KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

ASSESSING THE IMPACT OF SUSTAINABLE PROCUREMENT IN PROJECT EXECUTION

 \mathbf{BY}

ALBERTA ADJEI-MENSAH (BSc. PROCUREMENT MANAGEMENT)

A DISSERTATION SUBMITTED TO THE DEPARTMENT OF
CONSTRUCTION TECHNOLOGY AND MANAGEMENT,
COLLEGE OF ART AND BUILT ENVIRONMENT IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE

NOVEMBER, 2018

CERTIFICATION

I hereby declare that this submission is my own work towards the MSc. award and that, to the best of my knowledge, it contains no material previously published by another person or material which has been accepted for the awards of any other degree of the University, except where due acknowledgement has been made in the text.

ALBERTA ADJEI-MENSAH (PG1143817)
Student Name & ID
•••••
Signature
•••••
Date
Certified by:
PROF B.K BAIDEN
(Supervisor)
••••••
Signature
•••••
Date
Certified by:
PROF B.K BAIDEN
(Head of Department)
••••••
Signature
••••••
Date

ABSTRACT

In Ghana, the introduction of sustainable procurement is now certain to receive much more attention, which has even demanded the amendment of the country's Procurement Act (Act 663) to include sustainable requirements such as environmental, social and economic issues of sustainability in public procurement. The research's general objective was to assess the impact of sustainable procurement in project execution with Gold Fields Ghana Limited Foundation as a case study. Specific objectives were to ascertain the important sustainable procurement practices, detect the significant benefits and critical implementation challenges of sustainable procurement in projects executed between 2014 and 2017. The study employed exploratory research design and used questionnaires as its main data collection tool. Purposive sampling was used and 113 respondents were sampled. SPSS was employed to the data analysis and presentation. Findings indicated three important sustainable procurement practices of the Company's thus: giving preference to youth, women, disabled people and rural towns, regularly review/audit processes of systems internally and available ISO 14001 certification achieved by the Foundation. The significant benefits of sustainable procurement identified are a core value in corporate social responsibilities, promote fair trade and ethical sourcing practices and prevent stakeholders' discrimination in favour of suppliers. Critical sustainable procurement challenge identified were lack of government legislation and legal enforcement, absence of sustainable products in the local maeket, lack of adequate budget for internal or external support and high implementation costs of sustainable procurement. The study concluded that, sustainable procurement practices have positive impact and it is therefore recommended to every organization to implement them in the execution of projects.

TABLE OF CONTENTS

CERTIFICATION	II
ABSTRACT	III
TABLE OF CONTENTS	IV
LIST OF TABLES	VIII
LIST OF FIGURES	IX
LIST OF ABBREVIATIONS	X
LIST OF APPENDIX	XI
DEDICATION	XII
ACKNOWLEDGEMENT	XIIIII
CHAPTER ONE	1 -
INTRODUCTION	1 -
1.1 Background to the Study	1 -
1.2 Problem statement	3 -
1.3 Research Questions	4 -
1.4 Aim	4 -
1.5 Specific objectives	4 -
1.6 Significance of the Study	4 -
1.7 Overview of Methodology	5 -
1.8Scope of the Study	6 -
1.9 Organization of the report	6 -
CHAPTER TWO	8 -
REVIEW OF RELATED LITERATURE	8 -
2.0 Introduction	8 -
2.1 The Concept of Procurement	8 -
2.1.1 The Procurement Function	9 -
2.1.2 Procurement Policy	- 12 -
2.1.2.1 Legislative Objectives	- 12 -
2.1.2.2 Ethical and Ideological Objectives	13 -
2.1.2.3 Economic Objectives	13 -
2.1.2.4 Organizational Objectives	14 -
2.2 Concept of Sustainable Procurement	14 -
2.3 Sustainable Procurement Process	15 -
2.3.1 Stages in Sustainable Procurement Process	15 -

2.4 Drivers of Sustainable Procurement Practices	- 17 -
2.5 Benefits of Sustainable Procurement Practices	- 20 -
2.5.1 Summary of Benefits of Sustainable Procurement in Project Execution	- 23 -
2.6 Challenges to Sustainable Procurement	- 23 -
2.6.1 Legislative Backing	- 24 -
2.6.2 Lack of Internal Management Framework	- 24 -
2.6.3 Inadequate Technical and Supervision Capacity	- 25 -
2.6.4 Absence of Societal Drive	- 25 -
2.6.5 Inadequate Monitoring and Evaluation of Procurement Activities	- 26 -
2.6.7 Inadequate Multi-Stakeholder Involvement	- 27 -
2.6.8 Economic and Political	- 27 -
2.6.9 Inflated Initial Cost	- 28 -
2.6.10 Contractors Selection Procedure	- 28 -
2.7.4 Summary of the Challenges of Sustainable Procurement in Project Execution	- 29 -
2.7 Evaluation Practice and Project Execution	- 30 -
2.7.1 Supplier Sourcing Practice and Project Execution	- 31 -
2.7.2 Project Management Practice and Execution	- 32 -
2.7.3 Inventory Management Practice and Project Performance	- 34 -
CHAPTER THREE	- 36 -
RESEARCH MEHOD AND DESIGN	- 36 -
3.0 Introduction	- 36 -
3.1 Profile of the Study Area	- 36 -
3.2 Research Strategy	- 37 -
3.3 Research Design	- 37 -
3.4 Sampling Technique	- 38 -
3.5 Sample Size	- 39 -
3.6 Data Collection Procedure	- 40 -
3.7 Distribution and collection data	- 41 -
3.8 Questionnaire Content	- 41 -
3.9 Respondents	- 42 -
3.10 Ethical Considerations	- 42 -
3.11 Data Processing and Analysis Procedures	- 42 -

CHAPTER FOUR	45 -
DATA PRESENTATION, ANALYSIS AND DISCUSSION	45 -
4.0 Introduction	45 -
4.1 Response Rate	45 -
4.2 Socio-Economic Characteristics of the Respondents	45 -
4.2.1 Gender	46 -
4.2.2 Age	47 -
4.2.3 Educational Background	47 -
4.2.4 Length of Service Experience	49 -
4.3 Sustainable Procurement Practices	50 -
4.3.1 Giving preference to youth, women, disabled people and rural towns	53 -
4.3.2 Regularly review/audit processes of systems internally	53 -
4.3.3 Available ISO 14001 Certification	53 -
4.3.4 Merge the drive, responsibility to combat environmental concerns and	54 -
commitment of sustainable procurement.	54 -
4.3.5 Enhance sustainability in the procurement process regularly	54 -
4.3.5.1 Ensure the use of collaborative projects and framework against	54 -
environmental hazards	54 -
4.3.6 Measure performance against sustainable procurement criteria	55 -
4.3.6.1 Make use of a R&D budget that aims to deliver efficiencies and reduce	55 -
environmental impacts.	55 -
4.3.7 Support the inclusion of all sustainability aspects	56 -
4.3.8 Ensure the need for cost-effective requirements to reduce environmental	56 -
effects.	56 -
4.3.9 Make sustainable procurement commitments publicly for competitive	56 -
advantage and social responsibility reasons	56 -
4.3.10 Develop a bias for projects that disclose environmental effect	57 -
4.3.11 Develop environmental awareness to staff through training	57 -
4.3.12 Establish published supplier engagement programme	57 -
4.4 Benefits of Sustainable Procurement Practices on Projects Execution	58 -
4.5 Implementation Challenges of Sustainable Procurement in Project Execution	63 -
4.6 Improvement on Sustainable Procurement Challenges in Projects Execution	- 69 -

CHAPTER FIVE	72 -
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS	72 -
5.0 Introduction	72 -
5.1 Summary of Findings	72 -
5.1.1 Important Sustainable Procurement Practices Used by Gold Fields Ghana	72 -
Limited Foundation in Projects Execution	72 -
5.1.2 Significant Benefits of Sustainable Procurement in Project Execution	73 -
5.1.3 Critical Challenges of the Implementation of Sustainable Procurement in	73 -
Project Execution.	73 -
5.2 Conclusion	74 -
5.3 Limitations of the Study	75 -
5.4 Recommendations	75 -
REFERENCES	78 -
APPENDIX	- 87 -

LIST OF TABLES

Table 2.1: Summary of Benefits of Sustainable Procurement in Project Execution 23 -
Table 2.2: Summary of the Challenges of Sustainable Procurement in Project 29 -
Execution 29 -
Table 3.1: Distribution of Sample Size 40 -
Table 4.1: Sustainable Procurement Practices 52 -
Table 4.2: Benefits of Sustainable Procurement in Projects Execution 59 -
Table 4.3: Respondents perception on implementation Challenges of Sustainable 65 -
Procurement

LIST OF FIGURES

Figure 2.1: The Procurement Function Framework Veeke and Gunning (1993)	9 -
Figure 2.2: The procurement process (UNDP & UNEP 2011, 4)	- 16 -
Figure 4.1: Gender Distribution of Respondents	- 46 -
Figure 4.2: Age Distribution of Respondents.	- 47 -
Figure 4.3: Educational Qualifications of Respondents).	- 48 -
Figure 4.4: Respondents Length of Service Experience	- 49 -
Figure 4.5: Respondents Level of Awareness on Sustainable Procurement Practices	- 50 -
Figure 4.6: Level of Awareness on the Challenges of Sustainable Procurement	- 64 -

LIST OF ABBREVIATIONS

Acronym Definition

SPSS Statistical Package for Social Science

CIPS Chartered Institute of Purchasing & Supply

NIGP National Institute of Governmental Purchasings

NL AGENCY Netherlands Agency

UNDP & UNEP United Nations Development Programme & United Nations

Environment Programme

OECD Organisation for Economic Co-operation & Development

NGO Non-Governmental Organisation

GPP/SPP Green/Sustainable Public Procurement

KPI Key performance Indicator

EOQ Economic Re-order Quantity

ROP Re-Order Point

ROC Re-Order Cycle

JIT Just-In-Time

IM Inventory Management

GFG Gold Fields Ghana

GDP Gross Domestic Product

LIST OF APPENDIX

Section I: Background characteristics of the respondents	- 9 -
Section II: Assessing sustainable procurement practices in project execution	
	- 9 -
Section IV: Challenges in implementing sustainable procurement practices in projection	ect
execution	91

DEDICATION

This work is dedicated to my Mother (Andriana Barnieh) and Dr. Mrs. Jemima Antwiwaa Ottou for her patience and guidance throughout this dissertation.

ACKNOWLEDGEMENT

I express my profound gratitude to Professor B.K Baiden and Dr. Mrs. Jemima Antwiwaa Ottou, for their recommendations, advice, guidelines and materials support. This study is accomplished because of their consistent assistance and dedication.

My unreserved gratitude goes to Goldfields Ghana (Project/Programs Department) for providing me with all the relevant information needed for my study.

Finally, I am grateful to my Boss, Mr. Jimmy Kingsley Davies who recommended this course (Project Management) to me. My mother, Ms. Andriana Barnieh, and brother Albert Adjei-Mensah who supported me in devises way throughout this programme.

Thank you for believing in me.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The concept of Sustainable Procurement was initially identified in (2002) at the UN World Summit on Sustainable Development in Johannesburg. Walker and Wendy (2006), defined sustainable procurement as the process whereby the objectives of the supply chain involve not only sustainable development objectives but also attention is given to the social, environmental and economic impact of the process on the community. Simply, sustainable procurement implies the acquisition procedure where the need for goods and services, in a way, achieves value for money on a whole life basis for organizations in respect of creating benefits to the organization, the society and the economy, whilst minimizing damage to the environment are met. Hence, ensuring effectual sustainable procurement considers the effect of the procurement process on the community, environment, and the social effect on those delivering the product as well as the end users of the product or service.

According to *Betiol* et al. (2015), the procurement of supplies and services possibly cost for 50% of a firm's expenditures. These researchers further ascertained that, the private sector remains with greater ability to influence the market. According to Kurtz and Boone (1993), the basic principles of procurement are more significant for cost control as a replacement for the rigid rules to help protect the public and its citizens against abuse.

However, Sarpong (2007) arguments that, procurement can be seen as the management of justifiable acquisition of goods, works and services needed to enhance value for money for public and private organizations through a professional, auditable and

transparent framework. Hence, a good procurement practice entails an efficient and effective, competitive, ethical and fair, as well as transparent management. By means of achieving fairness and ensuring that all participating bidders are given equal procurement opportunity to bid, the integration of these features possibly will ensure that the procurement process is devoid of all possible practices leading to conflict of interest.

According to Ameyaw and Mensah (2012), it can be pinpointed that sustainable procurement encompasses across the span of outdated cost-effective factors which involve interrelated decisions on life-cycle costs, related ecological and societal threats and welfares, but also wide-ranging social and environmental inferences on procurement. Borland (2009) conceptualizes sustainable procurement to include planetary, environmental, financial and social /cultural considerations. In addition, Sustainable Procurement processes ought to result in the matching economic growth, social development and environmental safety against business needs.

Organizations that seek to maximize net benefits for themselves and globally reason on practicing sustainable procurement through the private cost-benefit analysis. In doing so, these organizations with more carefulness integrate extrinsic expenditure reflections into all resolutions together with the conformist procurement standards including value and quality. However, the sustainable influences of a potential contractor's method remain frequently evaluated by a standard of quality concern of which these usually involves considering the ecological, cost-effective and societal factors.

Universally, pursuing sustainability in procurement is trendy in the global communities, nations, and local establishments across all sectors and civil societies. Simply, sustainable procurement is related to every all sectors in a country, and positively, promoters' desire is to acknowledge its implementation whish span across nations

because of the available information on the internet for every organization demanding to increase performance sustainability.

1.2 Problem statement

Sustainable procurement is an emerging trend accepted and adopted by few organizations in the execution of projects to encourage the propagation for justifiable goods and services. Meehan and Bryde (2011), define sustainable procurement as the acquisition of supplies and services that safeguards minimum impact on humanity and the atmosphere all through the full lifecycle of the product. However, further investigation regarding orderly arrangements of these sustainability practices in enhancing business value creation is a major concern. It is factually uncertain to ensure that the economic, social and environmental elements relate optimally particularly on decisions regarding procurement and it execution purposes.

In order to evaluate the direct or indirect impacts of sustainable procurement practices on an organization's productivity level, a performance measurement mechanism that can be used. However, lack of this performance evaluation method to some extent denotes why some businesses deny the total acceptance of sustainable procurement practices in their operations. Dr. Jolien Grandia a lecturer at Erasmus University has examined sustainable public procurement in several research projects; among them is a "sustainable public procurement in Belgium". She concluded that it is difficult to give an overview of how the Belgian government is applying sustainable procurement; this was because the Belgian public organizations have not developed sustainable procurement policies through the use of environmental labels, driving the climate targets through rules and regulations.

1.3 Research Questions

- 1. What are the sustainable procurement practices used by Gold Fields Ghana Limited Foundation Projects?.
- 2. What are the significant benefits of sustainable procurement in project execution?.
- 3. What are the critical challenges of sustainable procurement in project execution?.

1.4 Aim

The aim of this dissertation is to assess the impact of sustainable procurement in project execution at Goldfields Ghana Limited Foundation Projects.

1.5 Specific objectives

- To identify the important sustainable procurement practices used by Gold Fields Ghana Limited Foundation Projects.
- 2. To identify the significant benefits of sustainable procurement in project execution.
- 3. To identify the critical challenges of the implementation of sustainable procurement in project execution.

1.6 Significance of the Study

The results of this study will positively impact both the public and private businesses in Ghana, the academic world, and other stakeholders. Firstly, the study will help to identify the factors, which hinder the implementation of sustainable procurement and suggest measures to eliminate barriers so that firms will realize the benefits of implementing sustainable procurement.

The findings will provide policymakers, stakeholders and other individuals and groups like consultants who have an interest in the implementation of the sustainable procurement with information regarding its effects on financial management. Knowledge about the integration of social and environmental factors in the procurement system can aid public entities to demonstrate responsible governance.

Furthermore, the results of this study are anticipated to encourage professionals in both public and private sectors to be prepared to deliver better value for money to meet environmental, social and economic goals that will eventually drive wealth creation. This will be derived from the financial savings over the lifetime of a product as well as the reduction in cost for societies as a whole. Beyond serving as a point of reference, the conclusions and recommendations of this study will instigate the quest for academic institutions, researchers, and students to explore the future-oriented theories evolving sustainable procurement in project execution.

1.7 Overview of Methodology

Relevant literatures were reviewed for this study. Data was collected from, top management, tender committee members, supply chain staff ,some of the company's registered suppliers and other stakeholders across all projects executed by the company. A close-ended questionnaire approach was used in collecting data. A self-structured questionnaire was purposively distributed to the above stakeholders.

The study adopted exploratory research method, this was considered appropriate because exploratory research addresses all the research questions as well as to provide a prospect for defining new relationships and clarify existing concepts.

Again, this method was chosen because the research aimed at revealing the critical benefits and challenges of sustainable procurement in project execution by means of a case study at Gold Fields Ghana Limited Foundation.

Finally, SPSS was employed for the analysis of data obtained from the selected stakeholders.

1.8Scope of the Study

The study focused on sustainable procurement in Gold Fields Ghana Foundation Limited. Hence, it studied only projects executed by the foundation between 2014 and 2017.

1.9 Organization of the report

The study was organized in five chapters. The present chapter discussed the general introduction to the study. This chapter included the background of the study, problem statement, relevant research questions and research objectives, scope of the study, the research methods and design, the significance of the study and the structure of the study. Chapter two focused on the review of literature that relates to the present study on sustainable procurement in projects execution. It aimed at ascertaining the extent of the problem identified in chapter one which entails recognizing and tapering the research questions.

Research methodology, which presents the analytic framework of the study, was chronicled in Chapter three. Based on the research problem, theoretical and methodological constructs were devised to address the research problem. The methodological strategy employed in the study was introduced and justified; whilst the processes of data collection and their administration was presented in this chapter.

Chapter four basically entailed descriptive statistics including short tables, write up on each set of result and discussion of findings in relation to each of the research question. Finally, Chapter five consists of the summary of findings, conclusions, and recommendations drawn aimed at addressing the established specific objectives of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter seeks to review the prevailing literature on the concepts of sustainable procurement practices and its impacts on projects execution, and the challenges affecting the implementation of sustainable procurement on projects execution. It also delves into the empirical review of existing literature relevant to achieving the research objectives.

2.1 The Concept of Procurement

Procurement is the process of obtaining supplies and services through the preparation and processing of requisition to receipt and approval of the invoice for payment. This commonly involves purchase planning, standards determination, specifications development, supplier research and selection, value analysis, financing, price negotiation, making the purchase, supply contract administration, inventory control and stores, and disposals and other related functions. Simply, procurement is the business management function that ensures identification, sourcing, access and management of the external resources that an organization needs or may need to fulfil its strategic objectives. Procurement exists to explore supply market opportunities and to implement resourcing strategies that deliver the best possible supply outcome to the organization, its stakeholders and customers.

According to Lyson (1996), procurement in organizations may be expounded as a role in the organization responsible for the acquisition, contract or other legal means, tools, supplies and services required by the organization in satisfying wants. In other words, procurement entails the overall purchasing functions such as acquiring tools, supplies

and services considering the right quality at the right quantity and price from the reliable source delivered to attain organizational objectives. Therefore, this entails the procedure of finding, agreeing terms and acquiring goods, services or works from an external source, often via a tendering or competitive bidding process.

2.1.1 The Procurement Function

Conferring Veeke and Gunning (1993) the procurement function in an organization is a framework that seeks to create a better perspective for all procurement activities. They asserted that this framework perfectly defines and ensures the public procurement function. According to Harink (2003), the procurement function exceeds its process. Harink (2003) argued that, it contains all the essentials that influence the procurement policies, procedures, methods, government employees and key performance indicators. The framework adopted by Harink (2003) is presented below.

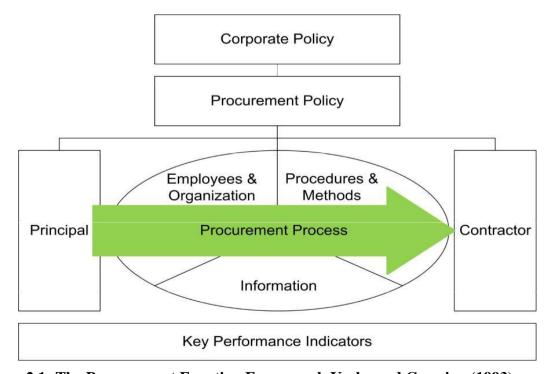


Figure 2.1: The Procurement Function Framework Veeke and Gunning (1993)

According to Harink (2003), the corporate and procurement policies provides the path for the procurement function. As such, these policies define the general objectives of the procurement function such as, job creation, maintain or improve economic prosperity or stimulate sustainability. These objectives are vital to influence all administrative decision making processes of which procedures are properly arranged for every action to be taken by management. Specifically, the procurement policy set out standardized goals, techniques and relevant legislation for the procurement process. In effect, the corporate policy objectives are expounded into the procurement policy. Hence, organizations with sustainability desires set objectives to execute sustainability in the procurement process of supplies and services as these are normally found in the corporate level.

Furthermore, the procurement process creates a business relationship between a principal and a contractor. In this case, the principal usually function to adopt governments or departments within an organization, who need products, services and works. On the other hand, the role of contractor is the organization to deliver products, services and works. According to Harink (2003), the principal, in this case, keeps in mind the objectives and goals for the procurement process as they comply with the ability of contractors to live up to expectations.

As a matter of fact, a series of sequential activities are carried out in the procurement process. In effect, different functions are assigned to several employees within the organization. For the procurement of civil construction projects, several departments take part in the activities. For instance, all departments such as design, construction, maintenance and operations play a role in the procurement of construction project. According to Harink (2003), the interaction between these departments influences the effectiveness of the procurement process. As such, the organization can designate strategies and procedures for this interaction in the procurement policy.

Hence, in order to carry out procurement activities, the organization should give guidance on all available procedures and methods. This includes the different types of contract, contractors' selection procedure, and approaches for awarding contracts as well as all relevant guidelines and protocols applicable to the procurement process. According to Harink, (2003), when the available procedures and methods are properly followed, the efficiency of the procurement process increases. Again, Harink, (2003) asserts that the information systems assist the procurement process, by providing all the necessary information to carry out the procurement activities. In most Non-Governmental Organization in Ghana, the use of information systems is still limited. However, actions are being implemented to stimulate the use of information systems in the procurement process. These actions involve the online distribution of documents to contractors, like the program of requirements. This action must be carried out with great caution though, the distributed information is usually confidential.

Lastly, in order to assess the procurement function, the Key Performance Indicators need to be employed. This is because the Key Performance Indicators compute the procurement policy objectives. According to Harink (2003), the efficiency of the procurement function can be identified when the procurement policy objectives are measured and compared to the actual performance. Again, Key Performance Indicators influence all elements in the procurement function. The way in which procedures are used, or the communication with the suppliers is carried out are some of the issues which are indicated.

2.1.2 Procurement Policy

As formerly stated, the corporate policy directly proceeds the procurement policy. Kamann (2007:131) states that the policies surrounding the procurement process should be in line with the policies of the total organization. On the other hand, Rozemeijer (2000:14) avers that the development of procurement strategies contribute to achieving the corporate policy objectives. Therefore, in the light of sustainable policies, these statements affirm that sustainable procurement contributes to achieving an organization's overall sustainability ambitions.

In effect, because managements are spending organizational finance, they are under obligation to validate the procurements made. Therefore, according to Kühler (2003), procurement process therefore has to be justifiable and auditable. It is believe that, by mounting both a corporate and a procurement policy, management can give the autopsy on these recommendations. As such, the policies describe what objectives, prerequisites and procedures will be used in the procurement of supplies, services and works. In literature, objectives are.

There are four different procurement policy objectives namely; the legislative objectives, the ethical and ideological objectives, the economic objectives and the corporate objectives. According to Kühler (2003), these distinguished procurement policy objectives together form the aspects, which are important to the management for procurement activities.

2.1.2.1 Legislative Objectives

In the procurement process, determining which procedure to be used is properly described by the legislative objectives. In this case, three basic legislative principles should comply with the organizations' procurement policy. According to European

Union (2004), these principles ensure that the procurement policy objective is transparent, non-discriminative and proportional. The first three principles entail that the awarding of a contract has to be unbiased; this means that the principal has to be able to explain his decision for either one of the project proposals (Ministry of Economic Affairs 2006). The last principle (proportionality) entails that the criteria, which have been set for the procurement process, have to be both related to and necessary for the construction assignment (Ministry of Economic Affairs 2006).

Hence, the organization describes in the procurement policy all the rules and regulations to be employed as a means to comply with these procurement principles.

2.1.2.2 Ethical and Ideological Objectives

With ethical and moral aims in procurement policy, Management can express the values and beliefs, which are important to the procurement process, with ethical and ideological objectives. This is because organizations have a social responsibility towards the community they serve. This responsibility will have to become evident in the procurement policy. In effect, the organization can define objectives for corporate social responsibility and sustainability in the procurement process. Integrity demands can also be described for the procurement officers. According to Kühler (2003) to ensure consistency in the procurement activities, codes of conduct should be given.

2.1.2.3 Economic Objectives

The economic objectives entail the way in which the construction market is approached. The level of competition is determined, to decide which procedures will be used for the tendering phase. This decision depends on the scale and volume of the procurement. For the Non-Governmental Organizations, several procedures and methods may be available

for the qualification of outworkers and the awarding of the contract. Therefore, organizations can state which procedures will be used for which type of projects.

2.1.2.4 Organizational Objectives

The organizational objectives give the necessary foundations of the procurement function. In this case, organizations describe standard operational methods to carry out the procurement process. According to Kühler (2003), the allocation of responsibilities for the procurement process should be described to perfectly comply with the organizational structure.

2.2 Concept of Sustainable Procurement

The most regularly cited definition for sustainable procurement originates from the United Kingdom Sustainable Procurement Task Force and coherently builds on the study concept. The Task Force defines sustainable procurement as "a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy whilst minimizing damage to the environment" (DEFRA 2006, 10). Sustainable Procurement (or Green Procurement) involves spending and investment process typically associated with the wider agenda of sustainable public development, although it is equally applicable to the private sector. Enormously, traditional procurement has focused on value for money considerations only whilst sustainable procurement involves achieving value for money on a whole life basis by considering the economic, environmental and social issues having to do with the goods and services bought, with an aim of reducing possible extreme effects.

2.3 Sustainable Procurement Process

In achieving sustainable procurement objectives can be exerted at the start of the procurement process. During the preparatory stage of procurement, the basic principles governing the entire procurement process are established: what to buy and how to buy NL Agency (2011). Therefore, in preparing for the procurement process, Sustainability strategies include sufficiency, consistency and efficiency should to be applied to identify potential sustainable procurement options Schaltegger & Petersen (2010).

The sufficiency strategy means that the need should be identified to avoid unnecessary purchases. The consistency strategy relates to the level of innovation to deliver sustainable solutions. Market research should be conducted to determine if new technologies, new products, new innovative suppliers or advances in sustainable business. In effect, concept for mainstreaming sustainable procurement process in developing countries practices could meet the operational requirements in projects execution. The efficiency strategy refers to maximizing process efficiency. A good way to use an efficiency strategy is to establish a procurement cooperative to bring similar purchasers together or use framework agreements to leverage environmental, social, and technical and market knowledge. The efficiency strategy might also support increased supplier diversity. For example, contracts can be divided into smaller lots to make public procurement more accessible for small and medium enterprises.

2.3.1 Stages in Sustainable Procurement Process

Generally, organizations' procurement process itself can be grouped into four main stages. The first stage is to define the requirements of the project. The next three stages are to select suppliers and service providers, evaluate tenders and award the contract, and contract implementation including performance and relationship management.

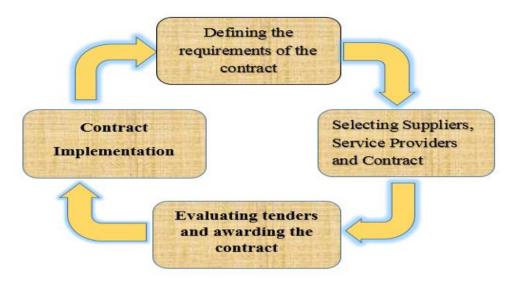


Figure 2.2: The procurement process (UNDP & UNEP 2011, 4)

The use of sustainability criteria requires judgment on behalf of the buyer. Each procurement need has different sustainability impacts, and each country or organization has different sustainability priorities, goals and legal frameworks. There is no standard blueprint for a sustainable community procurement process. The following is a compilation of opportunities that have emerged in Europe (European Commission 2010; Berry 2011; Deutscher Städtetag et al., 2009). This generic sustainable procurement process should be adapted to the national legislative and regulatory sustainable procurement framework of each developing country, and more specifically, organization where sustainable procurement is implemented.

Again, the procurement process is viewed as involving sourcing (planning: needs identification and assessment, supplier selection) contracting, monitoring and evaluation, and expediting; based on the model definition by Telgen et al., (2007b). Sustainable procurement is about the process of purchasing goods and services that considers the social, economic and environmental impact that such purchasing has on people and communities. This could include anything from office supplies, to project materials, to the services of project coordinators and collaborators. Hence, sustainable procurement is

everything associated with an incoming invoice. Procurement is one way in which companies interact with one another and it could be considered that the actions of a company are only as sustainable as those of its suppliers. The concept of sustainable procurement draws attention to the responsibility of a company for activities outside its own boundaries Meehan and Bryde, (2011).

Sustainable procurement has received significant attention in both the public and private sector. It is seen as a way to meaningfully reduce the environmental burden of an organization's core operations, as well as an opportunity to promote sustainability principles Lyons, (2000). When carefully designed and implemented, sustainable procurement initiatives can improve efficiencies, potentially reduce costs and create competitive business advantages as society moves toward an expectation of sustainability Fitzgerald et al.(2007). Sustainable procurement management has been defined as "a business philosophy that strives to integrate the dependent activities, actors, and resources between the different levels of the points of origin and consumption in channels" Svensson, (2007).

2.4 Drivers of Sustainable Procurement Practices

According to Stephen and Walker (2007), there are significant dissimilarities across public sector agencies in the context of sustainable procurement practices. They put forward that, authorities are for the most part vigorous on procuring from local and small providers relative to other sectors. Private industries, on the other hand looks commonly lower in many categories and education give the impression to have something of prominence on environmental aspects of sustainable procurement.

Explicitly, sustainable procurement practices are implemented through various approaches by way of project lifecycle concept of which the cycle starts at the designing

of product. Srivastara, (2007), asserted that, in designing a project, the designing team possibly can change the raw materials used during the execution face to be less poisonous, and more environmentally friendly.

It can be deduced from Helen (2010) that, managements have opportunity of using its procurement spend and power to motivate the development for sustainable products and services. Hence, she recommended that organization should do much in regard to regulating the environment that encourages, empowers businesses to device sustainable procurement practices by use of policy tools such as regulations and provision of tools and information. She further suggested that governments should consider embracing strategic approach that would integrate private sector procurement requirements.

Belfitt et al.(2011) confirmed that companies are compelled to look at their procurement practices at least to meet the specifications of legislation and project execution plan when they are legally required to purchase sustainably. McCrudden (2004) contended that, organizations using their power implanted in procurement activities ought to foster social and ecological policy goals. This can be achieved in the private sector by placing distinct stress on the significance of national policy on the subject of sustainable procurement. As such, it can be assisted by reasons that surround organizational setting ensuring effectual execution of solid policy and legislation on sustainable procurement.

Generally, with reference to many private entities in Ghana being purchasers, they have a role to play in embedding and promoting sustainable procurement. This is by means of ensuring that these entities buy more sustainable and efficient products to promote sustainability in all project executions. For this, Belfit et al. (2011) observed market differentiation as a driver that encourages companies to adopt sustainable procurement practices. They purported that, companies that have opportunity to market itself for a

completely sustainable procurement to arise, the company always opt to capitalize on these prospects to attract business from customers who value this.

Presently, competition among companies has been perceived at cut throat; very high and intense, and making it span across the traditional principles of price, quality, reliability, accessibility among others to greener issues. Hence, in attracting more clients, companies make themselves standing out from others and making sustainability the latest trend in the business community.

Again, increased stakeholder expectations and awareness generates greater pressure on organizations to consider the environmental, economic and social aspects of business and to implement sustainable initiatives. In this case, organizations recognize the need to foster stakeholder goodwill and proactively and effectively address expectations and concerns in regard to sustainable procurement. A company therefore needs to address environmental issues to satisfy its customers and retain them. Koplin et al.(2007) discussed brand reputation and image suggesting that focal companies are held responsible for the environmental and social impacts of the entire procurement and indeed this is true with companies who possess strong brands. However, the impact of this will rely heavily on impact of brand image as circumvent negative brand attention and direct positive attention to their brands through sustainability purchasing initiatives. Jonas and Tom (2014) aver that, a company's standing and brand image become critically reliant on the insertion of sustainability in procurement decisions especially with strong media attention and increasing alertness between consumers on the significance for sustainability initiatives. The researchers added that, companies are now very careful in the implementation of sustainable practices during the course of their procurements and in fact, these organizations dread being caught on unethical or illegal practices. Generally, company is a driver from within and that, an organizational policy that pledges and targets an expression of the culture, values, and vision by which the firm operates are reinforced by procurement and reflected in procurement policy, strategy objectives, business practice and decision making.

According to (CIPS and NIGP 2010), risk factors are also considered in practicing sustainable procurement. They suggested that significant sustainability impacts are identified and addressed as part of any comprehensive risk management strategy in procurement practices and such risks may include legal risks, financial liabilities, and moral/ethical risks, security of supply risks, price volatility risks and risks to reputation. Hence, an organization's risk profile continues to evolve based comparatively on the rapidly moving situations and the increasing public awareness and appetite for sustainable solutions.

2.5 Benefits of Sustainable Procurement Practices

Mostly, there are many benefits which are conjointly reinforced by the use of sustainable procurement practices. For instance, the green technologies are said to generate economic benefits such as wealth creation, social benefits such as employment and skill development and environmental benefits such as efficient use of resources.

Basically, sustainable procurement openly contributes to economic effects such as cost savings and job creation. Mostly, efficient implementation of procurement of goods and services reduces operating costs. For examples, this can be achieved by means of a minimal annual operating and maintenance costs; re-examining requirements and identifying apposite challenges; reduced life expectancy disposal costs and impacts; as well as motivating procurement efficiency and developing market competitiveness through innovation and capacity enhance achieving capital procurement (Queensland Government Chief Procurement Office, 2012)

According to Kotler and Armstray (2004), most customary companies are umpired by clients in regards to supplies quality, level of providing customer solutions and the degree of fairness. Nonetheless, companies of today are mostly measured and adjudged according to societal ethics and contributions. It can also be acknowledged from Lemmet (2012) that, a number of direct and indirect economic impacts such as support to small business activity, reducing unemployment, providing employment to disabled individuals and support to backward areas in a country, promoting gender and ethnic equality, and tax benefits are linked to sustainable procurement for societal benefit.

Again, the Queensland Government Chief Procurement Office (2012) advances that, fair trade and ethical sourcing practices; promoting workforce welfare such as health and safety; building and maintaining healthy, strong communities, support social inclusion and enhancing wellbeing of local residents by generating local employment are also some of the societal impacts from sustainable procurement.

Again, transparency in sustainable procurement is aimed at preventing stakeholders from concealing discrimination in favour of suppliers. As indicated by Arrowsmith (2003), transparency supports probity, fraud and discretional abuse prevention, as well as preventing covert discrimination. Falvey et al. (2007) also opined that transparency entails identification and verification of clear rules for procurement procedures. Hence, factors essential for transparency in sustainable procurement regime includes informing all participants about the procurement rules, publicizing procurement opportunities to enable participation of all possible interested suppliers, and providing the opportunity to scrutinize decisions and to enforce adherence to procurement rules. It can be conferred from Arrowsmith (2003) that, transparency enhances the ability of foreign firms to bid for projects even if there is no intended discrimination. The perception of transparency is vital in enticing significant number of bids whilst increasing antagonism OECD, (2006).

By and large, the primary central code of many organizations is the creation of the best value for money. Hence, the framework of the procurement strategies within organizations involves obtaining "best value for money" over and done with project selection which offers the optimal combination of development costs and profits, which meet the organizations' desires. Furthermore, this can also include social, environmental and other strategic objectives defined in the procurement plan or financial regulations. The concept of best value for money remains functional at the award stage to select the proposal that meritoriously bump into the stated requirements. Again, the pursuit of refining the corporate image is another major factor that drives many companies to improve sustainability practices in the project execution process and procurement. According to Seuring and Müller (2008), organizations are more careful when they are held accountable for the social and environmental impacts of their activities. Dobers and Wolff (2000) also suggested that, the effect benefits of the organization's image derived from projects execution essentially drives the firm to implement sustainability. Lastly, market differentiation plays a major role in motivating firms to undertake sustainable procurement practices. When organizations perceive the implementation of sustainable procurement practices as an opportunity to market business activities, they will implement it without hesitation.

2.5.1 Summary of Benefits of Sustainable Procurement in Project Execution

Table 2.1: Summary of Benefits of Sustainable Procurement in Project Execution

No. Benefits of Sustainable Procurement Source

- 1. Generate economic and social benefits Queensland Government Chief Procurement Office (2012)
- 2. Cost savings and job creation. Lemmet (2012)
- 3. Reduced life expectancy disposal costs and impacts Queensland Government

 Chief Procurement Office (2012)
- 4. Minimize annual operating and maintenance costs
- **5.** Enhance Transparency *Arrowsmith* (2003)
- **6.** The perception of transparency is vital in enticing OECD (2006) significant number of tenders and increasing competition.
- 7. Refine corporate image Seuring and Müller (2008)
- **8.** Opportunity to market business activities *Dobers and Wolff 2000*)
- 9. Green technologies benefits Queensland Government Chief Procurement Office (2012)
- **10.** Reduces operating costs Lemmet (2012)

2.6 Challenges to Sustainable Procurement

Notwithstanding the immense benefits that accompany the implementation of sustainable procurement practices in an organization, a number of hindrances have been observed. Few of these challenges are conferred below.

2.6.1 Legislative Backing

In Ghana, for example, although there is a Public Procurement Act, the Act has no section addressing issue on sustainable procurement practices in the private sector to ensure value of money. There exist no standard procurement policies permitting the integration of sustainable development practice within private procurement. Hence, there are extensive uses of criteria and ratified discriminatory procurement rules that are called for sustainable procurement practices among organizations.

In addition to the above, implementation of sustainable policies can only work when they are incorporated in the procurement policies of the organization. Morgan (2010) opines that, instances where the organization's project supervisors anticipate discrepancy between duty pressures and the firm's procurement strategies, their commitment to sustainable procurement stands low.

2.6.2 Lack of Internal Management Framework

Another factor affecting sustainable procurement is the absence of support from existing top managerial executives in enhancing procurement activities towards sustainable procurement. This could arise from lack of employees' motivation to enhance sustainability operations. Actually, employee insolence which results mostly from employees detecting subjected extra duties contributes to weaken organization's effort greatly.

On the other hand, this can be influenced by the requirements of key stakeholders' opinions which may coerce the firm to change it practices. This occurs when management perceive that the positive gains of making sustainable procurement decisions do not benefit the organization. According to Mensah and Ameyaw (2012), the absence of internal management structures affects sustainable procurement, such that,

organizations face hitches in its implementation, since sustainability demands intricate and modernized structural systems like quality control systems.

2.6.3 Inadequate Technical and Supervision Capacity

In developing countries like Ghana, instance for the integration of technical and management capacities in sustainable procurement need to be much further explored and developed. Inferring OECD (2007), decent procurement practices are not clearly available and defined, making it extremely difficult and expensive for organizations to fulfill global standards of sustainability. Such situations have been attributed to the outmoded practices where standardization procedures are not promoted to improve quality and traceability to enable cutting losses. Again, the actors in sustainable procurement in developing countries need to further develop management skills to strengthen their position. Inadequate education systems imply shortage of managers who can both manage the procurement processes and understand the technical aspects of its sustainability.

However, to improving procedural and administrative capacity for increased sustainable development demands for investments in talent Lacy et al. (2009). These researchers coined that; firms must invest in helping employees desire to make a positive difference in their organization, communities and the world.

2.6.4 Absence of Societal Drive

An external force, such as demand for quality and preferments by public demand for sustainability and safety, militates sustainable procurement. There has not been adequate press from the media to bring problems to public attention firms to be socially and environmentally responsible towards sustainability. Helmsing and Knorringa (2008)

opine that, private actors have not become involved in the NGO's policy development nor do they influence monitoring and evaluation systems to ensure sustainability in the procurement process as means to fulfill corporate social responsibility.

2.6.5 Inadequate Monitoring and Evaluation of Procurement Activities

According to Hunja (2003), better procurement practices entails erecting systems that will promote effective monitoring and evaluation (M&E) at various stages of the procurement management processes. Azeem (2007) presupposes that, beginning the requisition stage requires that some evaluation ought to be directed to evaluate the genuineness of the demand. Also, the pre-bidding stage ought to be monitored to ensure that malefactors did not have their way with the process. Whilst opening of bid document demand M&E exercises to ensure that nepotism and favouritism do not disrupt the fairness of the projects execution, the project award process, and the initial mobilization all requires monitoring. M&E in projects execution seeks to ensure that target levels are attained. Unfortunately, most projects lack the requisite M&E structures leading to serious compromises in the conduct of procurement management services.

2.6.6 Poor Planning and Budgeting

Planning, according to Daft (2006), is an integral component of strategic management and that, all administrative functionaries uphold the virtues of planning. Generally, most procurement activities are linked to the budgetary provisions and therefore unbudgeted items cannot be procured. This situation often leads to some important requisition items not being met. In such instances, firms possibly will be required to generate funds internally from stakeholders and unfortunately, these sources of funds are not enough to budget on. Again, procurement officials may not be given adequate time to implement

the procurement processes necessary to ensure that value for money principle is upheld in the procurement processes.

2.6.7 Inadequate Multi-Stakeholder Involvement

According to Boomsma (2008), it can be established that sustainable sourcing needs involvement of multi-stakeholder processes. It is important to involve other stakeholders including professional researchers, the government and other supporting agencies to improve sustainability. In effect, these actors accumulate different understandings of value chain development as well as many expectations and approaches on sustainability. But, to create synergy among these differences requires managing conflicts and interest in order to ensure that all actors gain. However, Edelman (2009) acknowledged that, massive corporate failures and malfeasance have further eroded stakeholders trust in business.

2.6.8 Economic and Political

Sustainable procurement practices are often alleged as more inflated which leads to management's pressure to procure the inexpensive goods and services. For instance, the higher opening cost of investments for sustainable supplies, constricted finances with unbending systems and some related accounting practices often pose an additional financial burden. Furthermore, the inability to ascertain a comprehensive and adequate information on lifespan cost of products and the relative cost of ecological friendly products and services emerge as barriers to sustainable procurement.

Politically, lack of adequate general responsiveness of the benefits of sustainable supplies and services often instigate lack of assurance to ensure its implementation. Accordingly, conflicting priorities can result in a lack of alignment of sustainable

procurement policies with national development objectives or procuring entities' organizational goals.

2.6.9 Inflated Initial Cost

In addition to the fact that impending demand for sustainable procurement has not been fully discovered for individuals' immature ecological consciousness, Ning *et al.* (2003) stated that the initial higher cost of sustainability in conventional buildings which is limited by the design and technology level is one of the significant challenges that face practice of sustainable procurement. These researchers concluded that the propagation of sustainability in market needs the participation and cooperation of all the interest groups involved beginning from the end-user, the project workers to the government. This buttresses the need for multi-stakeholder approach as remarked earlier.

2.6.10 Contractors Selection Procedure

Selecting contractors for a project tender possibly undergo some procedures. Mostly, management are able to decide proclaiming project tender openly through either the print or the electronic medium. According to Pries, Keizer *et al.*, (2006), contractors who are found to be interested in a construction project are required to put in their offers based on project specifications, and that, the principal chooses one of the available proposals and awards the contract to one of the contractors. This procedure can be carried out in a traditional way where the principal specifies the projects' specifications into detail. Hence after, the awarding of the contract can be carried out by using two assessment methods; either with lowest price tendering, or in a more innovative way where the projects' specifications have a more functional character and the awarding of the contract is more value based.

In Ghana, as much as development agencies seek to fulfill their social responsibilities in the event of sustainable procurement, possible challenge that is envisage in the procurement domain of the country relates to how stakeholders can be able to identify from the early stages of procurement. It is believed that, in order to know who is required to assign responsibilities and accountability as far as sustainable procurement practice is concerned, stakeholders involvement in sustainable procurement processes be well defined.

2.7.4 Summary of the Challenges of Sustainable Procurement in Project Execution

Table 2.2: Summary of the Challenges of Sustainable Procurement in Project

Execution

8. Political challenges

9. Inflated Initial Cost

10. Contractors Selection Procedure

No. **Challenges of Sustainable Procurement** Source 1. No Legislative Backing Personal Observation 2. Lack of Internal Management Framework Mensah and Ameyaw (2012) **3.** Inadequate Technical and Supervision Capacity OECD (2007) 4. Absence of Societal Drive Helmsing and Knorringa (2008) Inadequate Monitoring and Evaluation of Hunja (2001) **Procurement Activities 6.** Poor Planning and Budgeting Daft (2006) 7. Economic challenges OECD (2007)

Keizer et al. (2006)

OECD (2007)

Ning et al. (2003)

2.7 Evaluation Practice and Project Execution

According to Lyons and Farrington (2012), a procedure denotes as a system of successive steps or techniques for completing a task. This implies that procedures are recognized arrangements of which policies involving strategies are implemented. Lyons and Farrington (2012) further clarify that a system is a cluster of reliable procedures of which each comprised interrelated number of operations enabling staff to execute and managers to control those operations by the provided information. Therefore, Burt et al, (2014) argues that procedural procurement ensures orderliness and efficiency in any procurement department. They further added that, in line for the considerable amounts of money spent annually in the public sector, bureaucratic procurement process becomes vital.

The scope in planning refers to the period in which a budget covers and this becomes crucial on how the budget is drawn either for long term project or short term. This assists in planning for activities and ascertain how the subsequent year might change and the appropriate steps to be taken to respond to the changes. As such, budgeting procedures for procurement involves various steps before arriving at the final budget. The process usually starts at various departments depending on the department needs for the approaching financial year. The budgeting process is then developed to a mister's budget that is developed by the management. This process must be followed to make the employees own the purchasing budget allocation (CIPS, 2012).

Adell, Esquerra and Estevan (2009) indicated that needs assessment encourages innovation through procurement. They further found that need assessment provides transparency and clarity during procurement process and guarantee the product quality by the third-party certification. They further pointed out in their report that most countries which included Spain, UK, Denmark, Portugal and Sweden that participated in

procurement assessment have a Green/ Sustainable Public Procurement (GPP/SPP) strategy or action plan.

A Green/ Sustainable Public Procurement (GPP/SPP) strategy or action plan minimizes the environmental impacts purchasing. However, the level of commitment varies from one organization to another. Customer request, legal requirement, market demand, and business needs are the fundamental approaches of setting project performance process. A well-defined project can reduce the risk of changes and delay during project scope definition. Fageha and Aibinu (2014) argue that, a scope definition can be achieved with effective needs identification which can alleviate the risk of inadequate design that can lead to expensive changes or even project failure.

2.7.1 Supplier Sourcing Practice and Project Execution

In Ghana, a formal procurement assessment or appraisal is required to determine performance during public purchasing process. Inferring Sollish and Semanik (2007), the performance of the public Procurement process may yield direct or an indirect impact depending on the objectives, goals, expectation and customer satisfaction. Hence, the primary aim to be considered during the procurement process is identifying the specific needs, how payments are to made and a review of the whole output Emmert and Crocker (2008). Public sector procurement procedures in Ghana has a direct correlation with the running of set targets that are achieved. Precisely, there are laid down procedures in Ghana's Public Procurement Act 663, of 2003 that provide guidance on the period, value, supply time and availability rate of the product which are crucial to the vital performance of the functions of purchasing.

According to Kumaraswamy and Anvuur (2008), deciding on a capable and reliable project contractor is one of the greatest problems consumers who wish to achieve project

success face. Consequently, many researchers (Lam et al., 2011, Eriksson and Laan, 2007; Malmberg, 2007) have identified that, many diverse factors such as technical competence, cost, management aptitude, preceding experience, the object of reference, ecological and quality management systems, financial solidity and concerted skills are included in bid assessments.

Koh et al. (2007) aver that some bodies have measured the procurement practices to be similar to the supply chain management practices which is the set of activities undertaken by an organization to promote effective management of its supply chain. Hence, Wong et al. (2015) argue that in order to satisfy clients in effective way, an approach to integrate managing and coordination of supply and demand relationships ought to be applied during procurement. As such, an approach to involve suppliers in decision making, encouraging information, sharing and looking for new ways to integrate upstream activities is applicable.

Furthermore, during the negotiating process, parties should think carefully about the kind of commitments they should be prepared to make. Therefore, one way to build trust is to create a commitment structure that can be implemented in all stages of the project. Primarily, to negotiating a beneficial outcome depends on the negotiators' ability to consider all the elements of the situation carefully and to identify and think through the options. Organizations are required to seek the best value of working relationship for short term and long operations with suppliers.

2.7.2 Project Management Practice and Execution

According to Hyer (2010), planning could be explained as a system that involves recognizing the purpose, outlining the scope sound, ascertaining user desires and cost, allocating responsibilities and other activities. According to Brown and Hyer (2010),

monitoring refers to any tracing system for identifying variances from the original plan through a simple checklist to sophisticated dashboard style approaches. It is argued that as part of the planning process, a project team should agree on the appropriate approach for monitoring key performance indicators (KPIs) during the life of the project. Brown and Hyer (2010) further define project control as the set of processes, decisions, and actions involved in responding to project variances. In other words, project control foretells when changes are appropriate and when to stay the course even as deciding for a project management process changes.

Chandra, (2008) averts that, so far as control is critical in the implementation success which compels regular comparison of performance against targets, a search for the causes of deviation, a commitment to check adverse variances is needed. However, Brown and Hyer (2010) aver that, there are more than a few sensation influence project finishing which causes actual performance to depart from planned performance. They precisely mentioned that these sensations basically describes the project's tendency to grow beyond its initial size as a result of the team members' enthusiasm; unanticipated issues discovered and redefinition or clarification of customer needs in the project execution process.

Again, Brown and Hyer (2010) stated the Murphy's Law to mean the principle which advocates the idea that anything that can go wrong may go wrong; whereas the Pareto's act; proposes that 80% of project's hitches and interruptions are caused by 20% of project happenings. Therefore, ensuring project monitoring system effectively requires activities that carry the highest risks for delay, cost over-runs, or performance challenges. To conclude, Brown and Hyer (2010) expounded the Escalation of Commitment principle to mean that human beings tend to continue pursuing failing courses of action, even when all signals point to the fallacy of the strategy. Hence, an efficient procurement

monitoring system can have a substantial impact on individual's decisions to intensify or de-escalate assurance.

In effect, evaluating contractor performance and document, as appropriate, to establish the contractor's ability to meet the terms, conditions and specifications of the project is what most patrons consider during funding recipients.

2.7.3 Inventory Management Practice and Project Performance

Inventory management which in practice are usually non-deterministic in nature is one of the intricate decision-making processes that involves analysis of several standardized factors. These decisions are made in conditions of uncertainty, and the most common methods for determining inventory levels include Economic Order Quantity (EOQ) model, the Re-Order Point (ROP) models and Re-Order Cycle (ROC), Just-In-Time (JIT), etc. Hence, safety inventory purposes to cover the unexpected changes in the demand. According to Larson and Halldorsson (2014), Inventory Management (IM) is seen as an inter-disciplinary concept. Again, inventory management revolves around the cross- functional boundaries of the firm Ellram and Cooper, (2014).

According to the 17th Annual State of Logistics Report Wilson (2016), business logistics cost 9.5% of US GDP and approximately 33% is attributed to inventory holding cost. Accordingly, inventory management research is critical in procurement. Inventory programs can make inventory commitment more efficient and improve customer service. Inventory management according to Heizer and Render (2016) indicated that, businesses hold stocks for reasons including safety against general shortages or potential problems with suppliers, or, future unit price increases.

Characteristically, secondary inventories normally enable firms to execute an economic service without making beneficiaries incur any unpleasant delays. In other words,

inventory planning and control have great significance in projects execution. For example, order placing discipline minimizes the cost of transferring goods, besides shortening the associated lead times. Hence, this provides an understanding to effective inventory management regarding all the details of what inventory management is. In order to apply lean practices to all aspects of the inventory management cycle, businesses can reduce outlays in standing inventory, shipping costs and inverse logistics even at maintaining or improving customer service levels and in-stock metrics on critical inventory Confessore, Rismondo and Stecca, (2014).

The other sensitive area of inventory is the movement of materials as they go through the various stages of operations, which is referred to as materials, or work in progress inventory, which involves tracing of materials needed to create finished goods. This helps to identify the need to adjust the aggregates for ordering before the raw materials inventory are minimal or are inflated to opposed level Murphy, (2007).

CHAPTER THREE

RESEARCH MEHOD AND DESIGN

3.0 Introduction

This segment of the study outlines in detail the processes and techniques adhered in carrying out the research which involves a profile of the study area, research design, the population of the study, sampling and sampling technique, data collection procedures and tools, methods for data analysis and presentation of results.

3.1 Profile of the Study Area

Gold Fields Ghana (GFG) is the largest gold producer in Ghana, with annual production in excess of 935,000 ounces from its two operating mines at Damang and Tarkwa. The Company value safety, responsibility, honest, respect, innovation and delivery as the basis of interactions with its stakeholders and communities in which it operates.

Gold Fields Ghana has been recognized as a socially-responsible corporate entity that always contribute to the socio-economic development of Ghana. To this end GFG established a Foundation in 2014 with its primary responsibility of improving the quality of life and wellbeing of its communities they directly affect by their mining activities as well as employees live.

So far, over GHS 120-million has been spent by the Foundation on community developmental activities in areas such as farming, health, water and sanitation, education and general infrastructure and since environment and social issues are keen to them, GFG is committed to ensuring sustainable goods and services are procured for all developmental activities (projects).

GFL also recognizes that, the task of development is too big to be addressed by government alone, hence they strive to undertake its material stewardship and supply chain management activities in a manner that is sustainable and adheres to internationally recognized practices. To this end, GFL endeavor to ensure value added, cost effective and sustainable service delivery that enables their operations to achieve strategic growth and productivity objectives.

3.2 Research Strategy

Baiden (2006) stated that, there are three (3) main types of research strategies namely: qualitative, quantitative and triangulation however this dissertation adapted a quantitative strategy which sought of represented my findings in the form of numbers and statistical results, data gathering tool such as questionnaire was used as well as objective language devoured of bias.

3.3 Research Design

A research design is considered as the basic plan for conducting the data collection and analysis phase. According to Saunders et.al.,(2012) research design as a general plan, guides or rules about how research questions should be answered. It deals with data collection and analysis structures that certifies that the suggestions acquired enables one to effectively report the research problem logically and as explicitly as possible.

Again according to Saunders et.al.(2012) there are two types of research design namely exploratory or explanatory and descriptive.

The study employed an exploratory method in order that respondents may not feel restricted in their responses and further focus on gaining insights and familiarity for future comprehensive researches to be undertaken to combat problems that were identified preliminary in this study. This method was also used to ascertain the best understanding in reviewing sustainable procurement or what methodology can be effectively applied to gathering relevant information about sustainable procurement practices in Ghana. The exploratory research was considered flexible and can address all the research questions as well as to provide a prospect for defining new relationships and clarify existing concepts.

This research sought to assess the impact of sustainable procurement in project execution and for that matter the research design chosen for the study is explanatory research. Explanatory research design is chosen because the research aimed at revealing the roles of sustainable procurement in project execution by means of a case study and survey at Gold Fields Ghana Limited Foundation.

According to (SAGE 1995), a case study provides an in-depth research of a specific statement of the study problem rather than an extensive statistical or comparative survey. Mostly, this method is employed to limit a very broad field of research into one or a few easily researchable examples Yin (1994). In effect, the case study research design was employed to test whether a specific concept or model in point of fact applies to the phenomena of sustainable procurement in Ghana. This design was considered useful since not much is known about sustainable procurement in the Ghanaian private sector. Also, this design enabled the researcher to extend experience and add strength to what is already known through previous research.

3.4 Sampling Technique

According to Wilmot (2005), sampling entails the act, system, or skill of choosing an appropriate section or a representative part of populace with the aim of defining parameters or features of the whole population. In effect, sampling is aimed at drawing

conclusions on populations from samples using inferential indicators. This therefore enable the researcher to openly detect a sample easily with a defined population feature. The purposive sampling method was initially employed to select the sample respondents from the various departments in the company.

3.5 Sample Size

Jackson (2011) stated that purposive sampling also known as selective, judgement, or subjective sampling is a sampling technique or method in which researcher depends on the researcher's own judgement when selecting members of population to partake in the research. The study was conducted to a sample size of 115 respondents in total which were identified using purposive sampling, thus 5 participants who were drawn from the top management committee members, 15 Tender Committee members, 60 Supply staff and the residual 35 other participants include the Company's registered suppliers and other stakeholders across all projects executed by the company.

* In accordance with Section 17 (1) of the Public Procurement Act 663 which states that each procurement entity shall establish a Tender Committee which comprises of the chairperson,7-9 members and secretary. However, GFG is a private firm and this Act do not strictly apply to them.

Table 3.1: Distribution of Sample Size

Category	Number of Respondents	Percentage
Top Management	5	4.35%
Tender Committee Members	15	13.04%
Supply Chain Staff	60	52.17%
Others	35	30.44
TOTAL	115	100.00%

In addition, the researcher needed a certain group or respondents who are skilled and are involved directly in sustainable procurement and various projects undertaken by Goldfields Ghana Limited Foundation so that vital information will contribute immensely to the study.

3.6 Data Collection Procedure

Permission was requested to conduct the research and to collect data from the company. Authorities and study participants were briefed on the objectives of the research. Engagements were made by phone calls after permission was granted. Face-to-face interviews were conducted with selected respondents. Again, questionnaire was administered to respondents and explanations were given to survey questions to foster proper understanding to respondents. Before data collection commences, ethical issues were addressed. In effect, respondents were assured of strict privacy of responses provided.

3.7 Distribution and collection data

Amarh, (2014), cited that questionnaires are easy for recipients to respond and aid the researcher to analyse data easily. To achieve the aim and the objectives of this study, structured close-ended questionnaire was employed to gather primary data from the 115 respondents. Quantitative data collected using a structured questionnaire was hand delivered to each of the respondents designed specifically for the study.

A cover letter was drafted that explained the purpose, method of responding, confidentiality of information encourages better response.

The distribution and retrieval of these questionnaires were to make sure respondents got the right respondents and to improve the response rate.

3.8 Questionnaire Content

A cover letter was drafted to give a short introduction of myself and the objectives I seek to achieve thus how sustainable procurement on projects execution practices are implemented in their organization. Again, respondents were assured of confidentiality of information given. The questionnaire structure was based on four sections, Section (i) reported the background of the respondent (i.e. sex, age, educational level, length of service). Section (ii) are statements to ascertain and assess respondents perceptions regarding Sustainable Procurement Practices in Projects Execution using 5-point Likert scales to answer a set of questions.

Section (iii) reported the Challenges of implementing Sustainable Procurement in Project Execution. Respondents ticked statements deem appropriate based on their level of acceptance to it.

3.9 Respondents

Purposive sampling was the method adopted for the above four sections of the questionnaire. This non-probability technique was used for the study because, it permits the researcher to deal with individuals who have knowledge on the topic under study Erbil et al (2010) as cited by Amarh (2014).

3.10 Ethical Considerations

Confiding and agreeing with Cohen et al. (2007), full attention should be given for moral and ethical issues in every research study. Therefore, a particular consideration to ethical principles developed by researchers and other scholars, predominantly regarding ensuring updating permission and developing confidentiality, maintaining anonymity and other related ethical issues were granted. For this reason, all the way through the primary data collection (questionnaire and interview), all the research participants were given codes like GF/GL/FP.004, GF/GL/FP.013, etc. so as to protect their identity.

3.11 Data Processing and Analysis Procedures

Yin (1994), analyzing data is mainly to curb the evidence fairly, to produce captivating analytical conclusions and to rule out alternative interpretations. The study made use of quantitative data. Statistical tools such as Microsoft Excel and Statistical Package for Social Science (SPSS) a computer software were used to process the data obtained from respondents through the use of Likert scale questions which gave a descriptive statistics mean score, and standard deviation.

Descriptive statistics was used to summarize the data in frequency tables and percentages. Data collected were critically scrutinized, compared, contrasted and interpreted to secure appropriate conclusions and discussions.

The data analysed was presented in a form of texts, tables and charts.

3.12 Validity and Reliability of the Research Instruments

In order to ensure that the research findings in point of fact reflect precisely what the study intends to assess, the research instruments were unmistakably designated to avoid ambiguity and distortions in solving the statement of the research problem identified. Initially, pilot testing was conducted by the researcher to check whether the prepared questionnaire can produce the desired information and to evaluate its internal consistency, before the administration of questionnaire to the actual subjects was fixed. The result of the pilot test was used to test the validity, reliability and completeness of the data collection instruments and to inform any necessary minor changes to the research instruments. All comments merged and modifications were made before actual implementation of the tools.

To this end, the procedures of the research were critically reviewed and polished up to ascertain impartial judgement of the study findings. Significantly, respondents were assisted with clarity at individual level of understanding on occasions where respondents were facing any difficulty in answering the questions. Rationally, the data analysis was carefully done to minimize errors and to completely eradicate them. Again, the research questionnaires were structured in a manner that perverted uneasiness and difficult issues for respondents in providing answers.

In general, respondents were able to express their views and opinions freely and frankly to the topic under study. The data collection procedure adopted made the study valid and reliable since the primary data gathering techniques were mostly used throughout to collect information needed for analysis and decision making. For these reasons,

information supp	lied and analy	zed could be r	elied on as valid	and reliable for	or any future
study.					

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents the analysis of data obtained from study samples, presentation and explanations of the study findings.

4.1 Response Rate

In all, the study administered 115 questionnaires to respondents. However, due to respondents' delays in providing and submitting responses aptly within the stipulated time, 113 answered questionnaires were retrieved and processed as valid, representing 98.26% response rate. This response rates were illustratively adequate and follows Mugenda and Mugenda (1999) which specifies that, analysis and reporting becomes adequate when the response rate is 50%; a rate of 60% is good and a response rate of 70% and beyond is excellent. Again, the high response rate could be attributed to the desire of respondents in ensuring that sustainable procurement management practices in project executions are used as a strategic tool towards achieving organizational goals.

4.2 Socio-Economic Characteristics of the Respondents

In this study, an observation and assessment of the socio-economic status of the study respondents were employed. Hence, the socio-economic characteristics of the study participants in respect to respondents' sex, age sort, educational qualification and service duration with the company.

4.2.1 Gender

The research posed to establish the respondents' gender distribution. The findings are as presented in Figure 4.1.

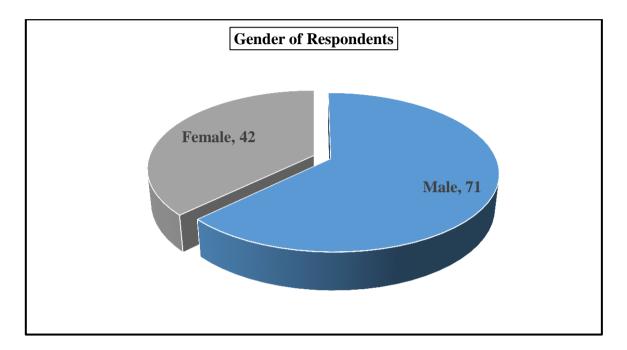


Figure 4.1: Gender Distribution of Respondents

Figure 4.1 shows that, out of the total sample size of 113 valid responses retrieved, 62.83% were males and 37.17% constituted females. This implies that males dominate in the sustainable procurement management practices in project execution particularly in the current study setting (Gold Fields Ghana Limited Foundation). Therefore, the outcome of the study is more likely to be skewed towards the males' views than the females. This can be considered appropriate for the study for the reason that a well-thought-out on males' perceptions and attitudes towards sustainable procurement and more specifically, in projects execution is reckoned noteworthy.

4.2.2 Age

As presented in Figure 4.2, the majority (N=46, representing 40.71%) of the respondents have attained the age range of 40-49 years, followed by 30-39 years' range (25.66%), 50-59 years (20.35%) and only 13.28% of the respondents were below 30 years. Thus, none of the respondents was 60 and above. This further implies that, the mainstream of the study participants employed have reached formative years of experience.

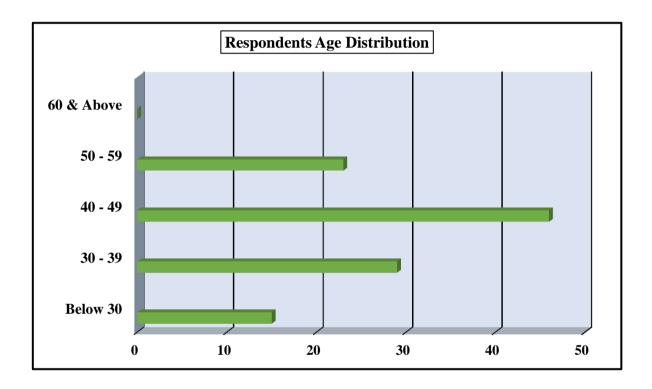


Figure 4.2: Age Distribution of Respondents.

4.2.3 Educational Background

The respondents were further asked to indicate their highest level of education. This is of great importance as it describes respondents' knowledge and ability to provide adequate response to the questionnaire distributed as well as to even perform with respect to the achievement of the organization's common goal of sustainable procurement. The findings are as stipulated in Figure 4.3.

Regarding the educational level, the differences were significantly passable for the research's consideration. The mainstream of the respondents, represented in Figure 4.3 as approximately 43.00% (i.e. N=48, 42.48%) have had Post Graduate/Master's Degree education, followed by 30.00% (i.e. N=34, 30.09%) holding First/Bachelor's Degree qualification, whereas approximately 20.00% (i.e. N=23, 20.35%) have attained other professional tertiary education, specifically from recognized institutions like IPED-UK, ACCA, ACCE, ICA-G and ICM-UK.

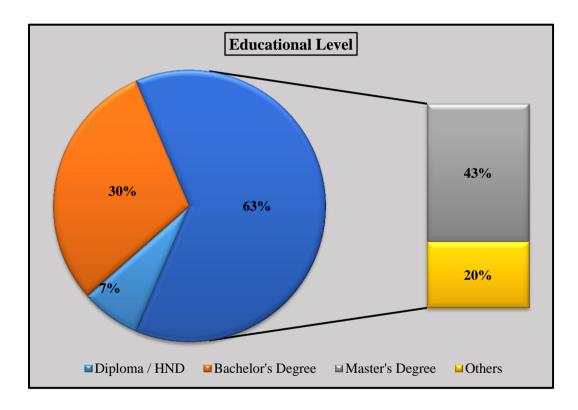


Figure 4.3: Educational Qualifications of Respondents).

Finally, Figure 4.3 presents that the residual 7.00% (i.e. N=8, 7.08%) were respondents who have had Diploma/HND qualifications from Technical University (previously, Polytechnic) and WASSCE Diploma certificates such as the ABCE and GBCE. Significantly, this finding approves the reliability for respondents to aver resourceful

knowledge and observations on sustainable procurement in projects execution within Gold Fields Ghana Limited Foundation.

4.2.4 Length of Service Experience

Furthermore, the respondents were enquired to indicate the number of years they have worked in their respective positions and the experiences had in the field with their current organization. The results are presented in Figure 4.4.

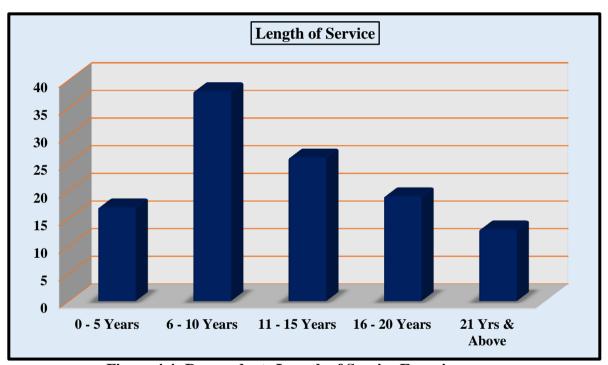


Figure 4.4: Respondents Length of Service Experience.

From the figure above, most of the respondents (i.e. N=38, 33.63%) had worked for 6 – 10 years, followed by 23.00% who have worked for 11-15 years, 16.81% for 16-20 years, whereas 15.04% and 11.50% were respondents who have worked for 0-5 years and 21 years and above respectively. This illustrates that, the respondents had worked with the organizations for a long period to give reliable data on sustainable procurement management practices on projects executions. It also denotes that the respondents were highly experienced owed to the many years they had worked with the organization.

4.3 Sustainable Procurement Practices

Objectively, the research further sought to establish sustainable procurement practices that remained employed by Gold Fields Ghana Limited Foundation in all its project executions. Prior to this, respondents were asked to help the study ascertain the level of their awareness on sustainable procurement practices within the organization. Using the 5 – points Likert scale, findings regarding respondents' alertness to sustainable procurement are presented in Figure 4.5.

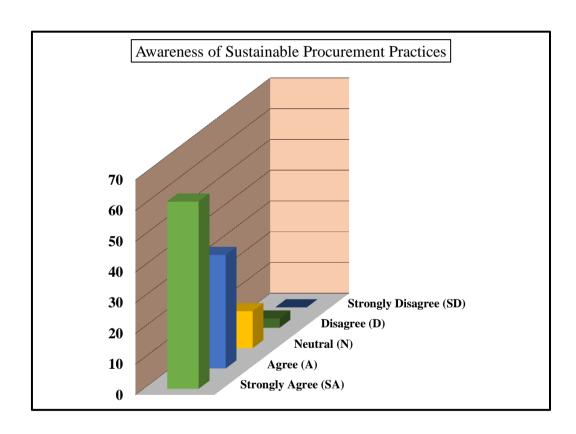


Figure 4.5: Respondents Level of Awareness on Sustainable Procurement Practices.

Evidentially, Figure 4.5 presents that, majority (N=61, representing 53.98%) of the respondents strongly agreed (SA), followed by 32.74% who merely agreed (A), as 10.62% remained uncertain (N) and 2.65% disagreed (D) to indicate their level of awareness of sustainable procurement practices in the organization. None of the

respondents strongly disagreed (SD) to the assertion that sustainable procurement practices exist in Gold Fields Ghana Limited Foundation on projects execution. These findings enable the study to establish that, indeed, sustainable procurement practices are substantially accepted in GFG. Consequently, respondents were probed to indicate their level of perception regarding some selected statements on sustainable procurement practices. As such, 5 – points Likert scale was used to rank respondents' answers based on their level of agreement or disagreement. The findings are presented in Table 4.1.

The mean score greater than 4.20 is Important, 4.20 - 4.08 is Less Important, 3.96 - 2.87 is Not Important.

Table 4.1: Sustainable Procurement Practices

Practice	SD(1)	D (2)	N(3)	A(4)	SA(5)	Mean	Rank
Giving preference to youth,							
women, disabled people and rural	0		6	33	73	4.58	1st
towns		1					
Establish published supplier							
engagement programme	6	37	43	20	7	2.87	12th
Ensure the need for cost-effective							
requirements to reduce							
environmental effects.	0	6	31	39	37	3.95	8th
Measure performance against	0	3	27	41	42	4.08	6th
sustainable procurement criteria							
Enhance sustainability in the							
procurement process regularly	1	7	16	39	50	4.15	5th
Ensure the use of collaborative							
projects and framework against	0	5	22	37	49	4.15	5th
environmental hazards							
Regularly review/audit processes							
of systems internally	0	0	13	26	74	4.54	2nd
Support the inclusion of all							
sustainability aspects	0	3	29	51	30	3.96	7th
Merge the drive, responsibility to							
combat environmental concerns							
and commitment of sustainable							
procurement.	0	2	14	48	49	4.27	4th
Develop a bias for projects that							
disclose environmental effect	2	8	26	44	33	3.87	10th
Develop environmental awareness							
to staff through training	3	12	47	36	15	3.42	11th
Make sustainable procurement							
commitments publicly for							
competitive advantage and social	0	6	25	53	29	3.93	9th
responsibility reasons							
Make use of a R&D budget that							
aims to deliver efficiencies and							
reduce environmental impacts.	2	8	18	36	49	4.08	6th
Available ISO 14001 Certification	0	4	12	24	73	4.47	3rd
Grand	Mean					<u>4.02</u>	

Source: Field Data (August 2018)

It was established in Table 4.1 that, using the 5 – points Likert scale as a measure to identify the sustainable procurement practices in the organization's projects execution, the overall Important mean scale of respondents' level of understanding and observations stood at 4.02, which represents 80.40% of the respondents who affirmed positively to the statements employed in the study.

4.3.1 Giving preference to youth, women, disabled people and rural towns

Categorically, majority (91.60% \approx 4.58 mean scale representing important) of the respondents, in a way or the other, confirmed that Gold Fields Ghana Limited Foundation gives preference to youth, women, disabled people and rural towns during procurement for projects execution.

4.3.2 Regularly review/audit processes of systems internally

This was followed by 90.80% (\approx 4.54 mean scale representing important) respondents who confirmed that the Foundation practices regularly review/audit processes of systems internally to safeguard sustainable procurement during execution of projects.

4.3.3 Available ISO 14001 Certification

Furthermore, it was established that, 85.84% of the respondents collectively agreed that there is available ISO 14001 certification achieved by the Foundation, 10.62% remained uncertain whilst the residual 3.54% Disagreed, representing important scale of 4.47 to that assertion. This implies that, some employees do not know of the organization's ISO 14001 certificate.

4.3.4 Merge the drive, responsibility to combat environmental concerns and commitment of sustainable procurement.

Table 4.1 further proves that, a scale of 4.27 representing less important, which is approximately 85.40% of the respondents purported that the organization merges the drive, responsibility to combat environmental concerns and the commitment of sustainable procurement during projects execution.

4.3.5 Enhance sustainability in the procurement process regularly

Explicitly, majority (N=49, representing 43.36%) of the respondents indicated that they Strongly Agreed to the statement, 42.48% marked merely Agreed, 12.39% stood Neutral whereas 1.77% merely Disagreed, and none of the respondents indicated Strongly Disagreed. Regarding whether the Foundation ensures sustainable procurement process regularly and/or safeguards the use of collaborative projects and framework against environmental hazards in sustainable procurement,

4.3.5.1 Ensure the use of collaborative projects and framework against environmental hazards

More precisely, 43.36% of the respondents Strongly Agreed that the organization ensures the use of collaborative projects and framework for sustainable procurement, 32.74% just Agreed, 19.47% stood uncertain whilst 4.42% merely Disagreed to that statement.

Contrary, 44.25% of the respondents strongly agreed that the organization enhances sustainability in the procurement process regularly, 34.51% merely Agreed, 14.16% remained Neutral, 6.19% merely Disagreed whilst the residual 0.88% indicated Strongly Agreed to that assertion regarding sustainable procurement practices on projects execution within Gold Field Ghana Limited Foundation.

The less important scale of 4.15, which is approximately 83.00% of the respondents, was realized for each statements.

4.3.6 Measure performance against sustainable procurement criteria

On the other hand, 37.17% of the respondents strongly agreed that the organization measures performance against sustainable procurement criteria, 36.28% just Agreed, 23.89% stood Neutral whereas 2.65% merely Disagreed to that statement. As such, none of the respondents Strongly Disagreed. This could imply that the company evaluates performance against sustainable procurement criteria using the Best Practice Indicators and the Procurement Capability Assessment model which appears to be commonly used.

4.3.6.1 Make use of a R&D budget that aims to deliver efficiencies and reduce environmental impacts.

Again, concerning whether the company can confirm having a Research & Development budget that aims to deliver efficiencies and reduce environmental impacts and/or measure performance against sustainable procurement criteria, the less important scale realized were 4.08 allotted to each statement, which represent 81.60% of the respondents. In precise, 43.36% of the respondents Strongly Agreed that the organization has a Research & Development budget that aims to deliver efficiencies and reduce environmental impacts, 31.86% just Agreed, 15.93% stood uncertain, 7.08% merely Disagreed whilst the residual 1.77% Strongly Disagreed to that statement.

4.3.7 Support the inclusion of all sustainability aspects

The scale of 3.96 representing not important was allocated to the practice of support inclusion of all sustainability aspects in projects procurement, majority (N=51, representing 45.13%) of the respondents merely indicated Agreed to that assertion, followed by 26.55% Strongly Disagreed, 25.67% were Neutral, 2.65% Disagreed whilst none of the respondents Strongly Disagreed.

4.3.8 Ensure the need for cost-effective requirements to reduce environmental effects.

Furthermore, it was established that the Foundation ensures the need for cost-effective requirements to reduce environmental effects in sustainable procurement in projects execution. The not important scale regarding this statement marked by the respondents stood at 3.95. In detail, 32.74% of the respondents marked Strongly Agree, 34.51% Agree, 27.43% Neutral, 5.31% Disagreed whilst none Strongly Disagree.

4.3.9 Make sustainable procurement commitments publicly for competitive advantage and social responsibility reasons

Findings further revealed that, not important scale of 3.93 (representing 78.60%) respondents indicated that the company makes sustainable procurement commitments publicly for competitive advantage and social responsibility reasons. Details of this finding reveal that, majority (N=53, 46.90%) of the respondents merely agreed to that statement, followed by 25.67% strongly agreed, 22.12% were neutral whilst 5.31% stood to disagree and none of them strongly disagreed. It was seen that; the company develops a bias for projects that disclose environmental effect in sustainable procurement.

4.3.10 Develop a bias for projects that disclose environmental effect

As such, not important scale of 3.87 (representing 77.40%) respondents were recorded. Findings on this exposed that, 38.94% of the respondents, signifying the majority, merely agreed to that assertion, followed by 29.20% who stood strongly agreed, 23.01% neutral, 7.08% disagreed whereas 1.77% strongly disagreed.

4.3.11 Develop environmental awareness to staff through training

4.3.12 Establish published supplier engagement programme

Finally, regarding whether Gold Fields Ghana Limited Foundation establishes published supplier engagement programme and/or develops environmental awareness to staff through training as sustainable procurement practices, not important and less important scales of 2.87 and 3.42 were recorded respectively. This explains that, a program that seeks to create and sanitize suppliers' engagements publicly during sustainable procurement in the company is not clearly practiced. Explicitly, majority (38.05%) of the respondents were uncertain, followed by 32.74% who disagreed, 17.70% agreed, 6.19% strongly disagreed whilst 5.31% strongly agree that published supplier engagement programmes are established in the company. Again, 41.60% of the respondents alleged that, they were uncertain to indicate that, the company develops environmental awareness to staff through training as sustainable procurement practices, 31.86% stood to agree, 13.27% strongly agree, 10.62% merely disagreed whilst the residual 2.65% strongly disagreed to that assertion.

In conclusion, the findings revealed below important sustainable procurement practices in GFG;

- 1. Giving preference to youth, women, disabled people and rural towns.
- 2. Regular reviewing/auditing processes of systems internally.

3. Available ISO 14001 Certification.

4.4 Benefits of Sustainable Procurement Practices on Projects Execution

The research findings identified many benefits which respondents mutually confirmed to be reinforced by the use of sustainable procurement practices on projects execution at Gold Field Ghana Limited Foundations. Based on the literature review, some selected themes regarding the impact of sustainable procurement were identified. Accordingly, respondents were requested to specify the level to which each of the variables drives/motivate/compel the organization to implement sustainable procurement practices on projects based on their observations. The survey made use of the 5 – points Likert scale and the responses have been analyzed and presented in Table 4.2.

It was established in Table 4.2 that, the overall average mean scale of respondents' level of perception and observations regarding the impact of sustainable procurement stood at 4.14, which denotes that majority (82.80%) of the respondents declared certainly to the statements employed in the study. Categorically, a core value in corporate social responsibilities was ranked 1st as the most significant point – with an average scale of 4.54, representing 90.80% of the respondents – that motivates Gold Fields Ghana Limited Foundation to constantly enhance the sustainable procurement practices. Explicitly, 58.41% of the respondents strongly agreed to this statement, followed by 37.17% who merely agreed and the residual 4.42% remained neutral. None of the respondents indicated to disagree or strongly disagreed.

The mean score greater than 4.12 is Significant, less than 4.0 Less Significant.

Table 4.2: Benefits of Sustainable Procurement in Projects Execution

Benefits	SD(1)	D (2)	N(3)	A(4)	SA(5)	Mean	Rank
Enhance the organization's							
reputation	0	0	24	67	22	3.98	6th
A core value in corporate social							
responsibilities	0	0	5	42	66	4.54	1st
Abiding government regulations							
and the firm's policies on							
environmental issues	2	3	19	59	30	3.99	5th
Ensures value of money for							
economic and environmental							
consideration	0	1	13	71	28	4.12	4th
Gain competitive advantage							
through market differentiation	4	2	21	53	33	3.96	7th
Contributes to economic effects							
such as cost savings and job	0	4	22	65	22		8th
creation						3.93	
Promote fair trade and ethical							
sourcing practices	0	0	18	34	61	4.38	2nd
Prevent stakeholders'							
discrimination in favour of	1		17	52	43		3rd
suppliers		0				4.20	
Grand Mean						<u>4.14</u>	

Source: Field Data (August 2018)

Generally, as part of firms' corporate social responsibility, they are required to ensure that their activities do not have any negative social or environmental impact on communities within which they work. In effect, majority of the respondents expounded that, the organization is required to look at the social, economic and environmental impact of their project activities on the public, and to engage in the development of how the project can offer positive gains and enhance the communities within which the project is being executed.

Findings revealed that, majority (87.60% ≈ 4.38 mean scale) of the respondents, in a way or the other, established that the practices of sustainable procurement on projects also promote fair trade and ethical sourcing activities in the firm. As such, 53.98% of the respondents strongly agreed to the statement, followed by 30.09% who merely agreed whilst 15.93% stood uncertain. None of the respondents indicated to disagree that sustainable procurement practices enhance fair-minded trade and decent sourcing activities. This finding conforms to the study conducted by Queensland Government Chief Procurement Office (2012), which concluded that sustainable procurement practices influence fair trade and ethical sourcing practices, promoting workforce welfare, support social inclusion as well as improving the welfare of local dwellers by creating local jobs. Again, Table 4.2 presents that, a significant scale of 4.20, representing 84.00%, purported that some of the impacts of sustainable procurement practices experienced by Gold Fields Ghana Limited Foundation include the act of transparency aimed at preventing stakeholders from concealing discrimination in favour of suppliers. Explicitly, it can be established that, majority (46.02%) of the respondents merely agreed to the assertion that, sustainable procurement practices pervert stakeholder's bigoted acts, followed by 38.05% who strongly agreed, nearly 15.05% were uncertain, 0.88% strongly disagreed whilst none of the respondents merely disagreed. In effect, this affirms the study engaged by Arrowsmith (2003), which established that transparency supports integrity, fraud and discretional abuse prevention, as well as preventing covert discrimination. Falvey, et al., (2007) also directs that transparency involves identification and verification of clear rules for procurement procedures. These enable the study to conclude that, ensuring sustainable procurement requires notifying all contributors on the procurement procedures, broadcasting

procurement opportunities and providing the opportunity to scrutinize decisions and to enforce adherence to procurement rules.

Regarding the impact of sustainable procurement practices on ensuring value of money for economic and environmental consideration in the study area, a less significant scale of 4.12, which represents 82.4% of the respondents was recorded. Using the 5 – points Likert scale on this factor, it was established that, majority (approximately 62.84%) of the respondents indicated agreed, nearly 24.78% strongly agreed, 11.50% remained neutral whilst the residual 0.88% disagreed. None of the respondents indicated to be strongly disagreed.

The above finding conforms that of Dobers and Wolff (2000) which avowed that value for money has become important since the servicer is not the end user of project. The study probed further during the interview and some of the respondents indicated that value for money considerations sometimes drive them to implement sustainable procurement practices. This is considered very significant when the servicer has a stake in the final project being executed.

Furthermore, it was identified that, government regulations and organizational legislations also contribute to impact firms during the implementation of sustainable procurement practices. Accordingly, Sterner (2002) noted that if firms are lawfully embedded to sustainable procurement, it forces them to look at their supply chain at least to meet the requirements of legislation. The study findings revealed that, majority (approximately 52.21%) of the respondents unanimously agreed to Sterner that, abiding government regulations and the firm's policies on environmental issues in Ghana compel them to procure sustainable and to ensure that project activities do not have any negative social, environmental and economic impact. This was followed by 26.55% of the respondents who strongly agreed, 16.82% neutral, 2.65% disagreed whereas 1.77%

strongly disagreed. Hence, a less significant scale of 3.99 (i.e. 79.80%) was ascribed to that factor.

Again, the quest to gain good reputation/image in the industry as a charity organization was voted by the respondents as one of the topmost variables which motivates/drives Gold Fields Ghana Limited Foundation to implement sustainable practices on projects execution. Precisely, a less significant scale of 3.98 (i.e. 79.60%), comprising of the majority (59.29%) of the respondents who agreed, followed by 21.24% uncertain and 19.47% who remained strongly agreed were recorded. With this, none of the respondents disagreed to this factor.

During the interview, one of the respondents explained that "in the era of global economic crisis, it is important for firms to devise strategies to promote its corporate image and gain competitive advantage in the business setting". Thus, charitable organizations in Ghana aim at promoting their corporate image by implementing sustainable procurement practices. The finding above enables the study to note that since patrons are particular to ascribe and nominate companies with credible record of sustainability, it is to the benefit of providers to ensure that they adapt strong standards throughout their project activities to keep a positive reputation.

Tan-Shen et al. (2011) noted that accepting and using a standard practice for sustainable procurement may offer a competitive advantage. Yet it is unidentified as to the extent to which this is realized. In effect, the study established that, majority (46.90%) of the respondents agreed, 29.20% strongly agreed and 18.59% remained neutral with the statement of (Tan-shen et al. 2011). Contrary, 1.77% disagreed whilst 3.54% strongly disagreed. As such, using the 5 – points Likert measuring tool, a less significant scale of 3.96 (i.e.79.20%) was recorded. Respondents further explained that, the implementation

of sustainable procurement practices helps to promote the firm's positive image, and by so doing, it gives them competitive advantage over their competitors.

Finally, the study findings discovered that, the implementation of sustainable procurement practices contributes to economic effects such as cost savings and job creation. In effect, a less significant scale of 3.93, representing 78.60% was computed in favour of this factor. Categorizing the responses amassed, majority (57.52%) of the respondents agreed to this factor, followed by 19.47% who affirmed to strongly agree and the same rate (i.e. 19.47%) stood neutral; whereas the residual 3.54% merely disagreed. None of the respondents indicated to be strongly disagreed. Most of the respondents further explained that, efficient implementation of sustainable procurement reduces operating costs. The findings significantly conform to that of Queensland Government Chief Procurement Office (2012) which noted that reduced annual operational costs can be achieved through effective adoption of sustainable procurement practices on projects execution in an organization.

In conclusion, the findings revealed below significant benefits of sustainable procurement in GFG;

- 1. A core value in corporate social responsibilities
- 2. Promote fair trade and ethical sourcing practices
- 3. Prevent stakeholders' discrimination in favour of suppliers

4.5 Implementation Challenges of Sustainable Procurement in Project Execution

The study further hunted to identify challenges facing the enactment of sustainable procurement practices in project execution. Prior to that, respondents were asked to specify their level of alertness regarding sustainable procurement practices in projects

execution at Gold Fields Ghana Limited Foundation, and the findings are presented in Figure 4.6 below:

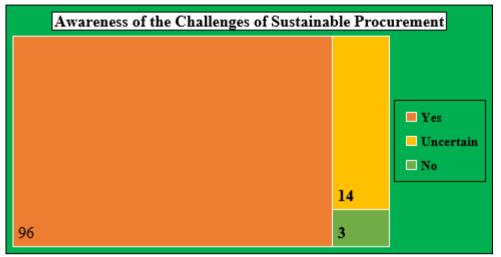


Figure 4.6: Level of Awareness on the Challenges of Sustainable Procurement

Findings from Figure 4.6 presents that, majority (84.96%) of the respondents admitted that, there are challenges regarding the implementation of sustainable procurement practices in the organization, followed by 12.39% who were uncertain whilst the remaining 2.65% rebutted any barrier to sustainable procurement. The findings imply that, a substantial number of the respondents are aware of the barriers to sustainable procurement practices. Table 4.3 presents further details. Hereafter, they were questioned to rank the challenges to a scale of 1 - 5 where 1 - Never(N), 2 - Seldom(S), 3 - Uncertain, 4 - Often(O) and 5 - Always(A).

The mean score greater than 3.87 is Critical, less than 3.87 is Less Critical.

Table 4.3: Respondents perception on implementation Challenges of Sustainable

Procurement

Challenges	N(1)	S(2)	U(3)	O (4)	A(5)	Mean	Rank
Lack of adequate budget for							
internal or external support	0	7	24	57	25	3.88	3rd
High implementation costs of							
sustainable procurement	0	5	31	49	28	3.88	3rd
Absence of sustainable products in							
the local market	0	11	13	61	28	3.94	2nd
Lack of support from the top							
management	4	21	27	32	29	3.54	8th
Lack of relevant legislation and							
legal enforcement	0	0	35	33	45	4.09	1st
Lack of internal expertise on							
sustainability topics	3	9	19	54	28	3.84	5th
Inadequate training of procurement							
staff	10	24	39	21	19	3.13	11th
Absence of societal drive from							
projects beneficiaries	7	16	28	34	28	3.53	9th
Ineffective monitoring and							
evaluation mechanisms	6	9	26	38	34	3.75	6th
Inadequate multi-stakeholder							
involvement	0	13	37	41	22	3.64	7th
Economic and political							
procurement constraints	4	19	38	32	20	3.40	10th
Ineffective procedure for suppliers'							
selection	1	18	21	30	43	3.85	4th
Grand	3.71						

Source: Field Data (August 2018)

Table 4.3 recorded 3.71 (i.e. 74.20%) as the overall mean scale computed on the selected statements employed by the study.

It was established that, a critical scale of 4.09, representing 81.80% of the respondents, in one way and/or the other, endorsed such challenge as the upmost facing the organization. Openly, majority (39.82%) of the respondents avowed that, lack of relevant procurement

legislation and legal enforcement in Ghana is always a critical challenge to sustainability, followed by 30.97% who were undecisive, whereas 29.21% indicated frequently. As a rule, based on the 5 – points Likert scale used, none of the respondents indicated neither Never nor Seldom.

Respondents exposed that, while there is a Public Procurement Act, there is no section in the Act addressing issue on sustainable procurement practices in the private sector during projects execution. They further affirmed Morgan (2010) which noted that, such instance compels project supervisors to lower their commitment to sustainable procurement, especially, when they anticipate discrepancy between duty pressures and the firm's procurement strategies.

Furthermore, Table 4.3 presents that, absence of sustainable products in the local market is the second most challenging factor perverting the implementation of sustainable procurement in projects execution among private organizations in Ghana. Collectively, a critical scale of 3.94, which represent 78.80% of the respondents was realized. In detail, 53.98% of the respondents indicated that, at Often times do this occur, 24.78% marked Always, 11.50% were Uncertain whilst 9.74% were Seldom, even as none indicated Never.

As Ning et al. (2003) noted that, there is initial cost of implementing sustainable procurement which is higher than conventional building costs which are limited by the design and technology level. These researchers settled that, it is expensive to ensure popularization of sustainability implementation in market which is among the substantial challenges facing the application of sustainable procurement. In effect, the findings established that, a critical scale of 3.88, (i.e. 77.60% of the respondents) was recorded against that factor. Precisely, majority (43.36%) of the respondents believe that such

challenge occurs frequently, followed by 27.44% who were Uncertain, 24.78% indicated Always, whilst the remaining 4.42% marked Seldom.

Again, the findings established to conform to Daft (2006) such that, an integral component of strategic management and all administrative functions uphold the virtues of proper planning and budgeting. Explicitly, majority (50.44%) of the respondents believe that, lack of adequate budget for internal or external support is often seen as a major challenge in implementing sustainable procurement in projects execution at Gold Fields Ghana Limited Foundation. Again, 22.13% of the respondents indicated Always, 21.24% marked Uncertain whilst the residual 6.19% indicated Seldom. None of the respondents marked Never and that, the critical scale of 3.88, which represents 77.60% of the respondents, was recognized.

Respondents expounded that, most procurement activities in the organization are linked to the budgetary provisions and therefore unbudgeted items cannot be procured. They further purported that, this situation often leads to some important requisition items not being met. In such instances, the respondents asserted that the organization is always required to generate funds internally from stakeholders and unfortunately, these sources of funds are not enough to budget on.

According to Humphreys et al. (2004), the importance of selecting suppliers and developing them into reliable partners can significantly impact the fiscal position of companies. However, the research identified that, a less critical scale of 3.85, representing exactly 77.00% of the respondents indicated that, there is an ineffective procedure for suppliers' selection in Gold Fields Ghana Limited Foundation for sustainable procurement in projects execution. Further analysis indicates that, majority (approximately 38.05%) of the respondents established that, this challenge posed is Always seen in projects execution, followed by 26.55% who indicated Often, 18.58%

were Uncertain, whilst 15.93% and 0.88% indicated Seldom and Never respectively. In effect, respondents expounded that, the awarding contracts is frequently carried out by value-based tendering method, where projects features are functional.

Additionally, it can be established in Table 4.3 that, most of the respondents accepted that they rarely encounter the following challenges when employing sustainable procurement practices in projects execution. These were; lack of internal expertise on sustainability topics (3.84), ineffective monitoring and evaluation mechanisms (3.75), inadequate multi-stakeholder involvement (3.64), lack of support from the top management (3.54), absence of societal drive from projects beneficiaries (3.53), economic and political procurement constraints (3.40) and inadequate training of procurement staff (3.13).

The study respondents identified that, the higher initial of investments for sustainable products, lack of adequate budgets with flexible systems and some related accounting practices frequently pose an additional burden. Respondents further expounded that, lack of adequate general responsiveness of the benefits of sustainable products and services among all stakeholders, especially the beneficiaries, sometimes causes lack of commitment to ensure execution of advancing sustainability.

Again, respondents explained to eschew Boomsma (2008) who noted that sustainability in procurement requires connecting multi-stakeholders in projects execution processes. They asserted that, involving multi-stakeholder into sustainable procurement practices frequently accumulate diverse perceptions in designing value chain, and diverse sustainable expectations and approaches. Hence, to construct the collaboration of these diverse viewpoints requires conflicts and interest management, which always delay projects execution.

Furthermore, the study identified that, most of the respondents conform to Hunja (2003) who noted that, better procurement practices embroil erecting systems to encourage operational monitoring and evaluation (M&E) at various stages of the procurement management processes. They explained that, most projects' executions lack all the requisite M&E structures leading to serious compromises in the conduct of procurement management practices. Similarly, as Helmsing and Knorringa (2008) recognized lack of social drive and argued that monitoring measures to ensure the practice of CSR polices amongst private actors are limited, this study then conforms to this challenge. Respondents explicated that, there has not been an acceptable press media to bring difficulties to public notice for firms to be on a social basis and ecologically accountable for sustainability in the private sector.

4.6 Improvement on Sustainable Procurement Challenges in Projects Execution

The research sought to identify the extent to which Gold Fields Ghana Limited Foundation has made progress in dealing with challenges facing sustainable procurement practices in projects execution. During the interview, respondents were asked to indicate the measures that they (organization) have made significant improvement to compact the challenges of sustainable procurement. In effect, majority (N=61, 53.98%) of the respondents asserted that, the Company is currently putting measures in place to mitigate sustainable procurement implantation challenges by improving the application of environmental criteria when making purchasing decisions in projects execution. These respondents expounded that, although the Company pursues ecological factors during procurement, policies to enhance monitoring and managing purchasing decisions are streamlined by management and procurement officers to strengthen sustainable procurement legislations. Consequently, the residual (46.02%) of the respondents also

declared that, purchasing "green" (reusable, non-toxic, biodegradable and 100% post-consumer recycled) materials, products and supplies, as well as partnering with sustainable suppliers who share in the sustainability commitment are considerably gaining recognition in ensuring sustainable procurement in projects execution by the Gold Fields Ghana Limited Foundation.

Again, respondents indicated significant progress in existence of environmental specifications on products offered and existence of ethical behavior and low corruption as adoptive measures to curtail the challenges of sustainable procurement practices implantation in projects execution. Hence, respondents discussed that, by embedding suitable sustainability ethics within the procurement practice, the environmental impact reduces whilst economic and social advantages upsurge.

The findings therefore agrees with Vincent and Abbie (2011) as they debated that sustainable procurement practices have a duty to match with laid down policies and best practices by organizations to adhere with and surpass all governing requests including conservational, social, health and safety policies. Notwithstanding, respondents' perception to alleviating of challenges to the implementation of sustainable procurement practices is generally evaluated as extremely below average. This indicates that the organization might have had little understanding to combat the problems facing the implementation of sustainable procurement practices.

Objectively, as the research probed on the subject of challenges facing the implementation of sustainable procurement practices in projects execution, below challenges were critical with a mean score above 3.87.

- 1. Lack of relevant legislation and legal enforcement
- 2. Absence of sustainable products in the local market
- 3. Lack of adequate budget for internal or external support

4.	High implementation costs of sustainable procurement

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter basically presents the summary of findings in the former chapter by means of addressing the study objectives. Also, the study's conclusion and recommendations drawn from the research findings as well as appropriate suggestions for future researches are presented.

5.1 Summary of Findings

This section presents the summary of findings in the direction of the data analysis, discussion and presentation of results emanating from the specific study objectives.

5.1.1 Important Sustainable Procurement Practices Used by Gold Fields Ghana Limited Foundation in Projects Execution

Primarily, the finding was to ascertained that sustainable procurement substantially exists in the private entities of Ghana and that, stakeholders are very familiar with the practices in projects execution. As such, respondents indicated high of awareness on sustainable procurement practices in the organization. It was ascertain that, there were three important sustainable procurement practices adopted by Gold Fields Ghana Limited Foundation, which are; preference is mostly given to youth, women, disabled people and rural communities during procurement for projects execution. In addition, respondents confirmed that the Foundation practices regularly review/audit processes of systems internally to safeguard sustainable procurement during execution of projects. Finally, there is available ISO 14001 certification achieved by the Foundation.

5.1.2 Significant Benefits of Sustainable Procurement in Project Execution

The findings revealed three significant benefits of sustainable procurement on project execution by Gold Fields Ghana Limited Foundation. A core value in the company's corporate social responsibilities by ensuring that activities are free from any social, economic and environment complications in projects execution is required to look at the social, economic and environmental impact of their project activities on the public. More so, the practices of sustainable procurement on projects also promote fair trade and ethical sourcing activities in the firm as well as the act of transparency aimed at preventing stakeholders from concealing discrimination in favour of suppliers

5.1.3 Critical Challenges of the Implementation of Sustainable Procurement in Project Execution.

The existing framework of sustainable procurement has efficiently facilitated procurement activities of Gold Fields Ghana Limited Foundation in projects execution. However, there are challenges in the implementation practices. The critical challenges facing Gold Fields Ghana Limited Foundation are; lack of relevant legislation and legal enforcement which lead the private sector to often lower their commitment to sustainable procurement activities; Absence of sustainable products in the local market: lack of adequate budget for internal or external support and High implementation costs of sustainable procurement.

On the other hand, few measures are in progress to curtail and combat these challenges. These measures include; the use of environmental criteria during procurement decisions; enhancing monitoring and evaluation of procurement decisions by management; purchasing "green" materials, products and supplies; along with partnering with sustainability committed suppliers to safeguard environmental specifications on products

offered and the existence of ethical behavior. This indicates that the private sector makes little effort to combat the problems facing the execution of sustainable procurement practices in Ghana.

5.2 Conclusion

Based on the above findings, the study is congruence with Vincent and Abbie (2011) such that, the implementation of practices for sustainable procurement ought to match with best policies and procedures laid down by organizations in order to adapt and exceed all related legislation and regulatory expectations including during procurement in projects execution. The study hereby concludes that, there are diverse practices to the execution of sustainable procurement in projects in the Private Sector of Ghana. This is as a result of the lack of legalized and standardized framework leading sustainable procurement activities in the sector.

In effect, it can be averred that most private organizations become reluctant to ensure absolute implementation, monitoring and evaluation of sustainable procurement practices in projects execution. However, it is important the Private Sector makes procurement processes environmentally friendly and climate neutral. Furthermore, the study concludes to buttress Falvey et al.,(2007) that, sustainable procurement ensures transparency that entails the identification and verification of clear rules for procurement procedures which can then leads to positively influence organizational growth.

However, private organizations in Ghana face diverse challenges in practicing sustainable procurement processes which include lack of suitable bureaucratic policies and public nonchalance. Hence, organizations that are slightly passionate and committed to enhance sustainable procurement in projects executions couple with trial and

unfeasible measures to combat the challenges facing implementation of sustainable procurement practices in Ghana.

5.3 Limitations of the Study

One of the major limitations of this study was the inability to cover a wider area of relatively more industries and projects in Ghana; which was inadvertently unfeasible to embark on due to time and cost constraints. In effect, the research adopted a case study approach. Again, the study was limited to some purposively selected stakeholders of Gold Fields Ghana Foundation Limited where primary data was obtained. This also posed a limitation regarding the accuracy of information obtained and access to employees who may be too busy to respond to the questionnaires. In dealing with this limitation, the study adopted objective questionnaires and interview guides for all respondents to reduce their personal perceptions and assuring confidentiality. As a significant procedure to the study limitations, resources were cautiously administered and managed in order to achieve the objectives of the study conveniently.

5.4 Recommendations

In the light of the findings from the study, the following recommendations are appropriate:

1. The Public Procurement Act (663) in Ghana has to keep pace with the innovative cycles and changes in the world of procurement to ensure sustainability. As such, factors including the effectual use of resources and combating lavish practices against global warming, cost-effectiveness and green reserves need to be accepted. This can be done by evolving sustainable procurement procedures

- which will be used by organizations to procure local order categories of supplies, projects and services in Ghana.
- 2. There is less guarantee in working on sustainable procurement elements in Ghanaian private sector. Hence, the Public Procurement Act (663) needs to be reviewed and amended to embrace sustainability requirements in the procurement process among private organizations. Hence, vigorous sensitization and monitoring and evaluation procedures have to follow this to make these organizations aware.
- 3. The study uncovered the fact that lack of adequate budget for internal or external support and inadequate multi-stakeholder involvement continue to be a challenge to procurement function of the Gold Fields Ghana Foundation. It is hereby recommended that periodic training and sessions are organized for all stakeholders so as shore up their competences and capacities for undertaking sustainable procurement management responsibilities. Such seminar will essentially discuss the various provisions within the guidelines of the procurement law and to enhance effective budgetary control.
- 4. The study recommends for re-designing of the country's procurement policies and procedures, to include sustainability ingredients in terms of lowest environmental impact, but also in terms of producing the most positive social impacts. By doing this, government can see many multiplier benefits internally from private entities and across society as a whole including efficiency gains, energy usage reductions, financial savings, improved access to services and better working conditions.
- 5. More than that, sustainable procurement should be seen as a tool in the wider development and support of domestic market growth and value adding in every

organization. Due to its significant patterns, sustainable procurement is a major contributor to organizational growth and stability across a wide range of sectors, providing support systems and comparative advantage that drive markets for goods and services.

6. The National Procurement Authority (NPA) must ensure aptness of responsibility to support the ability to demonstrate that sustainable procurement policies have been followed by all tenderers and sundry stakeholders in every procuring organization. A review of the procurement laws to include protection of the environment and a zero-hazard tolerance in health and safety issues will aid in holistic integration of the societal and environmental features in the procurement process. Separately, I also suggest for future research to look into the research topic and perhaps find out other general grounds not identified in the study. Perhaps, a comprehensive evaluation analysis of sustainable procurement among selected public and private organizations.

REFERENCES

- Adell, A.; Esquerra, J., & Estevan H. (2009); *Existing approaches to encourage innovation through procurement*. The SMART SPP consortium, Publisher: ICLEI Local Governments for Sustainability, European Secretariat.
- Annual State of Logistics Report Wilson (2016); CSCMP's Annual Commodity Trends 2016 Outlook, Grand Rapids, MI Rosalyn Wilson
- Anvuur, A., and Kumaraswamy, M. M. (2006); *Taking Forward Public Procurement Reforms in Ghana. Construction in Developing Economies: New Issues and Challenges.* Chile: Santiago. Pp. 18-20.
- Arrowsmith, S. (2003); Government Procurement in the WTO; The Haque/London/New York: Kluver Law International
- Azeem, V. (2007); "Impact of the Public Procurement Act, 2003 (Act 663) in Ghana Integrity Initiative's Perspective." Paper Presented at a Special Forum on Improving Efficiency and transparency in Public Procurement through Information Dissemination.
- Belfitt et al. (2011). Sustainable Procurement Challenges for Construction Practice.
 University of Reading; United Kingdom.
- Berry, C. (2011): *The Sustainable Procurement Guide:* Procuring Sustainably Using BS 8903, British Standard Institute.
- Betiol, L.S; Uehara, T.H.K; Laloe, F.K; Appugliese, G.A; Adeodato, S.; Ramos, L. & Neto, M.P.M. (2015); <u>Sustainable procurement: The power of public and private consumption for an inclusive green economy</u>. Public Administration and Citizenship Program. ISBN 9788587426314.
- Boomsma, D. I. (2008); "Sustainable procurement from developing countries". Practices and challenges for business and support agencies. Bulletin 385, Amsterdam: KIT publishers.

- Boone, L. E. & Kurtz D. L. (1993); Contemporary Business, Dryden Press (Fort Worth)
- Brown, K. A. & Hyer, N. L. (2010); *Managing Projects:* A Team-Based Approach (McGraw Hill Higher Education, NY.
- Bryman, A. (1992); *Quantitative and qualitative research: further reflections on their integration.* In Brannen, J. (ed) Mixed methods: Qualitative and Quantitative Research. Aldershot: Avebury
- Burt, J.; Abel, G., & Elmore, N. (2014); Assessing communication quality of consultations in primary care: initial reliability of the Global Consultation Rating Scale, based on the Calgary-Cambridge Guide to the Medical Interview.
- Chartered Institute of Purchasing & Supply (CIPS) & National Institute of Governmental Purchasing (NIGP), Inc. (2012); UK Governments Sustainable Procurement Task Force.
- Cohen, L.; Manion, L. & Keith, M. (2007); *Research Methods in Education*. Sixth Edition. London and New York: Routledge. Pp. 638. ISBN 9780415368780.
- Confessore, G.; Rismondo, S. & Stecca, G. (2014); "A Production and Logistics

 Network Model with Multimodal and Sustainability Considerations". Procedia

 CIRP.
- Creswell, J. W. (2009); Research design: qualitative, quantitative, and mixed methods. 3rd ed. London: Sage.
- Crosbie, W. (2005); The essentials Research Skills. Suva, Fiji: Amokura Publications
- Daft, R. (2006); "Organization Theory and Design" 9th Edition. Publisher; Cengage Learning, 2006. ISBN: 0324405421.
- DEFRA, (2006); "Procuring the Future"- The sustainable procurement Task Force National Action Plan, DEFRA, London.

- Dobers, P. & Wolff, R. (2000); "Competing with 'soft' issues from managing the environment to sustainable business strategies." Business Strategy and the Environment (John Wiley & Sons, Inc)
- Edelman, T. B. (2009); "The Edelman Trust Barometer". Available at www.edelman.com/trust/2009/docs/trustbarometerexecutivesummaryfinal.pdf
- Ellram, L. M., & Cooper, M. C. (1990); *Supply chain management, partnership, and the shipper-third party relationship.* International Journal of Logistics Management.
- Emmett, S. & Crocker, B. (2008); *Excellence in Procurement*. Cambridge Academic: Gt. Sheldford, Cambridge.
- Eriksson, P. E. & Laan, A. (2007); 'Procurement Effects on Trust and Control in Client-Contractor Relationships'. Engineering, Construction and Architectural Management, 14 (4), 387-399.
- European Commission (2004); *Promoting Environmental Technologies: sectoral analyses, barriers and measures.* A report from the Sustainable Production and Consumption Issue
- European Commission (2010); *Buying Social:* A Guide to Taking Account of Social Considerations in Public Procurement.
- Fageha, K. M., & Aibinu, A. A, (2014); A Procedure for Involving Stakeholders when Measuring Project Scope Definition Completeness at Pre-project Planning Stage; AIPM National 2014 Conference, Brisbane, Australia
- Falvey, R. (2012); "Competition Policy and Public Procurement in Developing Countries" (http://www.nottingham.ac.uk/credit/documents/papers), (Accessed: July 11, 2018).
- Fitzgerald, S.E. (2007); Strategies from Supply Chain Management: Supplier

 Framework and Empirical example. Supply Chain Management: An international Journal, 12 (4)

- Ghana Public Procurement Act, 2003 (Act 663); Republic of Ghana. Accra Ghana Publishing.
- Harink, J.H.A. (2003); *Internet-technologie in inkoop...de kinderschoenen ontgroeid*, University of Twente. Phd.
- Heizer, J. & Render, B. (2016); *Principles of Operations Management: Sustainability* and Supply Chain Management, 11th edition. ISBN: 9780132921145
- Helen, B. (2009); Conceptualizing Global Strategic Sustainability.
- Helmsing, A. H. J. & Knorringa, P. (2008); "Enterprise Development Interventions by Dutch Development NGOs": The Netherlands Year book on International cooperation, pp. 105-127:
- Humphreys, P., Li, W. & Chan, L., (2004); "The impact of supplier development on buyer-supplier performance". The international journal of management science, pp. 131-143.
- Hunja, R. R. (2001); Obstacles to public procurement reform in developing countries. The Netherlands: Kluwer International.
- Hyer, K., Babcock, C., Lucas, A. H., Robinson, L. E., & Hyer, L. A. (2010); *Multi-professional team care case-based geriatrics*: A global approach. New York: McGraw-Hill Medical.
- Isaac, S., & Michael, W. B. (1997); Handbook in research and evaluation: A collection of principles, methods, and strategies useful in the planning, design, and evaluation of studies in education and the behavioral sciences. (3rd Ed.). San Diego: Educational and Industrial Testing Services.
- Jonas, N. & Tom, H. (2014); "Brand Strategies in The Era of Sustainability" University of Novi Sad, Faculty of Economics in Subotica, Republic of Serbia.
- Kamann, D. J. F. (2007); "Organizational design in public procurement: A stakeholder approach." Journal of Purchasing and Supply Management 13(2): 127-136.

- Keller, G. (2009); *Managerial Statistics Abbreviated*, (8th ed). South Western: Cengage Learning
- Koh, S.C. L, Demirbag, M., Bayraktar, E., Tatoglu, E., & Zaim, S. (2007); *The impact of supply chain management practices on performance of SMEs*. Industrial Management & Data Systems, 107(1), 103-124.
- Koplin J, Seuring S, Mesterharm M. (2007); *Incorporating sustainability into supply management in the automotive industry* the case of the Volkswagen AG. Journal of Cleaner Production 15(11/12): 1053–1062.
- Kothari, C.R. (1990); Research Methodology Methods and Techniques Wishwa. Prakashan, New Delhi.
- Kotler, P. & Armstrong, G. (2004); *Principles of Marketing*. 10th Edition, Pearson-Prentice Hall, New Jersey.
- Kühler, A. M. (2003); Handreiking verdien aan besteden: naar een beleid voor efficient inkopen en aanbesteden voor lokale overheden. 's-Gravenhage, VNG uitgeverij.
- Lacy, P.; Arnott, J. & Lowitt, E. (2009); "The challenge of integrating sustainability into Talent and organization strategies": Investing in the Knowledge, skills and attitudes to achieve high performance", corporate Governance, vol. 9. Iss:4 Pp. 484-494.
- Lam, K., Hu, T., NG, T., Skitmore, M. & Cheung, S. O. (2001); 'A Fuzzy Neural Network Approach for Contractor Prequalification'. Construction Management and Economics, 19 (2), 175-188.
- Larson, P. D., & Halldorsson, A. (2004); *Logistics versus supply chain management: An international survey*. International Journal of Logistics: Research and Applications.
- Lemmet, S., (2012); *The Impacts of Sustainable Procurement. Eight illustrative Case Studies.* UNEP Division of Technology, Industry and Economics.

- Lyons, K. & Farrington, B. (2012); *Procurement and Supply Chain Management*, 9th Edition, ISBN: 9781292086118. London; New York: Financial Times/Prentice Hall,
- Lyons, K. (2000); Buying for the Future: Contract Management and the Environmental management processes. International Journal of Purchasing and Materials Management, 34 (2).
- Lyson, K. (1997); *Principles of Purchasing and Supply Management*. Vol. 6: Page 105 115.
- Malmberg, F. (2007); 'Introduction of a New Form of Quote Evaluation: A Case Study in Southern Sweden'. Construction Management and Economics, 25 (6), 661-669.
- McCrudden, (2004); "Using Public Procurement to achieve social outcomes"; Natural Resources Forum, pp. 257-267.
- McDaniel, A. G. (2001); *Marketing Essentials:* DECA Preparation. [Online] Available at: http://www.glencoe.com. (Accessed on 19th July, 2018)
- Meehan, J., & Bryde, D. (2011); *Sustainable Procurement Practice*. Business Strategy and the Environment, 20(2), 94-106.
- Mensah, S. and Ameyaw, C. (2012); Sustainable procurement: the challenges of practice in the Ghanaian construction industry:
- Morgan S. (2010); Annual report and accounts.
- Mugenda, O. M. & Mugenda, A. G. (1999); Research Methods Quantitative and Qualitative Approaches, African Centre for Technology Studies (ACTS), Nairobi.
- Murphy, C (2007); *Imagining what's possible*, Information. Journal of procurement Management.Vol.32, No.12.pp .132-138
- National Lottery Agency (2011), 'The Potential for Sustainability Gains' cited by Doh Z.K. on sustainable procurement practice in Ghana health service. KNUST 2014

- Ning, Y., Cong, D., & Jianjing, J. (2003); *The Economic Analysis and Development Strategies of The Green Building*, first Scottish conference for postgraduate Researchers of the built and natural Environment, November, 2003.
- OECD, (2006); OECD Fact book. Paris: OECD.
- OECD, (2007). "Integrity in Public Procurement, Good practice from A-Z". Available online: www.oecd.org/dataoecd/43/36/38588964.pdf. (Accessed on 19th July, 2018)
- Pries, F., M. Keizer, *et al.* (2006). Haal het beste uit de Bouw! Handleiding voor opdrachtgevers, SBR.
- Queensland Government Chief Procurement Office (2012); Sustainable procurement. A working definition. Retrieved:

 http://www.hpw.qld.gov.au/SiteCollectionDocuments/SustainableProcurementDefinition.pdf (Accessed on 19th July, 2018)
- Rozemeijer, F.A. (2000); Eindhoven Centre for Innovation Studies dissertation series, Creating corporate advantage in purchasing. Eindhoven, Technische Universiteit Eindhoven.
- Sarpong, A. C (2007); *Procurement Management and its Associated Risks*, Lecture Presented at Workshop for Committee of Internal Auditors, KNUST, 12th April,2007.
- Saunders, E. (2003); *Research Methods for Business Students*, 3rd ed. Prentice Hall: Financial times.
- Schaltegger, S. & Petersen, H. (2008); *Einführung in das Nachhaltigkeitsmanagemen*: Studienbrief des MBA-Studiengangs Substainability Management. Leuphana Universität, Lüneburg.
- Seuring, S. & M. Müller (2008); "From a literature review to a conceptual framework for sustainable supply chain management. "Journal of Cleaner Production 16(15).

- Sollish, F. B. & Semanik, J. (2007); *Procurement and Supply Manager's Desk:* New Jersey: John Wiley & Sons Inc.
- Srivastara, S. K. (2007); *Green Supply-Chain Management:* A State-of-The-Art Literature Review. International Journal of Management Reviews, 9 (1), 53-80.
- Stephen, B., & Helen, W., (2007); Sustainable Procurement Practice in the Public Sector: An International Comparative Study, University of Bath, School of Management. Working Paper Series. 2007.16
- Sterner, E. (2002); "'Green procurement' of buildings: A study of Swedish clients 'considerations." Construction Management and Economics 20 (1): 21 30.
- Sustainable Procurement National Action Plan (2006); 'Procuring the Future': Sustainable Procurement Task Force, UK.
- Svensson, G. (2007); Aspects of sustainable supply chain management (SSCM): Conceptual
- Tan, Y., Shen, L. & Hong, Y (2011): "Sustainable Construction Practice and Contractors' Competitiveness: A Preliminary Study" Habitat International, 35: 225-230.
- Telgen, J. et al. (2007b); Reader: Purchasing Management Lecture supplements, course code 182016, University of Twente 2007/2008.
- Veeke, R. & Gunning M. (1993); "Inkoopbeleid: basis voor doelgerichte actie." Tijdschrift voor Inkoop & Logistiek 9 (7/8):14-19.
- Vincent, J. M., & Abbie, C. (2011). Sustainable Procurement Policy and strategy.

 University of Greenwich. University of Greenwich Procurement & Business

 Services. Retrieved from: www.gre.ac.uk/offices/procurement
- Walker, H. & Wendy, P. (2006); *Sustainable procurement: emerging issues;*International Public Procurement Conference proceedings, 21-23 September, 2006.

- Wilmot, A. (2005). "Designing Sampling Strategies for Qualitative Social Research with particular reference to the Office for National Statistics" Qualitative.
- Yin, R.K. (1994); *Case study research: design and methods*. 2nd edition. Thousand Oaks, CA: Sage Publications.

APPENDIX

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY INSTITUTE OF DISTANCE LEARNING (IDL)



QUESTIONNAIRE ADMINISTERED TO ALL RESPONDENTS

My name is **Alberta Adjei-Mensah**, a final year student of Kwame Nkrumah University of Science and Technology, Kumasi, pursing a Master Degree in Project Management. I am conducting a research to examine the issues of sustainable procurement and its impact on in projects execution, using Gold Fields Ghana Limited Foundation as a case study.

I am inviting all stakeholders who are apprehended with diverse ideas on sustainable procurement in projects execution in the organization. Therefore, I would like to ask you some questions about your perceptions and observations on how sustainable procurement on projects execution practices are implemented in your organization.

It is very important to understand that the information that you provide is solely for research purposes and will be treated with utmost confidentiality and will not be used for any other purpose other than this study. Hence, kindly select the right response from among alternative answers for each question by ticking in the appropriate box. Where alternative answers are not provided, fill in the gaps provided. It will take about 10 to 15 minutes maximum to complete this questionnaire. Please feel free to ask any question or seek clarifications.

Thank you for your participation.	
Name:	Signature:

Section I:

Background Characteristics of the Respondents

[Give your answer with a tick $\lceil \sqrt{\rceil}$ where applicable.]

1.	Sex of the respondent
	a. Male [] b. Female []
2.	Age of respondent in years (completed year)
	a. Below 30 [] b. 30 – 39 [] c. 40 – 49 [] d. 50 – 59 e. 60 & above []
3.	Educational level
	a. Diploma/HND [] b. Bachelor's Degree [] c. Master's Degree []
	d. Other Tertiary Qualifications [] (Specify)
4.	Length of Service in years
	a. 0 – 5 Yrs [] b. 6 – 10 Yrs [] c. 11 – 15 Yrs [] d. 16 – 20 Yrs []
	e. 21 Yrs & Above []

Section II:

Assessing Sustainable Procurement Practices in Projects Execution

Question 5-19 below are statements to ascertain and assess your perceptions regarding Sustainable Procurement Practices in Projects Execution. Read each of the statements carefully and kindly provide your answer with a tick $[\sqrt]$ on each row and on the appropriate column based on your level of acceptance to it. A simple 5 – points Likert grading system attached to each stage of acceptance (1-5) will be used to measure your opinion on each statement.

Statement	Strongly	Disagree	Neutral	Agree	Strongly
	Disagree (1)	(2)	(3)	(4)	Agree (5)
Awareness	.	1			
5. The organization practices					
sustainable procurement in projects					
execution					
Sustainable Procurement Practices					
6. We give preference to youth,					
women, disabled people and rural					
towns					
7. We have established publish					
supplier engagement programme					
8. We ensure the need for cost-					
effective requirements					
9. Measure performance against					
sustainable procurement criteria					
10 . Enhance sustainability in the					
procurement process regularly					
11. Ensure the use of collaborative					
projects and framework					
12. Regularly review/audit processes					
of systems internally					
13. Support the inclusion of all					
sustainability aspects					
14. Merge the drive, responsibility					
and commitment of sustainable					
procurement.					
15. Develop a bias for projects that					
disclose environmental effect					
16. Develop environmental					
awareness to staff through training					
17. Make sustainable procurement					
commitments publicly for					

competitive advantage and social			
responsibility reasons			
18. Ensure design specifications to			
meet all projects procurement.			
19. There is available ISO 14001			
Certification			

Section III:

Assessing the Impact of Sustainable Procurement in Project Execution

Question 20 - 27 are statements to assess your perceptions regarding the impact of Sustainable Procurement Practices in Projects Execution. Read each of the statements carefully and kindly provide your answer with a tick $[\sqrt]$ on each row and on the appropriate column based on your level of acceptance to it. A simple 5 – points Likert grading system attached to each stage of acceptance (1-5) will be used to measure your opinion on each statement.

Statement	Strongly	Disagree	Neutral	Agree	Strongly
	Disagree (1)	(2)	(3)	(4)	Agree (5)
20. It enhances the organization's					
reputation					
21. It serves as a core value in					
corporate social responsibilities					
22. Abiding government					
regulations and the firm's policies					
23. Ensures value of money for					
economic consideration					
24. Gain competitive advantage					
through market differentiation					
25. Contributes to economic effects					
such as cost savings and job					
creation					
26. Promote fair trade and ethical					
sourcing practices					
27. Prevent stakeholders'					
discrimination in favour of					
suppliers					

Section IV:

Challenges in implementing Sustainable Procurement in Project Execution

28.	Are	you	aware	of	the	challenges	facing	Gold	Fields	Ghana	Limited	Foundation
rega	ardin	g the	implen	nen	tatio	n of Sustair	nable Pr	ocurei	ment in	projects	execution	on?

9	Yes [1	h Maybe [1	c No []
a.	i es []	b. Maybe [c. No []

Using question 29 - 40, help the study identify the challenges facing your company on sustainable procurement practices in projects execution. Read each of the statements carefully and kindly provide your answer with a tick $[\sqrt]$ on each row and on the appropriate column based on your level of acceptance to it.

Impact	Strongly	Disagree	Neutral	Agree	Strongly
	Disagree (1)	(2)	(3)	(4)	Agree (5)
29. Lack of adequate budget for					
internal or external support					
30. High implementation costs of					
sustainable procurement					
31. Absence of sustainable products					
in the local market					
32. Lack of support from the top					
management					
33. Lack of relevant legislation and					
legal enforcement					
34. Lack of internal expertise on					
sustainability topics					
35. Inadequate training of					
procurement staff					
36. Absence of societal drive from					
projects beneficiaries					
37. Ineffective monitoring and					
evaluation mechanisms					
38. Inadequate multi-stakeholder					
involvement					
39. Economic and political					
procurement constraints					
40. Ineffective procedure for					
suppliers' selection					