a successful short term contract with you. (thepitchclinic.com).

In addition to maintaining positive reputation, sustainable procurement has numerous other benefits. The benefiting party can be the buyer, the market, the supplier or the whole community, and in some cases all of them. Benefits to the buyer can include for example gaining positive publicity and financial savings by lowering the costs and using resources more efficiently. The market can benefit by more economical prices and increased availability of ethical and ecological products. Sustainable procurement benefits communities for instance by reducing pollution and all kinds of environmental impacts, decreasing the usage of resources, increasing safety, equality, health and social inclusion. (Sustainable Procurement Guide 2013).

2.6.3 Triple Bottom Line of Sustainability

Principles of sustainable development can be divided into three dimensions: economic, environmental and social. Those three dimensions form the triple bottom line (TBL) of sustainability. In order to achieve and develop sustainability, maintaining balance between those three factors is crucial. The concept of TBL was first introduced by John Elkington in 1997, and since then it has been changing how the businesses and organizations approach and measure sustainability. They are also known as people, planet and profit – the 3P's. (The Economist 2009.)

Environmental (Planet): Environmental concerns are the dominant macro-level justification for sustainable procurement; Born out of the 21st century consensus that humanity is placing extensive demands on available resources through unsustainable but well established consumption patterns. This will involve non-human factors. This is a significantly influential issue that environment-centric procurement (Green procurement) is sometimes seen to stand alone from sustainable procurement. The most straight forward justification for green procurement is as a tool with which to address climate change, but it offers the broader capacity to mitigate over-exploitation of any and all scarce resources. In support of sustainable procurement the organization should develop and publish "sustainable development procurement guidelines and procedures". When it comes to purchasing product and service, referral to guidelines would help make the organization become a leader in environmentally responsible purchasing.

Social (People); Sustainable procurement is also used to address issues of social policy such as inclusiveness, equality, international labor standards, adversity target, regeneration and integration. Examples include addressing the needs where employment, care, welfare of groups including ethnic minorities, children, the elderly, those with disabilities, adults lacking basic skills and immigrant population (Porter, Michael E 1985).

Economic (Profit); At the economic level it can be argued that there are economic benefits in a form or efficiency gains from incorporating whole-life costing into decision-making (Note: in contrast to most argument from sustainable procurement proponent, these can be purely private benefits accrued by the procurement organization). In addition, the creation of sustainable market is essential for long-term growth whilst sustainable procurement requires foster innovation. There are also potential global applications: sustainable procurement can favor fair trade or ethical practice and allow extra investments to channel towards developing countries. On a microeconomic level sustainable procurement offers the chance for economic redistribution. Targets might include the creation of jobs and wealth in regeneration areas, assistant for small or ethnic minority owned businesses. (Porter, Michael E 1985)

2.7 Supplier Sustainability Assessment

As supply chains consist of interdependent units constantly influencing one another, creating and managing sustainability along the whole supply chain is a key challenge for any business. Nowadays the issue is even more current, since companies are increasingly concentrating solely on their core competencies and outsourcing other non-core activities to a third party. Significant cost-reduction opportunities as well as globalization of markets are driving companies to outsource especially to developing countries. Naturally, outsourcing makes companies more dependent on the suppliers and their performance, and places supplier selection and assessment to a crucial role.

Supplier selection includes also numerous risks if it results to be unsuccessful. When assessing suppliers, the attention has commonly been aimed at evaluating the efficiency of quality, delivery and cost in relation to profitability. In addition to economic advantages, creating positive social impact and diminishing negative environmental impact are nowadays receiving greater attention and emphasis when it comes to promoting more sustainable business activities. (Ladd 2013, abstract.) The importance of performing also a sustainability assessment should not be underestimated. Ficher (2010) presents eight reasons for performing a sustainability assessment for suppliers and/or customers:

- To align your organization's sustainability initiatives with its suppliers/customers to save and reduce costs.
- To receive a results-oriented supplier/customer review of sustainability efforts.
- To gain a knowledge of the various supplier/customer sustainability initiatives.
- To identify supplier/customer strengths and opportunities for sustainability improvements.
- To improve overall supplier/customer performance regarding corporate sustainability.
- To use as a tool to gauge supplier/customer progress in meeting sustainability compliance issues.
- To use assessment results to help supplier/customer develop a corporate sustainability plan.
- To encourage suppliers/customers to view sustainability planning as a competitive issue.

Having sustainable development as a strategic decision in a corporation requires that also supplier selection decisions are in line with that. When evaluating suppliers, all aspects of the TBL-concept must be taken into account. Evaluating suppliers' environmental and social qualities might require extending beyond them to ensure that also the whole supply chain meets the requirements (Sustainable Procurement Guide 2013). The suppliers should be able to provide evidence of their existing sustainability policies and present possible reports, eco-labels or certifications, demonstrate continuous creation of performance objectives as well as indicate their social and environmental key performance indicators (Sustainable Procurement Guide 2013).

Keating, Quazi, Kriz, Coltman, Andersen and Skjoett-Larsen (2008; 2009, in Gimenez and Tachizawa 2012) suggested that companies pursuing to make their supply chains more sustainable are increasingly integrating supplier evaluation methods, codes of conduct and collaborative activities in their performance. Evaluation includes all activities related to assessing suppliers, i.e. surprise visits and scorecards. In collaboration the company is in direct contact with the suppliers and provides them education, assistance, training or other supporting activities.

2.7.1 ISO Certification

Several initiatives for sustainability guidelines have been introduced to address the real level of sustainability in organizations. In a supplier selection process an organization can evaluate the alternatives by examining for instance their certifications. ISO certifications are international standards that supply specifications, requirements or characteristics for products and services. For instance ISO14000 is a standard for environmental management, ISO26000 serves for social responsibility and ISO50001 for energy management. The standards serve for ensuring that products and services are safe, of high quality and suitable for their purpose. (ISOa.) Internal and external auditing is a crucial part of ensuring that an organization is really complying with the standards and making progress also in the future. (ISOb.)

2.8 Green Supply Chain Management

According to Zhu and Sarkis (2004), green supply chain management integrates green purchasing to the supply chain system which churns out green output destined to customers through green manufacturing, and even reverse logistics. In the words of Srivastava (2007), a detailed definition of the concept is given as the process of integrating environmental thinking into supply chain management, through product design, sourcing and selection of materials, manufacturing processes, distribution of the end-product, and finally management of the product after its useful life.

2.8.1 Themes in Green Supply Chain Management

Green supply chain management is characterized by a number of fundamental themes that distinguishes it from the traditional supply chain management. These include green purchasing, green product design, green product development, green process planning, green manufacturing, and green transportation (Luthra et al., 2014).

2.9 Chapter Summary

Economic and environmental concerns have contributed to rising interest in green procurement a term used in various ways but that may best be described as acquisition of products and services with smaller-than-average environmental footprints. Fully assessing a product or service requires integrated evaluation of cost, performance, and impacts for a set of green factors over all stages of the life cycle. However, green procurement often emphasizes particular attributes, such as recycled content, energy efficiency, and waste reduction. As a producer of products or major consumer of goods and services with significant potential impacts on the environment, including human health, could arguably influence the adoption of green procurement generally and the market for green products and services.

3.0 RESEARCH METHODOLOGY

This chapter describes the methodological approach to the study. It includes a description of the research design, population of the study, sample and the sampling technique. Also included is a presentation on the development of research instrument, data collection and analysis procedures

3.1 Research Design

In order to achieve meaningful result in this research work, the methodology will be purely on survey research work and will be given a particular attention- using mental scheme of solving the research problems in a systematic manner within the circumstances of the researcher. Robbert Kreithner (1980) sees research design as the plan, structure and strategy of investigation concerned so as to obtain answers to research questions and control variance. It is therefore a blue print for all data and information collected, also specified the method and procedure for acquiring the information needed.

3.2 Sources of Data

In order to ensure the availability of data structures and information needed to resolve decision and information research problem, the researcher used both primary and secondary data on packaging for this study. Data was collected through the use of structured questionnaires. The researcher administered the questionnaire personally such that the possibility of clarifying issues with the respondents could be done instantly.

3.2.1 Primary Source

Questionnaires were used as the main instrument for gathering primary data. The researcher designed and administered questionnaires to staffs of Unilever Ghana Limited to know their opinion on the effective performance measurement on inventory. Forty (40) questionnaires were self-administered. Both open ended and closed ended questions were used in collecting this data. The open-ended questions allowed the respondents to suggest other answers unknown to the researcher and also avoid the bias of the list response possibilities, it allows the respondents to make an input into the research, and the respondents express their views about the subject in detail and through this, hidden issues were uncovered. Close ended on the other hand also help the researcher to force respondents to answer some specific questions needed for the study.

3.2.2 Secondary Data

Secondary data are historical data structures of variables previously collected and assembled for some research problem or opportunity situation other than the current situation. Secondary data for this study was obtained from relevant text books, journals, magazines, and internet and company reports.

3.3 Sample and Sampling Procedure

Unilever Ghana limited is a wholly Ghanaian Profit development organisation and a leading actor in product manufacturing with over (60) staffs made out of Administration, Internal audit, Customer care and Stores. Out of this, a total of twenty (20) staffs were reached with the research questionnaire. According to Punch (1998), one cannot study everyone, everywhere, doing everything and so sampling decisions are required not only about which people to interview or which events to observe, but also about settings and processes. In view of this, randomly selected inventory managers from the departments of the institution were selected for the study. The purposive sampling technique was adopted. The intention was to gain an insight into the phenomena hence, the need to choose personnel who are connected with the inventory practices in the Organisation.

3.4 Development of Research Instrument

The study's objectives and research questions basically informed the design of the questionnaire. Before the design of the questionnaire, a thorough literature search was also made to determine and categorized concepts and variables used in other studies which related to the topic of study. Information from the literature reviewed centered on issues related to inventory management of goods and services within private and public entities globally, in Africa, and in Ghana.

3.5 Sampling and Sampling Technique

A total of twenty (20) staffs of Unilever Ghana were reached with the research questionnaire. The purposive sampling technique was used to sample the respondents of the study. The advantage of the purposive sampling according to Bailey (1994) is that, it enables researchers to use their skills and prior knowledge of the subject to select respondents. In the application of this sampling method, Kumekpor (2002) advised selecting the units not through random procedures, but by intentionally picking them for the study. This is because they satisfy the selection criteria which are not randomly distributed in the population but are typical of the characteristics of interest to the study.

3.5.1 Questionnaires

It is set questions relating work, submitted to a number of people working in the organisation under study, in order to collect statistical information. The questions were administered to limit the respondent for easy analysis. That is where a list of answers was given out to enable respondents choose any, considered appropriate. When you ask a question you intend to find out: Why something took place? Why did that happen? When something took place? When did that happen? The questions were also used to enable the respondent use his/her discretion in answering the questions. The questions also give the respondent an opportunity to make further clarification in his or her answers.

3.5.2 Personal Interview

This is a face to face encounter between the researcher and respondent. This was used to find an interesting and relevant data, which might not be asked in the questionnaire. A personal interview was conducted primarily with the procurement officer and other staff members of the organisation.

3.6 Data Collection Methods

The data collection was done by visiting individual departments with a questionnaire. The researcher introduces himself to the staffs of the various departments and was directed to the appropriate persons in charge of procurement. Questionnaires were left with the appropriate personnel in charge of procurement for the necessary responses. The completed questionnaires were subsequently collected later. The responses were edited and coded for proper use. The data collection method using the collection instruments were done as follows: The researcher had to request for face - to - face interviews with key respondents and other procurement practitioners for responses which will complement those received through questionnaires. Through the interviews qualitative data were collected from respondents.

Personal observations were also made during conducted procurement committee sittings. Care was taken in order not to be bias but to come out with objective interpretations of how procurement of works, goods and services were conducted. The researcher used focus group discussions consisting of ten respondents. The discussions centered on procurement practices to determine how transparent they were and occurrence of possible weaknesses.

3.7 Data Analysis Method

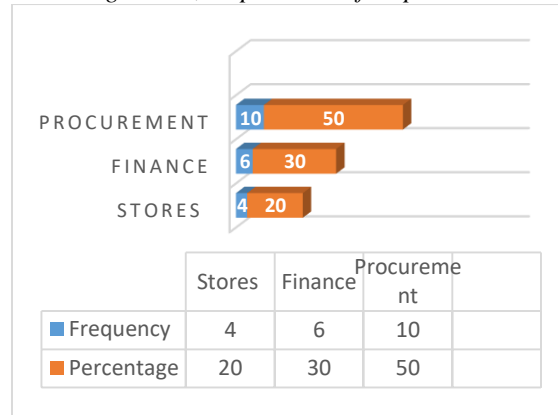
In the view of Emery and Couper (2003), raw data obtained from a study is useless unless it is transformed into information for the purpose of decision making. The data analysis involves reducing the raw data into a manageable size, developing summaries and applying statistical inferences. Consequently, data collected from primary and secondary sources were edited to detect and correct, possible errors and omissions. The analysis was done also to ensure consistency across responses received from respondents.

Data collected via questionnaire administration, interviews and interactions with other officials, as well as statistical records on procurements practices and its effect on corporate performance. The data was collated and analysed using the appropriate statistical techniques such as distribution tables, percentages, bars and pie charts. The Microsoft Excel was used. Information such as specific comments and issues raised by respondents were also analysed and summarized into tables.

4.0 RESULTS AND DISCUSSION

This chapter presents results of the primary data collected and analysed from the field survey. Twenty (20) questionnaires were administered to twenty (20) staffs and management of Unilever Ghana Limited. Twenty questionnaires were obtained representing a response rate of hundred percent (100%) due to the sample been twenty (20). Analysis of data obtained are represented in the following tables and charts below:

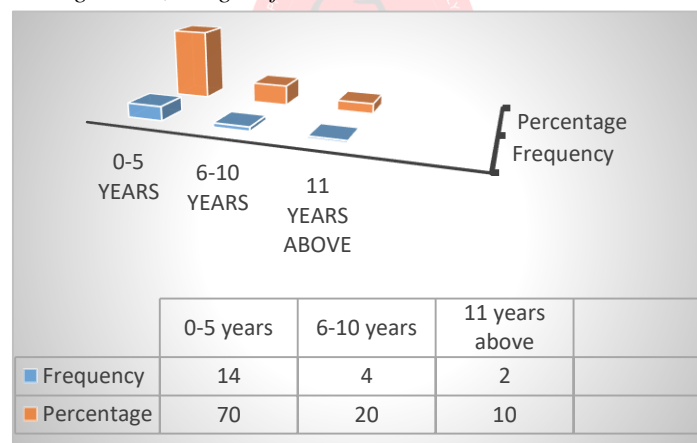
Figure 4.1; Department of respondents



Source: Author's own fieldwork, 2018

According to the above figure, 4 respondents representing 20% works under stores department, 6 respondents representing 30% works under finance department whilst the highest 10 respondents representing 50% works under procurement department at national health insurance scheme.

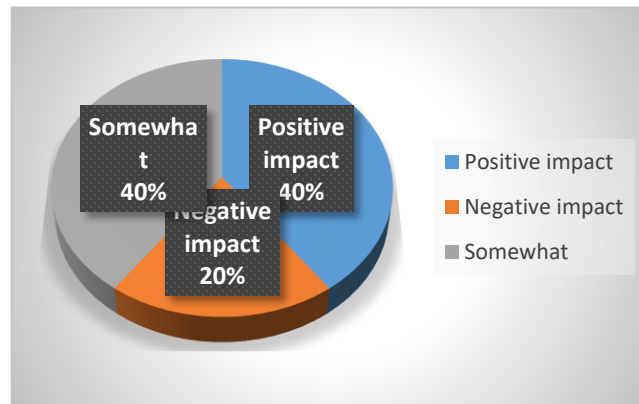
Figure 4.2; Length of work with national health insurance



Source: Author's own fieldwork, 2018

In proportion with the length of work at unilever Ghana, 14 respondents representing 70% have maximum of 5 years working experience, 4 respondents representing 20% have maximum of 10 years working experience and 2 respondents representing 10% have over 11 years working experience.

Figure 4.3; Impact of green procurement on Unilever Ghana Limited



Source: Author's own fieldwork, 2018

Green procurement is a section in procurement that needs to be highly considered. A well implemented green procurement practices impacts positively on an organization which will bring about successful strategy achievement as well as gaining competitive advantage. Germane to the above figure, 8 respondents representing 40% said green procurement impacts on Unilever Ghana positively, 4 respondents representing 20% are of the view that green procurement and 8 respondents representing 40% are ambivalent of the statement that green procurement impacts on Unilever Ghana.

Table 4.4; Effect of staff competence in green procurement on performance of Unilever Ghana Limited.

Statement	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree	Total	Percentage
My company has considered using green procurement in its performance	3(15%)	8(40%)	5(25%)	4(20%)	-	20	100
My company assesses the competence of green procurement on the performance of Unilever Ghana	7(35%)	11(55%)	2(10%)	-	-	20	100
My company informs employees on ways to increase the impact of green procurement on the organization.	2(10%)	9(45%)	7(35%)	2(10%)	-	20	100
My company benchmarks other organizations on their green procurement performance	-	17(85%)	1(5%)	2(10%)	-	20	100
My company does regular assessment on staff competence of green procurement	7(35%)	11(55%)	2(10%)	-	-	20	100

Source; Author's own fieldwork, 2018

Effect of staff competence in green procurement on performance is a key factor to be considered in every procurement activities be it manufacturing or service industry. However, if implemented, managed and controlled well, will bring about cost effectiveness, improvement of brand name, high market share and profit maximization. Taking about effect of staff competence in green procurement on performance of Unilever Ghana Limited. My company has considered using green procurement in its performance, 3 respondents representing 15% strongly agreed, 8 respondents representing 40% agreed, 5 respondents representing 25% are not sure and 4 respondents representing 20% disagreed to the statement that Unilever Ghana considers using green procurement in its performance.

Assesses the competence of green procurement on the performance of Unilever Ghana, 7 respondents representing 35% strongly agreed, 11 respondents representing 55% agreed, and 2 respondents representing 10% are however ambivalent of the statement that, Unilever Ghana assesses the competence green procurement on their performance. Employee information on ways to increase the impact of green procurement on the organization, 2 respondents representing 10% strongly agreed, 9 respondents representing 45% agreed, 7 respondents representing 35% are not statement and 2 respondents representing 10% disagreed to the statement that Unilever Ghana informs its employees on ways to increase green procurement. Benchmarking other organizations on their green procurement performance. 17 respondents representing 85% representing agreed, 1 respondent representing 5% is not sure and 2 respondents representing 10% disagreed to the above statement. Regular assessment on staff competence of green procurement, 7 respondents representing 35% strongly agreed, 11 respondents representing 55% agreed and 2 respondents representing 10% are not sure of the statement that does regular assessment on competitive green procurement.

Table 4.5; The effect of green procurement ICT infrastructure has on performance of Unilever Ghana Limited

Statement	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree	Total	Percentage
ICT equipment are procured based on green procurement policies and standards	3(15%)	1(5%)	9(45%)	7(35%)	-	20	100
We are encouraged to use online services	7(35%)	13(65%)	-	-	-	20	100
We install energy saving equipment.	5(25%)	4(20%)	9(45%)	2(10%)	-	20	100
The institution can easily recruit employees using online system	2(10%)	18(90%)	-	-	-	20	100
My company purchases product with recycling content	16(60%)	4(20%)	-	-	-	20	100
My company frequently trains staff on how to use green procurement ICT infrastructure	5(25%)	14(70%)	1(5%)	-	-	20	100

Source: Author's own fieldwork, 2018

Information communication technology helps in diverse ways to sterilize activities in firma geared to its betterment. When managed and controlled to standard, it promotes flexible, familiar and rapt system, as well as gaining competitive advantage. The effect of green procurement ICT infrastructure has on performance of Unilever Ghana Limited. ICT equipment are procured based on green procurement policies and standards, 3 respondents representing 15% strongly agreed, 1 respondent representing 5% agreed, 9 respondents representing 45% are not sure and 7 respondents representing 35% among others disagreed to the statement ICT equipment are procured based on green procurement policies and standards at Unilever Ghana.

Encouragement to use online services, 7 respondents representing 35% strongly agreed and 13 respondents representing 65% agreed to the statement that Unilever Ghana are encouraged to use online services. Installment of energy saving equipment, 5 respondents representing 25% strongly agreed, 4 respondents representing 20% agreed, 9 respondents are ambivalent and 2 respondents representing 10% disagreed to the statement that Unilever Ghana install energy saving equipment. Easy employees' recruitment using online system, 2 respondents representing 10% strongly agreed and 18 respondents representing 90% agreed that Unilever Ghana can easily recruit employees using online system. Purchasing of product with recycling content, 16 respondents representing 80% strongly agreed and 4 respondents representing 20% agreed to the statement that Unilever Ghana purchases product with recycling content Frequent training of staff on how to use green procurement ICT infrastructure, 5 respondents representing 25% strongly agreed, 14 respondents representing 70% agreed and 1 respondent representing 5% is not sure the statement, Unilever Ghana frequently trains staff on how to use green procurement ICT infrastructure.

Table 4.6; The role of supplier participation in green procurement on performance of Unilever Ghana limited.

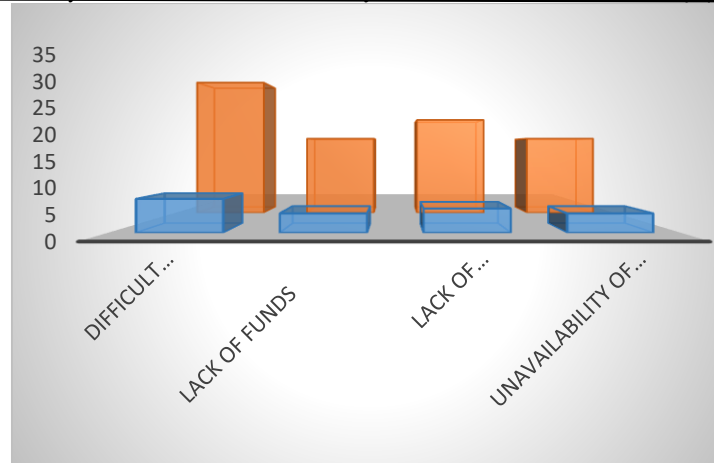
Statement	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree	Total	Percentage
My company assesses the suppliers participation in green procurement	3(15%)	16(80%)	1(5%)	-	-	20	100
Effective communication between suppliers and staff on the participation green procurement	2(10%)	5(25%)	9(45%)	4(20%)	-	20	100
My company deals with renewable (green) product	2(10%)	7(35%)	8(40%)	3(15%)	-	20	100
My company organizes training for suppliers on the importance of participating in green procurement	1(5%)	3(15%)	9(45%)	7(35%)	-	20	100
My company uses energy efficient product	2(10%)	17(85%)	1(5%)	-	-	20	100
The maintenance culture on green procurement is effective	-	13(65%)	4(20%)	2(10%)	1(5%)	20	100

Source: Author's own fieldwork, 2018

Supplier participation helps every firm to know in details the need of a supplier or suppliers. This is not limited to manufacturing industries but applies in service industries to as well. The role of supplier participation in green procurement on performance of Unilever Ghana limited. Unilever assesses the suppliers participation in green procurement, 3 respondents representing 15% strongly agreed to the statement, 16 respondents representing 80% agreed, and 1 respondent representing 5% is not sure of the statement, Unilever Ghana assesses the suppliers' participation in green procurement. Effective communication between suppliers and staff on the participation green procurement, 2 respondents representing 10% strongly agreed, 5 respondents representing 25% agreed, 9 respondents representing 45% are not sure and 4 respondents representing 20% disagreed to the statement effective communication between suppliers and staff on the participation green procurement.

Unilever deals with renewable (green) product, 2 respondents representing 10% strongly agreed, 7 respondents representing 35% agreed, 8 respondents representing 40% are not sure whilst 3 respondents representing 15% disagreed to the statement. Unilever organizes training for suppliers on the importance of participating in green procurement, 1 respondent representing 5% strongly agreed, 3 respondents representing 15% agreed, 9 respondents representing 45% are not sure and 7 respondents representing 35% disagreed to the statement, Unilever Ghana organizes training for suppliers on the importance of participating in green procurement. Unilever uses energy efficient product, 2 respondents representing 10% strongly agreed, 17 respondents representing 85% agreed and 1 respondent representing 5% are not sure that Unilever Ghana uses energy efficient product. The maintenance culture on green procurement is effective, 13 respondents representing 65% agreed, 4 respondents representing 20% are not sure, 2 respondents representing 10% disagreed and 1 respondents representing 5% strongly disagreed to the statement.

Figure 4.7; Challenges the organization face in the implementation of green procurement



Source; Author's own fieldwork, 2018

To talk about challenges the organization face in the implementation of green procurement, 7 respondents representing 35% said there is difficulty in implementing green procurement, 4 respondents representing 20% also said one of the challenges of green procurement is lack of funds, 5 respondents representing 25% are of the view that lack of responsiveness and flexibility by staff is a problem of green procurement and 4 respondents representing 20% believed that unavailability of qualified personnel's is a challenge of green procurement.

5.0 CONCLUSION

5.1 Findings

The study established that cost of green procurement had a significant negative effect on implementation of green procurement in manufacturing sectors. The results suggest that the cost of green procurement affect implementation of green procurement. The fundamental issue is that all markets are set up to focus on purchase price of green products but unpacking all the ancillary costs in relation to running/replacing/maintaining a product is difficult for buyers. The finding of this study suggested that Organizational structure had a positive effect on implementation of green procurement. This poses a challenge in implementation of green procurement in manufacturing sector. To overcome this challenge there is need for reconfiguring the structure of the organization and its services to enable different kinds of skill sharing and professional relationships to emerge, engaging staff in new ways. Reviewing the organization's procurement structure and identifying a programme of structural and organizational change will ensure normal working practices are aligned with your sustainable procurement policy. 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 business in green purchasing activities.

5.2 Conclusion

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 Structural and organizational change to support implementation of green procurement, poor legal and regulatory framework, cost of green procurement is relatively high 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 there is Structural and organizational change to support implementation of green procurement, improvement of legal and regulatory framework on environment, reduction of cost associated with green procurement and allocation of resources necessary for effective implementation of green procurement.

5.3 Recommendation

After the careful analysis of the findings, analysis of data collected and the numerous observations made at Unilever Ghana limited, the following recommendations where made that if implemented will contribute towards the success and survival of Unilever Ghana Limited.

Challenges in maintaining competitiveness, through quality, increased operating costs especially energy related costs and sustainable end to end supply of raw materials in order to ensure continued regional leadership in growth and most profitable share.

The study recommended that, the organization and other stakeholders should ensure that there is Structural and organizational change to support; implementation of green procurement, improvement of legal and regulatory framework on environment, reduction of cost associated with green procurement and allocation of resources necessary for effective implementation of green procurement.

Management of Unilever should try as much as possible to equip all employees with relevant issues or updates concerning the day to day activities of the organization since that is one way of remaining competitive. The reason being that if employees don't have the exact information or relevant issues, they might create wrong impressions about the organization to customers. This can be achieved through creations of workshops, organization of seminars and other training opportunities.

To ensure value for money, there should be continuous improvement in the efficiency of internal processes and systems should maintain structures that avoid unnecessary costs.

There is little or no empirical evidence available to evaluate the contribution of green procurement to the performance of Unilever Ghana Limited.

From the analysis, it was also clear that Unilever mostly pollutes the air in the course of their production. This goes a long way to cause the depletion of the ozone layer, global warming as well as environmentally related diseases such skin diseases, therapeutic diseases on the people living in the environment. I therefore recommend that Unilever should consider being sustainable in the course of their operational activities to preserve the environment.

To ensure entities maximize purchasing efficiency and effectiveness, loss of professional turnover should be reduced. This can be done through establishing clear roles and procedures within the procurement processes.

As much as quality of procured goods and services featured the most preferred measure of green procurement, other intangible measures like timely delivery of orders, customer satisfaction, dependability, flexibility and quality of employees should not be ignored.

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