



Master's degree thesis

LOG950 Logistics

**Suppliers Approach to Sustainable Procurement: A
Case Study of Ghana Cocoa Board**

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Preface

This master thesis was undertaken as part of Molde University College – Specialized University in Logistics requirements for the award MSC (Petroleum Logistics). The journey so far has not been easy as an international student with a new learning environment. I kept switching topics of various interest and finally settling on Suppliers Approach to Sustainable Procurement: A Case Study of Ghana Cocoa Board. Indeed, as Petroleum Logistics student, I have an interest in qualitative research. When working at University College of Management Studies – Ghana, I had research interest in procurement/purchasing related issues.

At Molde, after seminar courses, I got enthused with sustainability and circular economy excellent lecture delivery by the lecturer and the global attention to these concepts towards human survival. I, then, decided to take it up in my master thesis focusing on the role procurement/purchasing practice play towards sustainability. I found out that, a student had written a thesis on sustainable procurement in oil and gas in Ghana. This shaped my thought to redirect my focus in Ghana's cocoa sector. The cocoa sector supply chain involves many suppliers/partners as its complexity could be similar to petroleum sector. Ghana cocoa sector contributes enormously to Ghana's economy. As a second producer and its premium quality cocoa beans to the international market worth consideration for this study. It is worth mentioning that, the global pandemic (COVID-19) truncated my plan to visit the case organisations for data collection and altering my data collection instrument, as I had to solely rely on distance interviews at the time Ghana was under lockdown. The initial plan was to use interview and observation for triangulation purposes. Still with determination and tenacity of purpose and encouragement from Prof. Steiner Kristoffersen, I worked hard to complete on time

Now, I am highly elated that, things have worked to perfection and have set the stage for my next academic explore in pursuit of Doctor of Philosophy (PhD) which had been my desire and dream.

Dedication

I dedicate this work to my blessed son, Nyamebohye Oppong Nhyirah Nkesah, and dearest wife Priscilla Serwaa Kuffour Nkesah.

Acknowledgement

For you make me glad by your deeds, O Lord; I sing for joy at the work of your hands

Ps. 94:4

This study wouldn't have been possible without the immense support, advice and assistance I enjoyed from people who have become involved in my project.

First and foremost, I thank the Almighty God for his protection, guidance and the strength throughout my study. God almighty has been awesome in my life and glory be to him.

I wish to express my utmost gratitude to my supervisor Professor Steinar whose meticulous direction, supervision and constructive criticism really made enormous impact for this study . Sir, I salute you. On my social life, you have taught me humility, selflessness, respect for divergence opinion. Irrespective of your schedule as Rector of Molde University College – Specialised University of Logistics, you provided me timely response anytime I sent you mail. May God be your strength.

I am thankful to Dr. Isaac Yeboah and wife for their amazing contributions, encouragements and support for my stay in Molde. God richly bless you. I wish to express my sincere gratitude to workers at COCOBOD who responded to my interview by providing me with the necessary data and information for the successful completion of the study.

My heartfelt thanks go to members of my family especially lawyer Akwasi Arhin, my lovely mothers Opong Abena Lydia, my aunty Nkrumah and lovely brother Padmond Baah Justice for their prayers and support throughout my academic life. I also wish to thank the following friends for their contribution toward the successful completion of the study; Gifty Owusu Sekyere, Anthony Asiedu (former GES Accountant at SEKESS), Bright B. Antwi (Otumfo), Bright Adarkwa.

Stephen Nkesah Kwasi

Molde, 02.06.20

Abstract

Issues concerning sustainability is one of the most discussed topics in the media, corporate world, environmental groups and general public for the past two decades. Businesses and the society have become conscious of the industrial production and consumption activities on the environment, especially on climate, global warming, working conditions at workplace. The economic consequences on their own have called for regulatory measures to ensure sustainable practices in all spheres of the supply chain of the organization. Procurement as a major component of supply chain is seen as a vehicle to ensure sustainability. Ghana, as a second largest producer of cocoa after Cote D'ivoire with an estimated 20 percent a market share (Bangmarigu & Qineti, 2018), employs 794,129 households in producing cocoa (Ghana Living Standards Survey Round 6, 2014). Ghana Cocoa Board (COCOBOD) is the regulator and as a supplier of cocoa beans to local and international market. It is against this background that this research tries to assess suppliers approach to sustainable procurement. The research strategy was qualitative with one single case study. COCOBOD is a large organisation with complex mandates, offering a unique opportunity of studying a large complex public service qualitatively and in-depth, given its incomparability to other public organisations, it still yielded rich opportunities of new insights. The study adopted non-random sampling technique specifically purposive sampling. The study used semi-structured and in-depth interviews as the main data collection instrument. *The study found that, politically motivated contractors/suppliers and management policies on sustainable procurement were the biggest challenges to sustainable procurement faced by COCOBOD.* The study also identified stakeholders, regulations compliance, corporate social responsibility and concern for resource depletion as drivers for sustainable procurement. The study recommends depoliticizing management to avoid truncating good decisions and strategic outlined or earmarked for implementation towards sustainable procurement. The study admonishes continuous partnership and cooperation with farmers and other stakeholders on policies on tree planting and shade maintenance on cocoa farms. Management of COCOBOD should have a clear policy on sustainable procurement.

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List of Abbreviations and Acronyms

Adwumapa Buyers Limited – ABL
AfDB – African Development Bank
Armajaro (GH) Limited – AGL
Chartered Institute of Purchasing and Supply – CIPS
Chartered Institute of Purchasing and Supply (Australia) – CIPSA
CHED – Cocoa Health and Extension Division
CMC – Cocoa Marketing Company
CMM - Capability Maturity Model
Cocoa Health and Extension Division – CHED
Cocoa Marketing Company Limited – CMC
Cocoa Merchant Limited – CMGL
Cocoa Research Institute of Ghana – CRIG
COCOBOD – Ghana Cocoa Board
Commonwealth Procurement Framework - CPF
Corporate Social Responsibility – CSR
Department of Environment, Food and Rural Affairs – DEFRA
ESMS – Environmental, Social Management Systems
Ghana Investment Promotion Center – GIPC
Ghana National Procurement Agency – GNPA
Ghana Standards Authority – GSA
Ghana supply Company Limited – GSCL
Gross Domestic Product – GDP
HRD – Human Resource Department
International Ethics Standards Board for Accountants – IESBA
International Financial Reporting Standards – IFRS
International Standards on Auditing - ISA
IUCN - International Union for the Conservation of Nature
Kuapa Cocoa Limited – KKL
Kumankoma Company Limited – KCL
LCPs – Local Content Public Procurement
License buying companies - LBCs
Maintenance, repair and operating materials - MRO items
Metropolitan, Municipals and District Assemblies – MMDAs

Ministries, Departments Agencies - MDAs
National competitive tendering – NCT
National Liberation Council Decree – NLCD
Open Working Group – OWG
Organisation of Economic Cooperation for Development - OECD
Produce Buying Company Limited – PBC
Producer Price Review Committee – PPRC
Public Financial Management Reform Program – PUFMARF
Public Procurement Authority – PPA
QCD – Quality Control Division
Quality Control Company – QCC
RGGI - Regional Greenhouse Gas Initiation
RME – Research, Monitoring and Evaluation
RoHS - Restrictions of Hazardous Substances
Seed Production Division of COCOBOD – SPD
Sika Aba Buyers Limited – SABL
Small and medium size Enterprises – SMEs
Standard Tender Documents – STD
Sustainable Public Procurement – SPP
Total Cost of Ownership - TCO
Trade Union Congress – TUC
Transroyal - TGL
Triple Bottom Line – TPL
UN - United Nations
UN Commission for Sustainable Development – UNCSD
UN Department of Social and Economic Affairs - UNDESA
UNEP - United Nations Environment Programme
United Nations Development Programme – UNDP
Value Added Tax certificate - VAT
West African Cocoa Research Institute – WACRI
World Commission on Environment and Development - W

Chapter One

Introduction

1.0 Background Information

Issues concerning sustainability is one of the most discussed topics in the media, corporate world, environmental groups and general public for the past two decades. As businesses and the society have become conscious of the industrial production and consumption activities on the environment, especially on climate change with its impact on global warming, working conditions at workplace and the economic consequence have called for regulatory measures to ensure sustainable practices in all spheres of the supply chain of the organization. Environmental regulations have been fashioned or enacted recently, For example, Restrictions of Hazardous Substances (RoHS) (2002/95/EC (Europa-Environment 2002), the Regional Greenhouse Gas Initiation in the US (RGGI 2003). Indeed, attention on sustainability for a firm in its entire supply chain provides the opportunity to better serve customers who are more environmentally, economically and societal minded and thereby allowing the organization to have an improved supply chain performance as compared to its competitors. It must be stated that, this awareness of sustainability could be traced to the Brundtland Commission of the United Nations definition of sustainable development as “developments that meets the needs of the present without compromising the ability of the future generations to meet their own needs”. Moreover, the 2005 World Summit of the United Nations fashioned a framework where economic, environment, and social were seen as the “three pillars” for ensuring sustainable development and therefore making it the three most important ingredients for sustainability to occur. As observed by Chopra (2017), customers that value sustainability is seen as a driving force behind sustainable supply chain.

1.1 Historical Development of Sustainability Thinking

The doctrine of “sustainable development” traces its origin from economics (Badiago, 1999). According to Badiago (1999), the term “sustainable development” first featured in the *World Conservation Strategy* in 1980, which was drafted by the United Nations Environment Programme (UNEP) and the International Union for the Conservation of Nature (IUCN). The international development policies took an interest interrogating basic assumptions when it comes to economics, society and the environment in 1980s (Badiago, 1999). The focus was achieving sustainable development through “conservation” as the term was defined as “ biosphere management for humankind usage that gives greatest *sustainable* benefit to present generation as we maintain its potential to meet the needs and aspirations of future generations” (Eblen and Eblen, 1994).

The discussion as to whether the natural resources the world is endowed with has the capability to sustain humanity existence as there have been increasing population can be traced to the works of Thomas Malthus, an English political economist, (1776-1834) (Dixon and Fallon, 1989). Malthus (1798) work “An Essay on the Principle of Population ” posited the basic principle or tenet of environmentalism drawing relations between human population growth (geometric progression) and subsistence (arithmetic progression), it is only the depletion of our natural resource and unavoidable human want and misery that can control this population growth (Eblen and Eblen, 1994). After the Malthus proposition, economist attention has been shifted to resource use efficiency.

In the subsequent years, there has been global concern for industrial production for achieving economic development which impacted on natural resource depletion. This recognition prompted the United Nations (hereafter UN) Conference on the Human Environment at Stockholm in 1972. At the Stockholm conference, representatives from both developed and developing nations met to have a discussion on humanity’s right to “a healthy and productive environment” (Badiago, 1999). Critical issues discussed were transboundary pollution, collaborative management of common resources, and global commons consented to open their courts to transboundary proceedings (Boyle, 1995).

After, the Stockholm conference, other treaties safeguarding the global commons such as World Heritage Convention, the Whaling Convention, and the Montreal Protocol on Ozone

Depletion brought forth the doctrine of “global trusteeship” contributing to the concept of “sustainable development” discussion (Boyle, 1995)

In 1987, the United Nation`s World Commission on Environment and Development (WCED) with Gro Harlem Brundtland from Norway as its chairperson renewed the discussion for “sustainable development” essentially reducing global poverty, protecting the environment among other things. This Brundtland Commission report, *Our Common Future*, proposed a working definition for sustainable development, which states that “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987).

During this UN World Conference on Environment and Development or termed differently as the Earth Summit which took place in June, 1992 at Rio de Janeiro, Brazil attracted diplomats from over 178 countries that saw the signing of the five (5) pacts outlining “sustainable development” as a new policy direction in the 21st century (Badiago, 1999). At the Earth Summit, member states adopted *Agenda 21* which was seen as “blueprint or guidelines to attaining development socially, environmentally, and economically sustainable”. Subsequently, there came the World Summit on Sustainable Development, Johannesburg Declaration on Sustainable Development in South Africa in 2002. The submit strengthened the earlier global commitment towards poverty reduction and protecting the environment emphasizing - Agenda 21- and the Millennium Declaration by involving multilateral partnership.

The General Assembly of the United Nation in January 2013 formed a thirty member Open Working Group (OWG) tasked to workout proposal on the Sustainable Development Goals. In 2015 witnessed the General Assembly negotiation process on post – 2015 development agenda which brought forth adoption of the 2030 Agenda for Sustainable Development with its seventeen Sustainable Development Goals as its focus at the United Nations Sustainable Development Summit in September 2015.

Table 1. 1The summarized 17 Sustainable Development Goals

Goal Number	Focus	Description
1.	No Poverty	End poverty in all its forms everywhere
2.	Zero Hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3.	Good Health and Well-being	Ensure healthy lives and promote well-being for all at all ages
4.	Quality Education	Ensure inclusive and promote lifelong learning opportunities for all
5.	Gender Equality	Achieve gender equality and empower all women and girls
6.	Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all
7.	Affordable and Clean Energy	Ensure access to affordable, reliable, sustainable and modern energy for all
8.	Decent Work and Economic Growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9.	Industry, Innovation and Growth	Built resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

10.	Reduced Inequalities	Reduce inequality within and among countries
11.	Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient and sustainable
12.	Responsible Consumption and Production	Ensure sustainable consumption and production pattern
13.	Climate Action	Take urgent action to combat climate change and its impacts
14.	Life Below Water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15.	Life on Land	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation, halt biodiversity loss
16.	Peace, Justice and Strong Institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17.	Partnership for the Goals	Strengthen the means of implementation and revitalize the global partnership for sustainable development

1.2 Statement of Problem

As there is global attention on sustainability, in the media, corporate world and by general public for the past two decades, considering the rate of environmental degradation, workers health and safety, pollution among others, if the trend is not checked and controlled, the damage to the environment may be difficult to reverse and for that matter, humanity survival would be challenged. There is the cognisance of production of goods, industrialism central role in creating welfare, specialisation within supply chains within globalisation and hence procurement becoming incredibly important. Though some organizations adopt sustainable procurement due to its perceived relevance; in the developed world; it is quite uncommon to see organizations in developing countries being encouraged or mandated to adopt it. In this globalized world where there is a fierce competition among businesses for their continued survival, companies cannot downplay the procurement function in their supply chain as a strategic component. Since procurement is a major component of supply chain, once suppliers adopt sustainable practices, it will go a long way to improve the sustainability performance of the entire supply chain. Traditionally, the procurement function was about the process involved in buying for the organization. As was observed by Weele (2018), the procurement function encompasses “determining the procurement needs, selecting the supplier, arriving at the proper price, specifying terms and conditions, issuing the contract or order and engaging expediting” when it comes to purchased goods such as raw materials, supplementary materials, semi-manufactured products, components, finished products/trade items, investment/capital equipment, maintenance, repair and operating materials (MRO items) and services.

Today, with the industrial production and increased consumption, resource scarcity, and low cost among other factors has necessitated for global sourcing in the business world from foreign manufacturers. For organisations to be competitive in delivery customer, societal and shareholder value, having in mind public concern for sustainability places procurement function at a strategic role hinging on three pillars which are environment, social and economy. There is a lack of literature about how suppliers on their own without pressure consciously fashion their sustainability footprint especially when it comes to environment, societal and economic footprints towards sustainable procurement, as there may be violation of the environment, working environment that may have huge impact on human survival.

The cocoa sector contributes enormously to Ghana's economy. It is the world's second largest producer of cocoa after Cote D'ivoire with a market share of an estimated 20 percent (Bangmarigu & Qineti, 2018). Ghana is noted for her premium quality cocoa beans to the international market. The cocoa sector engages 794,129 households producing cocoa based on the ecological zones (Ghana Living Standards Survey Round 6, 2014) which are based on the ecological zones. Ghana Cocoa Board is the regulator and market or trade the cocoa beans through Cocoa Marketing Company, a subsidiary, to local and international market. In this light, COCOBOD is seen as a supplier of cocoa. They procure farm inputs, chemicals, fertilizers from suppliers and give to the farmers for the production of cocoa at free or subsidized price. Per COCOBOD operations enjoins them to have responsibility towards sustainability.

It is against this background that this research tries to assess suppliers approach to sustainable procurement using Ghana Cocoa Board a case study.

1.3 Research questions

It is the expectation of the researcher that at the end of the research, the following questions are answered:

1. How does the business model of COCOBOD impact sustainable procurement in relation to the triple bottom line?
2. Which are the motivating factors for COCOBOD to practice sustainable procurement
3. What challenges do COCOBOD encounter in ensuring sustainable procurement?

1.4 Scope of the Study

The study was undertaken to look into suppliers' approaches to sustainable procurement focusing on Ghana Cocoa Board (COCOBOD) as a case study. The focus of suppliers is limited to COCOBOD as a supplier of cocoa beans to the domestic and international market. I could not extend the coverage of the empirical investigations to individual farmers to farmers producing the beans and unique suppliers of the inputs to COCOCBOD in an integrated approach because of the time frame of the study and imposed limitations of the COVID-19 lockdown. In view of this, the findings are limited to the case organisation (COCOBOD) only.

The study was juxtaposed against existing literature in the field of sustainable procurement and how COCOBOD conducts its procurement processes from their suppliers in integrating sustainability thinking into procurement especially the triple bottom line.

1.5 Significance of the Study

The importance of this study cannot be underestimated, as there is the global call for sustainability practices in corporate operations concerning their supply chain which procurement plays a pivotal role. In the light of this the following are some of the significance.

In the first place, this study will contribute to knowledge and development of literature in the subject area under investigation. This will trigger interest for further research.

Secondly, I intend this research to be useful as a source of reference in the academia for lecturers, practitioners, researchers, and students who may wish to conduct future research into the other aspects of the study not covered yet for those interested in the topic when it comes to sustainable procurement.

Thirdly, it is my hope that, the study will assist the government of Ghana, and especially the Ministry of Food and Agriculture in regulating procurement activities and policies towards sustainable procurement. I also think that, it might have an influence on national and corporate procurement policies which will be relevance to other public institutions and also serve as a guide on the best strategy to adopt in managing sustainable procurement practices.

1.6 Organisation of the Study

The study is organized into eight chapters. Chapter one introduces the study introduction of the study. It presents the general background of the study, historical background to sustainability thinking, problem statement, research questions, scope of the study, and limitations of the study and lastly organization of the study. Chapter two gives profile of the COCOBOD as a case organisation with its subsidiaries. It also presents its business model and supply chain. Chapter three examines the concept of sustainability and its various models. Chapter four discusses perspectives on procurement systems in Ghana's public sector including the legal framework. Chapter five highlights the research methodology used for the study, data collection and research design. It also gives details about the research

sample and sampling techniques used in the study. Chapter six looks at the qualitative data presentation. Chapter seven presents discussion on the data. Chapter eight provides summary of findings, conclusion and recommendations, further research and limitation for the study.

Chapter Two

Profile of Ghana Cocoa Board

2.0 Historical Perspective of Cocoa in Ghana and Ghana Cocoa Board.



Cocoa happens to be produced under forest shades as a recurrent tree crop of moist tropics. Cocoa originated from around the headwaters of the Amazon in the South America. Cocoa cultivation and its value spread to Central and Eastern Amazonian and northwards to Central America during ancient times. The Native Americans used the coca beans as chocolate or for chocolate drink. It was also used to pay tribute to the king and recognized as a currency in trading. In 1521 after the defeat of Central America, Hernan Cortez and his conquistadores transported a small cargo beans to Spain in 1528 to make a chocolate drink there. By 1580, the chocolate drink had received popularity and consignment were shipped to Spain, and subsequently spread all over Europe, reaching Italy in 1606, France in 1615, Germany in 1641 and Great Britain in 1667.

In the 16th century, the Spanish took interest in mass cultivation of cocoa in Central America. It was later on extended to the British, French, and the Dutch West Indies (Jamaica, Martinique, and Surinarn) during 17th century and to Brazil in the 18th century.

From Brazil, it was taken to Sao Tome and Fernando Po (now part of Equatorial Guinea) in 1840; and from there to other parts of West Africa, especially Gold Coast (now Ghana), Ivory Coast and Nigeria

In Ghana, the records extensively in oral form show that, Dutch missionaries planted cocoa in the coastal areas of the then Gold Coast dated 1815, as the Basel mission also planted cocoa in Aburi. It must be stated that, these efforts did not spread the cultivation of cocoa until an Osu native in Accra named Tetteh Quarshie, a blacksmith, who had traveled to Fernando Po to work there had returned in 1879 along with Amelonado cocoa pods and started farming in Akuapem Mampong in the Eastern region of Ghana. This made farmers buying the pods from his farm to plant them. Production subsequently spread from Akuapem catchment area to other parts of the Eastern region.

In 1886, the Governor then, Sir William Bradford Griffith made arrangements for bringing cocoa pods from Sao Tome from which cocoa seedlings were raised at Aburi Botanical Garden and further distribution to farmers for cultivation. Currently, there are nine (9) cocoa growing regions namely Ashanti, Bono, Ahafo, Bono East, Volta, Oti, Central, Western North, Western South regions

Figure 2. 1 Cocoa growing regions in Ghana



In the year 1947, through an ordinance, Ghana Cocoa Board (Hereafter COCOBOD) was established. In 1957, Dr. Kwame Nkrumah, the then president of the republic of Ghana, laid the foundation to commence the headquarters (Cocoa House) for the board offices at the cost of nearly 2 million Cedis. When it comes to purchasing of the cocoa beans, COCOBOD gives purchasing authority to license buying companies (LBCs) to buy the cocoa beans on behalf of them at a fixed market price from farmers/producers.

2.1 COCOBOD Governance

COCOBOD is governed by Board of Directors appointed by the government of Ghana consisting of government nominees with diverse professional background, workers representative, and two representatives from Cocoa, Coffee and Sheanut Farmers` Association. The Ministry of Food and Agriculture has the oversight responsibility with the Chief Executive as the administrative head able supported by three (3) deputies in charge of Finance and Administration, Agronomy and Quality Control, and Operations. The Board has nine Directorates responsible for Human Resource, Research Monitoring and Evaluation, Audit, Finance, Procurement, Health, Legal, Special Services (Security and Intelligence) and General Services (Estates, Civil works and Transport). Apart from these the Board has departments/ Units such as Public Affairs, Scholarships and Information Systems with departmental heads with excellent chain of command.

2.2 Mission

The mission of the Board is “to encourage and facilitate the production, processing and marketing of good quality cocoa, coffee and sheanut in all forms in the most efficient and cost effective manner and maintain the best mutual industrial relations with its objectives”.

2.3 Objective and Functions of the Board

The Board has its main objectives to:

- Encourage the production of cocoa, coffee and sheanut
- Initiate programmes aim at controlling pests and diseases of cocoa, coffee and sheanut.
- Undertake and encourage the processing of cocoa, coffee, sheanut and cocoa waste with the aim of adding value for export and local consumption

- Undertake, promote and encourage scientific research aimed at improving the quality of cocoa, coffee, sheanut and other tropical crops.
- Regulate the internal marketing of cocoa, coffee and sheanut.
- Secure the most favourable arrangements for the purchase, grading and sealing, certification, sale and export of cocoa, coffee, sheanut.
- Purchase, market and export cocoa and cocoa products produced in Ghana which is graded under Cocoa Industry (Regulations) (consolidation) Degree, 1968 NLCD 278, or any other enactment as suitable for export.
- Assist in the development of the cocoa, coffee and sheanut industries of Ghana.

2.4 Subsidiaries under COCOBOD

With these objectives that are mainly focusing on production, purchasing/buying, grading and sealing, certification, quality control, extension, sales and marketing, and exporting and research have made COCOBOD to have subsidiaries/divisions under it with different focus and responsibilities towards the cocoa sector and ultimately accountable to COCOBOD. The subsidiaries/divisions are:

2.4.1 Cocoa Research Institute of Ghana (CRIG)

The Institute was established in June 1938 at Tafo as the Central Cocoa Research Station of the Department of Agriculture of the Gold Coast to find out problems accounting for pests and diseases that had contributed to decline in cocoa production in the Eastern region. In 1944, there was upgrading of the research institute to West African Cocoa Research Institute (WACRI) with expanded mandate to cater for pest and disease problems of cocoa in West Africa and conducting investigation into soil fertility and recommending best agricultural practices intended increasing yields.

From 1966, CRIG's mandate covers coffee, kola, sheanut, and cashew apart from cocoa where they establish strong connection with extension for effective transfer of their research findings, new findings, new technologies and agronomic practices to farmers.

2.4.2 Seed Production Division of COCOBOD (SPD)

This division was set up on 2nd January, 2001 after the reorganization of the agricultural sector aimed at unified Agricultural Extension Services which made Cocoa Extension Division being dissolved.

The Seed Production Division is mandated to ensure multiplication and distribution of improved, high quality cocoa and coffee planting materials for efficient and cost effective in adequate quantities to the farmers. To achieve their mandate, the division has set up twenty-seven (27) cocoa stations and four (4) Coffee stations across cocoa growing areas in the country. COCOBOD has also mandated Seed Production Division to raise 60million hybrid cocoa seedlings to be distributed to farmers to achieve sustainable cocoa production. A beneficiary farmer for this programme include:

- Farmers whose farms are due for replanting after treatment of cocoa swollen shoot virus disease
- Farmers whose farms are thirty (30) years and wants their cocoa trees to be cut for rehabilitation/replacement
- Farmers willing to have new cocoa farms especially the youth
- Farmers who want rehabilitation of abandoned or unproductive cocoa farms

2.4.3 Cocoa Health and Extension Division (CHED)

This division is in charge of control of cocoa swollen shoot virus disease, rehabilitation of old and unproductive cocoa farms and extension services. Their activities also include sectoring and surveys in cocoa districts, treatment of infected farms, aiding farmers for replanting treated farms with disease tolerant and improved hybrid varieties and conducting periodic re-inspection of treated and replanted farms to prevent possible reinfection of treated farms. CHED ensures an efficient and cost-effective extension to cocoa farmers by helping farmers in acquisition of knowledge and skills in best agricultural practices.

CHED provides training in basic economics to orientate farmers to see farming as a business venture as they stand to enjoy from it productivity, increased income and good livelihood.

2.4.4 Cocoa Marketing Company (CMC)

As COCOBOD is much concerned about efficient marketing, there exist coordination between COCOBOD and the Cocoa Marketing Company Limited (CMC- Ghana) when it comes to purchasing, transportation, storage and marketing of cocoa, both internal and external. CMC happens to be the sole exporter and seller on behalf of the board as well as when it comes to take-over function regarding internal marketing system. CMC has takeover centers at Kaase, Takoradi Port, and Tema port. One global strength of CMC is its leading supplier of premium quality bulk cocoa to their customers' destination across the world.

2.4.5 Quality Control Company (QCC)

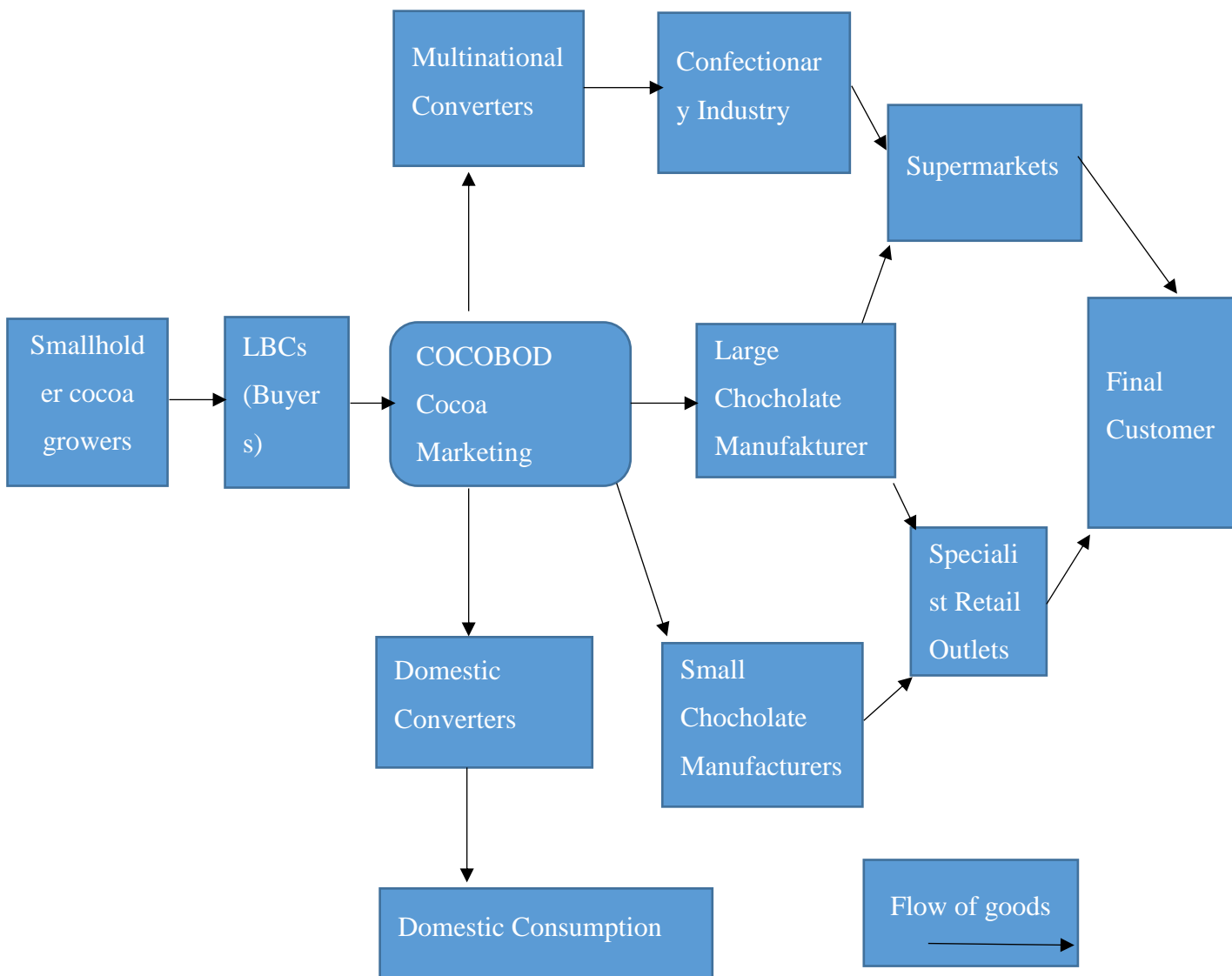
QCC is in charge of inspection, grading and sealing of the cocoa, coffee and sheanut for the local and international markets and also responsible for fumigation and disinfestation of produce. As the International Cocoa Standards require a merchantable quality of cocoa to be well fermented, thoroughly dried, and free from smoky beans, free from abnormal or foreign odour and free from any evidence of adulteration, free from living insects, broken beans and any foreign materials, QCC is entrusted to ensure that. QCC is also responsible when it comes to inspection of storage sheds and issuing of certification for premises as a grading centers or depots and stationed in seventy three (73) operational districts for their inspection, sampling, grading and sealing of cocoa before evacuation to take-over centers for onward shipment to international buyers or delivery to the local processing factories. Again, another `check- sampling` is done for all consignments before shipping of all the cocoa beans out of the country just be certain that only quality cocoa beans are exported.

2.5 COCOBOD Supply Chain

Ghana's cocoa production has a supply chain as shown simplified in the diagram below, where we have cocoa farmers who cultivate their farmlands and after the produce are harvested and undergone the required fermentation, and been well dried is sold to the licensed buying companies. If the LBC is a private company, it sells the cocoa beans to COCOBOD at commission.

COCOBOD through its subsidiary CMC engages in marketing and sales to both multinational and domestic converters. Various products are made from cocoa which are bought by the final customer from the various supermarket and retail outlets.

Figure 2. 2 Cocoa Supply Chain in Ghana



Source: Adapted from (Gilbert 2008; Glavee-Geo 2012)

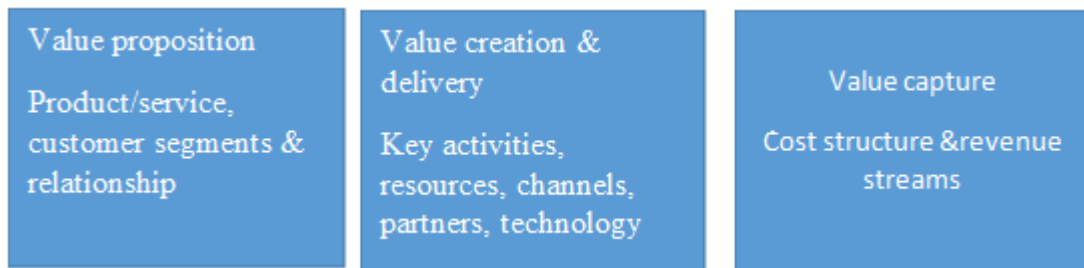
2.6 COCOBOD Business Model

Timmers (1998) defines business model as “product, service and information flows architecture or design that takes cognizance of the various business actor and role, benefits to these actors and sources of revenue description”.

Richardson (2008) represents a conceptual framework which seeks to connect the firm’s strategy, or theory of how to compete, to its activities or performance of the strategy. This framework assists in strategically thinking about the details of how the firm undertakes

business with respect to the three dimensions focusing on value proposition, the value creation and delivery system, and how this value is captured. This strategy intends to create superior value to customers and capturing greater portion of this value than their competitors do.

Richardson (2008) formulated a conceptual business model framework as below:



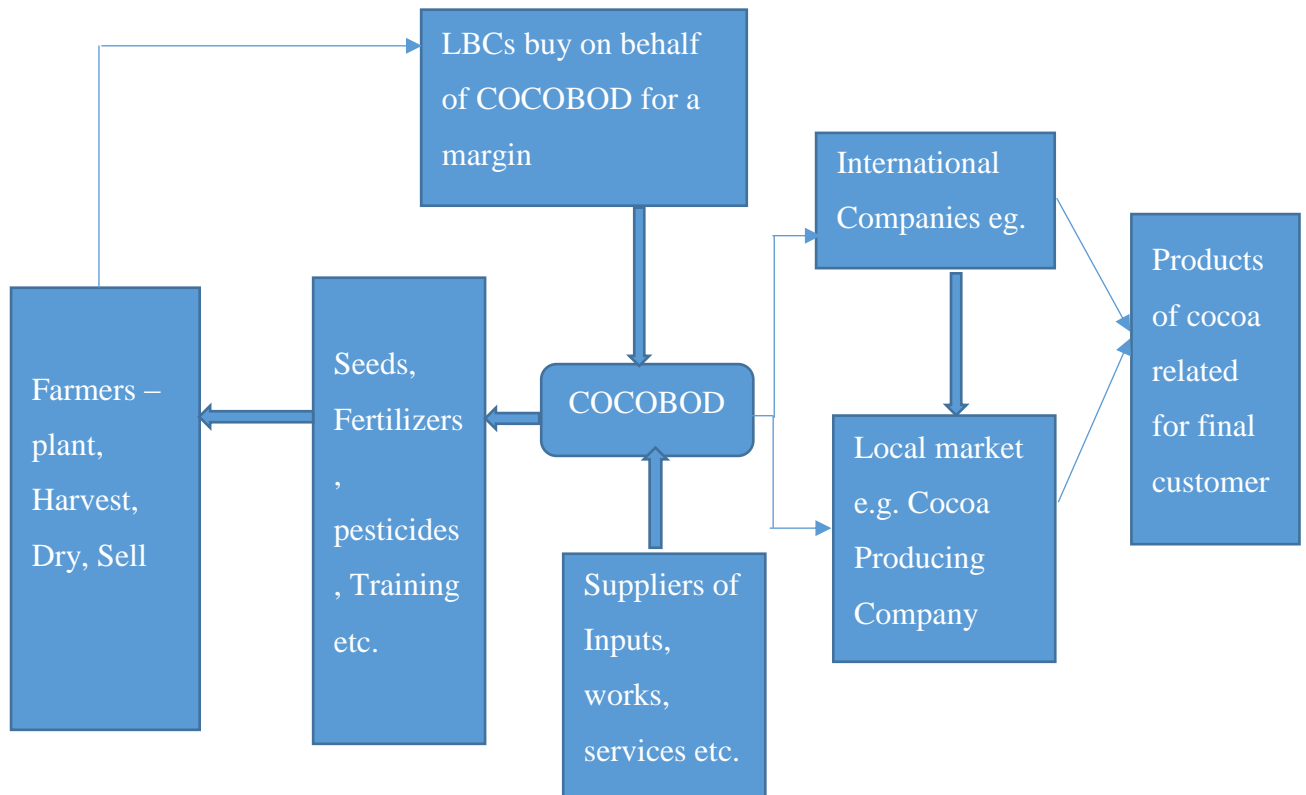
Source: Richardson (2008)

Osterwalder and Pigneur (2010) see the business model as “rational description of how value is created, delivered and captured by organisations”. They share the same conceptual business model framework as done by Richardson (2008).

Massa et al. (2017) saw a business model to be a “description of an organization and its workings to meet its goals such as profitability, growth, social impact” COCOBOD undertake its activities with a business model that ensures that, they sell the best quality of cocoa beans to both internal and external market to realize profitability, have more stakeholder impact and business growth.

In line of this, the construct below depicts the business model structure with its ensuing explanation.

Figure 2. 3 COCOBOD Business model structure



Source: Researcher`s construct, 2020

From the diagram showing the business model of COCOBOD supplies of cocoa to the global market procures all kinds of inputs, supplies, works, and services from many suppliers both internal and external in accordance with the Public Procurement (Amendment) Act, 2016 (Act 914), manuals and regulations. The right specifications, quality, standards, approvals are based on research findings from Cocoa Research Institute of Ghana (CRIG), and the user departments/subsidiaries. Once the headquarters make these major procurements, even though the subsidiaries also can procure within a certain threshold, they supply or distribute to the farmers at a subsidized prices such as the fertilizers, agro-chemicals, farm inputs and free seedlings.

The subsidized strategy is by the Government of Ghana through COCOBOD to increase the productivity and output as the major component of the cost is borne by the farmers (World Bank, 2011). Training programmes are given to the farmers for best farming practices through COCOBOD subsidiary CHED, and when it comes to seed productions and distribution it is handled by the SPDC.

When it comes to the number of farmers engaged in cocoa production in Ghana, according to Ghana Living Standards Survey Round 6 (2014), the number of households producing cocoa are 794,129 which are based on the ecological zones with the composition coastal (17,637), forest (750,354), savannah (24,363), and GAMA (1,775) and this clearly shows that the forest zone has the largest households. As observed by Hainmueller et al (2011), one-fourth of production is through share-cropping basis. On the average, each farmer owns 1-2 hectares of farmland with an economic life cycle twenty (20) to thirty (30) years. Now, with the improved seeds, it can take three to five years for the cocoa to be fully matured for harvesting after surviving pests and disease infections. The cocoa pods are broken with cutlasses, machetes, and long handle knives popularly known as “go-to-hell”. The farmer allows the beans to ferment for couple of days normally five to six seven days for the unique flavor and other properties making Ghana to have the premium cocoa beans. After the beans are dried, it is sold to License Buying Companies (LBCs) that are licensed by COCOBOD close to forty six which include among others Produce Buying Company Limited (PBC), Armajaro (GH) Limited (AGL), Olam Ghana Limited (Olam), Transroyal (TGL), Cocoa Merchant Limited (CMGL), Kuapa Cocoa Limited (KKL), Adwumapa Buyers Limited (ABL), Kumankoma Company Limited (KCL), Sika Aba Buyers Limited (SABL) etc. The Producer Price Review Committee (PPRC) with its composition drawn from COCOBOD officials, farmers, government, and Licensed Buying Companies (LBCs) representatives determines the producer price.

After the LBCs purchase of the cocoa beans, then, Quality Control Company which is a subsidiary of COCOBOD checks the quality of the beans by grading and sealing the packed bags at a fee that is determined by Producer Price Review Committee. These cocoa beans are then evacuated by private haulers to the various take over points such as Kaase, Takoradi, and Tema which are taking over by Cocoa Marketing Company (Ghana) also a subsidiary of COCOBOD charged with sale and exportation as larger quantities are exported in its raw form which are sold to international or multinational companies (Barry Callebaut, Cargill, Olam, Cadbury, Nestle and the remaining is sold to the domestic market (cocoa processing company Limited- CPC, Touton Ghana, Olam Ghana, BD Associates, Cargill(Ghana) Limited, Niche Cocoa Industries Limited. After the sale by COCOBOD through its CMC as its subsidiary, the cocoa beans are processed into different cocoa related products notably chocolate, milo for consumption by the final consumers.

Chapter Three

Concept of Sustainability

3.0 Introduction

Essentially, this chapter reviews available literature based on the research topic and related literature in relation to what impinged the research problem and objectives. As the research topic hugely tries to focus on sustainability, a broader perspectives on sustainability is discussed to put the study in proper perspectives.

3.1 Definition of Sustainability

In as much as definition of sustainable development having a universal definition and not relying on its context is difficult to establish as observed by Koning (2002); Connelly (2007), the term sustainability will continue to receive many definitions and perspectives from many scholars. It must be noted that, as argued by Pagell and Shevchenko (2014), every phase of supply chains must entrenched sustainability.

According to Siegel (2009), the relevance of sustainability as part of corporate strategic goal is receiving attention in the global arena over the years. However, a cursory glance through available literature reveals the following definitions and perspectives.

The most often quoted definition of sustainability is the one from the Brundtland Commission (1987) resulting from World Commission on Environment and Development (WCED, 1987) stating that, sustainable development is : *Development that meets the needs of present without compromising the ability of future generations to meet their own needs.*

In an attempt by Emmanuel and Arowoshegbe (2016), to review the connectivity between ‘sustainability’ and ‘Triple bottom line’, ‘defined sustainability as, “(i) a comprehensive conceptual framework showing desirable healthy, and equality between human and natural systems (ii) A guide of policies, beliefs and best practices aim at protecting the valuable biodiversity/ ecosystems, promoting economic vitality and opportunity, giving quality life to humankind (iii) encapsulating vision desirable for human habitation.

CIPS (2012) observes that, sustainability is about taking “a long-term consideration in decision making as we seek to meet our own needs now fails to compromise future needs of other people”

3.1.1 Environmental Sustainability

Actors who are new to sustainability have a limited perspective to the concept of sustainability suggesting green and environmental issues is synonymous to sustainability (Montiel, 2008). As biodiversity preservation targeting waste management and emission reduction, renewable sources depletion has been the focus of sustainable policies (Lang and Murphy, 2014), and this strategy was termed by Goodland (1995) as “maintenance of natural resources”. The push for globalization with its attended pressure call for global industry to give priority to environmental performance (Zhu and Sarkis, 2006). Both national and international arena all have given credence to the natural resource and environment when it comes to its conservation and protection (Kumar, Chattopadhyaya and Sharma, 2012)

Anand and Sen (2000) opined that, humanity cannot destroy our natural assets and resources depriving future generation opportunities, and admonishing desisting from contaminating of the environment and abusing the rights of the future generation. Environmental sustainability is about ecosystem integrity, carrying capacity and biodiversity. There is the need for maintaining natural capital as a source of economic input and as a sink for wastes. Resources should not be used more than its regenerative capability, and wastes emissions should be lower than it can be assimilated by the environment (Kahn, 1995).

A look at OECD Environment Strategy for the First Decade of the 21st Century take on how to reverse unsustainable trends and guarantee vital environmental functions by 2010 and beyond highlighted four specific or key medium defining environmental sustainability which are:

- I. Regeneration: Using renewable resources efficiently and not permitted to extend their long-term rates of natural regeneration
- II. Substitutability: Non- renewable resources be put to efficient use and be limited to a point where it can be substituted by renewable resources or other forms of capital
- III. Assimilation: using hazardous or polluting substances to the environment should not go beyond its assimilative capacity; for protecting human health and environment.

IV. Avoiding Irreversibility: Irreversibility: Avoiding the counter effects of human activities on ecosystems and on biogeochemical and hydrological cycles. There should be protection against human activities on natural processes capable of keeping or restoring the integrity of ecosystem. The various ability of resilience and carrying capacity of ecosystems is critical considering populations of threatened, endangered and critical species.

3.1.2 Economic Sustainability

As sustainability considers long-term survival; socially, environmentally, and economically (Doane & Macgillivray, 2001), it is important to recognize what keeps the business working so that sustainability activities do not become a victim for businesses failing. In simple terms, economic sustainability concerns about survival of business (Doane & Macgillivray, 2001).

Sustainability management with particular focus on economic sustainability must consider both internal and external implications, as such should give recognition to the financial performance, management of intangible assets, impacts on the entire economy, relation to social and environment impacts of the organization/company (Doane & Macgillivray, 2001). Found and Rich (2006) were of the view that, the justification for economic sustainability encompasses planning and undertaking of profitable, and good investment that gives assurance to business survival. In their estimation came to the realization that, sustainable business strategy show relation to how we manage three (3) types of economic capital namely, financial capital, both tangible and intangible capital.

Basiago (1999) sees economic sustainability to mean “a way of production that meets current consumption levels without compromising future needs”

3.1.3 Social Sustainability

In as much as we are particular about the environmental and economic impact, the end recipient is the society. It is worth noting that, extensive discussion has not been made on social sustainability in literature, and anytime there is a discussion, the attention is on human health, safety, legislation neglecting the cultural and ethical consequences of those decisions

(securing, 2004;Kleindorfer, Kalyan and Luk,2005; Vavik and Keitsch , 2010 and Dempsey et al 2011).

Shedding light on the people (society) part of the triple bottom line on sustainability Kleindorfer, Kalyan and Luk (2005) pinpointed the need for employees to feel proud of their work; their companies undertake prudence and responsible operations and employees' health and safety should be paramount.

Davidson and Wilson (2009) define social sustainability as life enhancing conditions in communities, and process involved in achieving this improved lives within the community. Barron and Gauntlett (2002) see social sustainability as “the effect of formal and informal systems, structures, processes and relationships on current and foreseeable time which provides healthy living and communities”. They further proposed five pillars of social sustainability covering Equity, Diversity, Quality of life, Interconnectedness and Democracy. McKenzie (2004) corroborated the view by Barron and Gauntlett (2002) on social sustainability but his indicators were put under Equity, Cultural relations, and political participation by citizens' General awareness of social sustainability, and Community possibility of identifying its strengths and weakness.

Chiu (2003) in a broader perspective observed social sustainability assesses both surviving and unborn generation well-being, maintenance and improvement. Murphy (2012) started by examining the term social and its element in the social pillar as it lends itself to varied definitions. Irrespective of the difficulty, a cursory look at literature on sustainable development framework revealed policy focus on “social” as in many ways described such as social categories (UNCSO, 1996) ; social themes (UNDESA, 2001); social dimensions (OECD, 2009; Dempsey et. al 2011; Vifell & Soneryd 2012); social indicators (UNCSO, 1996) and the social realm (Chan and Lee, 2008).

A summary of focus of social sustainability is highlighted in the table below

Table 3. 1 Social policy concepts and objectives from social sustainability literature.

Author	Social Classification/Focus
UN Commission for Sustainable Development (UNCSD, 1996)	Fighting poverty Safeguarding human health Human settlement promotion Ensuring education, training, and public awareness
UN Department of Social and Economic Affairs (UNDESA, 2001;2007)	Governance, health, poverty, education, housing, and equity, security/fighting crime, population
EU Sustainable Development Indicators (Eurostat, 2007)	Public health, ensuring good governance, public health
OECD Social Indicators (OECD,2009)	Health, social cohesion, economic sufficiency, equity
Littig & Griessler (2005) “Social Dimensions of Sustainability”	Equal opportunity, cordial relation amount different groups, enjoying basic needs and quality life
Chan and Lee (2008) “Factors of Social Sustainability”	Provision of social infrastructure, employment opportunities, stress free leisure activities, protecting community features/characteristics
Cuthill (2009) “key factors of social sustainability”	Social responsibility programs, social infrastructure, equity in accessing welfare services, employment particularly underprivileged, inclusive democracy, bottom-up governance

Dempsey et al. (2011) “Dimensions of social sustainability”	Minimizing inequality in accessing key services, promoting community social cohesion, promoting safety and security, ensuring community sense of pride
Vavik and Keitsch (2010) “ three goals of sustainable social development” (poverty, access and illiteracy)	Ensuring accessibility to education, decision-making and provision basic needs.

Source: adapted from Murphy (2012).

In assessing economic, environment and social sustainability within the paradigm of sustainable development within *Agenda 21*, Kahn (1995) provided for specific elements as given in the table below:

Table 3. 2 The paradigm of sustainable development in Agenda 21 as elaborated by Kahn (1995)

Element	Criteria
Social Sustainability	Equity Accessibility Participation Institutional Stability Sharing Empowerment Cultural Identity
Environmental Sustainability	Eco-System Integrity Carrying Capacity Biodiversity
Economic Sustainability	Growth Trickle Down Development Productivity

Source: Kahn (1995)

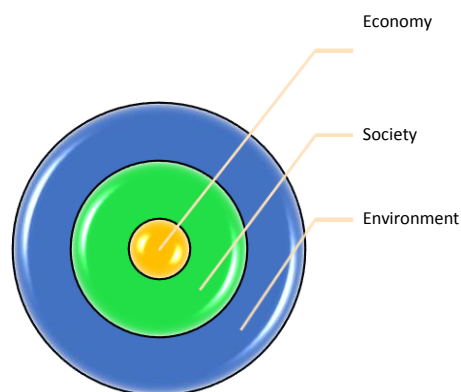
3.2 Models of Sustainability

In conceptualizing sustainability with a single acceptable model is difficult to arrive at. There are varied models of sustainability. However, the two most known models worth mentioning in this study are the Interlocking circles model and Concentric circles model as the models presents different perspectives for conceptualizing sustainability and indication of relations existing between social, environment and economic aspects from community angles (Barron and Gauntlett, 2002).

3.2.1 Concentric model for Sustainability

Concentric model is one of the models exhibiting the interrelationship existing among environment, social and economic elements of sustainability as Barron and Gauntlett (2002) termed it as embedded model as in simple terms meaning one sphere or element embedded in another for example the economy embedded in social and both also embedded in environment. These elements are not separated themselves. This model places emphasis on the immensity of environmental sustainability. However, previous studies on sustainable procurement shows a shift towards considering all the elements of sustainability (Green et al., 1998). A clearly supported evidence can be said of the research undertaking by Veleva et al. (2003) on Pharmaceutical industry where there is financial gains, and the possible contributing factor for achieving economic sustainability, which addresses two dimensions of the triple bottom line, as there is concentration on environmental dimension of sustainability.

Figure 3. 1Concentric Circle model of the three pillars of sustainability

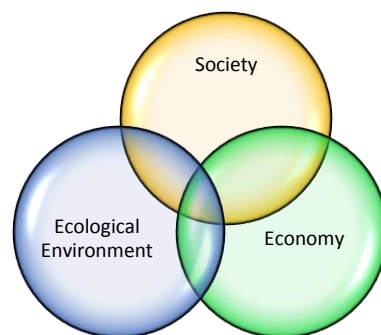


Source (Yolles, M. 2018; Mckenzie, S. 2004 & Barron & Gauntlett, 2002)

3.3.2 Interlocking Circles Model of Sustainability

This model presents sustainability achievement through the balance between the three elements of social, economic and environment placing equal importance on each of them. In assessing this model, Yolles (2018) equated it to Venn diagram where social development is dependent on both economic and environmental development and social, economic and environmental sustainability are at par (Yolles, 2018)

Figure 3. 2 Interlocking Circles model



Source (McKenzie, 2004; Yolles, 2018 & Barron & Gauntlett, 2002)

McKenzie (2004), however, notes comments by Barron and Gauntlett that indicate the inadequacy of this model, since sustainability should not be viewed only in terms of the integration of ecological, social and economic issues, but more about improving the quality of life.

3.2.3 Paring-Caring- Sharing model of sustainability

In reviewing the three circles of sustainability, Bezan and Slawecki (2002) came up with a framework, which was referred to as “Paring-Caring- Sharing” model of sustainability. It must be emphasize that, their aim was to put more clarity to the term sustainability and later linked it to sustainable agriculture. They recognized the conceptuality of sustainability as three circles intersecting the spheres of Economy, the Environment and Society where a balance is struck with these spheres. Bezan and Slawecki (2002) posited three implied

questions from the overlapping areas between the circles. They termed the intersection between Economy and Environment as “Pairing” indicating (eco) efficiency measures: seen as “green” technology, involving minimal resource consumption or “ecological footprint” and less utilization of the earth (Wackeragel and Rees, 1996), there is “justice and equity” at the meeting point of Society with Economy which is called “sharing”. Lastly, the intersection between Environment and Society as was called “caring” concerns about health, safety restoration and regeneration of the earth.

Figure 3. 3 The Three - Circle Model



Source: Bezan and Slawecki (2002)

Table 3. 3 Linkage between implied Questions of Sustainability and Sustainability in Agriculture

Question Number	Implied Question	Achieving Agricultural Sustainability
Question 1	Economy/Environment Intersect - “PARING” <ul style="list-style-type: none"> How do we manage the earth? (eco-efficiency, green, minimizing our ecological print) 	<ul style="list-style-type: none"> How can we encourage farming that is lighter on earth for all concerned? (green, eco-efficient, reduced energy cost, reduced inputs – Paring)
Question 2	Environment/Society Intersect - “CARING” <ul style="list-style-type: none"> How to undertake restoration and regeneration of the earth? (health, safety) 	<ul style="list-style-type: none"> How do we restore and regenerate the earth/soil, repair the damage to ecosystems from industrial society (healthy food, people, plants and

Question 3

Economy/Society Intersect –
“SHARING”

- How to have harmonious living?
(Cooperation vs. competition with
other creatures? - Justice/Equity

animals, respect
- **Caring**)

- How do we
ensure coexistence
with other creatures,
fair distribution of
wealth – (Justice,
fairness or **Sharing**)

Source: Bazan and Slawecki (2002)

Bazan and Slawecki (2002) concluded by suggesting the concerted measures towards restoration of soil health, biodiversity, freshwater supplies, clean air, and reduce human impact on the environment. An integrated examination of sustainability reveals an interrelatedness among the three elements. For instance, the effect of economic growth (economic) may increase an organization’s carbon footprint (environmental) resulting long-term employment avenues for local communities (Kirchgeorg and Winn, 2006)

3.2.4 The Triple Bottom Line (TBL)

Elkington John first coined the concept of “triple bottom line” in 1994. He maintained that firm’s pursuance for profitability must have a responsibility to the community and the environment they operate. In this direction, Elkington (1998) companies must strive to show a balance among economic, social and environmental sustainable bottom lines. Companies aiming for sustainability need to perform not against a single, financial bottom line but against the triple bottom line”

Gimenez et al. (2012) opined that, in as much as we talk about triple-bottom line concept, the focus of firms need not only be on socially and environmentally responsible behavior, but recognizing the positive financial gains that can be accrued in its operations or process. However, in their study, they paid attention to the social and environmental programs on the triple bottom line.

Christopher (2016) in an attempt to show how firms could ensure a sustainable supply chain highlighted the need for the triple bottom line that hinged on three key arenas, which are:

- Environment: For example, issues with pollution climate change the depletion of scarce resources etc.
- Economy: for example the effect on people`s livelihoods and financial security; the profitability of the business etc.

- Society for example, the reduction of poverty; the improvement of working and living conditions etc.

Actually, the three (3) pillars - the 3Ps of People, Planet and Profit, which are intertwined, reminds businesses that want to ensure sustainability giving recognition to the impacts of their activities as they want to remain viable and profitable

Bush (2010) identifies major concerns that firms must concentrate when it comes to the triple bottom line focusing on planet, people and profit as shown below:

Figure 3. 4 3Ps of Triple Bottom Line (Planet, People and Profit)



Source: Bush, C., Sustainable Sourcing: A New Approach to High Performance in Supply Chain Management, Accenture, 2010

Now from the perspectives underpinning triple bottom line, procurement activities as an integral part of the supply chain has a role towards achieving sustainability as far as purchases into or outside the firm or organization is concerned.

3.2.5 The Five Capitals Model

This is model proposition sees sustainability from the economic concepts of capital and income as it identifies the five main capitals to be natural, human/intellectual, manufactured, financial and social (SIGMA,2014).This sustainability thinking aims at maintaining or increasing the stock of these capital assets identified. As observed by Paramanathan et al (2004), the five capital models appears to be widely available to organisations.

The models, thus, far dominating the sustainability discourse, noticeably have a structural and relatively abstract perspective on human enterprise, which is understandable for human for an orientation that is still quite young and understandably hence, politicized. However, operationalized sustainability, we need to reinforce the process aspects. In particular, explicitly linking sustainability perspective to the business models of the organisation will contribute to change in their everyday operation, towards a more sustainable supply chain.

Chapter Four

Perspectives on Procurement Systems in Ghana

4.0 Introduction

This section put Ghana's procurement systems in the public sector which the case organisation falls under into review. The chapter stretches to also cover the legal framework that guides COCOBOD, as a public sector organisation, and other legal framework that supports advancing sustainability in corporate endeavours.

4.1 Procurement Systems in Ghana's Public Sector

Prior to the enactment and amendments to Ghana's Public Procurement Act 2003 (Amended) Act 914, it was Ghana National Procurement Agency (GNPA) and Ghana supply Company Limited (GSCL) in charge of all public goods procured for the government since there was no comprehensive procurement guidance (Verhage, et. al, 2002; Anvuur et. al. 2006). These bodies do not regulate procurement but purchase goods and services on behalf of public entities. Then came the conceivment and launching of the Public Financial Management Reform Program (PUFMARP) in 1996 by the Government of Ghana with the aim of improving the overall public financial management in Ghana. Then, in 1999 ushered in the Public Procurement Oversight Group to manage the development of a comprehensive public procurement reform program and subsequently passage of Public Procurement Procurement Act, 2003, (Act 663) and now amended to Public Procurement Act 2003 (Amended) Act 914.

The procurement Act maintains its main objectives of harmonizing public procurement processes in the public service, securing judicious, economic and efficient use of state resources and ensuring that public procurement functions undertaken within the public sector are fair, transparent and non - discriminatory. The Act also makes reference to procurements financed wholly or partly from public funds; with respect of procurement of goods, works, services and contract administration. Reference is also made to disposal of public stores and equipment and procurements financed by funds or loans taken by the government of Ghana, including foreign aid funds.

4.2 Purchasing vs. Procurement vs Sourcing

There have been numerous views relating to the terms such as procurement, buying, contract management, supply management or supply chain as sometimes used interchangeably, loosely or one seen as subset to other.

Miemezyk et al. (2012) observed that, there is issue of scope and non-clarity of extension of the functions to indirect suppliers when we talk of purchasing, procurement and sourcing. Procurement and sourcing were seen as more of strategic, inclusive compared to purchasing- for example, procurement in its definition may include make or buy decision (Murray, 2009) - as this is not always the case. Again, there is industry specificity regarding the terms, for instance, the public sector prefers to use “procurement” instead of “purchasing” (Ramsay and Croom, 2008; Rozemeijer, 2008). Also, another interesting perspective has to do with the role purchasing plays in supply chain as “unionist” see purchasing as an integral of supply chain management, as others opine that supply chain management instead replaces purchasing (Larson and Halldorsson, 2002)

CIPS Australia (CIPSA) survey undertaken to identify the key issues for Australian procurement professionals and was concluded, “There is a wide variation in the intended meaning of the terms we use, corroborates it. Many are used interchangeably, even loosely, by some, but have specific meanings to others. The word `purchasing` is a good example. It can be an all-encompassing term synonymous with `supply management` and `procurement` or it can indicate just one step in a much –bigger process. Such variations of concern as it could lead to miscommunication and hinder the development and sharing of our body of knowledge. A concern at the most fundamental level, is that, unless we describe what we do and demonstrate our success to our stakeholders, we cannot win their recognition”. CIPSA attempt to set the ground for acceptable procurement lexicon, by defining procurement as “the business management function that ensures identification, sourcing, access and management of the external resources that an organization needs or may need to fulfill its strategic objectives”.

However, CIPSA was quick to reveal a difficulty associated with defining procurement as it does not lend itself to a single action or process as it stretches to need identification for a good or service up to disposal or cessation. CIPSA was clear that, procurement incorporates

all activities and events prior and post signing of contract and management of issues with the contract by highlighting some issues such as:

- Pre-contract activities (planning, needs identification and analysis, sourcing)
- Post-contract activities (contract management, supply chain management and disposal)
- Other general activities (corporate governance, supplier relationship management, risk management and regulatory compliance).In furtherance, CIPSA identified seven basic benefits associated with procurement which included reduced risk, lower costs, secured supply, improved quality, greater value added, increased efficiency, and innovation. CIPSA saw `supply management` and `procurement` as synonymous but different from purchasing as purchasing can be used interchangeably with buying which is just part of procurement. CIPSA sees purchasing commencing with requisition placement, which then becomes purchase order upon approval, which is sent to the supplier. Purchasing has limitation when it comes to contract development as procurement caters for contract development (CIPSA).

Lysons (1996) defined organizational purchasing as that function responsible for obtaining by purchase, lease or other legal means, equipment, materials, supplies and services required by an undertaking for use in production.

Chopra and Meindl (2007) defined procurement as the process in which the supplier sends product in response to customer order.

Procurement is the function that ensures that necessary materials arrive at the production system when required, and purchasing is used as synonymous to procurement (Jonsson 2008). He further indicated the function can normally be divided into strategic and operative procurement strategic procurement includes selecting a supplier and drawing up contracts and long-term needs information. Operative procurement is aimed at identifying sourcing needs on amore repetitive basis, creating and transmitting purchase orders to suppliers and ensuring that deliveries take place as agreed.

Lyson and Farrington (2016) proposed two definitions of procurement which are “ a proactive, strategic corporate activity to ensure a continuing supply of goods and services to enable world-class organizational performance” and “ managing supply chain risks through

the effective negotiation of contracts cost and price models, quality and other essential supply characteristics”

According to the Ghana’s Public Procurement Act 2003 (Amended) Act 914, procurement is the acquisition of goods and services at the best possible total cost (right cost) in the right quantity, right quality at the right time and in the right place for the direct benefit or use of the procurer.

Cole (2007) on the other hand defines procurement as the purchase of merchandise or services at the optimum possible total cost in the correct amount and quality. He further reiterated that procurement can also be simply defined as the procedure in which goods or commodities are bought when prices are low.

Stock and Lambert (2001) see the terms purchasing and procurement often used interchangeably, although they differ in scope. In their view, purchasing generally refers to the actual buying of materials and those activities associated with the buying process. To them, in procurement the activities are recognized as process-oriented and strategic. They quickly recognize the goals of purchasing which are provision of continuous flow of supplies to the organization, achieving minimum inventory cost, ensuring quality improvement, ensuring standardization of items procured, achieving lowest total cost of purchased items, maintaining productive working relationships among functional areas within the organization and purchasing objectives should be achieved at lowest administrative cost.

From the aforementioned definitions, it can be deduced that procurement could be defined as not solely purchasing of goods, but also the hiring of contractors, consultants to discharge services. Procurement encompasses the process of specification of quantity, quality of goods and services to be acquired, conducting market research for suppliers, invitation and evaluating of bidders, selecting successful bidders, awarding contracts and monitoring deliverable to the user. This makes procurement hinges on the processes involved from needs identification to the arrival of goods to the end users.

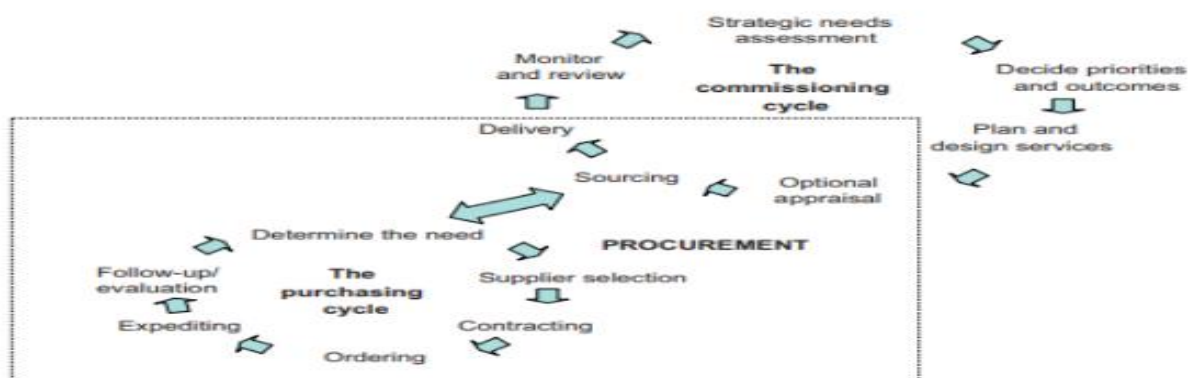
There has been recently a term like “commission” being introduced in public policy (UK public policy example Cabinet Office, 2006; Communities and Local Government, 2006) that confuses with procurement, purchasing (Murray,2009).

In view of this, effort needs to be put in to settle and bring clarity to practitioners. The commissioning process is defined in Partnership in Public Services (Cabinet Office, 2006) as “the cycle of assessing the needs of people in an area, designing and then securing appropriate service”, as many UK central Government departments have developed their commissioning procedures (Communities and Local Government, 2006; Department of Health, 2006, 2007; Home Office, 2007; Department of Education and Skills, 2006; Department for Work and Pensions, 2007). The commissioning cycle involves procedures around the following:

- Assessment of strategic needs
- Priorities and outcomes decisions
- alternative appraisal
- sourcing
- delivery
- monitoring and reviewing.

With respect to the National Procurement Strategy, the Office of the Deputy Prime Minister/Local Government Association, (2003) defined procurement as “the process of acquiring goods, works and services, covering both acquisition from third parties and from in-house providers. This covers the whole life cycle from needs assessment to the end of service contracts or end of assets usefulness. It involves alternative appraisal and “make or buy” decision which can lead to providing the service in-house under right circumstances”. One can observe that the purchasing cycle feeds from commissioning cycle as when it comes to “make or buy” decision, then, procurement comes in. In putting it into more perspective, Murray (2009) provided the figure below:

Figure 4. 1 The Commissioning and purchasing cycles, and procurement



Source: Murray (2009)

4.3 Private vs Public Sector Procurement

Procurement by organisations for their strategic competitive advantage may depend on the sector it operates be it private or public. COCOBOD is a public sector organisation in Ghana and how it conducts its procurement systems is regulated by an Act of parliament. For justification and better appreciation of the study, the similarities and differences between private and public sector procurement is summarized in the table below:

Table 4. 1 Similarities between Private and Public Sector Procurement

Aspect	Private Procurement	Public Procurement
Regulation Framework	<ul style="list-style-type: none"> Basically uses contract or/and commercial law for contracts, Company policies. 	<ul style="list-style-type: none"> Acts of Parliament, Institutional Manual Regulations
Funding Sources	<ul style="list-style-type: none"> Owner(s) fund, loans, or shareholders of the company 	<ul style="list-style-type: none"> Government taxes, fees, loans, grants
Goal/Purpose/Objective	<ul style="list-style-type: none"> Supporting business objective/Strategy for competitive advantage, customer satisfaction etc. 	<ul style="list-style-type: none"> Provision of public services Assisting government operations
Oversight Agency	<ul style="list-style-type: none"> Owner(s), directors, or shareholders scrutiny 	<ul style="list-style-type: none"> Public scrutiny by state agencies such as procurement Authorities, Public Accounts Committee etc.

4.4 Definitions of Sustainable (Green) Public Procurement

Of late, the growing concern of various stakeholders makes companies to formulate environmental and social improvements within their company operations and supply chain (Zimmer et al. 2016). Nowadays, discussion on sustainability involves the boundaries

of companies' attention of economic targets, but also recognizing economic, ecological and societal performance (Hollos et al. 2012). With respect to this, procurement has critical and strategic role in sustainability as guidelines enables procurement decisions to factor the environmental, economic and social elements of the Triple Bottom Line (TBL) (Meehan and Bryde, 2011).

As observed by Green et al. (1996); Securing (2004), the function of procurement in pushing corporate sustainability agenda is important, as it has the propensity to influence external organisations in the supply chain. However, the available procurement frameworks to review supplier compliance to sustainability, such as ISO 14001, considers an attenuated perspective of sustainability, paying attention of environmental standards (Corbet and Kirsch, 2001).

Miemezyk et al. (2012) made effort to examine sustainability in purchasing and supply chain management. They extended the discussion beyond environmental and social sustainability at three levels of inter-organizational analysis (dyad, supply chain and network). They defined sustainable purchasing and supply which integrates sustainability basing largely on the well-known definition of purchasing by Van Weele (2010) as, "sustainable purchasing is the consideration of environmental, social, ethical and economic issues in the management of the organization's external resources in such a way that the supply of all goods, services, capabilities and knowledge that are necessary for running, maintaining and managing the organization's primary and support activities provide value not only to the organization but also to society and the economy"

According to Department of Environment, Food and Rural Affairs (DEFRA)(2006a) observe sustainable procurement as "is a process whereby organisations 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 organisation, but also to society and the economy, whilst minimizing damage to the environment.” Though still low, the application of sustainability in procurement decision is gradually gaining traction. Hollos et al. (2011) detailed how E.ON UK together with the suppliers developed ‘responsible procurement’ policy, which looks at ethical ways of improving social rights and better environmental performance. For BASF, they run programs, which helps them select, evaluate and develop their supplier sustainability. Partners of a company’s sustainability practices affect their sustainability performance (Krause et al., 2009). It is therefore important for companies to work hand in hand with their suppliers in that regard. Researchers are of the view that, firms should not only focus on minimizing procurement cost but also encourage their suppliers to implement good policies for their employees, the community and the environment. Many studies - Maignan et al. (2002); Klassen and Vachon (2003); Lee and Klassen (2008); Vachon and Klassen (2008) - has been performed to show the benefits of these strategies.

Bai and Sarkis (2009), proposed ways whereby firms can select suppliers, which includes the triple bottom line to evaluate suppliers. They emphasizes the need for organization to implement all the methods to avoid competitive disadvantage. Foerstl et al. (2010) reasoned that companies should select suppliers based on the sustainability capabilities of the supplier to maintain their reputation. It therefore comes at a little surprise that firms adopting sustainable procurement makes sure it encompasses all three components.

Meehan and Bryde (2011) noted that research in sustainable procurement is at its nascent stage; however, a year later Walker et al. (2012), considered the growing number of

sustainable procurements in organizations and sustainable operation management and concluded that research is growing rapidly.

Tate et al (2012); rightly noted that since it probable for the majority of firms input materials for production to come from others, a true measure of a firm's sustainability performance should be looked from their suppliers and how they select them.

Dawson and Probert (2007), stated that for sustainable procurement to be widely adopted by companies there is the need for more encouragement. Also, Appolloni (2014) noted the need for more case study research on sustainable procurement to understand how it is implemented in the private sector. Kalubanga (2012) noted on the lack of sustainable procurement practices especially in developing countries.

Fabio, Marco and Tiberio (2012) noted that public procurement is playing a huge role shaping sustainability decision such as climate, supply decision and environmental regulations. Rao and Holt (2005) also added that sustainable procurement is currently the main drive for the adoption of sustainable practices around the world.

Walker and Brammer (2012); Roman (2016) define Sustainable Public Procurement (SPP) as the purchase of goods and services with economic, social and environmental consideration. Many public leaders are beginning to see the significance of SPP since it is an enabler of sustainable production and consumption of goods and services Fabio, Marco and Tiberio (2012). Most of the research conducted in this field mainly look at the development of mechanisms to aid sustainable procurement and how it can be integrated into public policy Fabio, Marco and Tiberio (2012); Walker and Brammer (2009); Swanson et al. (2005)

Weele & Tubergen (2017) defined sustainable purchasing as “the supply of all goods, services, capabilities and knowledge which are necessary for running, maintaining and managing the organization`s primary and support activities secured at most sustainable conditions”. They went further to distinguish sustainable purchasing from responsible purchasing where sustainable purchasing encompasses designing and implementing procedures and guidelines, based on external standards that focuses on ensuring sustainable supplier relationships. To them, responsible purchasing is about purchasing professionals sees it as their own personal responsibility rather than company`s responsibility in adherence of the principles based on the their own personal, ethical and professional standards.

The UK Sustainable Procurement Task Force effort to find an acceptable definition, that both public sector (including policy makers and procurement professional) could adopt, came up with a flexible definition of sustainable procurement allowing all the three dimensions of sustainable development which states that “ Sustainable procurement is a process whereby organisations meet their needs for goods, services, works and utilities to realize value for money on a whole life basis in terms of generating benefits not limited to the organization, but also to society, economy, whilst minimizing destruction to the environment”. This means that, to ensure sustainable procurement should take cognizance of the environment, social and economic impact with respect to design, non-renewable material usage, manufacturing and production process, logistics, service delivery, use, operation, maintenance, reuse, recycling modes, disposal and suppliers` capacity addressing the impact in the entire supply chain. In this direction, the UK development strategy towards sustainable procurement focuses on four key specific areas, which are sustainable production and consumption, climate change and energy, protecting natural resources and ensuring sustainable communities and a fairer world. The aim of sustainable procurement

is to minimize the adverse effects of all procured products and services in its entire life (Sustainable Procurement Guide, Commonwealth of Australia, 2018). In this direction, any procurements that bring positive social, environmental and economic benefit throughout the life cycle of goods and services is sustainable. It further suggested specific considerations in sustainable procurement as seen below:

Table 4. 2 Sustainable procurement Considerations

Environmental impacts	e.g. inputs of natural resources, energy and water in the manufacture, use and disposal of goods
Social impacts	e.g. labour conditions in the manufacture, use and disposal of goods or delivery of services
Economic impacts	e.g. cost of operation and maintenance over the life of the goods

Source: (Sustainable Procurement Guide, Commonwealth of Australia, 2018).

It also provided some principles about sustainable procurement, which concerns:

- Strategies for managing water and energy demand and consumption.
- Buying goods and infrastructure possible for reused, repaired, recycled as it has recycled content.
- Procuring goods and services having minimal environmental impact during the phase of production, use or disposal
- Ensuring innovative sustainable products and services at the stages of design and implementation.
- Compliance to fair and ethical procurement practices by insisting on suppliers adhering to social responsibility, including legislative obligations to employees.

Furthermore, guidance within the Commonwealth Procurement Framework (CPF) in integrating sustainability considerations in procurement processes for compliance by

officials in charge includes the following particularly looking at the size, complexity and risk profile of each procurement.

According to ISO 20400 (2017), sustainable procurement was defined as “ a process whereby organisations meet their needs for goods, works and utilities resulting value for money from benefits generated not limited to the organization, but also to society and the economy at large as minimizing environmental destruction”

According to Ghana Public Procurement Authority E-Bulletin 2017, shared the same definition of ISO 20400 (2017). It further draws more attention to the UN Brundtland Report. In the Authority’s view,“ Sustainable Procurement considers the environmental, social and economic consequences of : design; non-renewable material use; manufacture and production methods; logistics; service delivery; use; operation; maintenance; reuse; recycling options; disposal; and suppliers` capabilities to address these consequences throughout the supply chain”. When Ghana amended its procurement Act 2003 outdoorng Public Procurement (Amendment) Act, 2016 (Act 914), sustainability was inserted. Section 2 of the amended Act 914 addressing the object of Public Procurement Authority (PPA) of Act 663 captured environmental and social sustainability after non-discriminatory. Currently, the object reads “to secure a judicious, economic and efficient use of public funds, and to ensure that public procurement is carried out in a fair, transparent, non-discriminatory, environmentally and socially sustainable manner”. However, here the issue of economic aspect was not mentioned. Section 22(1) of the Act 663 is being amended to introduce sustainability criteria in the tenderer qualification. Clause 8 admonishes tenderers to provide environmental qualifications and meeting all ethical and other standards applicable to Ghana. Now it is here that socio-economic policies have been defined in

Section 56 of Act 914, which states socio- economic policy means environmental, social, economic and other policies of the Government of Ghana.

4.5 The Legal and Regulatory Framework of Public Procurement in Ghana

The Public Procurement (Amendment) Act, 2016 (Act 914), set out the legal, institutional and regulatory framework to secure fiscal transparent and public accountability in Ghana's procurement system.

The Act establishes five basic principles upon which the public procurement is based (World Bank, 2003). These pillars are the legal and institutional framework; standardized procurement procedures and tender documents; independent control system; proficient procurement staff; and anti-corruption measures. The objectives of Act 663 are *to harmonize public procurement processes in the public service to secure judicious, economic and efficient use of public resources in public procurement and ensure that public procurement is carried out in a fair, transparent and non-discriminatory, environmentally and socially sustainable manner*. The Act applies to procurement financed wholly or partly from public funds for the procurement of goods, works, services and procurement financed by loans contracted by the government of Ghana, including foreign aid and donor funds. The Public Procurement Act 663 establishes the Public Procurement Authority (PPA), Entity Tender Committees (ETCs) and Tender Review Boards (TRBs).

The following spells out in clear terms the legal framework of the Public Procurement (Amendment) Act, 2016 (Act 914)

Table 4. 3 Legal framework of the Public Procurement (Amendment) Act, 2016 (Act 914)

Document	Description
Public Procurement (Amendment) Act, 2016 (Act 914)	provides a comprehensive legal regime to harmonize and safeguard public procurement
Public Procurement Manual	Provides practical guidance and step – by – step procedures for undertaking procurement in accordance with the Act.
Standard Tender Documents (STD)	comprise standard invitation and contract documents for procurement of all values (for works, services and goods)
Public Procurement Regulations	contain detailed rules, procedures for all aspects of procurement system
Guidelines	provides supplementary guidance on disposal, single source procurement, margins of preference, framework contract agreements, sustainable public procurement (SPP) etc

4.6 Procurement Process

As defined by Lysons and Farrinyton (2006), a process is a set of sub processes or stages focused on achieving an output. Therefore, procurement process is a cycle or chain that shows the activities that procurement goes through in obtaining a given need for operational and strategic purpose.

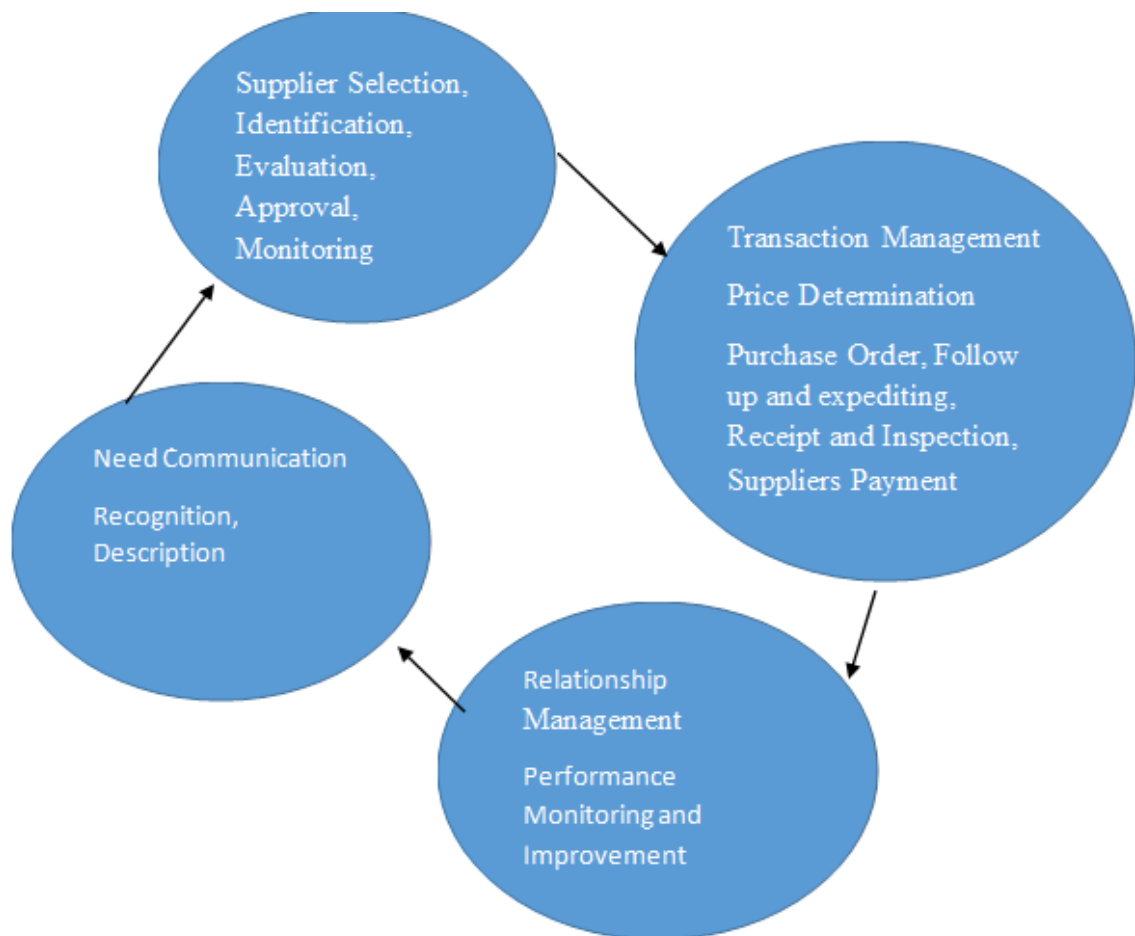
In the view of Arjan (2010) procurement process are grouped into six stages. The stages are specification definition, selection of suppliers, contract agreement, ordering, expediting and

evaluation of the entire process. However, some scholars such as (Robinson et al.1967, Brand 1968) opined differently. To them three purchasing situations are distinguished which are first the new - task situation: This situation occurs when the organization decides to buy a completely new product, supplied by an unknown supplier. This type of transaction is characterized by a high degree of uncertainty and high risk in that the specifications of the product still have to be mapped. The second is the modified rebuy: This is when the organization wants to purchase a new product from a known supplier, or an existing product from a new supplier, and often occur when there is some dissatisfaction about the current supplier or when better alternatives for existing products have become available. Lastly, the straight rebuy: This is the most common situations and entails the acquisition of a known product from a known supplier.

Emmett and Crocker (2008) contended that there are ten stages involved in procurement process from need identification to payment of respective procurement. The reason being that, many organizations may decide to combine some stages just to reduce the lead-time. Emmett and Crocker (2008) gave the traditional procurement model for most sectors. The procurement model depicts the various steps and stages that a particular procurement activity follows in meeting operational requirement. It gives the detailed action that must be followed before commencing the next stage. The stages are need identification, specify, source, enquire, evaluate, negotiate, order, progress, deliver, pay and review. In relation to procurement process, the Cabinet Office (2006) defines the procurement process as “the actual parts of commissioning cycle with focus on process of buying services, commencing initial advertisement up to contract management”

Fawcett et al (2007) gave the general purchasing (sourcing) process which consists of four phases. This process begins need identification and communicated. A supplier selection, order placement and transaction management, and finally, performance is measured and an appropriate relationship is developed. They maintained that, the specific steps in the actual process varies depending on what an organization is buying. Services are managed differently from raw materials, and MRO items are managed differently from sophisticated technological components. The sourcing process diagrammatically was given in this form.

Figure 4. 2 The Sourcing Process



Source: Fawcett et al (2007)

4.7 Procurement Methods in Ghana

The public procurement (Amendment) Act, 2016 (Act 914), Part 4 clearly scores the methods of procurement in Ghana. It identifies the following as some of the methods of procurement and conditions of use.

4.7.1 Competitive Tendering (Public Procurement (Amendment) Act, 2016 (Act 914), section 35)

It is important to state that the Public Procurement (Amendment) Act, 2016 (Act 914), section 35) and regulations supports the use of competitive tendering for standard high value procurement of goods, works and services. The Public Procurement (Amendment) Act, 2016 (Act 914) allows the use of the two types of competitive tendering which includes :

4.7.1.1 International competitive tendering

This is used whenever open competitive tendering is used and effective competition cannot be obtained unless foreign firms are invited to tender (s. 45).

4.7.1.2 National competitive tendering (NCT)

This used when the procurement entity decides that only locally registered suppliers, contractors or consultants submit tenders without regard to nationality except the procurement entity decides to restrict it to domestic suppliers, contractors or consultants accordingly (s.44).

4.7.2 Two – Stage Tendering (Public Procurement (Amendment) Act, 2016 (Act 914), section 36)

A procurement entity adopts two-stage tendering in:

- a. where it is not feasible for the procurement entity to formulate detailed specifications for the goods or works or, in the case of services, to identify their characteristics and where it seeks tenders, proposals or offers on various means of meeting its needs in order to obtain the most satisfactory solution to its procurement needs; or where the character of the goods or works are subject to rapid technological advances;
- b. Where the procurement entity seeks to enter into a contract for research, experiment, study or development, except where the contract includes the production of goods in sufficient quantities to establish their commercial viability or to recover research and development costs.

According to Jones (2002) two-stage open tendering, combines elements of the open and selective tender. Initially the tender is open but if the specifications are too stringent, it is possible that none of the submissions satisfies them, or if they do, the price offered may be unacceptable. In that event, the procurement requirements may be scaled down, and a selected number of tenderers may be then invited to resubmit proposals in light of the modified requirements.

4.7.3 Restricted Tendering (Public Procurement (Amendment) Act, 2016 (Act 914), section 38)

Sometimes, it is cumbersome and costly, time consuming to organize the entire tendering process. This makes the procuring entities to use a simplified procedure in those instances where the contract value is so small that the administrative effort regarding tendering procedure is reduced. A procurement entity may for reasons of economy and efficiency and approval from the Board use restricted tendering:

- a. If by reason of the highly complex and specialized nature goods, works, or services are available only from limited number of suppliers or contractors.
- b. If the time and cost required to examine and evaluate a large number of tenders is disproportionate to the value of the goods, works and services to be procured; or
- c. If an offer for competitive tendering fails to receive any responsive after publication.

4.7.4 Single Source Procurement (Public Procurement (Amendment) Act, 2016 (Act 914), section 40)

This occurs when procurements are made from one supplier, or put differently procurement from single source requirement. This normally prevents keener competition. (Public Procurement (Amendment) Act, 2016 (Act 914), allows this method on approval of the Board under exceptional circumstances among others such as

- a. a supplier or contractor has exclusive right in respect of goods, services or works and no reasonable or substitutes exist, urgent need of work, technical services or goods making it impracticable to use other method because of time constraint, for the purposes of standardization, research, experiment, study or development, procurements that borders on national security.

4.7.5 Request for Quotations (Public Procurement (Amendment) Act, 2016 (Act 914), section 42)

In line with section 43, a procurement entity may use request for quotations conditioned by

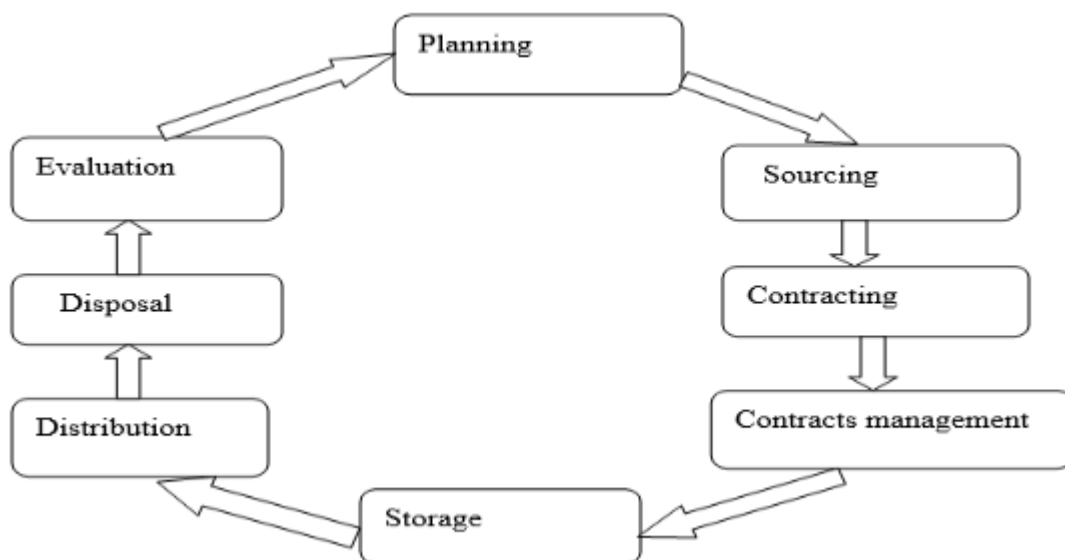
- a. for readily available goods, works or technical services that are not specially produced or provided to the particular specifications of the procurement entity.

- b. For goods where there is an established market if the estimated value of the procurement contract is less than the amount in the *Fifth Schedule*

4.8 Ghana's Procurement Cycle

The procurement cycle gives a road map of the activities required at every stage of the procurement function or process. It also indicates the direction of the procurement process. For efficient and effective monitoring and evaluation of procurement process, the procurement cycle provides a road map. The procurement cycle for goods in Ghana is given below.

Figure 4. 3 The Procurement Cycle for Goods



Source: Public Procurement (Amendment) Act, 2016 (Act 914)

4.8.1 Procurement Planning

Planning can be explained as the process of analyzing your past, present and forecasting into the future. At this stage, you ask the various units to bring their requirements. It considers the mission, vision and objectives of the company. With planning, you look at human resource, equipment and material requirements. One person should not do this, as it is comprehensive. Planning will contribute to prevent encourage emergency purchase. According to Project Management Institute's Project Management Body of Knowledge (PMI 2000), procurement planning is the process of identifying which organizational needs can be met by procuring products or services outside the organization. This process involves determining whether to procure, how to procure, what to procure, how much to procure, and when to procure.

Part 3 Section 21 of the Public Procurement (Amendment) Act, 2016 (Act 914), has clearly spelt out the procurement planning activity, which stipulates the following:

- a. contract packages description or lots,
- b. estimated cost for each package,
- c. the procurement method approvals needed and
- d. Processing steps and times.

4.8.2 Sourcing

A term, which has become increasingly popular in the materials area, is sourcing. This activity relates to developing the most appropriate supplier strategy for a certain commodity or product category. A sourcing strategy describes how many suppliers the company favours for that commodity or category, what type of relationship to pursue and what type of contract to negotiate for (one year to multiyear). It is all about finding best possible supplier for the company on a worldwide basis (Arjan 2010). Activities within the sourcing phase in the procurement cycle includes pre-qualification of potential suppliers, preparation and issue of tender documents, request for quotations or request for proposals, evaluation of responses and the selection of the successful tenderers. Source selection is defined as "the process of receiving bids or proposals and applying evaluation criteria to select a provider" (PMI 2000). Murray (2007) maintained that for most strategic procurements, supplier selection and/or contract award have traditionally been the first stage of member involvement, and even that involvement was generally for little more than acceptance of an officer

recommendation. In Ghana, goods, works, and services are sourced through tendering procedures as identified in Part 5, Section 44 – 65 of the Public Procurement (Amendment) Act, 2016 (Act 914).

4.8.3 Contracting

A formal contract document is drawn based on the terms and conditions agreed upon by both parties and properly signed. Simpler requirements may use a purchase order or where framework contracts exist, contracting may consist of a call-off order under the existing contract. It is important to say that at the contracting stage, notification of award and communication channels are necessary.

4.8.4 Contract Management

During the contract management, selection of contract manager, allocation of responsibilities and performance benchmarks, communication channels, expediting, dispute resolution and contract modification are important activities to consider. Works contracts on the other hand may require technical supervision by an engineer while contracts for consultancy services often require the direct participation of the buyer or client organization as is in the case of training, technical advice or feasibility studies. Here, is expected that both the procurement entity and the supplier stick to the contractual obligation. Actually, contract management should have these objectives:

- a. Make sure the output is achieved. That is, to ensure that the deliverables are achieved.
- b. There should be contract administration- a form of monitoring, having site visit meetings where problems are addressed.
- c. Building a long-standing relationship management.

4.8.5 Storage

This is procurement cycle which goods procured not used immediately are kept to prevent damage or loss. Goods available at the right time are critical to the operations of the organization. There are goods that may need specialized storage facilities or may have limited shelf life. There should be proper documentation on the goods. You need to record goods in the ledger charge, bin cards.

4.8.6 Distributions

Distribution will include available and storage facilities and these go a long way to facilitate the delivery of works, goods and services. Goods that are stored need to be delivered to the final destination for usage, which it was procured for. There may also be the need to respond to varying user demands and to transport goods through difficult environments and terrain with very poor infrastructure.

4.8.7 Disposal (stores, vehicles, plants and equipment)

With respect to disposal, the product must be declared obsolete, unserviceable, surplus stock depending on the nature of the good and their condition. Some of the modes of disposal are burying (products that are not harmful), burning them, exchanging or transfer and auctioning.

4.8.8 Evaluation

This is about assessing what you have done by benchmarking best practices. This stage includes review of procurement function performance, assessing compliance, efficiency and effectiveness and procurement audits. There is the need to identify weaknesses and problems for corrective measures and evaluation may include a formal procurement audit. A formal procurement audit is done to give assurance to management; to see if objectives are being achieved; it highlights deficiencies; ensures compliance with the Public Procurement (Amendment) Act, 2016 (Act 914); ensures if the regulations are being followed to the latter and helps in the discovery of irregularities, fraud, and corruption. A formal audit also helps in performance monitoring and improvement and in the enforcement of the rules and regulations and subsequent prosecution of those who are found culpable of non-compliance with the Act.

4.9 Other Regulatory Ministries/Authorities/Legislations etc. Towards Sustainable procurement in Ghana

In Ghana, it is not the institutions/organisations that have crafted clearly defined policy document when it comes to sustainable procurements. However, that is not to say that, apart from the Public Procurement (Amendment) Act, 2016 (Act 914) admonishment of sustainability thinking in public procurement in Ghana, there also exist other state

Authorities and legislations that do touch on some aspect of sustainability be it economic, social and environmental that procurement practitioners must take into consideration without abuse.

In 2010 Ghana signed an agreement with Switzerland under which the Swiss Government made available to Ghana Public Procurement a grant of about US\$2.7million over a 3-year period to assist the adoption of sustainability issues into the public procurement process (PPA:E-Bulletin 2019). In making it a reality, the Public Procurement Authority organized workshop aiming to have a buy-in of the policy from Ministers of State, Deputy Ministers and Chief Directors (PPA:E-Bulletin 2019). Subsequent to that was a nation-wide sensitization workshops for Procurement Professionals and Practitioner`s from Ministries, Departments Agencies (MDAs) and Metropolitan, Municipals and District Assemblies (MMDAs). A step further was taken by providing training programmes for Suppliers, Contractors and Consultants) and also capturing of sustainability in the amended Act, (Act 914) of 2016 as the Standard Tender documents (section 59 of the amended Act, Act 914 on economic and environmental) ensure this provision making public procurements gears towards more of innovation and sustainability.

Ghana has several existing Acts and regulations such as Environmental Protection Agency Act, 1994 (Act 490), Forest and Wildlife Management (Timber Resources Management Act, 1997, Act 547 and its LI1649), and Mining and Minerals Act, 2006 Act 2006 Act 703.

Another Public organization working by giving assurance for sustainable procured products is Ghana Standards Authority (GSA). GSA being established by the Standards Decree, 1973 (NRCD 173) as Ghana Standard Board (changed in 2011) first established in 1967 as the National Statutory Body responsible for Metrology (verification, calibration, pattern approval, inspection of weighing and measuring instruments and equipment), Standards (standards development, dissemination of standards and related documents), Testing (food, chemical materials, engineering, drugs, cosmetics and forensic samples), Inspection and Certification (destination/factory/ consignment/fish inspection and Import and export, system, product certification).

In respect of the social aspect of sustainable procurement, Ghana has Labour Law, Act 651 of 2003 that addresses concerns such as the following which procurement professionals should not lose sight of for supplier compliance:

- Equal opportunity for employment
- Occupational Health & Safety
- TUC-Employers dialogue
- Child labour among others

4.10 Local Content in Public Procurement (LCPs) as a Social Issue

According to OECD (2016), local content are “policies that are imposed by government mandating firms – foreign firms/ multinational companies to use domestically manufactured goods or domestically supplied services in order to operate in an economy”. Ramdoo (2016) sees the concept of local content as “a set of policy instrument created by national governments aiming for certain share of factors of production (such as labour, supplies, technology and knowledge) needed at every stage of the value chain is sourced from the domestic economy” He further cited motivations for designing and implementing LCPs by countries from economic and socio-political considerations. However, Kuntze and Moerenhout (2013) places emphasis on percentage of sourcing as defining local content requirements as “ policy measures mandating foreign or domestic investors to source a certain percentage of intermediate goods that are being used in the production processes from local manufacturers or producers (either domestic firms or localized foreign-owned enterprises)”

In Ghana, a quick glance of the legislative documents highlights local content requirements from the following focus:

- Ghana Investment Promotion Center (GIPC) Act 2013 (Act 685): gives preferential treatment for local suppliers
- Petroleum (Local Content and Local Participation) Regulations 2013 LI2204: Varied considerations
- Minerals and Mining Act 2006 (Act 703): gives preferential treatment for local suppliers
- Minerals and Mining (General Regulations) 2012 LI2173: requiring training and employment of Ghanaian in the mining sector (Andoh, 2018)

However, when it comes to public procurement, which regulates COCOBOD as a state institution, has in the amended Act, (Act 914) of 2016 giving preferential treatment to local suppliers in the tender evaluation. This is captured in Section 59(8) on evaluation of tenders, which states:

To determine the lowest evaluated tender, the procurement entity shall consider

- c. The effect that the acceptance of the tender will have on
 - i. The extent of local content, including manufacturer, labour and materials in goods, works or services being offered by suppliers or contractors
 - ii. The encouragement of employment, the reservation of certain production for domestic suppliers
 - iii. The transfer of technology

Again, Ghana has dedicated ministry for Gender, Children and Social Protection which is mandated to coordinate and ensure gender equality and equity, promoting survival, social protection and development of children, vulnerable and excluded and persons with disability and integrating fulfillment of their rights, empowerment and full participation into national development.

4.11 Drivers of Sustainable procurement

Sustainability thinking into procurement process is motivated by varied factors. It is worth noting that, the drivers could stem from the benefits the organisation's, supplier(s) stands to enjoy. Sustainable procurement drivers happens to be those forces propelling positive pressure in developing and implementing strategies for opportunities or threats as the procurement function within an organisations strives to address (Kariuki and Kwasira, 2014). Many insights about the drivers have been giving in the effort towards achieving sustainability in procurement.

According to John et al (2010), some of the reasons for sustainable procurement could be assigned to increased pressure towards corporate responsibility and accountability. Masaaki and Micheal (2008) identified possible destruction to the environment in the production process; growing attention for operational, financial and reputational risks of unsustainable business practices. Factors such as scarcity of resources, legislation and legal frameworks, stakeholder pressure and concerns for sustainable procurement (Kariuki and Kwasira, 2014). Public organisations can push for its sustainable procurement processes from three special

dimensions based on economic (profit maximization, goals and targets), social (people who offer its services and operate it system) and the environment (planet in which it operates and carries it activities (CIPS, 2012).

Also, the Chartered Institute of Procurement and Supply (CIPS 2012a), brought to fore critical reasons for continuous stress on sustainable procurement including: increasing awareness of possible negative impact of the international supply chain; the growing resource scarcity, and its rising costs; public, political and stakeholder pressure for greater corporate responsibility and accountability, the desire for competitiveness through cost savings and the achievement of value for money, government policies, regulations; initiatives and framework such as standardization, codes of practice and certifications.

In addition, the internal factors that can promote or impede sustainable procurement in an organization could be mission, vision and objective; attitude of senior management, CSR policies, risk management policies, mechanism for performance management, and resource availability (CIPS 2012a)

Apart from this general angle of looking at drivers of sustainable procurement, its analysis could also be put under the three main pillars which are economic, social and environmental drivers.

4.11.1. Environmental Sustainable Procurement Drivers

Environmental sustainable procurement drivers pushes the organisations toward efficient and sustainable usage of resources (CIPS, 2012). Lyson and Farrington (2012) admonishes organisations to opt for renewable sources of input and be mindful of how these resources are used thereby guaranteeing future availability. In the opinion of Paul et al (2008) environmental considerations allows organisations in making specification for green products in embarking selection, developing suppliers' capability through management and developments initiatives. He further suggested calculated attempt ensuring reduction of resource waste in the course of sourcing cycle, minimization of pollution, waste and emission and recycling or safe disposal of product at end-of-life. In actually sense, the aim of environmental sustainable drivers' targets minimization of negative environmental impacts of goods and services procured from raw material acquisition to its end of life.

4.11.2. Social Sustainable Procurement Drivers

Alan et al (2012) focuses on the importance of customer service in discussing socially sustainable procurement particularly customer service or satisfaction in their business dealings. Ghana COCOBOD as a public organization cannot be exempted from this direction. Socially sustainable procurement must strive to consider stakeholder satisfaction. In advancing his argument offered four areas of social dimensions for service delivery, which are time of performance, dependability of service or product, communication in satisfying customer expectation and lastly flexibility of response to changing customer needs. There should be addition of social value in the procurement process in considering social sustainability (CIPS, 2001). The social drivers aim at promoting diversity within the procurement team or function of public organization and among suppliers contracted to provide inputs or services; suppliers monitoring for compliance to human rights and labour regulations/ standards; integrating health and safety standards in design and specification of products or services ; fair and ethical trading practices throughout procurement processes (UN,1992). Public organisations must ensure that, there is a safe and healthy internal working environment for her workforce (Alan et al, 2012). In as much as we are interested in social sustainable procurement, it must recognize the role of corporate social responsibility. According to Baily et al (2008), corporate social responsibility (CSR) is a continuing commitment by business to behave ethically and contribute to the economic development while improving the quality of life of its workforce, families, local community and the society. As organisations strive to ensure social sustainable procurement by considering corporate social responsibility, Carrol (1996) suggested four areas of obligation such as economic, legal, ethical and philanthropic responsibilities.

4.11.3. Economic Sustainable Procurement Drivers

According to CIPS (2012), economic drivers for sustainable procurement aims at increasing economic value to the procurement process to remain more sustainable in the long term. Economic drivers are essentially focused on getting value for value from procured products and services; cost management and budgetary control; adding value through sourcing efficiencies; supplier involvement and quality improvement; ethical trading supporting long term financial viability of suppliers and supply market, including sustainable pricing, ethical tendering and negotiation with suppliers and paying them on-time to assure their sustainability.

Harold (2013) also opined that, economic sustainability is not only about getting value for money in carrying projects or procurement for the whole life of the product or service , but with relevant procurement law given local businesses, especially Small and Medium size Enterprises (SMEs) can benefit from the procurement processes. There is total cost of ownership (TCO) aspect being brought to the discussion of economic sustainability dimension, which includes all costs associated with product need specification, acquisition, usage, operation and maintenance all the way to product end – life safe disposal.

4.12 Challenges of Sustainable Procurement

It worth to note that, when it comes to implementing sustainable procurement does not come with ease as there will be some hurdles to overcome or measure to be put in place. In highlighting some of the challenges, Public Procurement Authority: Electronic Bulletin (2017) observed these:

- inadequate funding: there are some budget (funds) constraint for execution of sustainability
- Institutional weakness of Procuring Entities: there is lack of capacity and logistics for the entities operations.
- Non-availability of Sustainable procurement compliance Inspectors. There is the need for an outfit of class of inspectors assigned for inspecting, monitoring, assessing compliance of tenderers.
- Budget holders: there is suspicion of expensive sustainable products/services in the short time. Again, budget may entertain resistance as they already have loyal suppliers, contractors and consultants who may not possess sustainability qualifications and stand to lose the contract.
- Service providers. There is propensity of suppliers, contractors and consultants resistance considering the funds to be expended to bring their products/services to sustainable compatibility level.
- Politicians' role. Their role is not quite different from budget holders. In addition, as there is perception of higher initial cost associated with sustainable products/services, there is possibility of reduction in numbers of projects within a given budget period.

Chapter Five

Research Methodology

5.0 Introduction

Research methodology is about the procedures followed by a researcher in studying a research problem together with the logic underpinning them (Kothari 2004). Essentially, it is about the methods and logic behind these methods when researcher chooses sample and sampling technique, research design, data collection instrument and analysis. In view of this, the chapter highlights and discusses the research approach, design and strategy; the population, sample and sampling technique, sources of data and data collection instrument used and finally issues of data analysis method, validity and reliability discussion.

5.1 Research Philosophy

A research philosophy is about belief relating to gathering, analyzing and usage of a data about a phenomenon (Rees, 2016). It is about generation and nature of knowledge (Saunders, Lewis & Thornhill, 2009). It also establishes how “knowledge is created, constructed rigorously in meaningful way to address a research problem”. (Altinay and Paraskevas, 2008). Research paradigm encompasses phenomena examination providing basis for understanding and explanations (Saunders et al 2012).

Saunders et al (2012) has come up with four philosophical positions in management research which includes positivism, realism, constructivism/interpretivism and pragmatism.

Positivism contends that, truth and reality are independent and free from the viewer and observer (Aliyu et al., 2014). It caters for objectivity and essentially adopts quantitative data and able to be repeated. Realism sees reality to be external and social condition underpins its interpretation, and the research recognizes the values of humanity and can use qualitative or quantitative approach (Saunders et al 2012). Interpretivism are of the view that “it is by means of subjective interpretation of intervention in reality makes that reality to be fully understood” (Muhl, 2014). This philosophy uses qualitative data in searching for this knowledge. According to Saunders et al (2012), field experiments, exploratory and qualitative analysis, idiographic experiments induction are key methodological approaches that can be used by the researcher.

Pragmatism is seen as broader research paradigm which “concerns how knowledge is created” (Goldkuhl, 2012). It also appreciates the significant role of human value in results interpretation which allows both subjectivity and objectivity, qualitative, quantitative or mixed method.

Researchers are at liberty to opt for any philosophical position or view which can be influenced by the philosophical assumptions they hold on to. From the viewpoint of Creswell (2007), there are basically four assumptions which are ontology, epistemology, axiology and methodological as a motivating factor for researcher’s philosophical position.

When it comes to Ontology, it’s about nature of reality. It addresses how the world operates and how the researcher is committed to specific views. This assumption weighs between objectivism and subjectivism as objectivism sees the study objects reality and external to the social actors concerned with their existence. On the other hand, subjectivism aspect sees perception underpinning object of study and resulting actions of the social actors concerned with their existence (Saunders et al, 2012). The philosophical option of the researcher will show one of these assumptions or variations. For example, realism recognizes existence of external phenomena, but is interpreted through social conditioning, and positivism holds reality is socially constructed, subjective, subject to alter and multiple.

Epistemology: This simply is about philosophy of knowledge as it addresses questions such as, first, the relationship or connection between the knower and what is known ?, second, how do we know what we know? Lastly, what constitute as knowledge? (Krauss 2005). Positivism under this assumption sees the researcher to be independent to object of study. In this regard, the discovery of knowledge and its verification happens by means of only observable phenomena providing credible data, facts. There is objectivity as data collected to larger extent not exposed to bias. On the other hand, pragmatism postulate, it is either or both observable phenomena and subjective meanings can provide acceptable knowledge based on the research question (Saunders et al., 2012)

Axiology: Axiology identifies itself with the nature, types and criteria of values and value judgements (Saunders et al., 2012). There is integration of values to study by researchers (Creswell 2007). For instance, positivism holds that, the researcher’s value is independent of the data collected and keeps an objective view. Realism gives recognition to human

systems and researcher's values. Pragmatism view values as integral of results analysis as it gives room for the researcher to adopt both objective and subjective viewpoint. (Saunders et al., 2012).

Again, for constructivism stance, because the researcher is value driven and part of the study makes him more subjective in his analysis.

Methods: this assumption looks at how the researcher goes about the study in relation to the research methods to be used. Positivism extensively uses quantitative with large samples, and well structured. Realism thinks that, be it quantitative or qualitative depends on the subject matter to be addressed, as constructivism considers small samples, adopting in-depth investigations and qualitative. Lastly, pragmatism, opt for mixed or multiple designs, and can be quantitative or qualitative.

The study is motivated by interpretivism/constructivism philosophical position. The researcher's attempt to engage in small sample, in-depth interview as an investigative tool by means of qualitative analysis recognizing the critical value of human values allows to greater extent subjective meanings in understanding and explanation of the research data regarding suppliers' approach to sustainable procurement with Ghana Cocoa Board as a case study. It is important to state that the researcher is not part of what is being studied under this philosophical view that could possibly introduce some bias to the study.

5.2 Research Approach

Research approach examines at what point in time would knowledge be constructed during enquiry process be it at the initial stage or ending (Altinay and Paraskevas, 2008). Bryman and Bell (2015) identified the connection between theory and research through deductive and inductive approaches. First, by means of deductive approach, there is development of theoretical hypothesis which the researcher will put it to empirical study. When it comes to inductive approach, the empirical findings from the data and observation build new theory into a certain theoretical domain. Saunders et al (2012) also identified inductive, deductive and abduction research approaches. With the deductive approach, the research commences with theory which the researcher undertake a study to test the theory. Inductive approach welcomes generation of theory based which is based on the analysis of the data gathered. The abduction approach involves the two approaches by generating a new theory or alteration of existing theory based on data which is subsequently subjected to test with

additional data. Deductive approach is seen as top-down approach by Creswell and Clark (2007), as it starts with theory which is then tested through hypothesis to confirm or otherwise of the theory. The study adopts inductive research approach as it does not employ any hypothesis for possible testing of theory. The study seeks to appreciate and examine the issue of sustainable procurement for value creation within Ghana's cocoa sector. In this regard the study builds up on the issue or theory of sustainable procurement from the qualitative data gathered.

5.3 Research Design

A research design concerns itself with description of framework to be used in conducting a study or research. It stipulates the process involved in acquiring the required information for addressing a research problem. Saunders et al (2012) put research designs into three categories which are exploratory, descriptive and explanatory depending on the kind of research questions to look at.

The underline objective of explorative research is provision of insight and to understand the nature of a phenomena to be studied that has been unknown. This allows clarification of the phenomena. There is an unstructured procedure to gather information as the researcher learns new things about the phenomena. When it comes to samples, it is usually small and non-representative and can use quantitative or qualitative data analysis method. In many cases, expert surveys; pilot surveys; use of secondary data sources, qualitative interviews and quantitative multivariate methods are used.

Explanatory research focuses on testing a specific hypothesis and establishing relationship between variables (Dependent and Independent variables) from the hypothesis. That is, it seeks to establish a relationship between variables. This predominantly uses quantitative data analysis and its samples are large. It also has clearly defined information sources. Explanatory research design usually involves survey, databases, secondary data, structured observations, experiments and panel studies (Malhotra and Birks, 2006)The basic aim of descriptive research is to provide description about a problem or phenomena, for example the characteristics of relevant groups such as organisations (Larson, 2007). It can detail information about persons, events, and situations. This type of research design may either be longitudinal or cross-sectional.

As this study seeks to examine suppliers' approach to sustainable procurement as COCOBOD being supplier of cocoa beans to the market necessitate exploratory research design. An exploratory study is a valuable means of finding out 'what is happening to seek new insights, to ask questions and to assess phenomenon in a new light' (Robson 2003). As it has been mentioned by Saunders et al (2009) that, a search of the literature, interviewing 'experts' in the subject and conducting focus group interviews are the three principal ways of conducting exploratory research, the study used the first two largely in this study. The reason for this is its flexibility and adaptability to change.

5.4 Research Strategy

It must be emphasis that, the right choice of research strategy largely depends on the nature and research objective. A research strategy gives the linkage between the study's theoretical framework and its selected method for data collection and analysis. Bryman and Bell (2015) categorized research strategies into two which are quantitative research as it uses quantitative approach when it comes to data collection and analysis and qualitative research which concerns basically about detail description and explanation. By extension, in perspective of Creswell (2009), there are three research strategies which are quantitative (e.g. Surveys and experiments), qualitative (e.g. ethnography, grounded theory, narrative research, phenomenological research and case study) and mixed (sequential concurrent and transformative strategies). Saunders et al (2012) highlighted the constituents of research strategies which include experiments, surveys, case studies, action research, archival research, ethnographies, grounded theory and narrative inquiries. However, looking at the time frame makes difficult to engage mixed method especially considering the resources for data collection and analysis.

The philosophical position and assumption taken makes the study adopt qualitative research strategy especially base on the research objectives. This study seeks to gain more insights, discovery and interpretation instead of testing a hypothesis when it comes to suppliers' approach to sustainable procurement when it comes to Ghana COCOBOD. In adopting qualitative strategy, the study used case study.

5.4.1 Case Study

Gerring (2004) saw a case study to be "a detailed study involving a single unit with the aim of understanding a bigger class of similar units". In the perspective of Yin (2003), a case

study research concerns “an empirical enquiry investigating a contemporary phenomenon within its real life context, importantly as the boundaries between the phenomenon and context are not clearly evident”. In furtherance, Yin (2003) gave consideration for case study design if (1) the study aims to answer “how” and “why” questions (2) the researcher finds it difficult in manipulating behaviour of participants of the study (3) the study aims to cover contextual conditions because it is believed they are relevant to the phenomenon under study (4) there is no clear boundaries between the phenomenon and context. The critical issue has to do with the option to choose (single or multiple case study) which seeks to provide a clearer understanding of the phenomenon (Baxter and Jack, 2008)

5.4.1.1 Single Case Study

The focus of the study determines whether single or multiple case should be selected. As the study focuses on one single thing such as an element from a specific group or a single group of people, a single case study is the way to go (Yin, 2003). As Ghana COCOBOD happens to be one of the suppliers of cocoa beans to the international market, the study focuses only on COCOBOD as a single organisation in attempt to have a clearer understanding of sustainability in its procurement procedures to remain competitive as there is clarion call for sustainable thinking in organisation’s operations. On this note, the study employed single case study. There is also consideration for cost and time for this choice.

5.4.1.2 Multiple Case Study

According to Yin (2003), multiple case studies becomes appropriate research approach in arguing to contrast findings for expected reasons or similar results in the studies. However, there is the recognition for this approach been costly, time consuming for its adoption (Baxter and Jack, 2008)

5.5 Population for the Study

A population represents aggregate of all the elements having common characteristics and comprising the universe to serve the aim of the research problem being studied (Malhortra and Birks, 2006). According to Churchill and Brown (2004), the term population is the total number of cases which conforms to some designated specifications. In other to address the research objective, the target population for this study was seventeen (19) in number comprises workers at procurement departments at Cocoa Marketing Company (3), Quality Control Division (3), COCOBOD Headquarters (3), Cocoa Health and Extension Division

(3), Human Resource Department (2), Accounting and Finance Department (3), Research, Monitoring and Evaluation (2). The chosen respondents cut across different levels of ranks /positions/grade in the company from senior to lower in order not to have one sided view.

5.6 Sample and Sampling Technique

Fink (2003) defined sample as “a portion or subset of a larger group called a population”. As it is difficult to deal with the entire population in a study requires a sample which needs to be a representative of the population. A sampling frame entails all the population elements which a

sample is taken from (Churchil and Brown, 2004). In simple terms, sampling frame represents a category of people having equal opportunity to be selected depending on the type of sampling technique employed for the study. Sample size indicates the number of cases or elements chosen to be included in the study. The choice for sample size in the study does not come with ease as a number of considerations such as the type of sample; resource constraints including time, personnel and finance; homogeneity of the population; the number of variables, the nature of the analysis; completion rates; and complexity of the model (Malhotra and Birks, 2006; Kline, 2011). Based on the case organisation which is single case study and the research topic, the sampling size is summarized in the table below:

Table 5. 1 Sample Frame selected from the Population

Departments	Sample Frame (To be collected when data collection)	Sampling Size
C M C	6	3
Q C D	5	3
COCOBOD Head Office (Procurement)	5	3
CHED	10	3
HRD	4	2
RME	3	2
Accounting and Finance	4	3
Total	32	19

There are a number of sampling techniques available for study, however, they can be put under two major categories which are probability and non-probability sampling techniques (Churchil and Brown, 2004; Fink, 2003). Each of these two could be chosen based on the objectives of the study. Probability sampling provides a statistical basis asserting a sample being representative of the study or the target population. Probability sampling allows each element or member of the target population has a known, non-zero probability of being selected in the sample (techniques (Churchil and Brown, 2004; Fink, 2003). For non-probability sampling, samples are selected based on the judgement regarding target population features or characteristics and the study needs (Fink, 2003). With non-probability sampling technique, there is a chance for some members of the target population to be chosen as others will not.

Probability sampling techniques include simple random sampling, stratified random sampling, systematic random sampling and cluster sampling. Non – probability sampling technique on the other hand includes convenience sampling, snowball sampling, quota sampling, and judgmental / purposive sampling. For this study, non – probability sampling technique was selected. As indicated by Fink (2003), that “the main advantages of the non – probability sampling is its being relatively economical and convenient”, in addition, the nature and the right respondents for the relevant information for the study is also important consideration.

In selecting sample to be included in the study, non-probability sampling techniques were used. Particularly the purposive sampling technique was largely used to select the procurement, human resource, research, monitoring and evaluation, accounting and financial officers

This is because it was believed that all these officials from their outfits were in the best position to respond to the research questions about sustainability issues as it concerns on the triple bottom line (TPL).

5.7 Sources of Data

Data for research could be emanating from primary or/and secondary. The study used both primary and secondary sources of data for the study. The primary data was obtained directly from respondents through conduct of structured interview. The primary data enable the researcher to have access to reliable and accurate firsthand information relevant for the

study. The study, also, in addition to primary data use secondary data. This was available information from the case organization in the form of reports, reviews, documentation and any relevant data of their operations. Again, secondary data was collected from the organization's website and information from internal documents which the case study organization management provided to enhanced the study.

5.8 Data Collection Instruments

This research made use of data collection techniques an integral part. The study employed interview as the main data collection instrument. The reason behind its usage was that, it was a technique that best helped gather relevant data and its ability to provide the required information for a better qualitative analysis.

5.8.1 Interview

Interview was the main data collection instrument for this study. When it comes to the research topic, personalities, officers who are directly engaged in sustainability practices and adherence need to share their opinions and justification for any action and effort towards sustainability which can be juxtapose to existing literature for best practices and benchmark across the globe. Interview as a means of information gathering allows oral quiz where a set of predetermined questions and possible follow up questions are asked for response from the interviewee(s). This normally involves two people (interviewer and interviewee) to achieve the target objective(s).

The study used semi-structured interview in collecting the qualitative data for this exploratory study into sustainable procurement by COCOBOD. According to Flick (2006) respondents are more likely to express their views openly in a semi-structured interview. First, interview guide was created which went through series of modifications to finally settle on asking relevant questions in a more precise manner. In this semi-structured interview, a list of themes and questions to be asked were indicated to the interviewees identified by the researcher who are connected in addressing the research objectives. There were both open and closed ended questions for the interviewees. With the open ended questions, the interviewees were free to express their opinion without constraint to alternatives that helped in putting the discussion about sustainable procurement practices by COCOBOD in perspective. When it comes to closed ended questions, even though there were possible choices to choose from, there was also a window to suggest something that the researcher could not mention or missed out. The semi-structured interview was

administered through google forms as the researcher created new one with his research themes and questions. First, a test run was conducted by sending to people who were not connected to the study with some general questions for their response to test the operationalization of the approach in collection the data from respondents through online medium specifically emails. Responses were received after their completion. As the researcher saw the feasibility of the google form to conduct the semi-structured interview operationalized it by collecting the emails of all the people who matter with the research topic in addressing the objectives specific questions were sent to specific department who could provide specific responses as mentioned in the sample size chosen. A follow up was made to find out receipt of the mail for their responses and there were confirmation by all contacted. The interviewees submitted their responses through which analysis was made.

It is important to mention that, the study also adopted in-depth interview made possible through WhatsApp video calls, skype, and personal office line calls depending on which one is appropriate at the time of contact and availability of internet connection. This made it possible to seek clearer understanding and as a medium to seek further clarification on some issues based on the response provided in the semi-structured interview. This also allows personal interface to put the interviewee's demeanor into perspective regarding sustainable procurement at COCOBOD.

The researcher took introductory letter from the supervisor for the study to the case organisation. This letter was sent to employee in the case organisation for onward submission to Director (Research, Monitoring and Evaluation). The researcher followed up to confirm receipt of the letter and was confirmed by the department and was assured that, steps are taking to attention the respective department concerned for the data collection. In both semi-structured and in-depth interviews, the researcher introduced himself and indicated the purpose of the study to the interviewees and assured them for confidentiality as it was for academic purpose. Each in-depth interview span thirty minutes through phone and whatsapp calls where sometimes allowing making reference to relevant documentation to speak with. The researcher asked permission to write relevant responses from the interviewee in the course of interviewing which was later read in the hearing to the interviewee for confirmation of the statement, quotations for the analysis. Appendix 2 shows the summary of the theme used for the interview. The researcher express gratitude and thanks for time allowed for the interview.

5.9 Research Quality

A research study must be able to stand the test of acceptability and convincing. This is corroborated by Patton (2002), as in judging qualitative research, the issues of reliability validity cannot be discounted as necessary factors. In the light of this, the researcher instituted measures to ensure validity and reliability of the study about sustainable procurement at COCOBOD.

The study's semi-structured interview guide underwent series of reviews to arrive at relevant questions in addressing the research objectives. This allow unclear, ambiguous and irrelevant questions to be avoided. In furtherance, the in-depth interview as a follow up to the semi-structured interview for more clarity and authenticating responses from respondents from COCOBOD also employed participant feedback strategy in ensuring interpretative validity of the study. As the researcher intends to capture the true views, thoughts, approach to sustainable practices at the case organisation in its analysis through the feedback strategy summarized how the researcher understood key information needed for confirmation or double checking. This feedback strategy allow agreement on the right information for the study, and also making the researcher to quote the actual statements, words in the study thereby avoiding as much as possible misrepresentation of the data.

5.10 Data Analysis Method

As the study is purely qualitative made it possible to use qualitative data analysis approach. On the issue of qualitative data analysis, Saunders et al (2009) opined that, qualitative data can be analyzed using the deductively or inductively-based analytical procedures. The study used the former. After each responses from the interviewees, major themes relevant to the study objectives were identified for analysis. The responses from the interviewees were subsequently juxtaposed to literature to reach synthesis as narrative approach of analysis helped to observe sustainable procurement at COCOBOD. The study used the Capability Maturity Model understanding in identifying the strength and weaknesses in COCOBOD sustainable practices based on which recommendations were made. The result of the interview have been presented and thoroughly analyzed in chapter six (6)

Chapter Six:

Data Presentation

6.0 Introduction

This chapter presents the primary data collected through structured interviews administered to interviewees. The data presentation specifically touches on COCOBOD business model towards sustainability, drivers for COCOBOD pursuit of sustainable procurement and challenges faced in this respect..

6.1 Interviewees' Response Rate

The researcher reached out to nineteen (19) interviewees by means of using google forms with the interview questions and personal calls (phone and WhatsApp) to workers from different subsidiaries of COCOBOD, procurement/supply chain officers and other people who matter in this study. Out of this, thirteen (16) interviewees responded representing 84.2%. This shows that the response rate was very high for this study.

6.2 Research Question One

How does the business model of COCOBOD impact sustainable procurement in relation to the triple bottom line?

The study examined how the simplified business model operated by COCOBOD in the Fig 2.3 where farm inputs and other administrative use supplies are procured and onwards supplied to farmers to produce cocoa and then purchased by COCOBOD for final sale to the international market contributes to sustainable procurement having in mind the triple bottom line. The data is categorized as economic, environmental and social sustainability.

6.2.1 Economic sustainability of COCOBOD

As issues of economic sustainability touch among other things on Gross Domestic Product (GDP), return on investment, corruption, poverty, employment and wages etc. (Bush 2010). In the light of this, an interviewee commented:

COCOBOD is deeply concerned about matters of decent employment, salaries, producer price to farmers, tax compliance, contribution towards GDP and poverty alleviation, fighting corruption and so forth. Our commitment is clearly seen in the life of our cherished farmers in the farming communities, in our annual reports, auditor’s reports.

In a response to a question ‘Have there been any case/incidence of bribery and corruption and tax related issues involving payments from your outfit?’ one interviewee had this to say:

We have internal auditors for our financial operations and also audited by Ghana Audit service which is the state institution mandated to audit all state institutions and submit their findings to parliament of Ghana as we normally see public institutions appearing before public accounts committee to provide answers to adverse findings

Another important consideration worth mention in line with economic sustainability has to do with producer price paid to farmers. Is it the case that, cocoa farmers are given a fair farm-gate price by COCOBOD? The producer price mechanism in Ghana has gone through faces as identified by Akyiama et al. (2001) which is summarized below:

Table 6. 1 Phases of Producer Price Mechanism

Period (Phases)	Price Determination Rules
Colonial 1898 -1900	Official marketing system guaranteeing advance half payment of total beans supplied before exported by British government
1900 - 1935	Farmer cooperatives negotiate with multinational cocoa buying companies
1935 - 1947	A buying agreement that guarantees a uniform price by the British government
Colonial/Post-Colonial 1947 - 1983	COCOBOD decides price based on world prices, government expectations and government revenues
PPRC Era 1984 - 1998	Estimation of average cost of production and price setting offering 20% profit margin to producers
1998 - 2000	Farmers and PPRC negotiate price based on previous amount received
2001 - 2018	Farmers are assured of at least 70% of the net FOB

Source: Akyiama et al. (2001)

In finding out a response to an interview question about ‘how producer price is determined for the farmers to receive a fair farm gate price?’ The Chief Executive of COCOBOD address at the meeting of European Chocolate makers in Lisbon, Portugal opined

In fact, all of us will agree that cocoa farmer in our part of the world, that is, in Ghana and Cote d’Ivoire, is the fulcrum of the cocoa value chain, yet this farmer is the most vulnerable. In various fora, including ICCO meetings, it became very clear to everybody that for us to have a sustainable and thriving cocoa industry, all of us will have to find a living income for the cocoa farmer. A decent income for the cocoa farmer. And price is a major factor in determining this living income or a descent income. The Chief Executive of COCOBOD concluded with the statement:

Therefore, Ghana and Cote D’ivoire had to take the bull by the horn and try and see how best we can get a price that will enable the farmer remain in operation. A price that will also keep the farmer and his household in good maintenance and also get the farmer the right margin from his/her investment

An interviewee at the Finance department and also confirmed by Senior Procurement Officer on commitment towards economic sustainability from vendors interested to go through the tendering process said

Even when it comes to tender evaluation COCOBOD require as part of the commercial responsiveness, for example National Competitive Tendering (NCT), tenderers submitting documentation about business registration certificate, valid Ghana Revenue Authority clearance certificate, Value Added Tax certificate (VAT)/ evidence of VAT exemption, audited financial statement for the last three years together with the tender document.

6.2.2 Environmental sustainability of COCOBOD

As COCOBOD facilitates production of cocoa beans by farmers, it is important to review how COCOBOD contributes in protecting the environment with respect to water bodies, deforestation, biodiversity, climate change and so forth. This is done with review of policy documents, and interview with officers. In finding response to questions on ‘1. Hoe does COCOBOD ensure Sustainable Procurement with specific reference to the environmental in your procurement cycle? 2. How has COCOBOD contributed environmentally towards the livelihood of their stakeholders?’ A senior officer in an interview said:

COCOBOD takes issues of the environment seriously as human survival is dependent on the environment. COCOBOD cannot make huge profits and have good working conditions for workers and pay befitting producer price to farmers and spending all the monies on health related issues

6.2.3 Social sustainability of COCOBOD

In as much as many issues about social sustainability cover elements such as workers health and safety (Alan et al., 2012; OECD,2009), corporate social responsibility (Carrol, 1996;Littig & Griessler,2005), equity (Khan,1995; Cuthil,2009; Barron and Gauntlet,2002), empowerment (Khan,1995), the study subjected COCOBOD to the same measure to see how it has worked towards those elements.

In an interview with a Senior Human Resource Officer on COCOBOD's measures on a question about 'assessment of the working conditions for COCOBOD workers', Commented:

COCOBOD values her workers as they have contributed to the feet achieved in production of premium quality cocoa beans to the international market. In view of this, much attention is given to their training and development, job satisfaction, provision of healthy and safe working environment, commensurate and befitting salary etc.

Another area of COCOBOD social sustainability has to do with her corporate social responsibility projects in terms of education, health, infrastructure among others. An interviewee at COCOBOD maintains:

Our Corporate Social Responsibility initiatives are aimed at embracing responsible actions and encouraging a positive impact through our activities for our farmers, environment, consumers, employees, communities, stakeholders and all other members of the public sphere who may also be considered as stakeholders.

6.3 Research Question Two

Are there any motivating factors for COCOBOD to practice sustainable procurement?

The study sought to identify what pushes COCOBOD to engage in sustainable procurement practices in the entire supply chain. The procurement/supply chain officers interviewed were

asked in general for their views for these drivers. A Senior Procurement Officer gave an opening remark as:

As COCOBOD is poised to maintain and become a leader for premium quality cocoa to the international market is also mindful of the environmental, social and economic concerns and impacts of their operations, especially now that there is a global concern for climate change, resource depletion for instance, forest and water bodies, and other factors is pushing for more robust sustainable procurement practices.

A Principal Procurement Officer in advancing on the drivers of sustainable procurement from regulations and value for money point of view maintained that:

COCOBOD as a public institution is being regulated by the Public Procurement (Amendment) Act, 2016 (Act 914) setting out the legal, institutional and regulatory framework in achieving fiscal transparency and public accountability also embeds the idea of value for money for procurement undertakings. This is evident as the objectives of Act 663 are to harmonize public procurement processes in the public service to secure judicious, economic and efficient use of public resources in public procurement and ensure that public procurement is carried out in a fair, transparent and non-discriminatory, environmentally and socially sustainable manner.

On the issue of COCOBOD corporate reputation and their effort of attaining a greater share in the world market in the midst of the exporting countries is a major concern to management as all efforts are directed in striving for achieving and maintaining it. A Principal Research Officer made a point to the effect that:

Ghana being the second producer of cocoa beans in the world market as Ivory Coast is the world leader, can boast of its premium quality as it is captioned in the slogan poised to maintain premium quality cocoa. The attainment of this feat does not come with ease as management put in much efforts and policies which has made CMC, a subsidiary of COCOBOD maintaining its reputation as the most reliable supplier of premium quality cocoa from origin. Again, the international benchmark set for cocoa market in trading good fermented cocoa, COCOBOD minimum quality standards set is far higher than the international benchmark. This has made top brand chocolates and confectionery products always partner COCOBOD for high end market positioning.

In supporting the premium quality cocoa, the study identified the quality specification for Ghana Cocoa beans as shown below:

Table 6. 2 Quality Specification for Ghana Cocoa Beans

Maximum Defects Level

Grade	Mouldy	Salty	Other Defects
Grade 1	3%	3%	3%
Grade 11	4%	8%	3%

Source (COCOBOD, 2020)

In concluding on the drivers or motivating factors for sustainable procurement by COCOBOD, a question was asked in grouping these drivers into critical and non-critical considerations based on the factors interviewees have identified and this is summarized in the table below:

Table 6. 3 Groupings of Drivers of Sustainable Procurement by COCOBOD

Groupings	Considerable Drivers/Factors
Critical	<ul style="list-style-type: none"> ✓ Regulations (local and International) ✓ Stakeholder pressure ✓ Concern for resource (natural) deterioration ✓ Corporate reputation
Non-critical	<ul style="list-style-type: none"> ✓ Expanding market share ✓ Value for money

Source: (Researcher's Construct, 2020)

6.4 Research Question Three

What challenges do COCOBOD encounter in ensuring sustainable procurement?

The study sought to identify any impediments that confronts COCOBOD in ensuring sustainable procurement. COCOBOD buys varied products ranging from automobiles, farm inputs, office supplies, chemicals among other things.

In response to a question ‘What are the challenges COCOBOD Procurement outfit face in achieving Sustainable Procurement?’ a Principal Procurement Officer gave an opening remark as

COCOBOD as public institution is not different from the challenges other public institutions in Ghana face in this regard. Probably, the major difference is that, we have funds in pursuit of sustainable procurement.

As execution of sustainable procurement practices must hinged on a guidelines or policy document, an interviewee’s response to a question ‘Does COCOBOD has a policy document/guidelines/ regulations etc. on sustainable procurement stated:

For now, I have not come across a clear and detailed policy statement, direction on sustainable procurement. However, that is not to suggest that, we do not take into consideration some sustainability issues in vendor evaluation for award of contracts. Public Procurement (Amendment) Act, 2016 (Act 914) mandates us in the public service to secure judicious, economic and efficient use of public resources in public procurement and ensure that public procurement is carried out in a fair, transparent and non-discriminatory, environmentally and socially sustainable manner.

Chapter Seven

Discussion of findings

7.0 Introduction

This section discusses the data (both primary and secondary) for the study which is juxtapose to literature on the sustainable procurement to put the case COCOBOD in proper context

7.1 Research Question One

How does the business model of COCOBOD impact sustainable procurement in relation to the triple bottom line?

In relation to research question one, one clear thing the study identifies with the business model of COCOBOD as shown in figure 2.3 is that, COCOBOD through its subsidiaries is seen at all the phases from procurement through production to sale of cocoa beans. This makes COCOBOD to be in control of ensuring sustainable procurement. At the every facet of the supply chain, a subsidiary play a role either providing farmer education on best farming practice (through CHED), quality assurance (through QCD). Now, in as much as COCOBOD doesnot leave any of the facet of the cocoa value chain with other parties alone makes COCOBOD monitor its sustainability. For instance, when it comes to fertilizer application must pass the approval from CRIG which is a subsidiary and CHED are there for farmer education on its application. The seed production unit makes cocoa seedlings available to farmers. This prevents a situation where farmers could access free market for farm inputs and chemicals that cannot be guaranteed for good environmental impact.

On the Economic sustainability of COCOBOD, Bush (2010) shed lights on the economic elements of the triple bottom line and identified issues of corruption, poverty, Gross Domestic Product (GDP), return on investment, employment and wages. COCOBOD gives much attention to Bush (2010) elements worth considering in the triple bottom line with focus on profit (employment, GPD, Poverty reduction etc.) An interviewee reference to COCOBOD's 47th Annual Report and Financial Statement, 2016 revealed that, the total employees for 2014/15 was 8,499 and for 2015/2016 was 8,499 showing a percentage of

2.06%. This implies that, COCOBOD is contributing to the reduction of unemployment rate in Ghana as is seen as one of the few organisations with well-paid salary. These workers in return do pay taxes to the government for development. In relation to employment in the report was COCOBOD programme dubbed “Youth in cocoa farming programme” where teeming youth are encouraged to see cocoa farming as a lucrative business area which more than 40,000 people were under the programme. The report highlighted an amount totaling GhC364,937,000.00 for 2015/2016 and GhC88,647,000.00 for 2014/15 crop years were paid by COCOBOD into the government treasury which has a link to the GDP of Ghana.

Economic sustainability recognizing poverty reduction is of worth mentioning. In recognizing the need for improving farmers’ poverty, COCOBOD have many interventions for their economic improvement as farmers do not pay any money as they are supplied free of charge cocoa seedlings, fertilizers among other things. For instance, an interviewee mentioned in 2015/16 crop season, under the free seedlings programme, COCOBOD through Cocoa Health and Extension Division distributed 29,810,679 hybrid seedlings for farmers, 174,471 cocoa farmers received granular fertilizers (organic and inorganic) totaling 2,597,675 bags, Sidalco and Lithovit liquid fertilizers totaling 1,736,743 litres were given to 225,148 cocoa farmers. A total of 110,257 bags of ammonium fertilizer were supplied to 43,888 farmers on their new farms. The implication is that, these farmers would have spent huge sum of monies to purchase these chemicals during off season deepening their financial difficulties.

In response to a question ‘Has COCOBOD been tax compliant, bribery and corruption related issues’, an interviewee made a statement to the effect that:

We have internal auditors for our financial operations and also audited by Ghana Audit service which is the state institution mandated to audit all state institutions and submit their findings to parliament of Ghana as we normally see public institutions appearing before public accounts committee to provide answers to adverse findings

This statement was corroborated by the excerpts from COCOBOD’s 47th Annual Report and Financial Statement (2016) where an independent auditors from KPMG (ICAG/F/2014/038), an internationally recognized audit firm, recorded other taxes and social security payments for 2014/15 and 2015/16 as GhC9,421million and

GhC6,127million respectfully. In the independent auditor's report to the minister responsible for finance in COCOBOD's 2016 Financial Statement in their opinion reported: *We have audited the separate financial statements of Ghana Cocoa Board comprising the separate statements of financial position at 30 September 2016 and separate statements of profit or loss and other comprehensive income...in our opinion, these financial statements give a true and fair view of the separate financial position of Ghana Cocoa Board at 30 September 2016... and of its separate financial performance and separate cash flows for the year ended in accordance with International Financial Reporting Standards (IFRS) and in the manner required by the Ghana Cocoa Board Act, 1984 (PNDCL 81) as amended by the Ghana Cocoa Board (Amendment) Act, 1991 (PNDCL 265).*

KPMG justification for their opinion was stated as:

We conducted our audit in accordance with International Standards on Auditing (ISAs). We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion

One issue about economic sustainability has to do with how producer price is determined for farmers to receive a fair farm gate price. The study identified that, under the current producer price system, a multi-stakeholder body called Producer Price Review Committee (PPRC) formed in 1983/84 comprising Ministry of Finance and Economic Planning, Ministry of Agriculture, COCOBOD, Bank of Ghana, Quality, Cocoa Marketing Committee, Institute of Statistical, Social and Economic Research (ISSER), LBCs, Cocoa Haulers Association, and Cocoa Farmers' Association (Laven et al., 2016). PPRC fixes producer price before the main harvest period around October for the entire cocoa season. In this regard, it revealed that, farmers are not worse off should the world market price declines as they receive the same price announced by PPRC. On the contrary, if there is a bullish market, farmers do not receive an adjusted price. For example, for the 2017/2018 season, farmers were given 75% of net Free on Board (FoB) price as the 25% remaining was spent on cost items (crop finance, buyer's margin, cocoa haulers cost, disinfection and grading, COCOBOD revenue etc.). It is important to point out that, in arriving at the net FoB price, the PPRC deducts an amount to cater for some interventions by COCOBOD such as disease

and pest control, fertilizer application (hi-tech), operational input costs, rehabilitation (free seedlings). For 2019/20 cocoa season saw 8.42% increment of producer price making farmers receiving GH¢515.00 for a bag of 64kg (price equivalence of GH¢8,240.00 per tonne as farm-gate price) as they used to receive GH¢471.637 in the previous season even though the world market was falling.

More recently, as part of COCOBOD business model is the consideration to introduce new price mechanism in conjunction with Cote D'ivoire, referred to as Living Income Differential (LID), starting from 2020/2021 crop season. This is in recognition of cocoa farmers receiving decent income as farmers in the two countries have started abandoning their cocoa farms for other cash crop farming, for example cashew. This practice could threatened global cocoa industry and trade and has repercussion on COCOBOD survival. As COCOBOD wants to remain in the business of cocoa marketing requires of them to ensure economic sustainability as their business model allows them to really invest in the cocoa industry. This perspective is corroborated by Found and Rich (2006) in justifying economic sustainability requires planning profitable and good business investment for survival. The concluding statement of the Chief Executive of COCOBOD address as indicated in page 73 at the meeting of European Chocolate makers in Lisbon, Portugal has economic implications.

From these statements clearly demonstrates COCOBOD determination to the extent of liaising with other countries to see the financial sustainability and economic well-being of cocoa farmers. The roadmap designed for floor price system execution, Ghana and Cote D'ivoire have settled on minimum price of 70% of the floor price of US\$2,600 per tonne planned to be legislated in both countries. Again, farmers stand to receive bonus payments after the cocoa season when the achieved average Gross FOB price is between the minimum price level of \$2600 and \$2,900.

Again, in comparing the economic sustainability of COCOBOD to that of Khan (1995) elements of economic sustainability on paradigm of sustainable development in Agenda 21, issues such as growth, development and productivity were not of much emphasized.

When it comes to the business model operated by COCOBOD makes it possible to have some engagements with stakeholders such as farmers, workers, opinion leaders and so forth.

In this respect, seems to have some responsibilities to them. Many of these responsibilities are identified with social sustainability elements. Bush (2010) mentioned human rights, education, labour standards, community impact, and access to products/services as elements of social sustainability in triple bottom line. Kleindorfer et. al (2005) pinpointed the need for employees to feel proud of their work; concern for employees' health. UN Department of Social and Economic Affairs (UNDESA, 2001; 2007) cited health, education, and housing. Vavik and Keitsch (2010) indicated education accessibility and provision of basic needs as part of sustainable social development. The study revealed many of COCOBODs interventions are geared toward what literature has pinpointed.

In response to a question to employees about 'how you feel as a worker of COCOBOD?', it was revealed that, workers of COCOBOD receives social recognition as it is one of the respectable public organisations and well paid work in Ghana to work with. However, it was observed from some of the workers interviewed that hardly it publishes advertisement for employment opportunities. Some interviewees hinted they had the opportunity through a political figure, unsolicited application, sheer luck, or someone who is highly connected in society or to management. This makes it difficult to talk of equity and fairness as identified by (Khan, 1995; Cuthil, 2009; Barron and Gauntlet, 2002, OECD, 2009), especially when it comes to employment opportunities. Though, the fortunate ones go through the required employment selection procedures. The implication is that, a more qualified and competent person could be denied. It also defeats Ghana's Labour Law, Act 651 of 2003 which caters for equal opportunity for employment. It also came to light that, as anytime there is change of government ushers some new top management pushing the cause of the government in the cocoa sector put some uncomfortable situation to some workers who might not side with some issues leading to transfer and so forth. A worker had this to say: *for the past three years there have not been any increment in salaries and no one seems to talk about it.*

It is also important to mention that, the varied training programs organized for the workers sharpen their skills and enable them deliver on their target.

On the issue of working conditions of workers, interviewees expressed their satisfaction for what COCOBOD has put in place. Few of the highlights the study found out are:

- ✓ All occupational health related issues are catered for by COCOBOD. This is in support of the assertion by Alan et al (2012) where public organisations are to ensure safe and healthy internal working environment for employees.
- ✓ COCOBOD contributes 12.5% of a worker basic salary towards 'End of Service Benefit'
- ✓ COCOBOD has for her workers completing their probation period a Provident Fund Scheme as it contributes 7% of the employee basic salary to the fund.

These contributions to the funds do not render employees vulnerable as they retire because it is seen as a savings made which could have been difficult to do whiles active in the services. Even for the provident fund, one can apply for a facility in solving a problem or undertake a project at a lesser cost compared to higher interest rate from the banks.

In providing a response to a question 'How has COCOBOD contributed **socially**, towards the livelihood of their stakeholders?' the study found out from the interviewees these specific corporate social responsibility by COCOBOD

7.1.1 Education

COCOBOD has made phenomenal contribution in building the trust schools as in 1958, made available to the defunct Ghana Educational Trust 5million Cedis in financing building twenty six (26) secondary schools such as Apam, Yaa Asantewaa Girls' High School, Ghana National, Labone, Kadjebi, Sunyani Secondary, Akim Oda, Konongo Odumase, Axim and Asankragwa. Akuafo Hall at University of Ghana received assistance in its construction. Tertiary institutions with agricultural clubs, a case of University of Professional Studies-Ghana, Cocoa Advocates Movement Club received supports for imbining in students to develop interest in cocoa farming. Again, COCOBOD has instituted Cocoa Farmers Scholarship Award Scheme for farmers' children in pursuit of secondary education where on the average 10,000 students benefit from it annually. However, there are concerns of non-farmers children receiving benefits at the expense of the real children who need it.

7.1.2 Health

COCOBOD has demonstrated her commitment in the health service delivery. This is seen from the statement made by the Board chairman's familiarization visit to Accra Cocoa Clinic: *Our focus is quality healthcare to support the nation's health agenda.* In this direction, COCOBOD has clinics at Kumasi, Tafo, Debiso, and Kaneshie and one under construction at Takoradi to cater for the health needs of farmers, staff and the communities they operate. There is also a hospital constructed to honour Tetteh Quarshie, who first introduced cocoa to Ghana, at Mampong Akuapem.

7.1.3 Road Network Improvements

In the year 2015/2016, the Ministry of Finance set up Infrastructural Development Trust Fund (Cocoa Trust). One of the objectives was "to improve cocoa growing areas road network for efficient operations". COCOBOD started the cocoa roads project as it identified some roads for rehabilitation, resurfacing and new asphaltting. There was an agreement between Producer Price Review Committee, COCOBOD and Government of Ghana for putting aside one hundred and fifty million United States dollars (US\$150 million) for cocoa roads. COCOBOD is to make annual donation to the fund. This saw a number of roads dotted across the country, for example Nkrankwanta-Dormaa road, Dormaa – Kofi Dadukrom among others. However, there are concerns about some of these road constructions in the major cities of Ghana.

7.1.4 Other contributions

COCOBOD has provided solar streetlights to cocoa growing areas to enable children have access to source of light for studies which could have not been possible. Many cocoa growing areas have benefited from solar boreholes easing people from stress to fetch water especially school going children. COCOBOD has also donated to some institutions and persons cash donations for various purposes. The study observed that, 2015/2016 donations were made to National Farmer' Day Planning Committee, Akyem Abuakwa Traditional Council, Ghana College of Physicians and Surgeons, University of Ghana Business School, IMANI Center for Policy Education among others.

On the environmental sustainability within the triple bottom line, COCOBOD interventions on environmental sustainability was assessed based on their business model in identifying programmes and interventions put in place by COCOBOD to ensure environmental sustainability.

In a response to concern for resource depletion as against achieving sustainable procurement, a Senior Research Officer and a Principal Procurement Officer corroborated the need for supporting United Nation's 2030 Agenda for Sustainable Development adopted by member states in 2015. They maintain COCOBOD major concern has to do with three key agenda which are: Goal 12 (Ensure sustainable consumption and production patterns- Responsible consumption and production), Goal 13 (Taking action to combat climate change and its impacts), Goal 15 (protection, restoration and promotion of sustainable use of terrestrial ecosystems and sustainably managing forest, combating desertification, stopping and reversing land degradation, avoiding biodiversity loss. In this direction of promoting sustainable development goals, the aforementioned officers indicated that:

COCOBOD has come up with Environmental and Social Management Systems (ESMS) in accordance with African Development Bank (AfDB) requirements with a framework to identify, managing possible environmental, social, health and safety risks, impacts and opportunities of COCOBOD operations. This has made COCOBOD become aware of the importance of undertaking its operations in ensuring biophysical integrity and socio-cultural conditions for societal benefits. The ESMS showcase management approach to the environmental and social risks in the cocoa value chain.

In concluding, they stressed that:

As it is our mission in keeping the ESMS as integral part of our overall business strategy, COCOBOD is poised for ensuring that, our stakeholders in the cocoa value chain adopts this in their operations.

In this regard, Ghana Cocoa Board Environmental and Social Management System, 2018 has developed a set of environmental and social risk management procedures which are used against screening for projects against predetermined exclusive list, categorization of sub-projects based on identified risks, environmental and social risk appraisal, control and monitoring. The review is done by ESMS Manager of COCOBOD, which is in line with the laws of Ghana and among these COCOBOD's exclusion lists are:

- Production or trade in any product or activity deemed illegal under Ghana laws/regulations, international conventions and agreements
- Activities and production having harmful, or exploitative forms of forced labour and/or child labour in accordance of laws of Ghana.

- Radioactive materials trading, with the exception of medical materials and quality-control equipment with trivial and adequately shielded radioactivity source
- Trading in or using of unbounded asbestos fibers or other products with bonded asbestos as dominant material
- Production or trade in pharmaceuticals, chemical compounds and other harmful substances subject to international phase-outs or bans, including pesticides classified as Class Ia (extremely hazardous,), Ib (highly hazardous) or II(moderately hazardous).
- Production, trading of ozone-depleting substances subject to international phase-out
- Purchasing of logging equipment for use in unmanaged primary tropical rainforest.
- Activities leading to significant degradation of sensitive and critical habitat.

The compliance of these exclusion list is possible as when it comes to the tender evaluation panel, the user department and other technical officers are part for the evaluation and provides technical opinion before contracts are awarded.

It was observed from an interviewee that, when it comes to engaging haulers for transporting the cocoa beans, they give priority to more efficient vehicles with the aim of minimizing carbon dioxide into the atmosphere with its climate consequences. COCOBOD always buy brand new automobiles for administrative and operational use from rightly dealers through competitive tendering. An instance is GCB/HO/PU/NCT/VH/V.1/2019/02 (Invitation for tender for the procurement of various vehicles and motorbikes as seen from appendix 2)

In ensuring protection of the environment, COCOBOD train farmers on good agronomic practices, for example, on preservation of the fragile tropical ecosystem through pest and disease control measures. COCOBOD motivates cocoa farmers to cultivate timber tress which by implication brings additional income, check soil erosion and removal of already tropical trees. This gives credence to the purpose of having a subsidiary of Cocoa Health and Extension Division (CHED) when it comes to farmer education.

The study, through an interviewee, observed a collaborative partnership between COCOBOD, United Nations Development Programme (UNDP) and Mondelez International Cocoa Life Programme on the “Environmental Sustainability and Policy for Cocoa Production in Ghana - ESP”. The stated project objective was “creating institutional systems, tools and policies in rehabilitating cocoa landscapes; conserve and expanding forests, forest

buffer zones and corridors; incentivizing cocoa farmers to adopt environmentally friendly best practices”. As this project was rolled out making more than 9,600 farmers adopting environmentally friendly farming practices leads to lowering of climate change consequences, on farm biodiversity and environmental preservation as an official of COCOBOD hinted *cocoa farmers were trained on environmental cocoa production practices, forest laws and regulations, and community tree tenure rights*. Also, in checking deforestation, the project made available more than 787,000 tree seedlings to farmers towards rehabilitation of forests along the waterways, and making it possible to achieve reforestation of 8,500 hectares of degraded land.

In relating the Environmental and Social Management Systems (ESMS) of COCOBOD and Environmental Sustainability and Policy for Cocoa Production in Ghana – ESP to Bezan and Slawecki (2002) framework referred to as “Paring-Caring- Sharing” model of sustainability, one can see introduction of factors of “PARING and CARING” in achieving agricultural sustainability when it comes to restoration and regeneration of the earth, repairing damage to ecosystems and sustainable farming practices. Many of the elements in the various interventions on environmental sustainability by COCOBOD have been identified by researchers such as biodiversity preservation, emission reduction, (Lang and Murphy, 2014), natural resource and environment conservation and protection (Kumar, Chattopadhyaya and Sharma, 2012). Khan (1995) elaboration of Agenda 21 criteria for environmental sustainability identified biodiversity, eco-system integrity.

When it comes to disposal (stores, vehicles, plants, equipment etc) as they become obsolete, unserviceable surplus stock based on the nature and condition, a procurement officer hinted: *Some of the modes of disposal are burying (products that are not harmful), destruction, dumping, burning them, exchanging or transfer and auctioning as the head of procurement entity conveys board of survey comprising representative from the item involved*.

These modes of disposal are in compliance of the Public Procurement (Amendment) Act, 2016 (Act 914) part 8, and section 83-84. However, based on COCOBOD business model as they supply farms inputs to farmers, as to how farmers embark on used plastics and other equipment was not monitored as it will have issue with degradability. Again, the role of Cocoa Research Institute of Ghana, a subsidiary of COCOBOD, comes to play in approving application of fertilizers and other chemicals use through testing and field application.

In situating the business model of COCOBOD within the triple bottom line, the appropriate theory of sustainability that can be identified with COCOBOD is interlocking circles model of sustainability. This model presents sustainability achievement through the balance between the three elements of social, economic and environment placing equal importance on each of them.

7.2 Research Question two:

Are there any motivating factors for COCOBOD to practice sustainable procurement?

COCOBOD pursuit of sustainable procurement must be motivated by some reasons which the study was interested to establish. The opening remark by the Senior Procurement Officer to the question on ‘the drivers for sustainable procurement for COCOBOD by prioritizing them accordingly for example: Major and Minor, Critical vs Non Critical, Important vs. Non Important?’ gives an idea about some possible motivating factors. The opening statement was:

As COCOBOD is poised to maintain and become a leader for premium quality cocoa to the international market is also mindful of the environmental, social and economic concerns and impacts of their operations, especially now that there is a global concern for climate change, resource depletion for instance, forest and water bodies, and other factors is pushing for more robust sustainable procurement practices.

From this opening statement, there is an inference of stakeholder pressure, concern for resources among other things. Comparing this comment to the mission and objective of the board clearly does not have much to highlight sustainable production through procurement. All the procurement officers interviewed for the study enumeration of the motivating factors for sustainable procurement were not substantially different from what the available literature have espoused such as pressure from stakeholders, Regulations compliance (both local and international), corporate reputation, value for money, corporate social responsibility, concern for resource depletion, greater market share etc. However, COCOBOD prioritizes corporate reputation, adherence to regulations, stakeholder pressure and concern for resource under critical and non-critical ones as drive for market share expansion and value for money.

Regarding issue of regulations and value for money the study observed that, Public Procurement Authority of Ghana, Ghana Audit Service and the Public Accounts Committee set up by Parliament of Ghana have an oversight responsibility on monitoring and evaluation for COCOBOD's procurements. It was established that, all procurements by COCOBOD must meet fit for purpose, whole life cost consideration, effectiveness, and efficiency was important. In evaluating tenders, there is technical responsive consideration that checks specification requested by COCOBOD. Based on the qualitative data collected from the interview corroborates what literature on drivers of sustainability. According to Kariuki and Kwasira (2014), they observed that, factors such as scarcity of resources, legislation and legal frameworks, stakeholder pressure are concerns for sustainable procurement. The accountability of the procuring agencies to the oversight authorities and stakeholders were highlighted by John et al (2010). CIPS (2012a) also mentioned among others reasons such as stakeholder pressure, accountability, and regulations as contributing factors for sustainable procurement.

The study observed that, the high quality specification is linked to how farmers engage in post-harvest handling. The Ghanaian farmer uses natural sun rays to dry their beans on raised bamboo mat often receiving regular turning, in contrary to mechanical heating process by other origin countries. Ghana COCOBOD, under the auspices of Quality Control Division, a subsidiary, undertake a minimum of three stages quality inspection before shipment. With all these measures by COCOBOD, it is not a surprise receiving assurances and confidence from their customers purchasing cocoa beans from them always. In the light of this premium quality giving good corporate image will give COCOBOD enjoy economic benefits as they stand to reap more profits as they stand to have a stronger bargaining power and thereby increasing their market share.

7.3 Research objective three

What challenges do COCOBOD encounter in ensuring sustainable procurement?

The initial comment by the Senior Procurement Officer to research objective three gives an idea of some challenges COCOBOD encounters. The comment was: *COCOBOD as public institution is not different from the challenges other public institutions in Ghana face in this regard. Probably, the major difference is that, we have funds in pursuit of sustainable procurement.* From this initial comments reveals that, COCOBOD is not constrained by

inadequate funding for internal or/and external support as identified by Public Procurement Bulletin, 2017 as worrisome for execution of sustainability. However, there are three main important issues highlighted from the interviews concerning challenges COCOBOD faced with regards to sustainable procurement. These challenges can be summed up as political contractors/suppliers, undefined blueprint management policy on sustainable procurement, unclear outfit within the procurement department/organisation dedicated for sustainability.

On the issue of “political contractors/suppliers” in the course of tendering and contract awarding, a respondent had this to say:

Indeed, anytime there is change of government, our supply base changes where we see new faces of contractors/ suppliers we need to deal. Sometimes we observe new business that are registered and new suppliers. You could sometimes see that some of these suppliers are linked to these political parties pushing for an award of contract with political power influence. This imposes some constraints to guard the process to the later with little focus on sustainable practices regarding Triple Bottom Line.

This perspective corroborates the findings by Public Procurement Bulletin (2017), as these new suppliers already have loyalty to the government of the day and may not necessarily have sustainability qualification and still want to win the contract. Again, it could be deduced that, due to the perception of higher cost associated with sustainable products makes the new suppliers unable and resisting by considering the monies to be expended in meeting sustainability compatibility level.

It is important to point out that, with a clear statement policy by COCOBOD on sustainable procurement could strengthened the effort on sustainable procurement achievement in a more focused direction.

In an interview with a Principal Procurement Officer on the challenges of sustainable procurement by COCOBOD, one important issue raised was about supplier monitoring, assessment and evaluation to ensure suppliers sustainable compliance was unclear outfit within the procurement department/organisation dedicated for sustainability.

In an advanced countries, an organisation of COCOBOD type should have sustainability officers/managers sole dedicated for sustainability issues so that they could have site visitation to the suppliers’ organisation/business and include their report in the tender

evaluation. Sometimes, these officers can discuss with management with the need to partner and develop suppliers towards sustainable practices.

This challenge was identified by Ghana's Public Procurement Bulletin (2017). In the light of having an outfit for sustainability is not out of place as the researcher once visited J.E. Erkornes AS in Sykkylven in Norway, which is one of the world known companies into manufacturing of stressless chairs, Stressless sofas, Erkornes Collection sofas, foam laminate and other woodwork has a sustainability manager. The company has developed Suppliers Code of Conduct hinging on adoption of United Nation's (UN) Global Compact ten (10) principles giving more clarity to what they expect, require of themselves and their business partners. The UN's Global Compact initiative commits members to implement ten principles with respect to employees' rights, human rights, fighting corruption, sustainable production targeting environmental protection. Erkornes twelve (12) point code of conduct touches on management systems, forced labour, freedom of association and collective bargaining, child labour and young workers, discrimination, health and safety, living/minimum wage, working hours, regular employment, discipline/inhuman treatment, environment, and corruption and bribery. In this regard, the sustainability outfit can spearhead this responsibility.

Chapter Eight

Summary of Findings, Recommendations and Conclusion

8.0 Introduction

As this study aimed at evaluating Ghana Cocoa Board to sustainable procurement practice, this chapter presents the findings of the study with respect to the research objectives for which recommendations are made to draw a conclusion for the study based on the interviews conducted and the review of secondary literature/data about COCOBOD. It also identifies research limitations and areas of further studies

8.1. Summary of Findings

The following were some of the findings made from the study based on the research objectives:

1. COCOBOD does not have a clearly defined sustainable procurement policy document. This policy document intends to establish how COCOBOD will conduct its procurement processes in achieving the elements of sustainability within the Triple Bottom Line. However, in the absence of this clearly defined sustainable procurement policy, COCOBOD integrates into her sustainable procurement practices existing sections of Ghana's law on Public Procurement (Amendment) Act, 2016 (Act 914), Environmental Protection Agency Act, 1994 (Act 490), Forest and Wildlife Management (Timber Resources Management Act, 1997, Act 547 and its LI1649), Standards Decree, 1973 (NRCD 173)
2. The study revealed through an interview that, in the tendering and evaluation stage for an award of contract, the responsiveness of suppliers in the areas of commercial responsiveness, technical responsiveness and financial proposal, an evidence of documented report on suppliers' sustainability to provide some credence to their sustainable practices was not an issue asked. This should be an issue of importance to also check suppliers on sustainability
3. The business model operated by COCOBOD where most of the farm inputs, seedling, chemicals, fertilizers and other things needed by farmers by free or subsidized price in cocoa production position COCOBOD to ensure sustainable agricultural practices. For instance, COCOBOD subsidiaries such as Cocoa Health

- and Extension Department provides education to farmers on best farming practices, Cocoa Research Institute of Ghana grants approval to chemicals and fertilizers to be used on cocoa farms through their findings from research, quality control is also in the hands of Quality Control Division).
4. The study found out that, COCOBOD does not have an outfit within the procurement unit in charge sustainability issues. Such an outfit will be an immense importance when it comes to suppliers' sustainability monitoring and evaluation through periodic visitation. Such an outfit can cooperate with suppliers in the areas of training and development on sustainability if identified as critical suppliers and even new suppliers. Tate et al (2012) noted that since it probable for the majority of firms input materials for production to come from others, a true measure of a firm's sustainability performance should be looked from their suppliers and how they select them
 5. The study revealed that, based on the business model operated by COCOBOD from procurement, seed production, marketing and sale etc. with different dedicated subsidiaries in the cocoa supply chain positions COCOBOD well in integrating sustainability in cocoa production to the international market. This is because, in all the phases of cocoa production and supply chain, COCOBOD has part to play.
 6. It was revealed by the study that, the three elements of Triple Bottom Line (Economy, Society and Environment) are adequately captured in COCOBOD's procurement and operations, but more is seen in society and environment than economy.
 7. The study revealed that, COCOBOD attempt to achieve agricultural sustainability based on the "Three Circle Model" by Bezan and Slawecki (2002) is more concerned with "CARING"(Environment/Society Intersect) as compared to "SHARING" (Economy/Society intersect) and "PARING" (Economy/Environment). This is demonstrated by COCOBOD corporate social responsibility programmes, farmers and workers welfare and health interventions and partnership with AfDB, United Nations Development Programme (UNDP) and Mondelez International Cocoa Life Programme on sustainable cocoa production.
 8. In considering the factors for pushing the agenda for sustainable procurement by researchers, the perspective of COCOBOD is not much different, as it identified the critical ones as local and international regulations, stakeholder pressure, concern for

natural resource (natural) deterioration and corporate reputation. Non-critical to them even though they keep their eyes on are market share expansion and value for money.

9. The study found out that, with all the challenges identified, the politically motivated contractors/supplier makes it difficult to indeed insist to later certain tenets of sustainability with the fear of losing jobs.

8.2 Recommendations

In the light of the findings and discussions from the study, the following recommendations were proposed for consideration and implementation towards sustainable procurement.

1. It is recommended that, COCOBOD come up with a clear and elaborate policy on sustainability and for that sustainable procurement. This will clearly defines the boundaries and as a guiding document as part of supplier evaluation and contract awarding. This will cure the neglect of sustainability report by suppliers/contractors.
2. With the varied challenges identified as impediments to sustainable procurement, COCOBOD can under research/review in developing Sustainable Capability Maturity Model allowing continuous improvement and efficiency.
3. The study recommends that, there should be continuous collaboration and cooperation, discussion between COCOBOD and the critical suppliers, farmers, haulers and other partners in the cocoa value chain on the need for sustainability in all their operations for business continuity.
4. The study recommends non-consistent politicization of the cocoa sector management change that can truncate good decisions and programmes outlined or earmarked for implementation towards sustainable procurement. The Chief Executive Officer and deputies get appointed into office by the government of the day and may decide to discontinue the good programmes to sustainability.
5. The study admonishes continuous partnership and cooperation with farmers and other stakeholders on policies on tree planting and shade maintenance on cocoa farms. This practice promotes sustainable agricultural use of land with environmental and ecological benefits including habitat conversation, climate change mitigation and watershed protection dependent on degree of shade maintained and spatial coverage in the landscape.

8.3 Conclusion

The motivation for the topic and the choice of the case study cannot be underestimated because of the growing concern on the environmental issues such as forest degradation, water bodies, pollution, climate change and the contribution of cocoa sector to Ghana's economy. In the midst of economic backbones of Ghana, the cocoa sector is one important focus as it has enormously contributed to Ghana's economic development from the time Tetteh Quarshie introduced it to the shores of Ghana in 1879. This economic importance is seen in the area of agriculture exports, employment, foreign exchange earnings, government revenues and poverty reduction (Anim-Kwame & Frimpong, 2004). Ghana being the second largest producer of cocoa beans after Cote d'Ivoire with a market share of an estimated 20 percent (Bangmarigu & Qineti, 2008), and its position as producer of quality premium beans makes it possible to sell at a premium of 3 to 5 percent higher than the average world market price (Gilbert, 2009).

It is of importance to mention that, the cocoa value/supply chain involves many players such as farmers, input providers (suppliers), License Buying Companies Transporters/Haulers, Cocoa Marketing Company, Cocoa processors having COCOBOD as the regulator. With issue of sustainability taking greater space of international discussions motivated the study to explore how the regulator (COCOBOD) conducts her procurement related issue in a sustainable manner from these identified players.

In this direction, the study sought to explore these three objectives on sustainable procurement. The objectives were (1) How does the business model of COCOBOD impact sustainable procurement in relation to the triple bottom line? (2) Are there any motivating factors for COCOBOD to practice sustainable procurement? (3) What challenges do COCOBOD encounter in ensuring sustainable procurement?

The study revealed that the business model by COCOBOD contributes towards sustainable procurement as her subsidiaries have clearly defined objectives in the cocoa supply chain in achieving sustainable procurement.

Again COCOBOD is more concern with environment and social elements of sustainability as compared to economy.

8.4 Limitation of the Study

As it is truism that no research work could be conducted devoid of limitations, this study is not an exception. The researcher undertaking this research was faced with numerous limitations notably among them were:

First, the reluctant nature of some management and procurement officials at the case organisation to release vital information that would be of immense importance to enrich the study. Second, COVID-19 outbreak could not make it possible to undertake a trip to visit the case organisation as a result of closure of the border to international flights. This could have assisted the researcher to have one-on-one interview with the sample size chosen and to directly observe how COCOBOD conduct their procurement processes to enrich the discussion. As in all self-reporting, subjects may also in this case have offered fully or partially official explication as responses to the interviewer, to meet internal or external expectations. This is an aspect of all interview situations. For some cases, the bias, thus, introduced maybe balanced by triangulating the interviews with documentary analysis of letters, meeting minutes, or participant observation in the field. Due to COVID-19, this was impossible in this research project. Informant statements ought therefore to be seen as partial and subjective empirical data rather than simply facts. Third, the research should have been an integrated approach looking at how COCOBOD operates as it involves buying all the required inputs for cocoa production by the farmers to see how these participants within the supply chain undertake their operations in achieving sustainability in order to come out with findings for generalization but as a result of time frame, the research was limited to COCOBOD only neglecting the other participants in the chain.

8.5 Further Research

In recognizing limitations of the research and exploring more on sustainable procurement at COCOBOD, the researcher proposes further studies about the following:

First, an extensive inclusion of all the partners in the cocoa value chain approach to sustainable procurement in a collaborative or integrated manner as this study specifically centered on the regulator (COCOBOD) alone.

Second, as a result of the COVID-19 pandemic making the study constrained to only one data collection instrument (Interview) as against planned minimum of two, further research

should be conducted using more than one data collection instrument that will allow more generalization of the research findings.

Lastly, a robust capability maturity model for sustainable cocoa production through sustainable procurement should be researched into.

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Appendix 1

Interview Guide for Various employees

Introduction:

This interview is conducted to collect primary data for a Master thesis on the topic “**Suppliers Approach to Sustainable Procurement: A Case Study of Ghana Cocoa Board**”. I must stress that, it is strictly for academic purpose and any information that will be provided will be kept confidential. Your candid opinion/answer will to a larger extent help the successful analysis of the study to come out with reliable conclusion. Your honest response will be appreciated and I guarantee your anonymity.

A: Research, Monitoring and Evaluation Officers

1: Background Information about COCOBOD.

- Can you tell me about COCOBOD?
- What are the core activities of COCOBOD?
- who are the customers
- Who do they consider as their competitors?
- Are there any agents between COCOBOD and the customers
- What do they consider as the most important resources that enable them to deliver value to their customers?

B: For Procurement/Supply Chain Officers

1: Knowledge about Sustainable Procurement (SP)

- What is your understanding and COCOBOD`s view of sustainable procurement?
- Does COCOBOD has a policy document/guidelines/ regulations etc. on SP
- If YES, please what does it say?
- Is there any Body/Agency/Group that has oversight responsibility of COCOBOD compliance to Sustainable procurement? If yes can you mention some?

2: Adoption of Sustainable Procurement in the procurement process (with respect to the procurement cycles in Ghana)

- Hoe does COCOBOD ensure Sustainable Procurement with specific reference to the three pillar of SP (Environmental, Social, and Economic Considerations) in your procurement cycle?

- ✓ Procurement planning
 - ✓ Sourcing/Tendering Stage
 - ✓ Contracting/Award of Contract
 - ✓ Contract Management
 - ✓ Warehousing
 - ✓ Disposal
 - ✓ Monitoring and Evaluation
- How has COCOBOD contributed **socially, economically and environmentally** towards the livelihood of their stakeholders?
 - Can you mention some of the sustainability measures COCOBOD suppliers do implement?

3: Can you mention some key **success factors** regarding Sustainable Procurement?

4: In your opinion, can you tell me the **drivers for sustainable procurement** for COCOBOD by prioritizing them accordingly for example: **Major and Minor, Critical vs Non Critical, Important vs. Non Important?**

5: What are the challenges COCOBOD Procurement outfit face in achieving Sustainable Procurement?

6: Any additional information you will like to provide or any clarity from the interviewer.

Many thanks for your time and response. I will call on you if the need be.

B: Finance and Accounting Officers

- What is the costs structure?
- What are there main sources of revenue to COCOBOD
- Have there been any case/incidence of bribery and corruption involving payments from your outfit?
If yes what is it about?
- Have you been tax compliant?
- Can you please tell me how producer price is determined for the farmers?
- Is there any special package for the farmers you buy the cocoa beans from?

Many thanks for your time and response. I will call on you if the need be.

C: Human Resource Management Officer

- Has COCOBOD been charged for human rights abuse of workers?
- Have your employees complain about working conditions recently?
If yes what is it about?
- Is there any incidence of discrimination among workers at COCOBOD?
- Can you please tell me how your recruitment and selection process into COCOBOD is done?

- What is your assessment of the working environment for COCOBOD workers?

D: Workers/Employees of COCOBOD

- Can you tell me how you feel as a worker of COCOBOD?
- How are employees' grievances handled by management?
- Can you comment employees working condition at COCOBOD
- What do you have to say when it comes to Health and Safety of employees?
- Can you please share with me about labour and human rights issues at COCOBOD?
- At COCOBOD or your subsidiary, what can you say about employee equity and fairness at workplace?
- Are you provided with what you need to work with?
- Do you see your work/schedule as stressful?
If yes, in your opinion, how stressful is it?
- What is the tolerance level from your head/management anytime employees express themselves about issues bordering them?

Many thanks for your time and response. I will call on you if the need be.

Appendix 2

INVITATION FOR TENDER FOR THE PROCUREMENT OF VARIOUS VEHICLES AND MOTORBIKES

TENDER FOR VEHICLES AND MOTORBIKES

Contract Details

Awarding Agency:

Ghana Cocoa Board

Tender Package No:

GCB/HO/PU/NCT/VH/V.1/2019/02

Tender Type:

NCT

Contract Type:

Open Tender

Lot #:

2

Tender Description:

GHANA COCOA BOARD

NATIONAL COMPETITIVE TENDER

INVITATION FOR TENDER FOR THE PROCUREMENT OF VARIOUS VEHICLES
AND MOTORBIKES

IFT NO.: GCB/HO/PU/NCT/VH/V.1/2019/02

1. Ghana Cocoa Board intends to apply part of its budgetary allocation to fund eligible payments under the contract for the procurement of various Vehicle and Motorbikes as detailed below:

Lot Description Quantity Delivery Site

1 4 Tonne Truck 18 No.

DDP - Cocoa House, Accra

2 10 Tonne Haulage Truck 8 No.

3 4x2 Ambulance 3 No.

4 4x4 Station Wagon Ambulance 1 No.

5 10 Tonne Medical Delivery Van 1 No.

6 3 Tonne Forklift 4 No.

7 Tractor with trailer 9 No.

8 10 Tonne Cesspit Emptier 1 No.

9 Backhoe Machine 1 No.

10 Motorbike 11 No.

NB- Tenderers shall quote for all the quantities in a Lot. Partial quotations shall be disqualified.

2. Tenderers may quote for one (1) or more Lots and contract will be awarded on Lot basis.

3. Ghana Cocoa Board invites sealed tenders for the Procurement of the above-mentioned items. Tendering will be conducted through the National Competitive Tendering procedures specified in the Public Procurement Act, 2003 (Act 663), Amendment Act, 2016 (Act 914) and the Guidelines of the Public Procurement Authority.

4. A complete Tender document in ENGLISH may be purchased by interested Tenderers after inspection and submission of a written application to the address below and upon the payment of a non-refundable fee of Three Hundred Ghana Cedis (GH¢300.00). The method of payment shall be Cash or Banker's draft in the name of Ghana Cocoa Board.

5. Further information may be obtained from the Procurement Director, Ghana Cocoa Board, 5th Floor, Room 502 from Monday, 30th September, 2019 till the close of tender on Wednesday, 16th October, 2019 at 10.30 am.

6. All Tenders must be accompanied by a Tender Security of not less than Two Percent (2%) of the Total Tender Price from a Reputable Bank in Ghana. All quotations shall be in

Ghana Cedis.

7. The following documents are to be submitted together with the tender document:

- Valid Business Registration Certificates
- Valid SSNIT Clearance Certificate
- Valid Ghana Revenue Authority Tax Clearance Certificate
- VAT Certificate / Evidence of VAT Exemption
- Public Procurement Authority (PPA) Certificate
- Audited Financial Statement for the last three (3) years
- Manufacturer's Authorization

8. Tenders shall be valid for a period of 120 days after deadline of Tender submission.

Tenderers should submit Six (6) hard copies (One (1) Original and Five (5) copies) and an electronic copy of the Technical Specification on a pendrive in a sealed envelope.

9. Tenders shall be opened in the presence of the Tenderers and/or their representatives who choose to attend at the Board Room, 4th Floor, Room 407, Cocoa House, immediately after close of tender on Wednesday, 16th October, 2019.

10. Tenders clearly labeled and marked "PROCUREMENT OF VARIOUS VEHICLE AND MOTORBIKES" must be deposited in a tender box at the address below on or before Wednesday, 16th October, 2019 at 10.30 am:

Address: Procurement Department,
5th Floor, Cocoa House (Room 502)
(Near The Central Police Station and Opposite
The Ghana Supply Company Ltd., Accra)

Telephone: 233-0302-661872

233-0302-661873

233-0302-683300

Fax: 233-0302-667104

233-0302-661681

233-0302-669808

233-0302-679864

Email: cocobod@cocobod.gh

Late submissions shall be rejected.