

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,  
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**KNUST**

**Exploring Sustainable Procurement Practices in Public Procurement: A Case  
Study of University of Health and Allied Sciences-Ho.**

by

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**A Thesis submitted to the Department of Building Technology, College of Art and  
Built Environment in partial fulfilment of the requirements for the degree of**

**MASTERS OF SCIENCE**

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## CERTIFICATION PAGE

I hereby declare that this submission is my work towards the MSc Procurement Management and that, to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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## ABSTRACT

Exploring sustainable procurement practices in Public Procurement is essential as sustainability is a discrete business activity which links the value chains for public procurement. The public procurement value chain environment has been subjected to various challenges right from purchasing decisions that are adverse to human and issues of climate change that impact on procurement decisions. Furthermore, the principle of balancing the triple constraints (economic, social and environmental) that directly influences procurement decisions especially within public procurement undertaken and value for money principles. This thesis looks at the supply chain perspective on procurement sustainability where, procurement entity needs to analyze elements that are necessary when making procurement decisions for the public institution. As part of the key components, public procurement management requires effective and efficient sustainable practices in the implantation of whole life costing. The aim of Public Procurement Act, Act 663, (Act 2003) is to ensure value for money in the public procurement system and by so doing integrating sustainable procurement practices into the process are integral. The practice not only ensure efficient utilization of scarce public funds but importantly; public projects are carried out in sustainable manner for which the economic, social and the environment constraints are balanced in public procurement project decisions and implementations. The objectives of this study is to assess the level of knowledge of sustainable procurement practices and to identify the challenges in implementing sustainable procurement practices in University of Health and Allied Sciences. With a population of (30), which comprises of Procurement Officer; Quantity Surveyors; Financial Officers; Estate Managers; Maintenance officer; Architects and General Administrative Staff as the major players involved in procurement activities for the University, census sampling technique was used. Questionnaires as research instrument were used to collect data for analysis. The data

was analyzed using descriptive statistic (mean values) and frequency distribution for data presentation and interpretations. It has been identified from the study that UHAS procurement processes are often challenged by legal and regulatory framework, budget constraint and accounting practices, political commitment, technical capacity and supply constraints which poses challenges in implementation of Sustainable Public Procurement. Other recommendations were however made for integrating sustainable procurement practices into their public procurement process and practice.



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I say God richly bless you all.

## DEDICATION

This dissertation is dedicated to God Almighty who has enabled me to get this far and also my dear wife Patience Sakyi whose prayers, support and encouragement has brought me this far.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 BACKGROUND TO THE STUDY**

The benefits of balancing economic, environmental, and social elements into procurement processes and operations are not a new development. In Ghana, for example, many public institutions in the last decade have begun to realize the need for efficient use of energy, not engage minors in employment, recycling, stakeholder engagement and non-discrimination in sourcing among others to reduce costs and improve overall procurement practices in the context of sustainability and whole life costs in the process of public procurement (Zsidisin and Siferd, 2001; Linton et al., 2007).

According to Linton et al (2007), there are increasing economic pressures, rising expectations of customers and other key stakeholders in procurement practices. The strict government regulation towards more emphasis on "green" supply for many companies and public institutions are essential for sustainable practices. The phenomenon has become more difficult, especially for organizations to maintain profitability and value for money while ensuring environmental friendliness in their procurement practices. The institutions must go beyond simply using recycled materials and comply reluctantly with government regulations in their procurement practices.

Contracting entities that are deeply committed to sustainability and want to achieve the full value of it share traits and practices such as transparency, measurement and sustainability; must formalized their supply chain activities by concentrating and practice strategic innovation through reduction process and emphasizing on the overall

total cost of ownership as well as disposal of the final product or work (de Man and Burns, 2006; Linton et al., 2007).

The continuous exploitations of the environment without corresponding and or conscious effort of protecting what has been taken due to human activities to better life and or improve on social conditions defeats the concept of sustainable procurement. The benefits from such practices are manifolds as sustainable procurement is a direction focused on maintaining strong supplier partnerships that create value preposition across the supply chain relationships (Wells 2006; Steurer and Konrad 2007; Koplin et al., 2007).

Furthermore, European Commission (2004) has indicated that sustainable procurement ensures proper environmental standards that include saving a lot in terms of financial resources and social benefits for the public. Sustainable procurement practices meet organizational needs on a basis of whole life cycle of generating benefits, whilst minimizing damage to the environment (Steurer and Konrad 2007). An improved sustainable procurement practice despite the challenges is the driving force behind the benefits and impacts in realizing value for money within public procurement and sustainable purchasing practices. The role of Procurement Professionals in appreciating challenges and benefits of sustainable procurement helps in ensuring public procurement are executed devoid of causing harm to the environment and increasing the cost of supply.

## **1.2 STATEMENT OF THE PROBLEM**

Globally, there are rising costs of energy and increasing standardized testing of products as well as stricter supervision of procurement of goods, services and works.

Furthermore, there is a continuous pressure for green revolution. In Ghana, there is tightening budgets and compliance to the Public Procurement Act 663 (Act, 2003) and civil society involvement in Public Procurement is putting increasing pressure on procurement practices. University of Health and Allied Sciences procurement professionals have tried to maintain, or create value for money in the face of decreased funding and the quest of balancing the economic, social, and environmental variables in their procurement decisions. The relatively new University faces challenges in making purchase decisions with regards to sustainable procurement as the practice involves an integrated approach to design, construction, renovation, and operations within the procurement cycle (Zsidisin and Siferd 2001; Wright 2002). Consideration for sustainable procurement must include acquisition of building materials and designs that ensure sustainable principles incorporated into the procurement decisions to ensure value for the procurement process or practices. The aim of the study is to explore Sustainable Procurement Practices at the University of Health and Allied Sciences (UHAS).

### **1.3 AIM OF THE STUDY**

The aim of the study is to explore sustainable procurement practices at the University of Health and Allied Sciences (UHAS).

### **1.4 OBJECTIVES OF THE STUDY**

The research had the following objectives:

- 1) To assess the level of knowledge of sustainable procurement practices in UHAS.
- 2) To identify the challenges in implementing sustainable procurement practices in UHAS

## **1.5 METHODOLOGY**

Methodology is the philosophical framework within which the research is conducted or the foundation upon which the research is based (Brown, 2006). The research reviewed literature from journals, lecture notes, internet sources and books. Census sampling technique was employed. The data was collected by means of questionnaires as the research instrument. The data was analyzed using descriptive statistics such as frequency distribution, measurement of central tendency (mean) and measurement of dispersion (standard deviation).

## **1.6 SCOPE OF THE STUDY**

The study would be limited to University of Health and Allied Sciences (UHAS) as a single case on how sustainable procurement practices are carried out in their procurement process. The study took into consideration the procurement of goods, works and services by UHAS.

## **1.7 SIGNIFICANCE OF THE STUDY**

Sustainable procurement cannot be achieved without considering the triple constraints i.e the social, environment and the economic. It is significant to note that there can be sustainable procurement when the social, environment and the economic are all considered right from inception to the end of a contract. The study will help UHAS and policy makers to formulate ways on how to improve sustainable procurement practices and policy formulation for the economic. Furthermore, this research will serve as a source for which researchers in the field of public service delivery and procurement in Ghana will build upon for further research.

## **1.8 JUSTIFICATION OF THE STUDY**

A continued call for addressing Sustainability in Public Procurement at the individual to entity level on environment-friendly purchases is relevant. The Public Procurement Act, 2003 (Act 663) has been found not to fully address the issue of Sustainable Procurement Practices in terms of balancing between the basic economic principles of supply, legal, environmental and socially responsible procurement practices and how they affect the entire procurement Industry players and public entities are required to contribute to buying green products for instance in promoting sustainable procurement practices. It is therefore legitimate to ask whether UHAS ensures sustainability in their procurement practices. Speculating on these issues, this research aims to better understand the extent to which issues of sustainability are considered during the procurement of works, goods and services at the University of Health and Allied Sciences (UHAS).

## **1.9 RESEARCH OUTLINE**

The research was made up of five major chapters;

- 1) Chapter one comprises of the background to the study, statement of the problem, aim and objectives of the study, scope and significance of the study as well as the justification of the study.
- 2) Chapter two was devoted to literature review with a look at conceptual theoretical aspect of sustainable procurement in public procurement management.
- 3) Chapter three was the research methodology in which the data collection and presentation procedures were examined.

- 4) Chapter four provided an analysis of the various data gathered; data captured from the respondents analyzed using standard deviation, standard mean and frequency distribution.
- 5) Finally, summary of major findings, recommendations and conclusions formed chapter five.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The chapter reviews the work of other authors on the topic under study. The chapter has been structured as follows: previous relevance studies and research work, definition of variables, conceptual and theoretical framework among others.

As an interdisciplinary area wherein physical and social sciences interact with each other Linton et al. (2007), sustainability has an inter-generational, multi-dimensional and multi-scale aspect which makes research in this area significantly challenging when combined with the already complex nature of Sustainable Procurement

Management Linton et al. (2007). In today's competitive and global business environment, wherein sustainability inevitably stands in the forefront in various areas, integrating environmental, social and economic aspects into the procurement practices, has gained significant recognition in the corporate world and also Supply Chains and environmental literature (Linton et al. 2007; Steurer and Konrad 2007; Koplin et al; 2007).

The sustainable procurement management is initiated by binding environmental, legislations, economic and social pressures imposed by the customers and stakeholders on purchase decisions (Koplin et al; 2007). The voluntary acceptance by the business world due to substantial returns for practicing sustainable procurement practices including increased efficiency, reduced costs, increased internal and external customer satisfaction, increased sales and market share together with a more effective risk management according to (de Man and Burns 2006; Carter et al, 1998; Annelie 2013; BSI, 2010; Linton et al. 2007).

## **2.2 PREVIOUS STUDIES AND RESEARCH RELEVANCE**

This section reviews pertinent literature on previous studies that are of relevance to this study

### **2.2.1 The Definitions of Variables and Concepts**

A sustainable procurement practice involves purchasing decisions that ensure entity procures within economic, social and environmental dimensions (Koplin et al; 2007; European Commission, 2004). Thus; items procure are within entity budget requirements and are of economy, meet the need for which the items was acquire and devoid of causing damage to the environment. Sustainable public procurement practice therefore involved integrating into public purchasing decisions; the principle of balancing the economic, social and environmental objectives of public deliverables. Sustainable supply involves green purchasing in which the objectives of minimizing environmental impacts are considered. Public purchasing by governments agents has to take the lead in sustainable procurement practices. Throughout the procurement process taking into account the environmental costs of securing raw materials and the production, transport, storage, handling, use and disposal of the product are borne in minds by been sustainable (Linton et al. 2007).

Furthermore, Working Group of the United Kingdom of sustainable procurement in 2006 has indicated that entities must ensure items procured does not cause damage to the eventual users and readily degradable whiles at budgetary rate of acquiring agent. Public procurers are always aimed at ensuring value is created within their procurement activities and by so doing must endeavor to balance quest and objectives of the society and procure at economy, whilst minimizing damage to the environmental (Linton et al., 2007; Koplin et al; 2007).

The sustainable procurement (SP) ensures purchasing of resource materials for building and designs that does not eventually emit gasses but can sustain life (European Commission 2004). The community and the social conditions of the people are borne in mind when deciding the kind of building design and the material to use. Linton et al., (2007) has indicated that where organizations try to meet their purchasing needs it must be based on the basis of creating some benefits for the firm, but also the people and the economy. Tregidga and Milne, (2006) has indicated that there are factors of the sustainable supply that ought to be looked into which affect effective procurement practices. When purchasing professionals for instance; (with enormous buying power to their organization) decide to purchase a product or service, there are decisions that contributes to green supply route and making such major decision which may end up affecting not only the procuring institutions but the entire community as a whole.

Sustainable procurement includes several concepts, such as social, environmental and economic, ethical values, governance, production and logistics, renewable options and recycled, recycling and disposal, acquisition, sale and promotion of future generations, and social responsibility (Veleva et al.,2003; Walker et al.,2012; Wright, 2002; Zsidisin and Siferd, 2001)

In 1992, the UN meeting (UN) Earth Summit in Rio de Janeiro recognized sustainable procurement functions, which reflected in their publication from the Summit Earth, on Agenda 21. That the main reason for the continuing deterioration of the global environment is as result of unsustainable pattern of production and consumption, particularly in industrialized countries, aggravating a cause of great concern, poverty and imbalances (UN, 1992; European Commission, 2004).

### **2.2.2 Sustainable Procurement and Environmental Practices**

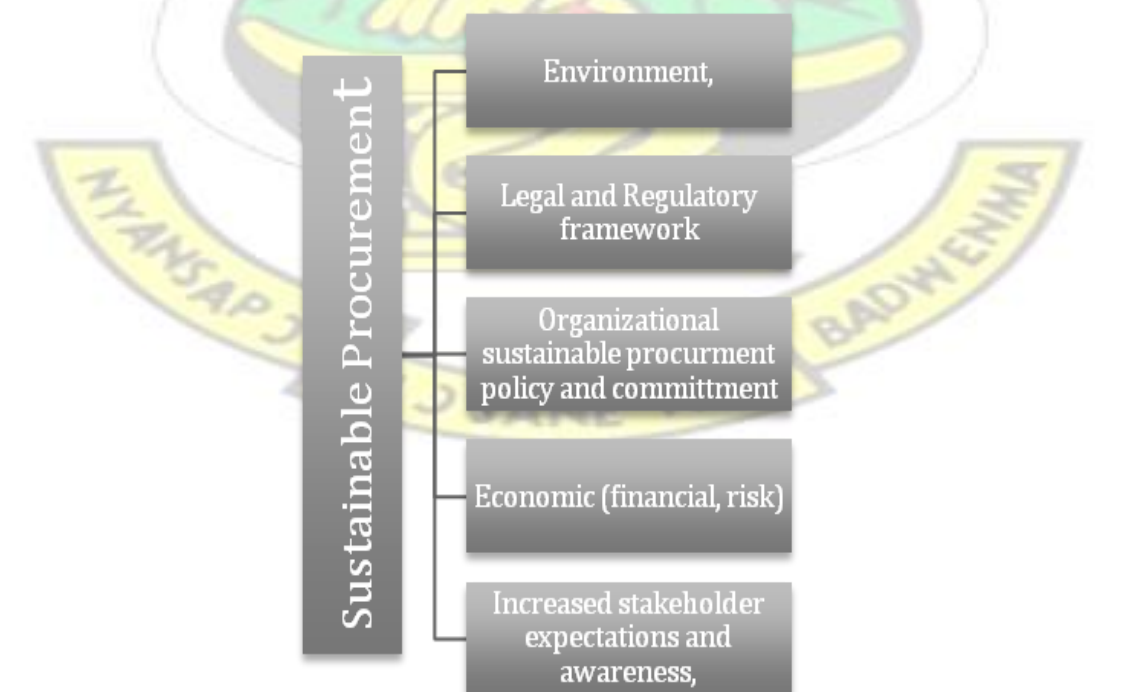
The United Nations has a number of international conferences held between 1970-1990 that links to sustainable procurement and the environment practices. The period of time observed several agreements such as the water quality of lakes Grande Agreement (1978), Geneva Convention on Long-range Transboundary Air Pollution (1979), treaties of Helsinki (1985), the Montreal Protocol on the ozone layer (1988) and the Basel Convention on Transboundary Movements of Hazardous Wastes (1989). The destruction of the environment has been considered as the first enemy of the planet in these agreements. These conferences aimed to pressurize governments to expand their responsibilities in ensuring they pass regulations that ensure welfare of the local community, in their procurement decisions.

There are many studies on sustainable procurement practices that have confirmed that the public sector commits to purchase additional socio-environmental targets and there is a noticeable change in the implementation of sustainable procurement practices across. Walker and Brammer (2009) reported that private sector studies have focused on environmental issues in public procurement, while social issues are underdeveloped. Linton et al. (2007) reported that investigation of sustainable procurement is still in its infancy and needs further investigation on how sustainability is integrated into the public procurement strategy and design.

Sustainable Procurement Management regards efficient supply chain integration through effectual environmental, economic and social integration through procurement delivery. This has attracted significant attention both in the supply chain and environmental management literature and also among practitioners in companies world-wide (Porter and Kramer, 2006). The main drivers for this transition have been

the rapid consumption and increasing pollution of natural resources due to massive economic development and uncontrolled urbanization (Koplin et al; 2007). The vast environmental degradation has called forth the sustainability principle, turning environmental aspects into important criteria in business decision-making (Veleva et al. 2003; Walker et al.2012; Linton et al. 2007). This situation has ultimately resulted in binding environmental legislation and pressures imposed by the internal and external customers together with the stakeholders (Porter and Kramer, 2006). The sustainable management of supply chains initiated by these drivers has soon taken a voluntary path due to some indispensable returns such as increased efficiency, reduced costs, increased internal and external customer satisfaction, increased sales and market share together with a more effective risk management (Porter and Kramer, 2006).

## 2.3 CONCEPTUAL THEORETICAL FRAMEWORK



## **Figure 2.1 Conceptual and theoretical framework**

**Source: Porter and Kramer, (2006); Walker and Brammer, (2009).** The above Figure 2.1 described hypothetical network that links sustainable procurement practices with elements that are involved in the practices. Entities ensuring integrating these determinants in their procurement process not only add value but promote standardized practices that meet both domestic and international best practices within the procurement process. For instance, increasing involvement of stakeholders through awareness creation about the choice of products or services to be procured and or on “make or buy analysis” for the institutions not go a long ways of meeting public expectations but also served as part of social dimension or responsibility within public procurement practices. The institutional commitments on ensure compliance to the rules and regulations that promulgate the Act, 663 (Act, 2003) served as part of legal and regulatory framework of public procurement practices. More so, procuring materials for construction and or products for internal usage for the University may impact on economic and environmental decisions. For instance, for the University whole life cost may increase or decrease and or impact effectively if the procured items are not of eco-labeled. The maintenance and final disposal cost are relevant if wastes and defects are to be eliminated within the UHAS procurement process.

### **2.4 PRINCIPLES AND FRAMEWORK FOR THE SUSTAINABLE SUPPLY**

Effective implementation of sustainable procurement practice creates positive results for the economy, the environment and promotes the entity reputations for not supplying that negates the very life they intends serving. The public sector should promote sustainable throughout the process of acquisition and disposal and sustainability must

be integrated into all purchasing decisions Decision-making (Porter and Kramer, 2006).

In addition to the legal requirements, there are many factors that influence sustainable supplies.

#### **2.4.1 Financial**

Provides delivering operational cost savings through efficient products, works and services; invites source hard guarantees necessary; reducing end of life disposal costs; the drive supply chain efficiency, and expand market capacity, innovation and sustainable competitiveness, waste which in turn reduces to reduce the cost (de Man and Burns, 2006).

#### **2.4.2 Risk**

Significant impacts should be identified on sustainability and processed in the framework of an integrated approach to management Identified risks can include risk but are not limited to, legal risks, financial obligations, moral hazard/ethical, procurement risks, and risk. Price volatility and risk to reputation. A corporate risk profile will continue to evolve based in part on the rapidly changing environments and appetite public awareness and raising sustainable solutions (Linton et al. 2007).

#### **2.4.3 Higher expectations from stakeholders and awareness**

It generates greater pressure on organizations to examine the ecological, economic and social aspects of society and to implement sustainable initiatives organizations have the need to promote goodwill and parties' stakeholders proactively and effectively respond to expectations and concerns related to sustainable procurement recognize (Steurer and Konrad 2007; Koplin et al; 2007; Linton et al. (2007).

#### **2.4.4 The commitments and objectives of the political organization**

An expression of culture, values and vision with which an organization operates must be supported by the market forces and reflected in the strategic procurement policy of the procuring entity. The objectives to do business and make decisions based on legal and institutional framework are then supported by management and the political organization that works (Steurer and Konrad 2007; Linton et al. 2007).

The principle of promoting social responsibility in the supply chain cannot be challenged, but to achieve this in practice can be a challenge for professionals in the supply chain management (Lee et al., 2013). More so, governments across Europe for instance are currently reviewing their approach to the use of social criteria in public procurement procedures, to determine how they can be applied better. The implementation of socially responsible public procurement (SRPP) is still in its infancy, but progress has been made in some areas, despite obstacles (Steurer and Konrad 2007; Lee et al., 2013).

There was mixed reaction on the recent European Court of Justice (ECJ) judgment on the use of social criteria, in Case C-368/10, adopted by the European Commission against the Netherlands. The decision provides for a degree of clarity in an area with little existing jurisprudence, but at the same time could discourage some public bodies to take bold steps towards strengthening social responsibility in public procurement. However, until the adoption of the revised law on the award of EU public contracts support for more complete and robust use of social criteria are relevant in promoting sustainable purchasing practices (European Commission, 2004).

The issues surrounding sustainable procurement are not just legal (Koplin et al; 2007). The extraction of raw materials and the manufacture or production of goods takes place in different countries with different set of rules and regulations that govern the extraction, production, distributions, usage and disposal (Carter et al. 1998). Sustainable public procurement practices (SPPP) legitimate demands respect of all social criteria in a tender, transparency and reliable verifiable. Achieving this can be tedious and complex for suppliers and buyers (de Man and Burns (2006).

Progress towards sustainable public procurement practices (SPPP) by many European regions despite these challenges is very encouraging. Many municipalities have a resolution to comply with the fundamental regulations and conventions adopted in their purchases of goods and services. In addition, many governments are at stages of development and implementation of audit systems to ensure that suppliers comply with social norms of necessary variables (Lee et al. 2013).

Public order is expected that increasing the market for a broad range of strategic objectives of the policy after the goods, services, public works and services. This approach is known as sustainable procurement, including the three key elements of sustainability (economic, environmental and social).

What this means therefore is that entity must endeavor to meet need the of procurement within the controls of whole life costing in which sustainable procurement practices payback benefits for institution and for society by reducing environmental damage at less cost.

## 2.5 DRIVERS OF SUSTAINABLE PROCUREMENT

So much has been discussed on sustainability in the world, in the pursuit of sustainable development. For example, the automotive industry is visible to everyone and active competition in global markets, both of which are powerful drivers of change in the move for energy efficient vehicles and transport system to reduce cost and harm to the product users. Further example can be seen from the evident in the pharmaceutical industry where poor critical balancing of the elements that ensure product sustainability cause injurious the patients. These pressures on both clients and procurement officials who have to make critical decision about the choice of the final products that considered client expectations as well as growing the business reputation. The consumer, fueled by mounting press attention on the carbon footprint and the environment, it is assumed that in this very audiovisual industry, it is home organizational responsibilities at the head of the agenda of sustainability to take (Seitz and Wells, 2006).

However, despite external pressures, many institutions have not fully embraced issue of sustainability in their procurement. This is posing great danger on the eventual users and subsequent regards to the procedures or rules and standards that governs supplies within the supply chain of public procurement (Tregidga and Milne, 2006). Much of the activity on sustainable procurement probably caused by the legal necessity of environmental management requiring agencies or procurers to adhere to the practice and see it as risk reduction strategies and negotiates their contract alongside. In furtherance to that consumer knowledge on sustainable procurement ensure focusing on recycling, reuse, recycling and reverse logistics increasing cost (Tregidga and Milne, 2006).

More so, if procurers failed to see these as external factors it can create barriers to treatment of a broader approach to the full range of sustainable procurement practice.

Procuring entity may have on these issues but because entities have a high value over other equally important things that promote procurement sustainability, they may neglect their procurement decisions on basis of cost. However, if these external factors have limited vision on the part of management, the obstacles to adopt more holistic approach encompass the full range of sustainable procurement practices. It is often argued that managers in the shared values of the organization will be motivated to promote organizational goals related to sustainability (Koplin et al; 2007).

There are studies providing support to the force of the sustainability of internal engines that focused on learning rooted in characteristics entity supported for sustainable procurement practices (Tregidga and Milne, 2006). Thus, integrating sustainable procurement are successful if there is internal support through stipulated rules and regulations that govern supplies within the institutions and in line with national support on sustainable procurement practice within supply chain system.

## **2.6 CHALLENGES TO SUSTAINABLE PROCUREMENT**

Procurement is one of the key drivers of change in any organization (Walker et al; 2012), whether public or private sector, and is increasingly becoming a mechanism for policy delivery (Linton et al. 2007). All public procurement institutions in Ghana; for instance are required to achieve value for money and governed by the public procurement policies and rules to ensure that it is fair and open (PPA, Act 663, Act 2003).

However, the implementation of such directives is often challenged when entity intends sustaining such practices within public procurement delivery. Importantly, there is no legal barrier embedding sustainable procurement practices within public procurement. Public sector procurement management required managers continuous promoting of

sustainable procurement practices at all front to improve supply. It must be noted that the forms of challenges which impede smooth implementation of sustainable procurement affect either public led procuring institution or private procurement agencies.

### **2.6.1 Legislative Support**

Countries need to provide legislative support by providing the laws position on sustainability criteria in public procurement activities. In Ghana, for example, although there is a Public Procurement Act, the Act does not address issue on sustainable procurement practices. There are no sections within the Act that address procuring sustainable products that ensure value. There are however widespread uses of criteria and called for sustainable public procurement practices, through the adoption of national legislation. The uses of criteria other than price control authorities. National Development Plan Ghana and the Public Procurement Authority should include procurement policies allowing the integration of sustainable development practice within public procurement.

However, law on procurement especially on standardization practice may not be easy as each country may have different standard codes that may govern public supplies. But without necessary regulatory mechanisms that ensure achieving lowest cost objective public procurement objective of providing value may be achieved.

More so, in countries where the Government Procurement Agreement and other multilateral agreement are in restriction of the use, a ratified discriminatory procurement rules are applicable. The SPP provisions could be used provided by disappointed bidders in question with the so-called domestic bid challenge procedure, the mandatory (WTO, 2006)

### **2.6.2 Financial Systems and Accounting Practices.**

Still difficult issues are the budget and accounting framework in which to operate public facilities especially within an increasing public expenditure and poor management. Common barriers on sustainable purchasing decisions include budgeting one year and the limited ability of funds from one year and to keep efficiency gains (Steurer and Konrad, 2007). The intensified focus on short-term results lead to the discrimination and purchasing of higher investment costs; compromise between the use of investigating resources and investment decisions accordingly (Lee et al., 2013).

### **2.6.3 Political commitment.**

The experience of many countries shows that political commitment to a high level is the key to sustainable implementation of procurement practices. Further, questions such as what are the client's secondary objectives and what makes effective supply for departments and agencies with reference to the environment, social and economic procurement requires high level of political commitment (European Commission 2004).

### **2.6.4 Technical Capacity**

The lack of capacity of procurement officers have been recognized as main the obstacle to the implementation of the sustainable procurement policy. In the technical aspects of the supply, the utmost importance is that clear criteria guidelines and training are defined sustainability. How to apply these criteria in the purchasing process, from tender to monitoring needs and evaluation, procurement officers are available (Steurer and Konrad, 2007).

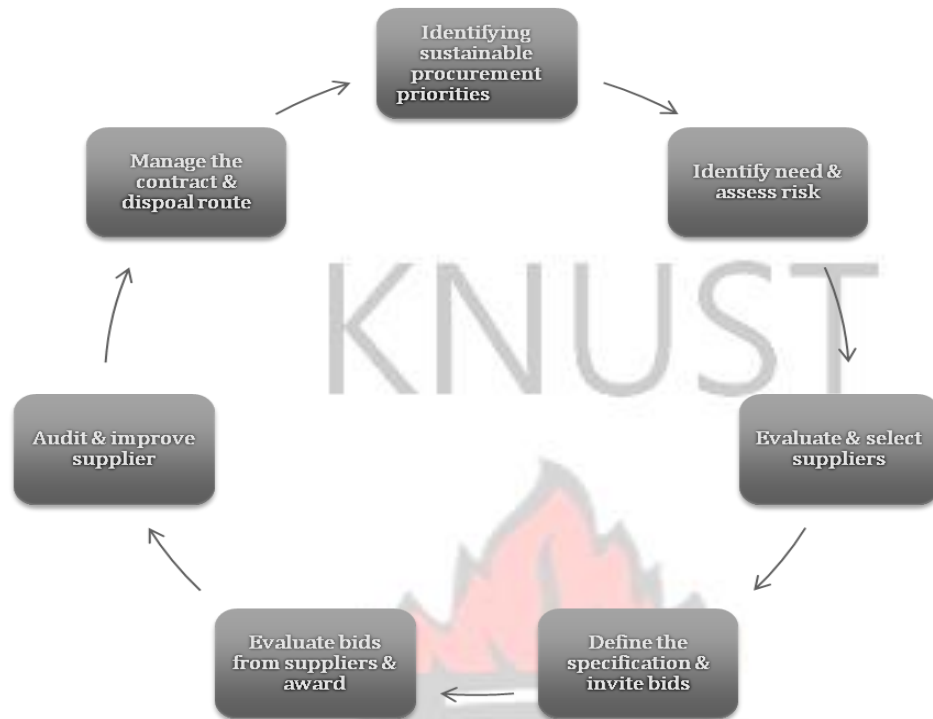
### **2.6.5 The Supply Constraints**

For each country, the offer may be a major obstacle to the implementation, because at least some domestic industry must undergo before the SPP policy be created considerable modernization. To meet these challenges, should best practice the experience of successful countries, most organizations based practice promotional materials sustainable and environmentally sound policy (Steurer and Konrad, 2007).

In addition, there should be leadership and commitment of leaders and decision makers. In the UK, for example, the creation of a multi-national SPP working group helped to ensure commitment (Lee et al., 2013). In general, feel the effects of supply chain constraints enhanced sustainable development. Setting and the agreement on the sustainable development priorities (eg taking into consideration of carbon emissions) and sectors main concern for action interest to optimize the share of wealth and allow making decisions prepared. Compulsory PSP brand clearly requires that it is of the order a priority for all of government, and the guidelines and expectations for managers' clear policies and procurement. Public spending may need to be adjusted management frameworks supports SPP (eg, fiscal reforms that allow more planning). Procurement is obtained through the central body whiles others are increasingly decentralized hence decision sustainability must lay down to ensure consistency in supplies and standardization (Koplin et al; 2007).

## **2.7 INTEGRATING SUSTAINABLE PROCUREMENT INTO PROCUREMENT PROCESS**

The overall approach to sustainable procurement is by integrating sustainable practice into procurement process.



**Figure 2.2 Integrating Sustainable Procurement into Procurement Process**

**Adopted from Ministry of Economic Development New Zealand June 2010**

Sustainable procurement practices involve integrating the practice in all aspect of procurement cycle right from identifying procurement priorities based on proper need and risk assessment evaluating and selecting suppliers, defining specifications, evaluating bids, auditing and improve suppliers as well as managing contract and disposal route that ensure value for money throughout the process.

Furthermore, the identification of sustainable priorities within the procurement cycle involves identifying needs and ensuring proper risk assessment of supplies, evaluation and selection of suppliers by defining specifications that includes procurement sustainability issues. More so, vendor evaluation and auditing to improve supplies within the premise of sustainable integration whiles contract are awarded and manage with the best value. There should be fundamental questions of sustainable supply of environmental, social and economic balance to be truly sustainable. In addition,

developing the approach for sustainable public sector procurement; the organization or the institution must first identify the objectives of sustainable public procurement strategic policy, political commitments of the entity and the objectives of sustainable development objectives to ensure value addition within the process (Koplin et al; 2007).

The policy approach should address the possible issues that could impact on the organization of procurement practices could support, such as climate change, ozone chemical eradication, optimizing the use of natural resources, minimization of waste, creates jobs, equality of persons, fair pay for employees of suppliers, economic regeneration, legal compliance, improving the public image (Linton et al. 2007).

Prioritizing the needs and proper risk assessment in the procurement sustainability, there is no exact science to this Walker et al., (2002), even a lot of it may depend on available resources or political environment and or commitment and the agency that might apply (Koplin et al. 2007). For example, the agency may have no choice but to address issues of economic regeneration, which the institutions must comply despite the limited resources available or the thresholds that entity operates within. Other environmental issues such as climate change, for example, in their purchasing decisions must be considered within sustainable procurement practice and decisions. And in complying however, entities must in approach sustainable procurement practices by balancing social, environmental and economic characteristics that ensure value for money (Tregidga and Milne 2006; Seitz and Wells (2006; Lee et al., 2013).

Supply could focus on one of, energy during use, power generation, distance travel goods, mode of freight transport, energy impacts of raw materials, etc. However, the approach from sustainable supply is to keep them simple questions as possible begin to improve over time (Lee et al., 2013).

The risk assessment issues related to the reduction of carbon dioxide, protection of the public image and development, efficient use of natural resources, as does the purchase have potential for energy consumption high can also be applicable to all products (goods, services and works) (Lee et al., 2013).

Linton et al. (2007) approach to the reduction of hazardous substances product was purchased that affect end-user groups could be adopted by developing countries like ours in Ghana in the public procurement markets.

The situation in terms of context and compliance with existing law has direct challenge to the finality of deliverables and expenses incurred by the procuring entity in public. Through evaluation of these parameters while beneficial, can a problem for the procuring entity whose public having little or no ongoing research environment to ensure sustainable principles are exploited in the framework of the law and other international regulations. The potential effects are enormous that procurement practices poor markets failed to integrate sustainable practices are harmless.

The other challenge is perhaps the environmental risk and socio-economic - which can cause serious reputation of the acquiring entity challenge. The fundamental questions are what happen if the government or the institution does not change its guiding principle.

Prioritization would make sure that scarce wealth are not diverted to areas of spending where, despite the ecological risk or high social and economic costs, there is very little chance of influencing the market or the buying public for whom the government cannot expect to find environmentally friendly alternative.

Another important challenge is the needs appraisal. Needs must be definite in a functional way that ensure all the basic principles that define sustainability in the markets are fully integrated, and as such, solutions to problems supply are somehow rather than specific products or services, so as not to exclude all options available in the market (Tregidga and Milne, 2006).

Sustainability and environmental criteria may be present in the supply contracts at all stages of the process, however, these criteria are easier to introduce in the early stages including in the definition of the object of the contract or in the technical specifications. This can plainly indicate at the outset, environmental requirements and socio-economic concerns to inform potential tenderers (Seitz and Wells, 2006).

What this means is that the technical specifications that provide measurable requirements can be assessed and may also include sustainability criteria, provided that they are formulated in a way that does not lead to bias against certain tenderers. For example, a product must have a certain eco-label is discriminatory, but that the product must meet the criteria that underlie the eco-label (Seitz and Wells, 2006).

At the stage of selection, exclusion, criteria for technical and financial capacity can be specified in the offers. The technical selection criteria should focus on the ability of a firm to perform the contract for which he is tendering. For Therefore, environmental criteria may be used if specific environmental experience is needed to fulfill the contract. General criteria for exclusion are generally defined in the procurement laws and regulations. The procurement directives in EU markets allow for a waste disposal company that has repeatedly breached environmental provisions under administrative law, resulting in several administrative fines, to be excluded on grounds of grave professional misconduct (European Commission, 2004).

Also, at the time of allocation, the classes of offers that meet the specifications are assessed and the best is selected. Contracts can be awarded on the basis of lowest price or "economically most advantageous offer. If the call for tenders provides that the lowest price is the criterion, no other criteria can be used at this stage (Annelie, 2013; BSI, 2010).

The criteria must be linked to the object, scientific, weighted in relation to other award criteria clearly defined in the offer and in accordance with national legislation and international agreements. Introducing sustainability criteria at the late stage of the procurement process might make sense if there is uncertainty regarding the availability and the cost of the most sustainable option. It always expresses a preference for sustainability, but allows for more flexibility in rejecting an option which is too expensive (Koplin et al; 2007).

Apart from very frequent procurements, most projects must be managed to ensure that suppliers keep the commitments they made in their offer, including fulfillment with the standards or conditions particular in the employment contract (Seitz and Wells, 2006). More so, efficient contract administration ensures that all commitments are met and that all issues are managed and processed rapidly. It can also help suppliers improve their performance in terms of sustainability. The importance of monitoring and evaluation should be emphasized. Closely related to contract management, monitoring allows overall performance against targets (Koplin et al; 2007).

## **2.8 PROCUREMENT SUSTAINABILITY: A SOURCE OF COMPETITIVE ADVANTAGE**

Procurement is distinctively situated to guide entities during difficult economic times in which the environment, society and economies are being challenged: firstly by

managing the demand within the company, secondly by sourcing from sustainable sources and thirdly by motivating suppliers to use less resource. Rising to the environmental and ethical challenge can only boost the procurement profile and improve business' access to future opportunities (Briel et'al; 2009).

Sustainability and corporate social responsibility are supportive for the implementation pace for current quest for public accountability through public sector procurement and value for money.

Most of the institutions dynamic in the area of sustainability, use the following four arguments to justify their activities. Companies need tacit or explicit consent of the parties concerned to do business, the entity reputation and continuity - institutions should work with bearing in mind short-long integration of sustainable procurement practice not to be wasteful (Briel et 'al, 2009).

The value chain shows all the activities that engaged the entity to used and identify the positive and negative impacts of those activities on the environment and cost incurred from procuring as well as social effects of the procurement that was undertaken. By doing this, the company makes catalog of the problems and opportunities-mostly operational issues which should be prioritized and addressed. Sustainable procurement will often appear as a tool to reduce the negative effects of the business and will prove to provide opportunities for strategic differentiation

(Zsidisin et'al 2001).

Competitive context of the company - shows how the conditions at locations of a company affect its ability to compete, by focusing on sustainability where policy that ensures transparency, the size and complexity of the local demand, which is influenced by the consumer rights and honesty in government purchasing and the availability of

supporting industries such as service providers and manufacturers work together in promoting sustainable supply practices. These issues can be opportunities for sustainable initiatives and serve as a framework for sustainable procurement.

## **2.9 CONCLUSION**

Sustainable procurement practices play significant role in government supplies and deploy broadly in achieving the public procurement objectives. There are a number of programs, policies and initiatives, all aimed at promoting sustainable procurement practices and to provide an opportunity for countries and institutions wishing to participate in sustainable public procurement to take successful practices.

Public Institutions Procurement cannot be value addition if sustainable practices are not integrated right from needs identification to disposal. Such practices must involve even in outsourcing to ensure consistency and compliance throughout the public procurement process for quality and value for money. The long-term effects on people and value for the public entity are enormous if conscious efforts are in place in the implementation within the university procurement practices. University of Health and Allied Sciences (UHAS) can excel in sustainable procurement practices if integrated sustainable approach is employed. In most cases, sustainable procurement consider the total ownership cost of purchase thus; the cost to the institution from source to the product or service being sold or require). This is a much broader perspective than traditional sourcing policies that focus on quantity, quality, price, lead times and suppliers (Veleva et al., 2003). Sustainable procurement demands full transparency of the supply chain and understand of the lasting powers of the suppliers, knowledge of the raw materials used, and often cooperation with other businesses and governments to secure the supply

of sustainable raw materials. Sourcing with these insights in mind will increase the sustainability of the long-term institution (Veleva et al., 2003; Walker et al., 2012).

It is clear that sustainability is embedded into the overall company strategy. Sustainability is managed in an integrated manner in the company and it is assessed on the basis of balancing environmental, economic and social aspects of procurement operations (Zsidisin et al., 2001).



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

Methodology is the framework within which the study is conducted or the foundation upon which the research is based (Brown, 2006). The third chapter describes how the research was conducted, it analyzes the data collection methods, sampling methods and the data collection process, review of statistical tools and how the data were to be analyzed. For this work to be authentic the research explains all the procedures, the data collected and the variables used and reasons for the choice as well as the limitation of the methodology used.

#### **3.2 RESEARCH DESIGN**

Exploratory research, as the name states, intends merely to explore the research questions and does not intend to offer final and conclusive solutions to existing problems. Conducted in order to determine the nature of the problem, exploratory research is not intended to provide conclusive evidence, but helps us to have a better understanding of the problem. Saunders et al. (2007) warn that when conducting exploratory research, the researcher ought to be willing to change his/her direction as a result of revelation of new data and new insights. Exploratory research design does not aim to provide the final and conclusive answers to the research questions, but merely explores the research topic with varying levels of depth.

#### **3.3 POPULATION AND SAMPLE SIZE**

University of Health and Allied Sciences was used for the study. The population were made up of one (1) Procurement Officer; two (2) Quantity Surveyors; four (4) Financial

Officers; three (3) Estate Managers; one (1) Maintenance; four (4) Architects and fifteen (15) Administrative Staffs were used due to their main characteristics and their involvement in procurement activities for the University. Due to the relatively small size of the population, the entire population was used as the sample size. A census sampling eliminates sampling error and provides data on all the individuals in the population.

### **3.4 INSTRUMENTATION**

Questionnaires were used as the main instrumentation for this research work. The questions were asked based on the objectives of the research work. Section A of the questionnaires was to determine the biographical data of the respondents to determine the profession, educational level and experience of the respondent. Section B looked at sustainability in public procurement where questions were asked whether UHAS implements sustainable procurement practices, whether there are challenges in the implementation of sustainable procurement practices and the benefits derived from implementation of sustainable procurement practices.

### **3.5 DATA COLLECTION METHODS**

The researcher adopted field study approach to data collection for which questionnaires as research instrument were used to obtain information from respondents. The questionnaires are among the main sources of data used in this research. The questionnaires were developed and administered personally. The respondents completed questionnaires in their privacy to avoid interference of the data. Questionnaires are sets or series of questions scale designed to produce raw data from the respondents in order to accomplish information necessary for an informed analysis (Joseph et al., 2006). Both close and open-ended type format of questions were designed

and pre-tested before eventual admonition to the respondents for the collection of data. All questions were pre-tested for content validity and standard procedures. This is to get feedback from experienced respondents. Based on this feedback, the instrument was modified and certain factors were removed in order to obtain relevant materials to reduce the length of the investigation.

### **3.6 DATA ANALYSIS FRAMEWORK**

The Data was analyzed to find out the relevance of integrating sustainable procurement into public procurement practices. The descriptive statistics method of analysis which provides a general overview of the results was used for the analysis. The descriptive method analyzed the responses in percentages. The frequency distribution, measurement of central tendency and measurement of dispersion were all used in the research analysis.

The logo of KNUST (Kenya National University of Science and Technology) is centered in the background. It features a yellow eagle with spread wings perched on a shield. The shield is divided into green and red sections. Below the shield is a yellow banner with the text 'NYANSAPU WISDOM NO BADWENHA'. Above the eagle is a red torch.

## **CHAPTER FOUR**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 INTRODUCTION**

This section focuses on the evidence collected and the analysis of information from respondents. The "reliability characteristics" based on the profession and experience of

respondents: Professional experience; number of years working in undertaking project procurement activities within the University of Health and Allied Sciences (UHAS) as institution notwithstanding various units involvement in the procurement activities are relevant for this study. Respondents were assigned weights on scale (nsa-1 a-2, sd-3, d-4, or u-5), which was interpreted as a (Not Strongly Agree, Agree, Strongly Disagree, Disagree, Uncertain) for which data collected for interpretation. This is to make answering of the responses much easier for the respondents due to time constraints and their busy schedules. Thirty (30) questionnaires were distributed and thirty (30) were completed representing one hundred percent (100%) response rate.

In pursuit of the above, the means for each attribute including the relative standard deviation and standard error were calculated quantitatively as part of descriptive statistics determination from the study. The characteristics are considered essential given two or more criteria to the same average, where the lowest standard deviation is assigned the highest importance ranking (Field, 2005). Because the standard error associated with all the means that are relatively close to zero as reasonably argued that the sample is an accurate reflection of the population (Field, 2005). The findings are summarized to make it easier for reading. The replies were collated and analyzed using the following tables and graphs.

#### **4.2 SECTION A: ANALYSIS OF MANAGEMENT AND BIOGRAPHICAL DATA**

**TABLE: 4.1 THE PROFESSIONAL LEVEL OF RESPONDENTS**

Respondents		Frequency	Percent
Quantity Surveyors		2	7

Architects		4	13
Finance Officers		4	13
Procurement Officer		1	3.5
Estate Managers		3	10
Maintenance Officer		1	3.5
General Administration		15	50
<b>Total</b>		<b>30</b>	<b>100</b>

Source: Field Survey 2015

The Table 4.1 described the respondents' level of profession in undertaking procurement management at the University of Health and Allied Sciences, Ho. From the above, four (4) Finance Officers and four (4) Architects representing thirteen percent (13%) were considered for the study. Also, two (2) Quantity Surveyors representing seven percent (7%); three (3) Estate Managers representing ten percent (10%), as well as one (1) Maintenance Officer and one (1) Procurement Officer representing three and half percent (3.5%) were deemed having the necessary experiences and profession in responding to this study. In furtherance to the above, fifteen (15) respondents representing fifty percent (50%) representing General Administration from the University was further considered for the study due to their experiences in undertaking procurement activities within the public sector of employment.

The management implications are that all the respondents have been equally representative and their professional inputs on issues of procurement management in UHAS are considered in the analysis of this research. Each of the respondents has equal

representative and responded to the same sample of questions for the study. The implication was to eliminate any form of bias from the study.

**TABLE: 4.2 RESPONDENTS NO. OF YEARS WORKING WITH UHAS**

No. of years at UHAS	Frequency	Percent
1-2 years	16	53
2-3 years	9	30
3 years and above	5	17
<b>Total</b>	<b>30</b>	<b>100</b>

Source: Field Survey, 2015

Table 4.2 above, described how long the respondents have been working with UHAS. From the above, fifty three percent (53%) of the respondents indicated they have being working with UHAS past one to two years. Also, thirty percent (30%) of the respondents have indicated two to three years. Furthermore, remaining seventeen percent (17%) have stated they have being working in the procurement capacity for UHAS since the University establishment, 2011 and now. The implications are that all the respondents are familiar with the activities of the UHAS and such relevant specific experiences of being involved in the procurement activities of the UHAS are helpful in determining how the respondents response to procurement management for value for money as envisage by the Public Procurement Act, 663 (Act 2003).

**TABLE: 4.3 RESPONDENTS LEVEL OF QUALIFICATION**

Level of Qualification	Frequency	Percent
HND	3	10
BSc (Hon)	12	40
MBA/ MSc/MPhil/PhD	15	50

<b>Total</b>	<b>30</b>	<b>100</b>
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Source: Field survey, 2015

Analyzing Table 4.3 above, ten percent (10%) of the respondents were Higher National Diploma (HND) holders, forty percent (40%) were holding Bachelors (Hon) degrees and the remaining fifty percent (50%) of the respondents were holding Master degree certificates. The implications are that each of the respondents were having some level of qualification in understanding sustainable procurement as well as on issues concerning the Public Procurement Act, in making an informed decisions on the implementation of the Procurement Act 663, 2003.

#### **4.3 SECTION B: KNOWLEDGE OF SUSTAINABLE PUBLIC PROCUREMENT**

**TABLE 4.4 PROCUREMENT ACTIVITIES AT UHAS**

<b>Responses</b>	<b>Frequencies (30)</b>	<b>Percentages (100)</b>
Consultancy Services	5	17
Works (constructional works)	15	50
Goods (Eco-label consumables and Nonconsumables)	10	33
Total	30	100

Source: Field Survey 2015

From Table 4.4 above, fifty percent (50%) of the respondents have indicated they involved in the procurement of constructional works for the university whiles thirtythree percent (33%) were Goods (Eco-label consumables and Non-consumables). The remaining seventeen percent (17%) of the procurement activities of the university

were consultancy services. The implications are that the UHAS undertake all Procurement activities (goods, works and services) and that the entity is capable of integrating sustainable procurement into their decision making in procuring for the University.

KNUST

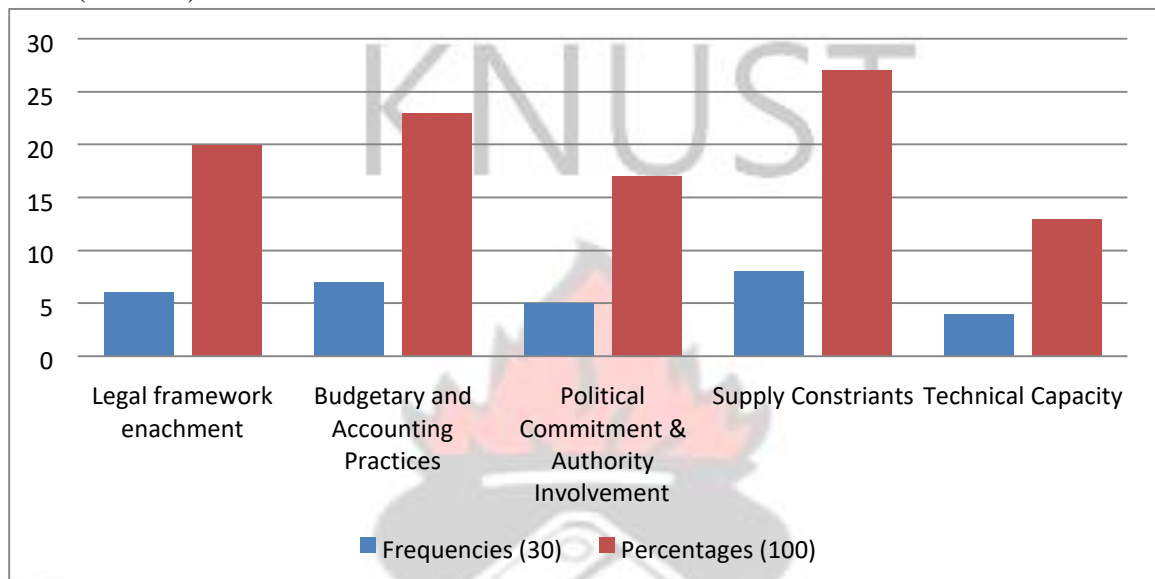
**TABLE: 4.5 RESPONDENTS LEVEL OF KNOWLEDGE OF SPP**

Responses	Frequency	Percent
Strongly Disagreed	6	20
Disagreed	8	27
Strongly Agreed	9	30
Agreed	5	17
Uncertain	2	06
<b>Total</b>	<b>30</b>	<b>100</b>

Source: Field Survey, 2015

From the Table 4.5 above, when asked the respondents as to whether entity considered Eco labels products as guide in procuring and whether UHAS has been actively involved in implementing sustainable procurement process in their public procurement function; twenty percent (20%) of the respondents strongly disagreed; twenty-seven percent (27%) disagreed. However, thirty percent (30%) strongly agreed with the responses whiles seventeen percent (17%) agreed. The remaining six percent (6%) were uncertain about their responses; an indication of deficiency in knowledge when it comes

to issues of sustainable procurement. Respondents further explained that Ghana for instance, few public institution hardly understand and consider sustainable procurement in their procurement decisions making not forgetting Act, 2003 (Act 663) was also silent on it.



**Figure 4. 1: Challenges of Implementing Sustainable Public Procurement**

**Source: Field Survey, 2015**

From the Figure 4.1 above, when asked the respondents to identify some of the challenges they think may influence on sustainable procurement practices; twenty three percent (23%) of the respondents have indicated budgetary constraints and accounting practices while another twenty seven percent (27%) have also stated suppliers constraints such as their inability to understand the concept and balance the three core element in their procurement (economic, legal and environmental) issues in procurement. Also, twenty percent (20%) of the respondents have indicated legal and local regulatory frameworks are not in place to suite the local content when implementing sustainable procurement. Furthermore, seventeen percent (17%) have indicated political commitment right from the boardrooms in integrating sustainable procurement when deciding on bidding, though management are committed to the

process; individual interest at times supersedes entity. The remaining thirteen percent (13%) of the respondents have stated technical capacity by the procuring entity in understanding the issues and making informed decisions on sustainable procurement were some of the challenges posed when implementing sustainable procurement in the public sector.

**TABLE 4.6: EFFECTS OF SUSTAINABLE PROCUREMENT PRACTICES**

Variables	Maximum	Mean	Std. Deviation	Ranking
Uses of suppliers that balance procurement activities in sustainable manner	5.00	4.6833	0.46910	1 <sup>st</sup>
Uses third sector suppliers where appropriate to promote competition	5.00	4.4667	0.50310	3 <sup>rd</sup>
Consideration of strict attention to terms and conditions of suppliers (compliance)	5.00	4.1500	0.36008	5 <sup>th</sup>
Provision of training on employees-health & safety and flexible working practices	5.00	4.5833	0.49717	2 <sup>nd</sup>
Promotion of value propositioning in procurement system in sustainable manner	5.00	4.3333	0.47538	4 <sup>th</sup>

Source: Field Survey 2015

Table 4.6: presents the descriptive statistics of survey results on the effects of sustainable procurement. The mean values of the responses obtained from the survey range from 4.1500 to 4.6833. The standard deviations of the means range from 0.36008

to 0.49717; an indication that the estimated mean has no significance difference and that the variables identified impact on the University sustainable procurement operations. With the cut off mean of 4.000, variables such as the need to use suppliers that balance procurement activities in sustainable manner ranked 1<sup>st</sup>, whiles entity should engage suppliers where appropriate to promote competition & equal opportunities ranked 3<sup>rd</sup>, procurement entity considers paying strict attention to terms and conditions of suppliers in delivering services that balance economic, legal and environment in sustainable manner ranked 5<sup>th</sup>, and provision of training on employees- health & safety and flexible working practices in work procurement whiles not engaging minors ranked 2<sup>nd</sup>. The remaining variables; such as promotion of value propositioning in procurement system in sustainable manner when various tenets (economic, social, environmental and legal) were balanced and integrated within the procurement process ranked 4<sup>th</sup> respectively have effects on the implementation of sustainable practices within public procurement management.

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATION**

#### **5.1 INTRODUCTION**

The chapter presents summary of research findings, review of the research question, conclusions and the necessary recommendations.

#### **5.2 REVIEW OF THE OBJECTIVES**

The objectives in chapter one were reviewed for conclusions and recommendations to be made

##### **5.2.1 Review of Objective one (1): To assess the level of knowledge in sustainable procurement practices in UHAS**

Form the study; it has been found that there is little or no understanding of sustainable procurement practices in UHAS. What this means is that items procured whether in works, services and or goods may not meet stated specifications requirements as regards to economic, environmental and social responsibility in procurement decisions. The finding agrees with Linton et al. (2007) who indicated that sustainable procurement practices seeks to include social and economic dimensions and environmental integration into the procurement process or decisions and entity must adhered especially in public procurement decisions and management. Other national and international organizations have recognized the need to incorporate sustainability in procurement practices due to the legal and environmental implications for the very public the entity intends to serve. The World Bank for instance has concluded that both public and private entity procuring must consider the environmental, social, legal aspects in their procurement process and that their activities do have negative effect on both plant and animal life (World Bank, 2005).

### **5.2.2 Review of Objective two (2): To identify the challenges in implementing sustainable procurement practices in UHAS.**

The findings has identified thorough implementation of Public Procurements Act, Act 663, (Act 2003) and other legislative frameworks as challenged due to inability for public procurers to follow the Act to the later notwithstanding integrate sustainable procurement practice in their procurement decisions. That issue of individual interest and lack of political commitment posed threats and or challenged towards sustainable procurement practices not forgetting lack of technical capacity on the part of public procurers to make qualitative procurement decisions in realizing value for money. The finding agrees with (Koplin et al; 2007; Bruel et'al, 2009) who underlined challenges impeding sustainable procurement practices. And that effective and efficient implementation depends on meeting challenges identified in this study (budgetary constraints and accounting, legal and regulatory frameworks, supply constraints, notwithstanding different laws and regulations governing procurement practices across the globe). Such barriers impede sustainable procurement practice because domestic or local suppliers must effectively meet international standards in their procurement practices.

### **5.3 CONCLUSION**

While sustainability has attracted much attention in the press, it is not well defined, and little is known about the actual drivers and barriers to the adoption of environmentally friendly practices in organization. This is especially true with respect to the implementation in the management of supply function within public procurement. This study reviewed the literature on sustainable procurement and defines the viability of supply chain and its components. Sustainable procurement practices tend to satisfy the

needs of the present without compromising the ability of future generations in damaging the environment.

The objectives to achieve sustainable procurement practices provide social progress that recognizes the needs of everyone. The fact that waste and emissions from supply chains (SC) became one of the main sources of serious environmental problems such as global warming and acid rain, binding legislation procurement practice are relevant. More so, the impact on internal customers and as well as external stakeholders being imposed out called for sustainable procurement practice for value for which UHAS public procurers must consider and integrate into their procurement decisions.

In addition integrating the procurement sustainability in the supply chain will help in the management of raw materials and services design in public procurement activities within the value chain of supply for the university as modern one and in meeting international public institutions standards and requirements. This not only explicitly improves social and environmental impacts of supplies for the university but also economically create value for money in public procuring. Management and establishments of information and capital flows as well as cooperation between the university, companies that supplies to the university and regulators (Public Procurement Authority among others) along the supply chain will balance the three dimensions of sustainable supplies, namely, economic, ecological and social that to improve value.

In contrast to the above, in spite of procurement law or the act enacted in order to create value for money and services that meet public procurement provisions; Act 663, (Act 2003) does not fully addressed questions in relation to the procurement sustainability in terms of awareness and implementations. Thus; rights from the purchase of durable goods, works or services, which aims to reduce the ecological,

social and economic harmful effects and services, required considerations such as waste disposal and the cost of operation and maintenance over long term of supplies were silent from the act and which has been one of the major findings from this study.

With effective and efficient adaptation, the practice of sustainable procurement practices by the UHAS will not only improve performance, but will also have impact on the effective implementation of the Public Procurement Act, notwithstanding creating the value of money for the country. In conclusion, a sustainable procurement agency that meets the needs for procurement and create value for money, without harm to the environment or increasing costs of social life and property are paramount in promoting value proposition within the public procurement system. Therefore, the practice is the potential to reduce costs while minimizing environmental damage. While this may lead to higher direct purchase costs, the cost for the lifetime of sustainable practices can be less than the total lifetime costs of purchasing directly out of necessity and to the disposal costs of procurement.

In furtherance to the above, from the study it has been identified that there is very little awareness and understanding of sustainable procurement concepts, not specifically to promote a legal framework of public procurement act but the inclusion of environmental and social criteria in procurement processes. Sustainable public procurement activities are obliged with long-term perspective and integrated strategies in sustainable procurement practice. However, there are challenges in implementing sustainable procurement practices such as legal acceptance across boundaries and structures, budget and accounting practices, political commitment, technical capacity and supply constraints. Despite such constraints, the benefits are enormous such as value for money proposition in the procurement process whiles compliance with the rules and procedures of the acquisition of green and socially responsive product and

designs, from balancing the triple constraints (environmental, economic and social) in procurement processes delivery.

From the study, it has been observed however that some consumers are willing to pay extra for sustainable offerings but only if clear status incentives are associated with such purchases and which was further confirmed by (Griskevicius, Tybur & Van den Bergh, 2010). While Siegel, (2002) noted that because a shift towards sustainable practices is costly and disruptive of firms' functions, the practice matters, but only if it yields higher profits. What this means is that if consumers are willing to pay more, companies can charge premium prices for sustainable products, only when such practices enhance buyers' reputation or entity' bottom line. However, where the argument concern about products, services or operations that is less observable or is of less financial performance. Entity must endeavor to name their suppliers and the provenances of raw materials that are eco-labeled and or environmentally friendly, socially responsive and value addition for the public. The public procurement entities and with their suppliers must follow policies of non-disclosure of suppliers, materials, practices, and ensuring transparency through ethical supply chain practices to ensure value for money within public procurement process especially for the university.

#### **5.4 RECOMMENDATIONS**

Public procurement entities and for that matter the University of Health and Allied Sciences procurers are to improve performance by keenly appreciating how even seemingly inconsequential choices in early value-chain activities within their procurement process decisions were balanced between the triple constraints (economic, social and environmental) of sustainable procurement practices.

Sustainable Procurement Practices, which can be regarded as integration of environmental, economic and social issues into public procurement practices, is capable of improving supply through binding legislations and urge for sustainability together with the pressures imposed by the clients for value in procurement decisions. Such phenomenon has been currently accepted as the main drivers in the adoption of environmental approaches in Sustainable procurement management for companies and institutions world-wide.

To this end, it is recommended that UHAS Procurement Officials recognized the sustainable drivers which have indispensable returns such as increased efficiency, reduced costs, increased internal and external customer satisfaction, increased sales and market share together with a more effective risk management and manage them effectively.

Also, it has been recommended that procurement entity (UHAS) needs to use suppliers that balance procurement activities in a sustainable manner. That UHAS procurement entity engages third suppliers where appropriate to promote competition and equal opportunities and uses suppliers who pay strict attention to terms and conditions of delivering services that balance economic, legal and environment in sustainable manner, provide training on employees-health and safety and flexible working practices in works procurement and promote value propositioning in procurement system in a sustainable manner.

That procurement entity (UHAS) procures goods that have eco labels to improve energy conservation and waste disposal within environment. Procurement officials in UHAS need to understand economic, legal, environmental and social aspect of public procurement in promoting sustainable procurement. UHAS as a procuring entity needs

to engage in continuous learning through training and development to improve performance in the public procurement process in sustainable manner.

Finally, the university needs to create green sustainable initiatives for example the University recycles plastics and paper in campus offices. Dorm renovation include recycling mattresses and furniture facilities while maintenance team installing energy-efficient lightening, installing plants that requires less water and fertilizer and green cleaning products. Also, construction facilities operations should include buildings that are LEED-Certified. The environmental requirements should change the way department buys product as well as the kinds of products bought. Furthermore, when solicitation is done for many services and products, entity should request products, sustainability effort. Entity sourcing matrix should give points for potential vendor's sustainability and green initiatives. However, despite the above efforts there can be a mutual tension between maintaining financial efficiency and buying environmentally friendly.

## **5.5 SCOPE FOR FURTHER RESEARCH**

For further research, issues on exploring legal aspect of integrating sustainability in Public Procurement are worthy of investigation.

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## APPENDIX

### Questionnaire for Respondents

Dear Respondent,

The research has been designed purely for academic purposes. The information given will be accorded the greatest degree of confidentiality.

**Instructions:** Tick ☐ and or provide answers as appropriate.

#### SECTION A: Biographical Data

##### 1. Your Profession

- ( ) Financial Officer
- ( ) Procurement officer
- ( ) Quantity Surveyor/Architects
- ( ) Estate/Maintenance Officer
- ( ) General Administration

##### 2. Highest educational

- ( ) Higher National Diploma (HND)
- ( ) Bachelors Degree (including honors)
- ( ) Postgraduate (MA/MSc/MPhil/PhD)

##### 3. How long have you been working with your Assembly?

- ( ) 1 to 5 months

☐ 1 to 2 years

☐ 2 years and above

**4. Which of the following procurement activities do you mostly involved in your institution?**

☐ Consultancy Services

☐ Technical Services (service on ICT, special equipment)

☐ Works (constructional works)

☐ Goods (consumables and Non- consumables)

## **SECTION B: SUSTAINABILITY IN PUBLIC PROCUREMENT**

**5. Sustainable Procurement involves balancing the concerns of:**

☐ Economics, Environment and Society in its Procurement Processes

☐ Efficiency in energy usage, waste management and lower costs of procuring

☐ Stringent government regulation towards increasing the focus on “green” procurement

☐ All of the above

**6. Public sector procurement management required managers to comply with new sustainable regulations and to look for suppliers who are able to provide a sustainable offering**

☐ Strongly agree

☐ Agree

☐ Strongly disagree

☐ Disagree

☐ Uncertain

**7. UHAS has not being actively involved in a leadership role in terms of the Social Responsibility and Sustainability (SRS) policy in Public Procurement Process**

☐ Strongly agree

☐ Agree

☐ Strongly disagree

☐ Disagree

☐ Uncertain

**8. Tightening budgets, rising energy costs, and increased standardized testing of products and service continue to put pressure of green revolution and legislation**

**(compliance) on UHAS procurement decisions**

☐ Strongly agree

☐ Agree

☐ Strongly disagree

☐ Disagree

☐ Uncertain

**9. Purchase decisions UHAS face challenges with regards to sustainable procurement and called for integrated, approach to design, construction, renovation, and operation**

☐ Strongly agree

☐ Agree

☐ Strongly disagree

☐ Disagree

☐ Uncertain

**10. Sustainable Procurement approach differs from the traditional design/build process, approach differs from the traditional design/build process**

☐ Strongly agree

☐ Agree

( ) Strongly disagree

( ) Disagree

( ) Uncertain

Q11	Effects of sustainable procurement	Please tick				
		NVI- 1	NI- 2	N-3	I-4	V I- 5
a.	Use suppliers that balance procurement activities in a sustainable manner					
b.	Use third sector suppliers where appropriate to promote competition					
c.	Consider paying strict attention to terms and conditions suppliers					
d.	Provide training on employees-health & safety, and flexible working practices, equal opportunities)					
others	sustainable public procurement activities are monitoring					
others						

Q12	challenges in sustainable procurement	Please tick				
		NVI- 1	NI- 2	N-3	I-4	V I-5
a.	Legal framework- enactment of domestic legislation					
b.	Budget systems and accounting practices					

c.	Political commitment					
d.	Technical capacity					
e.	Supply constraints					
F	Sustainable Public Procurement activities are monitoring					
others						

**13. Eco-labels are used to help guide customers in purchasing products with reduced environmental impact at UHAS**

☐ Strongly agree

☐ Agree

☐ Strongly disagree

☐ Disagree

☐ Uncertain

