

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,

KUMASI

COLLEGE OF ARCHITECTURE AND PLANNING

DEPARTMENT OF BUILDING TECHNOLOGY

EVALUATING THE PROCUREMENT PROCESSES IN THE GHANA

ARMED FORCES.

KNUST

BY

KENNETH KWASI BLAME

(BSc. Hons)

**A THESIS SUBMITTED TO THE DEPARTMENT OF BUILDING
TECHNOLOGY, IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF MASTER OF SCIENCE IN PROCUREMENT
MANAGEMENT.**

NOVEMBER, 2014

DECLARATION

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

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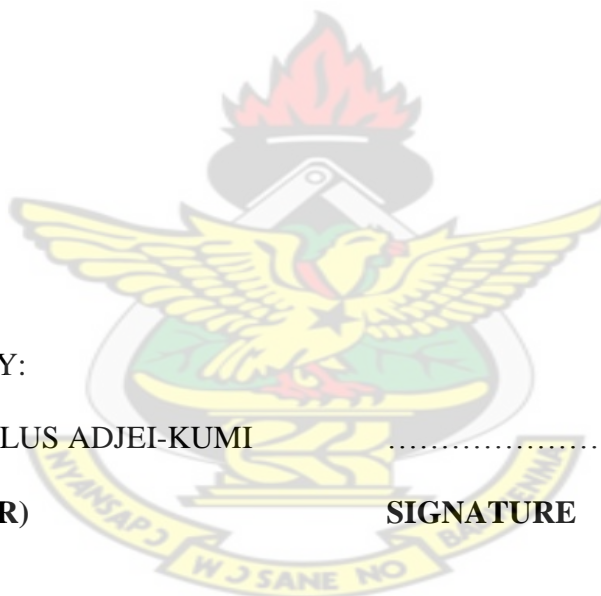
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CERTIFIED BY:

DR. THEOPHILUS ADJEI-KUMI

.....

.....

(SUPERVISOR)

SIGNATURE

DATE

CERTIFIED BY:

PROF. JOSHUA AYARKWA

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HEAD OF DEPARTMENT

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DEDICATION

This dissertation is dedicated to God Almighty who has enabled me to get this far.

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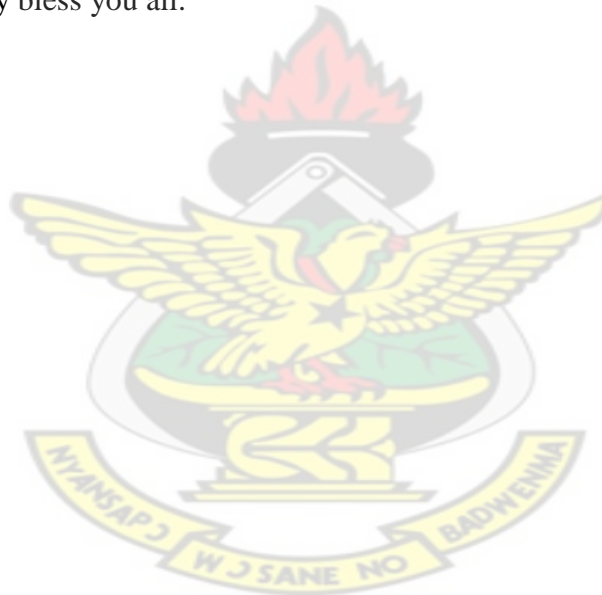
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ABSTRACT

One of the key functions of government is Public procurement. An effective, efficient and honest evaluation of procurement processes are crucial to ensuring that scarce public funds are well spent and that important public projects are carried out. However, such processes are often best engulfed by waste, corruption and inefficiency within Ghana Armed Forces (GAF). The Public Procurement Processes within the GAF are frequently in secrecy, compared with other sectors. Such phenomenon engenders failings at all stages of the procurement cycle: policy and planning, budgeting, decision-making processes, and monitoring and evaluation. The objective of this study was to evaluate the procurement process within Ghana Armed Forces: A study of Directorate of Engineering Services from which eighty, (80) questionnaires were purposively distributed and sixty, (60) were completed representing seventy five percent (75%) rate of response. The data was analyzed using one tailed test and frequency distribution tables as statistical tools for data presentation and interpretations. It was identified from the study that GAF procurement processes are often not evaluated for lessons learnt, the procurement process being too long and bureaucratic and that evaluating the procurement process exerts positive significance on Public Procurement Management as the evaluating process: ensures compliance with procurement rules and procedures, creates value for money and ensures transparency, encourages competition within the process and among prospective tenderers, prevents irregularities and upward adjustment of contract prices and leads to continuous process improvement in the procurement process. Recommendations were however made upon request for future procurement process improvement for Ghana Armed Forces.

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CHAPTER ONE

INTRODUCTION

The Ghana Armed forces (GAF) is a security but public institution that is not opened to the public for scrutiny. However, procurement has assumed a global dimension and requires in-depth scrutiny at every stage. It is in this light that this project is being carried out in line with the procurement act of Ghana, Act 663 of 2003. The GAF is a huge beneficiary of public funds for its procurement purposes.

Due to the nature of the organization being used as a case study, care was exercised in this project to make it an academic exercise but ensuring that professional and real situations are applied to improving on good public procurement delivery to the people of Ghana. No institution in today's globalized world can afford to remain an island. This is important because there are international standards to be followed.

1.1 BACKGROUND

Procurement issues in Ghana dates back to as far as the practice itself. However the processes have been going through reforms and changes up to this time that we have the Public Procurement Act 663 of 2003 makes provision for self-regulatory mechanisms, checking and double checking the various processes and practices, the alternatives available to practitioners on the failure of any of the processes, etc.

Procurement is said to be the processes required to acquire works, goods and services from outside the performing organization (Wikipedia). The basic thrust of the government's economic policy for the medium term (2009-2012) is to accelerate

overall growth of the economy, lower inflation and improve the external payments position of the country is in the right direction. Public procurement accounts for:

1. 50-70% of the national budget (after personal emoluments)
2. 14% of GDP
3. 24% of total imports (World Bank CPAR 2003)

Public procurement therefore has both economic and social impact. Efforts aimed at growing the economy of Ghana to a middle-income state has been sustained but at a slower pace than expected. Public and private sector efforts in the past and present at creating a rapid transformation in this critical sector of the economy have not delivered the results needed.

1.2 HISTORY OF THE GHANA ARMY

The **Ghana Army** is the army of the Republic of Ghana. In 1959, two years after the Gold Coast obtained independence as Ghana, the Gold Coast Regiment was withdrawn from the Royal West African Frontier Force, and formed the basis for the new Ghanaian Army. Together with the Ghanaian air force and Ghanaian navy, the Army makes up the Ghana Armed Forces, controlled by The Ministry of Defence and Central Defence Headquarters, both located in Accra.

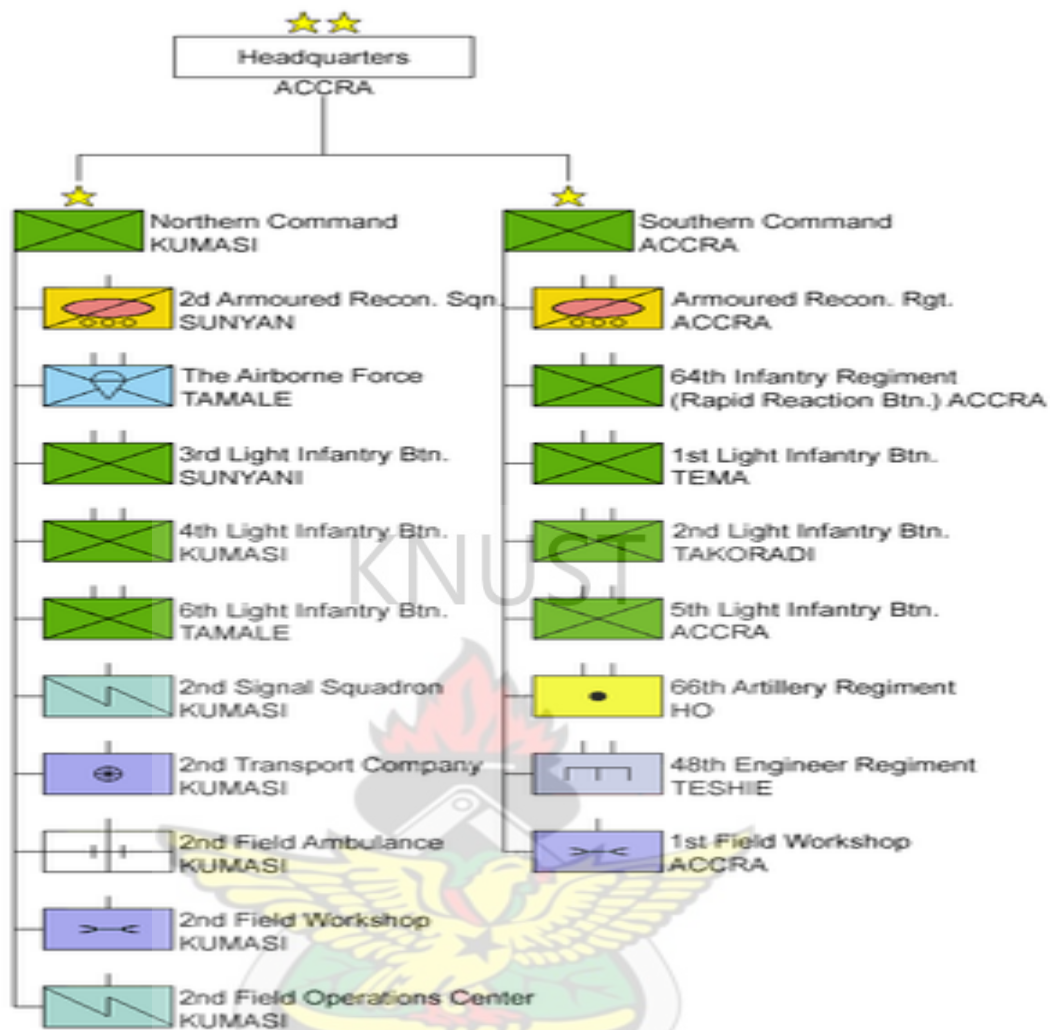


Figure 1.1 Structure of the Ghana Army

The command structure for the armed forces in Ghana originally stemmed from the British Army's West Africa Command. Lieutenant General Lashmer Whistler was the penultimate commander holding the command from 1951 to 1953. Lt. Gen. Sir Otway Herbert, who left the West Africa Command in 1955, was the last commander. The command was dissolved on 1 July 1956.

In 1957, the Ghana Army consisted of its headquarters, support services, three battalions of infantry and a reconnaissance squadron with armoured cars. Total

strength was approximately 5,700 men. Partially due to an over-supply of British officers after the end of the Second World War, only 12% of the officer corps in Ghana, 29 officers out of a total of 209 in all, were Ghanaians at independence. Under Major General Alexander Paley, there were almost 200 British officers and 230 warrant officers and senior commissioned officers posted throughout the Ghanaian Army.

Ghanaian Prime Minister Kwame Nkrumah wished to rapidly expand and Africanize the army in order to support his Pan-African and anti-colonial ambitions. Thus in 1961, 4th and 5th Battalions were established, and in 1964 6th Battalion was established, from a parachute unit originally raised in 1963. Second Infantry Brigade Group was established in 1961 to command the two battalions raised that year. However, 3rd Battalion was disbanded in February 1961 after an August 1960 mutiny while on Operation des Nations Unies au Congo service at Tshikapa in the Democratic Republic of the Congo. The changeover from British to Ghanaian officers meant a sudden lowering of experience levels. The Ghanaian commanding officer of 3rd Battalion, Lieutenant Colonel David Hansen, had an appointment as battalion commander only seven years of military experience, compared to the more normal twenty years' of experience for battalion commanders in Western armies. He was badly beaten by his troops during the mutiny. 4th Battalion was raised under a British commanding officer, Lieutenant Colonel Douglas Cairns, from the single company of the 3rd Battalion that had not mutinied.

Initial British planning by Paley before his departure in 1959 had provided for all British officers to be withdrawn by 1970; however, under pressure from Nkrumah, Paley's successor Major General Henry Alexander revised the plans, seeing all British

personnel to depart by 1962. However, in September 1961, Alexander and all other British officers and men serving with the Ghanaian armed forces were abruptly dismissed. Nkrumah was determined to indigenize his armed forces fully, after some years of accelerated promotion of Ghanaian personnel.

According to Baynham 2006, that “the wholesale shambles which surely must have resulted from simply expelling the expatriate contract and seconded officers was averted by the arrival of Canadian military technicians and training officers.” Canadian training team personnel were assigned to the Military Academy (1961-1968), the Military Hospital, as Brigade Training Officers (1961-1968), to the air force, and later the Ministry of Defence (1963-1968), Ghana Army Headquarters (1963-1968) and the Airborne School.

Matters deteriorated further after the coup that deposed Nkrumah. In July 1967, Canadian Colonel James Bond, the Canadian military attaché, asked to write a report on how Canada could further assist the Ghanaian armed forces, wrote that 'during 1966 the preoccupation of senior officers with their civilian duties as members of the National Liberation Council and as regional administrators, resulted in an unconscious neglect of the welfare of the Army. Available intermediate level officers had been assigned civilian administrative duties, leaving the army short.

Ghana has contributed forces to numerous UN and ECOWAS operations, including in the Balkans, Afghanistan, Democratic Republic of the Congo, Lebanon, and Liberia (ECOMOG and UNMIL). Ghana contributed UN peacekeeping in UNAMIR during the Rwandan Genocide. In his book “Shake Hands with the Devil”, Canadian force commander Romeo Dallaire gave the Ghanaian soldiers high praise for their work during the conflict, in which the Ghanaian contingent lost 3 soldiers.

1.3 GENERAL INFORMATION

The Directorate of Engineering Services (DES) of the General Headquarters was established under the auspices of Ministry of Defence at Burma Camp-Accra to construct, renovate, monitor and control all Ghana armed Forces projects. The Directorate has departments such as the quantity surveying, administration, stores, Planning and Design Department etc. DES is made up of a Director and his Deputies, Architects, Civil and Structural Engineers, Quantity Surveyors, Draught men, Clerk of Works, Cleaners etc. The Directorate consists of Civilian Employees, Army Officers and Men.

The following are the Duties and Responsibilities of the Directorate of Engineering Services:

- i. Preparing indications of Costs (I of C) and Preliminary rough estimate (PRE) for Ministry of Defence Projects. These are normally calculated from sketch designs or preliminary drawings prepared by the Planning and Design Department. Costs are based on a meter, square meter and cubic meter and apply to work to be executed by 49 Engineering Services by direct labor or by contract or to selected contractors Fitcher F. Lt. Col. 1968.
- ii. Preparing Bills of Quantities for buildings, bridges, roads, external works including all services. Standard Bills of Quantities are available for most barracks buildings in the regions.

Drawing up particular specifications and conditions of Contract. Standard Documents in this group are available but may have to be altered to suit new requirements Fitcher F. Lt. Col. 1968.

- iii. Inviting Tenders for Ministry of Defence Projects. Instruction for this is issued from Director Logistics through Chief Engineer to the Quantity Surveying Department.

Tenders are normally based on Bills of Quantities and drawings or drawings only for the smaller projects. On occasions Tenders may be invited for the supply of materials and special equipment for Directorate of Engineering Services. The Ministry of Defence Contract and Supply Procedure outlines the steps which are to be taken Fitcher F. Lt. Col. 1968.

- iv. The award of contract by the **Armed Forces Supply Committee** and instructions to accept a particular tenderer given to the Quantity Surveying Department by Director of Logistics. Letters of acceptance of Tenders are then written by Quantity Surveying Department and are signed by Chief Engineer (Works). Unsuccessful contractors are informed that their tenders have not been accepted and standard forms are available for this. The Third Edition of Articles of Agreement and Conditions of Contract is used by the Ministry. For small contracts and for the supply of materials a short form of contract may also be used. Works orders are issued immediately after the signing of the contracts for construction works and deviation orders are prepared following on site Instruction given to the Contractor by the Garrison Engineers Fitcher F. Lt. Col. 1968.

1.4 PROBLEM STATEMENT

Over the years Military expenditures have been shrouded in secrecy with no member of the public ready to discuss how much is allocated to Military and how their pattern of expenditures are run. The 2011, Auditors Report has indicated contract

management lapses within the Ministry of Defence during the period under consideration. The irregularities included upward adjustment of contract prices without any justification and failure to complete contracts on schedule. Management also failed to pay variation prices where contractors have failed to complete jobs on schedule. Additionally, the Ministry failed to comply with the Public Procurement Law regarding the award of contracts. Stores and procurement irregularities such as failure to route items through stores, failure to return uniforms on separation and procurement from non-VAT registered suppliers amounted to GH¢266,128.00 for the year (MDA's Auditor's Report 2011). Non-compliance with procurement rules and procedures in the various Units mainly accounted for the irregularities. The Procurement Processes are not evaluated after contract award and post contract for lessons learned coupled with the adopted processes by the Ghana Armed Forces being too long and bureaucratic formed the problem for the study.

1.5 RESEARCH QUESTIONS

The following are the research questions:

1. What procurement processes are adopted by the Ghana Armed Forces?
2. Does Ghana Armed Forces evaluate its' procurement process?
3. What is the significance of innovation in evaluating the procurement process at GAF?

1.6 AIM OF STUDY

To examine procurement processes in the GAF in the light of the Public Procurement Act 663 of 2003.

1.7 SPECIFIC OBJECTIVES

1. To identify procurement processes adopted by the Ghana Armed Forces
2. To determine whether GAF evaluate its' procurement process.
3. To find out the significance of evaluating the procurement process at GAF.

1.8 SIGNIFICANCE OF THE STUDY

The researcher is of the view that the Public Procurement Act is very crucial to enterprise development and growth in the Ghana Armed Forces. This exercise will facilitate a smooth transition from wastage to ensuring efficiency in the public procurement system and to facilitate a fast procurement that leads to the attainment of value for money, creates transparency and equity. The resultant effect is that there will be contractor confidence in the procurement system in GAF leading to higher competition and promotion of good governance. It is a high time the procurement practices within the GAF are subjected to the litmus test to appreciate the level of compliance to the Public Procurement Law.

1.9 SCOPE OF THE STUDY

This study was carried out at the works department of the Directorate of Engineering Services (DES) Burma Camp, Accra.

1.10 LIMITATIONS TO THE STUDY

Though the research has much importance, some limitations are likely to affect the quality of the research. The sample size covered was hundred and eighty due to the time frame to submit this work considering the large size of the study area of GAF.

Also, the reluctance of most of the respondents to provide timely and accurate information was perceived to be the major limitation that has been experienced; this may however affect quality of data gathered and eventually affect the quality of this research.

1.11 CHAPTER ORGANISATION

The research report comprises five (5) chapters, which are as follows:

The research was made up of five major chapters; with chapter one comprising the background of the study, statement of the problem, the objectives of the study, hypothesis/research questions, scope and delimitations of the study and the significance of study.

Chapter two was devoted to literature review with a look at conceptual to theoretical aspects of Public Procurement Process. Furthermore, the research methodology was tackled in chapter three, in which the data collection and presentation procedures have been examined. Chapter four was also made up of analysis of the various data gathered based on the responses from the respondents. The data captured from the respondents were analyzed using Microsoft Excel applications (tables and frequency distribution) for interpretations and analysis. Finally, summary of major findings, recommendations and conclusions formed chapter five.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides the review of literature on procurement. It provides a brief history of procurement, definition of procurement, procurement processes, procurement activities and steps, procurement innovation; changes in public procurement policy, among others from various authors have been discussed.

2.2 HISTORY OF PROCUREMENT

In the 1800s, purchasing was recognized as an independent function by many railroad organizations, but not in most other industries. Prior to World War I, purchasing was regarded as primarily clerical (Kraljic, 1983). During World War I & II - The function increased due to the importance of obtaining raw materials, supplies, and services needed to keep the factories and mines operating (Kraljic, 1983).

1950s & 1960s - Purchasing continued to gain popularity as the techniques for performing the function became more refined and as the number of trained professionals increased. The emphasis became more managerial coupled with the introduction of major public bodies and intergovernmental organizations, such as United Nations, procurement became a well-recognized science (Kraljic, 1983).

1970s & 1980s - More emphasis was placed on purchasing strategy as the ability to obtain needed items from suppliers at realistic prices increased (Kraljic, 1983). In September 1983, more meaning and a greater impetus to the purchasing subject debate, the Harvard Business Review published an article by Peter Kraljic on

purchasing strategy that is widely cited today as the beginning of the transformation of the function from "purchasing," something that is viewed as highly tactical to procurement or supply management, something that is viewed as very strategic to business (Kraljic, 1983).

In the 1990s, Procurement became more integrated into the overall corporate strategy and a broad-based transformation of the business function and since then ignited, fueled strongly by the development of supply management software solutions which helped automate the source-to-settle process of purchasing.

The leader of the procurement function within many enterprises is established with a C-Level title - the Chief Procurement Officer (sometimes called the Head of Procurement). Websites, publications, and events, that are dedicated solely to the advancement of Chief Procurement Officers and the procurement function arise. In an article published in the procurement standard journal by Blanchard 2010; he indicated that the global recession of 2008-2009 places procurement at the crux of business strategy (Blanchard, 2010).

To place further emphasis on the procurement function, titles and positions that will be mainstreamed into the various business models have been developed and incorporated successfully. The elevation of the function continues as Chief Procurement Officers are recognized as important business leaders and begin to take on broader operation responsibility.

2.3 OVERVIEW OF PROCUREMENT

Chartered Institute of Purchasing and Supply Australia (2005) defines procurement as a 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. Peter et'al, (2008) defined Procurement as the acquisition of goods, works and services acquired by individual or institutions. Also, International Bank for Reconstruction and Development Guidelines for Procurement, 2004, referred to Procurement as the acquisition of goods, buying or purchase of works, hiring contractors and consultancy services.

The definitions all indicated that “it is goods, services or works are that are procured at the best possible cost to meet the needs of the purchaser in terms of quality and quantity, time, and location.” It is in the light of these that Corporations and Public Bodies such as Public Procurement Authority (PPA) often define processes intended to promote fair and open competition for all potential tenderers in the public procurement process in Ghana to minimize exposure to fraud and collusion as well as to promote value added preposition for the country (PPA, Act 663).

Almost all purchasing decisions include factors such as delivery and handling, marginal benefit, and price fluctuations. Procurement generally involves making buying decisions under conditions of scarcity. If goods data is available, it is good practice to make use of economic analysis methods such as cost-benefit analysis or cost-utility analysis Peter et'al, (2008).

An important distinction made between analyses without risk and those with risk. Where risk is involved, either in the costs or the benefits, the concept of expected value may be employed (World Bank CPAR 2003). Within the procurement function is the matrix as indicated thus (table 2.1) below according to (Bovaird et'al, 2006).

Table 2.1 The Procurement Matrix

Direct Procurement and Indirect Procurement				
		TYPES		
		DIRECT	INDIRECT	REMARKS
		PROCUREMENT	PROCUREMENT	
		Raw material and production goods	Maintenance, repair, and operating supplies	Capital goods and services
FACTORS	Quantity	Large	Low	Low
	Frequency	High	Relatively high	Low
	Value	Industry specific	Low	High
	Nature	Operational	Tactical	Strategic
	Examples	Crude oil in petroleum industry	Lubricants, spare parts	Crude oil storage facilities

Bovairdet'al, 2006.

Based on the consumption purposes of the acquired goods and services, procurement activities are often split into two distinct categories. The first category of goods and services known as direct include, production-related procurement and the second being indirect, non-production related procurement (Bovaird et'al, 2006).

Direct procurement occurs in manufacturing settings only. It encompasses all items that are part of finished products, such as raw materials, components and parts. Direct procurement, which is the focus in supply chain management, directly affects the production process of manufacturing firms (Bovaird et'al, 2006).

In contrast, (Caldwell et al, 2009); argues that indirect procurement activities concern operating resources that a company purchases to enable its operations. It comprises a wide variety of goods and services, from standardized low value items like office supplies and machine lubricants to complex and costly products and services; like heavy equipment and consulting services.

Bovaird 2006, has asserted that there is a big shift in public purchasing in recent years where the public and private sector organizations are collaborating with government sector institutions more closely and this move has created complex forms of co-ordination in the purchasing process whereby larger numbers of players need to be involved in ensuring that these projects and services are successfully procured or implemented, thus each party expects to reap benefits by helping the joint venture to be more successful.

According to Kalkota & Robinson 1999, the purchasing of goods and services in an Enterprise cost about 50% to 60% of every dollar spent and therefore the control of this cost will help the Enterprises to reduce cost of production.

2.4 PROCUREMENT IN CONTEXT

Procurement “refers to the function of purchasing goods or services from an outside body” (Arrowsmith, 2005). Public procurement occurs when this function is performed by a public agency. From a legal perspective, procurement carried out by private firms acting on behalf of a public agency also comes under the definition. Although procurement is synonymous with e.g. purchasing, buying, or sourcing, etc., and although, technically speaking, it could be referring to any actor in a market, the assumed agent, if the term is used without a qualifier (e.g. private, public), is usually a

public agency. Public procurement can take place at any level in society – in a department, a local council of a municipality, regional or national.

Essentially all public functions are supported by public procurement (Thai & Grimm, 2000). Following these definitions, works, goods and services of any kind are acquired through public procurement system. The particular interest of this thesis is the public procurement of innovations in a somewhat closed public institution as the Ghana Armed Forces (GAF), i.e. a special sub-set of public procurement.

2.5 PROCUREMENT SYSTEMS

Another common procurement issue is the timing of purchases. Just-in-time is a system of timing the purchases of consumables so as to keep inventory costs low. Just-in-time is commonly used by Japanese companies but widely adopted by many global manufacturers from the 1990s onwards. Typically a framework agreement setting terms and price is created between a supplier and purchaser, and specific orders are then called-off as required (Arrow smith, 2005).

2.5.1 Procurement Process

Procurement is an essential component of the supply chain of an enterprise. It involves the flow and management of resources across the enterprise for the purpose of maintaining the business operations profitably (Sahgal, 2009).

Procurement may involve a bidding process known as tendering. A company or organization may require some product or service. If the price exceeds a threshold that has been set depending on policy or legal requirements such as government department procurement policy that states that: "any product or service desired whose price is over X must be put to tender" then, the purchaser or procuring officer is

required to state what is required and make the contract open to the bidding process. The concept of total cost also comes into play. At times, not just price, but other factors such as reliability, quality, flexibility and timing, are considered in the tendering process. A number of potential suppliers then submit proposals of what they will provide and at what price. Then the purchaser will usually select the lowest bidder; however if the lowest bidder is deemed incompetent to provide what is required despite quoting the lowest price, the purchaser will select the lowest bidder deemed competent (Sahgal, 2009).

In the European Union, strict rules on procurement must be followed by public bodies, with contract value thresholds determining the processes required especially when it relates to advertising the contract, the actual process etc.

2.5.2 Procurement Steps

Procurement life cycle in modern businesses usually consists of seven steps (Standler & Kilger, 2005):

- **Needs Identification:** This is an internal step for a company that involves understanding of the company needs by establishing a short term strategy (three to five years) followed by defining the technical direction and requirements.
- **Supplier Identification:** Once the company has answered important questions like: Make or buy, multiple vs. single suppliers, then it needs to identify who can provide the required product/service.
- **Supplier Communication:** When one or more suitable suppliers have been identified, requests for quotation (RFQ), requests for proposals (RFP), requests for information (RFI) or requests for tender (RFT) may be advertised, or direct contact may be made with the suppliers. References for product/service quality

are consulted, and any requirements for follow-up services including installation, maintenance, and warranty are investigated. Samples of the products being considered may be examined, or trials undertaken.

- **Negotiation:** Negotiations are undertaken, and price, availability, and customization possibilities are established. Delivery schedules are negotiated, and a contract to acquire the product or service completed.
- **Supplier Liaison:** During this phase, the company evaluates the performance of the product and any accompanying service support, as they are consumed. Supplier scorecard is a popular tool for this purpose. When the product has been consumed or disposed of, the contract expires, or the product or service is to be re-ordered, company experience with the product is reviewed. If the product or service is to be re-ordered, the company determines whether to consider other suppliers or to continue with the same supplier.
- **Contract Management:** Supplier preparation, expediting, shipment, delivery, and payment for the product and service are completed, based on contract terms. Installation and training may also be included.
- **Additional Step - Tender Notification:** Some institutions choose to use a notification service in order to raise the competition for the chosen opportunity. These systems can either be direct from their e-tendering software, or as a re-packaged notification from an external notification company. Refer to fig 2.2 for a proposed flow chart for GAF (pg. 30).

2.5.3 Procurement performance

Ardent 2011, published a research report that presented a comprehensive, industry-wide view into what is happening in the world of procurement today. By drawing on the experience, performance, and perspective of nearly 250 Chief Procurement

Officers and other procurement executives. The report includes the main procurement performance and operational benchmarks that procurement leaders use to gauge the success of their organizations. This report found that the average procurement department manages 60.6% of total enterprise spend. This measure commonly called "spend under management" refers to the percentage of total enterprise spend (which includes all direct, indirect, and services spend) that a procurement organization manages or influences. The average procurement department also achieved an annual savings of 6.7% in the last reporting cycle; sourced 52.6% of its addressable spend, and has a contract compliance rate of 62.6%.

2.6 PUBLIC PROCUREMENT AND INSTITUTIONAL DEFINED PRACTICE

This section elaborates on public procurement from a practical point of view. It demonstrates how the public procurement process is an activity that is highly institutionalized through policy, law, regulation, and administrative procedures and, in these respects, actually defined by institutions. Public procurement in the EU is regulated through the European Community (EC) Procurement Directives. In addition to directives, according to the EC Treaty the European Union can also issue regulations, decisions, recommendations or opinions. Like regulations, directives must be complied with, but it is laid upon the (concerned) individual member states to transpose or implement, them according to their own choice within the time period, as specified in the directive. Directives are distinct from recommendations and opinions, which have no binding force at all. In the case of public procurement, the European Community adopts the subsidiary principle, which reflects an ambition to avoid top-down governance from the European level (Europarl, 2004).

As a consequence, national procurement law may be organized differently in different countries. Two countries Denmark and Sweden have incorporated the EC Procurement Directives in different ways. Denmark has incorporated them without further adoption of the text. In Sweden, the old Directives were embedded in the Act on Public Procurement (Lag, 2007). In January 2008, the Swedish procurement law was updated in compliance with the latest EC Directives on Public Procurement and (Lag, 2007). Countries have also developed distinct institutional set-ups in general. For instance, it has been suggested that Denmark has a strongly centralized system for public procurement; Norway has a highly regionalized system; Sweden and Finland seem to be developing in a rather distributed fashion; whereas the UK system is best described as networked (Edler et al, 2005). The public procurement process or, as it is also called, the public procurement life-cycle is commonly described as a special case of the waterfall process model Sommerville, 1992; which has been summarized by (Lewis, 2003).

The procurement procedures allow interaction between public procurer and supplier to different degrees. The most restricting procedures – the open procedure, the restricted procedure and the design contest – in principle do not allow any interaction between public procurers and suppliers. Compliance with the specifications of these procedures typically means that the public procurer posts an advertisement for a given product, receives propositions from tenderers, and awards the contract to the tenderer who offers the lowest price for the product (Edquist, Hommen & Tsipouri 2000).

A procedure of this kind is very effective when the procurement consists of regular off-the-shelf products. Following Edquist, Hommen & Tsipouri 2000, problems emerge, however, when the procured good involves innovation, i.e. when some (or

all) features of the product are not established at the time of the initial advertisement, since the more restricted procedures do not allow the interactive processes associated with innovation to take place and the possibilities for innovations are obstructed. There are procedures, however, which are more allowing in this regard. These are the negotiated procedure and the recently published competitive dialogue. If public procurement takes place according to these procedures, innovation friendly interaction is allowed. The problem is that these procedures are applicable only in exceptional cases.

The effects of the Directives outlined above are far from incidental but are results of deliberate policies. In fact, the institutional framework governing public procurement of innovations has long been an object of public policy – either implicitly or explicitly. With a few exceptions, Edquist & Hommen 2000, the central aim of the EU policy on public procurement has until recently been to create “free markets” where trade barriers have been eliminated and differences in regulations between the countries in the EU evened out: i.e. objectives consistent with the overall project of creating a common European framework for economic activity (Europarl, 2000).

Certainly many countries have attempted to stimulate aggregate demand via the use of a variety of macroeconomic instruments, but few have actively sought to link supply and demand directly via the use of instruments such as Public Technology Procurement” (European Commission, 2003). Also the latest legislative package had as its purpose to “simplify and clarify the existing Directives and to adapt them to modern administrative needs in economic environment that is changing” (Williams, 2004). The following section attempts to elaborate further on this development.

2.7 CHANGES IN PUBLIC PROCUREMENT POLICY AND INNOVATION

Public Procurement can stimulate innovation and help in maintaining or even increasing competitive advantage for a country (Fridlund, 1999). Scandinavian cases supporting this point are e.g. the formation of a development pair with the Royal Board of Waterfalls (Vattenfall, the Swedish Power Corporation) and ASEA (later ABB) in the 20th century. The public agency provided the necessary willingness to take risks associated with the development of innovative technology as well as pressure to do so in situations when the private supplier hesitated (Fridlund, 1999). The important role played by public telecom operators in the 1980s to stimulate innovation in telecommunication in a similar way, in Ghana and some African countries.

In the last decades of the 20th century, however, the general perception of the relation between the market and public sector changed. The free market approach which stressed market mechanisms rather than public sector management as the way forward was promoted by world leaders such as US President Reagan and UK Prime Minister Thatcher. In many countries this trend typically led to the contracting out of non-core activities in the public sector or to sales of government business enterprises (Callender & Matthews, 2002).

Since then, it seems, the pendulum has changed direction, and the emphasis on market forces has lost ground in favour of the public sector. “Government is suddenly seen as a fundamental provider rather than an adjunct to the business of running the economy” (Callender & Matthews, 2002). Although these authors discuss the US perspective, the way public procurement policies have developed in the recent past shows a similar pattern in many countries in the world.

Prior to the year 2000, public procurement secondary policies (Arnould 2004); mainly addressed issues related to the basic foundations of the European Community and the common European market. Typically, the focus was on assuring competition, avoiding corruption and national discrimination through increasing transparency, and policies designed to overcome inefficient public spending (Martin, Hartley & Cox, 1997. At the Lisbon European Council meeting in 2000, a process was initiated in which public procurement as a means to stimulate innovation would become increasingly emphasized.

In 2003, research carried out for the European Commission based on the perception that the targets initiated at the Lisbon Council will not be met without support from governments and the various economic blocks involved in high levels of business dealings. These interests have emphasized (among other things) the importance of a right mix of different policies adapted to a given context. Among the measures listed include public technology procurement. It was also concluded that policy instruments which attempt to link supply with demand have been relatively neglected despite the fact that public technology procurement entailing a measure of Research & Development (R & D) is the largest potential financial resource. Public authorities should be encouraged to be less risk-averse and take steps to increase the amounts of R & D associated with procurement decisions. (European Commission, 2003).

The same year, the European Commission concluded that public procurement “is a leading or major component of demand in a number of sectors where the public sector can act as a launching customer” (European Commission, 2003) and noted that “an important objective is to raise public buyers’ awareness of the possibilities offered to them by the legislative framework, and to support the development and

diffusion of information enabling them to make full and correct use of these possibilities” (ibid, 2003).

2.8 PROCUREMENT INNOVATION AND LESSONS LEARNT

The previous section suggested that innovation theory would provide an alternative way to deal with public procurement. To develop this point further, this section provides a general overview of innovation theory, which informs the systemic approach to innovation policy. According to Edquist & Hommen 1999; three main currents in innovation theory have been especially influential in building a theory of innovation. Of these three, two have been predominant: interactive learning theory as developed by Lundvall 1992 and evolutionary economic theory as developed by Nelson & Winter 1982. Both of these theoretical traditions have strengths enabling them to compensate for some of the above mentioned shortcomings of approaches originating in mainstream economics and auction theory.

Edquist & Hommen 1999, summarized the evolutionary perspective as follows. The point of departure is the existence of a certain set-up of technology. In the system, there are mechanisms which create diversity, i.e. novel developments from the initial technological set-up. Then there is a selection mechanism that reduces the diversity, i.e. some of the novel developments become more emphasized while others diminish in importance. The selection environment influences the path of productivity growth any given innovation, and also it feeds back the influence strongly on the kinds of Research & Development that firms and industry will find profitable to undertake” Nelson & Winter 1977, thus connecting to a systemic perspective as described in the previous paragraph. Taking into account that innovation is essentially a social process

characterized by interactive learning among actors also brings an interest in institutions to the fore.

Institutions have been defined as the sets of habits, routines, rules, norms and laws, which regulate the relations between people and shape human interaction Johnson 1992. From the point of view of an innovation researcher, institutions may either constrain or facilitate innovation (Hollingsworth, 2000).

With institutions as a central analytical pillar Edquist 1997, Edquist, Hommen & Tsipouri 2000 summed up the state of the art in research on Public Procurement and Innovation. Their volume, since its publication, has inspired and provided arguments for public agencies and supra-national organizations around the world to address and place on the policy agenda the issue of public procurement as a means to stimulate innovation.

However according to Edquist, Hommen & Tsipouri 2000 did not manage to analyse the institutional set-up for public procurement of innovation in a fully integrated manner, and their discussion therefore falls far short of being fully comprehensive. Further, the empirical aspects of their work and also of the other chapters collected in the same volume – predates the introduction of the current Public Procurement Directives. Consequently, the findings and conclusions of these authors cannot be directly applied to the current empirical and policy context. In order to develop this analysis further, the next section will discuss in more detail the role of institutions for innovation.

2.9 TOWARDS AN INSTITUTIONAL PERSPECTIVE

The above-mentioned problems with applying innovation theory to public procurement might be remedied by further development of the third current of innovation theory identified by Hommen & Edquist 1999 – namely, institutional theory. The current trend in theoretical and practical discussions of innovation policy is towards “stronger emphasis on ‘institutions’ and ‘organizations’” (Lundvall & Borrás, 2005). Institutional theory is well suited to this emphasis, as demonstrated by its recent revival in innovation studies, especially in comparative analyses of innovation systems and processes (Hollingsworth, 2000). In light of these developments, and also in view of the fact that innovation policy is fundamentally concerned with institutions (Edquist, 2001). It can be argued that an institutional perspective would be an especially appropriate basis for further development of an innovation theory-based approach to policies for public procurement of innovations.

2.9.1 Institutional Issues

The aim of this section is to specify a number of issues that call for greater attention to institutional questions. These issues concern not only matters of institutional design, but also institutions as determinants of innovation performance. Thus, the ambition here is to develop an innovation theory-based on institutional perspective on public procurement. This will be achieved by focusing on these two related areas in recent research on innovation policy in general – and on this specific area of innovation policy, in particular. The two focal areas, which will be addressed in the following sub-sections, are: (1) innovation policy formulation as institutional design, and (2) institutional determinants of innovation performance.

With the first set of issues, there is a need to base institutional design on a systematic integration of relevant theoretical and practical dimensions. With the second set of issues, there is a need to consider a broad range of different types of institutions (rather than just formal, regulatory institutions). There is also a need to address the inter-relations of these two dimensions.

2.9.2 Innovation Policy Formulation as Institutional Design

Following Edquist 2001, the formulation of innovation policy can be regarded as being fundamentally concerned with institutional design. It has also been argued that institutional design should be based to a large extent on the analysis of how contextual factors affect or condition innovation policy, given the contextually specific nature of innovation processes (Mytelka & Smith, 2002). Therefore, as suggested – but not fully implemented in Edquist & Hommen 2000, the institutional design of policies for public procurement innovations should be based on a systematic integration of evolutionary and interactive learning approaches. These approaches are the main frameworks that innovation theory has developed for relating innovation to its social and economic contexts.

THE PROCUREMENT PROCESSES IN THE GHANA

ARMY

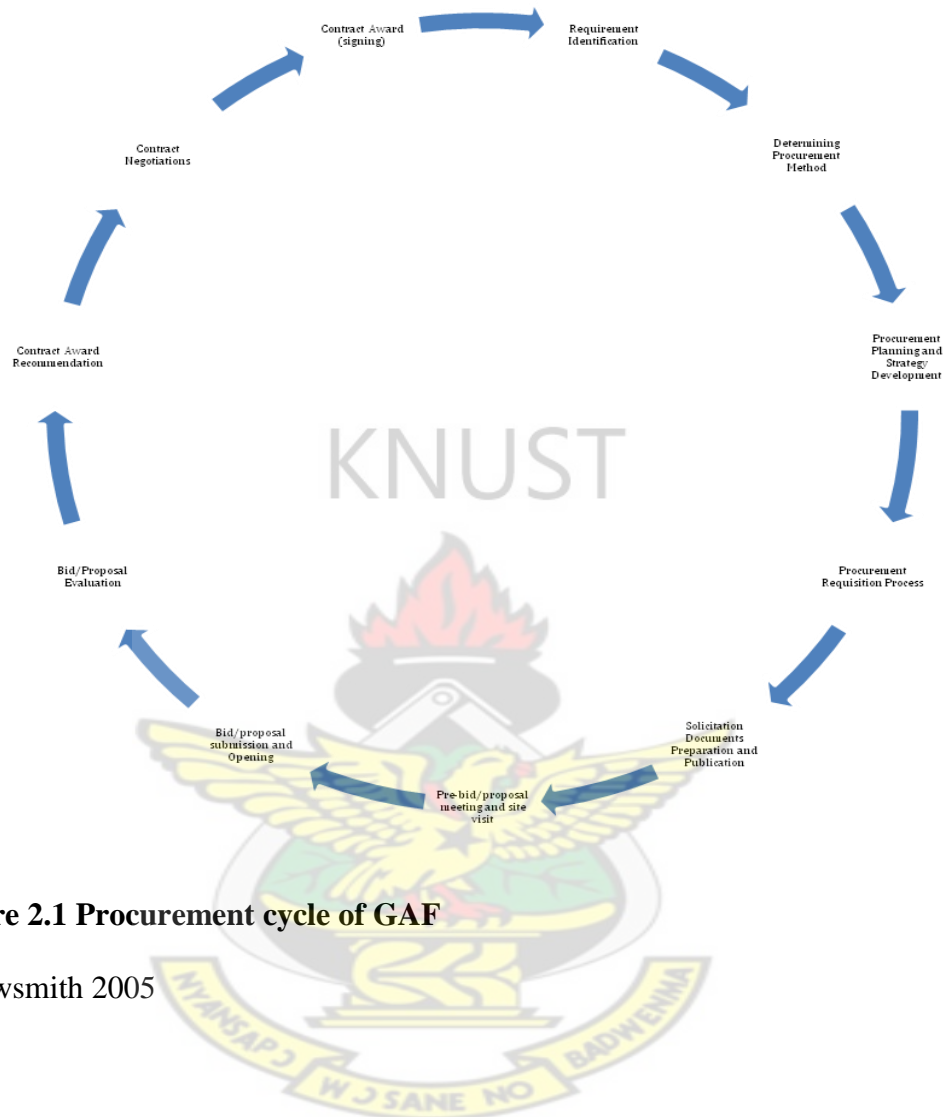


Figure 2.1 Procurement cycle of GAF

Arrowsmith 2005

Ghana Armed Forces follows the above procurement cycle in procuring for the country. Critical look at both the flowchart and the procurement cycle at GAF revealed great complexity of the entire process hence the bureaucracy within the process. This situation can create corruption depriving the possibility of meeting the PPA objectives of value for money, encouraging competition and transparency within the Public Procurement Process. The issues of compliance to introduce competition and innovation become major problem in implementing GAF procurement cycle.

Table 2.2 Chronological Comparison of Procurement Process with that of GAF

Procurement process.

Public Procurement Process (23)	There are eleven (11) procurement processes in GAF.
Procurement method	Requirement identification;
Specification of requirements	Determining Procurement Method;
Prequalification of contractors	Procurement Planning and Strategy Development;
	Procurement Requisition Process
Tendering procedures	Solicitation Documents Preparation and
Sale of tender documents for competitive tenders	Publication;
Issue of invitations for restricted tender	Pre-bid/proposal meeting and site visit;
Issue of requests for quotations	Bid/proposal submission and opening
Tender clarifications	
Extension of tender closing date	
Rejection of tender before tender opening	Bid/Proposal Evaluation;
Receipt of tenders	
Opening of tenders	
Tender evaluation	Contract Award Recommendation;
Review and approval of evaluation report	Contract Negotiation and then
Extension of tender validity	Contract Award Signing.
Award of contract	
Contract amendment	
Contract supervision and administration	
Initial and final takeover of works	
Payment for works	
Delays in performance, Resolution of contractual disputes, Termination of the contract, Contract amendment	
Manual PPA, 2003, (Act, 663)	

FLOW CHART OF STANDARD PROCUREMENT PROCEDURES

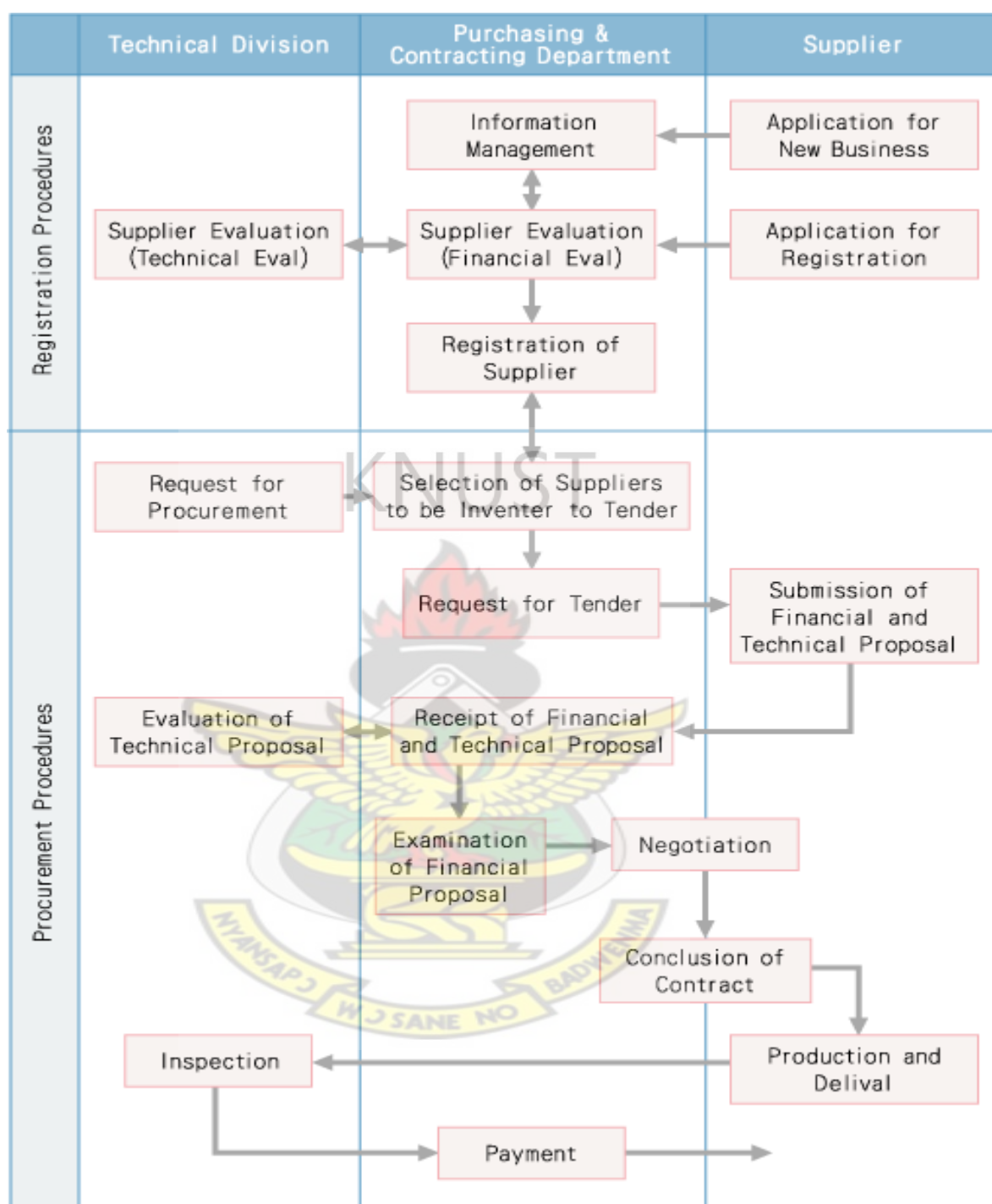


Figure 2.2: Proposed flow chart for the Ghana Armed Forces (GAF)

www.hepco.co.jp (accessed: 12/05/2014)

2.10 PUBLIC PROCUREMENT AND GHANA ARMED FORCES

This section attempts to show, procurement activities of GAF, findings of the 2011 MDA's report on the Defence Ministry, showed how institutions defining general processes and difficulties in making inroads into defence estimate and budgetary allocation in creating value for money in the procurement process.

The main argument that was developed was that only in the post-procurement act period (from 2000 onwards) have the Ghanaian policy makers devoted more attention to the use of public procurement as a tool or instrument for promoting innovation.

The theories and concepts underpinning the procurement act in Ghana on public procurement have been less effective, so far as their grasp of innovation is concerned. It should be noted that the idea of using public procurement as a policy tool is not new.

However, over the years, public procurement has been used to accomplish a variety of policy objectives: to increase overall demand, stimulate economic activity and create employment; to protect domestic firms from foreign competition; to improve competitiveness among domestic firms by enticing "national champions" to perform Research & Development activities; to remedy regional disparities; and to create jobs for marginal sections of the labour force Martin 1996. The focus by the PPA to tighten the loop holes in the procurement process for ministries and agencies in order to encourage competition in the Public Procurement Process and add value for money in the procurement activities aimed at making the laws effective and to reduce corrupt and wasteful practices within the GAF (PPA Act 663).

However, the 2011 Municipal and District Auditor's report has revealed contract management lapses in the Ministry of Defence during the period under consideration.

The irregularities included upward adjustment of contract prices without any justification and failure to complete contracts on schedule MDA's 2011. GAF have been advised not to pay variation prices where contractors have failed to complete jobs on schedule. Additionally, procurement practices by the Ministry of Defence failed to comply with the Public Procurement Law regarding the award of contracts the report indicated.

For instance in the MDA's report at the Electronic and Mechanical Engineering Unit that the Ghana Armed Forces (GAF) owns over 34 different makes and 120 different models of vehicles; implying that GAF would require enough funds to be able to support the importation of different spare parts for its fleet of vehicles. GAF therefore, should introduce a vehicle standardization policy to guide them in the procurement of robust, tried and tested vehicles in order to cut down on maintenance and running costs. Stores and procurement irregularities such as failure to route items through stores, failure to return uniforms on separation and procurement from non-VAT registered suppliers. Non-compliance with procurement rules and procedures in the various Units mainly accounted for the irregularities MDA's 2011. Compliance with existing store and procurement regulations to enhance accountability in the procurement and storekeeping functions in the Ghana Armed Forces necessary to promote good governance.

In contrast, as a result of the need for democratization, the citizen ought to know how procurement activities and the estimated value of projects in order to promote good governance. The Ghana Armed Forces (GAF) has assured the general public that it would remain fully committed to the procurement regulations in force in the country. This was said in a statement issued by the Director for Public Relations, Colonel

M’bawine Atintande in 2006 as reported in the Ghanaian Chronicle website. He stated that “in line with the commitment in recent years, all procurements and contracts in the Ghana Armed Forces have followed due process.” He added that this had become necessary as part of efforts by the Ministry of Defence and the Ghana Armed Forces to open up more to the civilian public, which he said would improve civil/military relations. Colonel Atintande stressed that the mode of procurement in the Armed Forces was transparent and conducted in line with laid-down procedures and advised that no individual unit or sub-units of the Ghana Armed Forces should purchase their own uniforms, adding that uniforms and related kits are procured for all units, by their respective services and the Directorate of Ordnance Service. “An initial issue is first made to troops, to be followed later with another set after recommendations by a duly-constituted Board of Survey.” He however, noted that for recruits and cadets in training, they do not receive their supply of uniforms and kit direct from any suppliers.

He further stressed that “to qualify as a contractor, a prospective supplier is expected to register with the appropriate department. The applicant is vetted and the necessary inspections are conducted to ensure that the applicant has the capacity to deliver before they are listed as certified contractors with the Ghana Armed Forces. “Bids for supplies are followed by quotation analyses and approval by the Defence Tender Committee. Supplies must follow the accepted procedures to include recommendation by duly constituted Acceptance Boards, before supplies are delivered. It is, therefore, not possible that a person not registered as a supplier with the Ghana Armed Forces will be given contract,” he noted).

In furtherance to the above a report on two-day training workshop under the theme

‘Exploring the Scope of Parliamentary Power and Competency in the Security Sector’ which was organized by the African Security Dialogue and Research (ASDR) in Accra, Ghana from 7th – 8th July 2006 with support from the United Kingdom Defence Advisory Team (UK DAT) and the British High Commission in Ghana. The programmes aim to assist the Parliamentary Select Committee on Defence and Interior (PSCDI) to better understand and enhance its oversight role of the security sector and procurement issues.

It was found that Procurement processes are generally not transparent; for example, in the past, the government’s failure to consult the PSCDI caused problems with the acquisition of the Gulf Stream III and other important equipment. Timely consultation/involvement of the committee could have forestalled the ensuing media frenzy. Instead, as transpires in most parliaments, the committee was not briefed until the situation became unmanageable. The Committee was unable to respond to the media because Parliament’s standing orders prevent the anticipatory discussion of matters that have not yet reached the House. Procurement is very important because all the monies spent on any MDA in Ghana is public. It follows then that the people’s elected representatives who are custodians of public monies have a constitutional duty to ensure that these monies are well spent.

Security sector agencies draw large amounts of money from extra budgetary arrangements – Ghana has a typically heavy contingency fund to facilitate rapid access in event of grave security problems. However, this arrangement is open to abuse and has led in the past to inscrutability by the PSCDI of some security sector expenditures. To address this, the finance committee should be the only body to make monies available for emergencies upon proof that the need was

unforeseeable/unforeseen and necessitates the withdrawal of money from the contingency fund.

The structure of military procurement in Ghana, and control over the procurement process, has had a checkered history, as a result of both weaknesses in the system and tussles between the civil and military wings of the MOD. The current procurement system involves several committees at various levels within the MOD and the GAF.

The first is the Procurement Planning Committee, which is chaired by the deputy minister and has a regular membership of about 12 (although others may be co-opted), including the civilian Chief Director, the Chief of Staff (CDS), the General Headquarters (GHQ), Chief of Staff (COS) and representatives of the various services. This committee starts its work, which in theory includes determining priority acquisitions in the light of the funding available, after Parliament approves the military budget.

The recommendations of the Procurement Planning Committee are forwarded to the Defence Contracts Committee, which is chaired by the minister with the Chief Director as secretary. This committee approves acquisitions and gives the authorization to tender.

Procurement decisions on behalf of individual services are actually initiated by Service Technical Committees, which are ad hoc committees put together by the respective service whenever major acquisitions are being considered. Their recommendations are forwarded to the CDS and then on to the MOD and the Defence Contracts Committee. The MOD is expected to be represented on these service committees but the critical staffing situation in the ministry means that this does not often happen. Tendering by the MOD's Tender Board, chaired by the minister. There

are also tender committees which carry out limited procurement for specialized units: these are the Ordnance and Stores Procurement Committee (chaired by the Director of Ordnance), the Defence Engineering Services Procurement Committee (chaired by the Director of Engineering Services) and the Food Tender Committee (chaired by the Director of Supply and Transport).

This is the MOD procurement structure on paper. However, the actual process appears to be much messier, as several allegations of corruption and impropriety in recent years would suggest. The procurement process is allegedly often short-circuited by the military under claims of 'urgency', citing the need to fill immediate operational requirements. The military have their own preferred equipment types and established links to suppliers. It is not unknown for the military to place orders, and thus commit the MOD to a purchase, before requesting authorization from the ministry. 'Security' is also used as an excuse for limiting transparency.

The formal procurement process has been an area of considerable friction and competition at the highest levels of the MOD. This was certainly the case with minister E. K. T. Donkoh and his military chiefs; Donkoh complained that everyone in the MOD was 'running around trying to act as a procurement officer' Donkoh, E. K. T. Lt. Col. 2000. Much of the current weakness in the system is blamed on the fact that the Procurement Planning Committee, which should coordinate procurement, is not functioning properly and has become virtually moribund. This means that the individual services, rather than the MOD, are the driving force in procurement decisions, with adverse consequences for standardization and interoperability. For instance, the 1996 Kpetoe Board's review of the GAF noted that 'procurement within the MOD has generally been delegated to the GHQ directorates without adequate co-

ordination and monitoring. Most major equipment acquisitions are done by individual services without any consultation with sister Services.' This situation has not changed materially Donkoh, E. K. .T Lt Col. 2000. Whether the 2003 Public Procurement Act, which seeks to regulate procurement, practices across all public enterprises, makes a difference remains to be seen.

2.11 PROCUREMENT AND SPECIAL TREATMENT OF THE MILITARY SECTOR

Public procurement is frequently a source of waste and corruption, in both developed and developing countries. The head of the Nigerian Bureau of Public Procurement claimed in 2009 that 90 per cent of bribes in the Nigerian Government came through the procurement system (Olajide, 2009). Military procurement can be particularly problematic. A major reason for this is the 'national security exception', which allows military and security issues to be treated as a special case with special privileges. There are several aspects of this: **Secrecy**. 'National security' is often used as a blanket justification for avoiding scrutiny of security issues, well beyond the justifiable needs of confidentiality. Secrecy may be used to hide corruption, and inhibits the ability of parliament, civil society and the public to hold the executive to account, and to ensure that funds are being well spent (Olajide, 2009).

2.11.1 Security issues as a no-go area. The perception that security issues is a no-go area for debate, leads to matters of high policy being left to the executive, and frequently the president alone. Like secrecy, this impedes proper scrutiny of the sector (Olajide, 2009).

2.11.2 Privileging of the military as an institution

Even in democratic countries, the military may enjoy considerable political influence, or at least autonomy to pursue their own policies, including in spending and procurement. The military may also find it easier to avoid scrutiny from the parliament, audit bodies and anti-corruption bodies (Olajide, 2009).

2.11.3 Privileging of the national arms industry. The industry may enjoy close links to government, including a ‘revolving door’ between ministries of defence and the industry. This may create conflicts of interest and opportunities for corruption, but may also award the industry strong domestic preference in procurement, favourable contractual arrangements, and high tolerance for failure and inefficiency (Olajide 2009).

2.11.4 Policy and planning

Military procurement should be clearly linked to established defence policy goals. Otherwise, large sums of money may be wasted on unnecessary arms, while genuine security needs may be unmet. In practice, however, many countries lack a clear defence policy that spells out the country’s security needs. In such cases, procurement decision making is likely to be ad hoc, and greatly vulnerable to corruption (Perlo-Freeman et al, 2010). Even where defence policies are clearly elucidated, procurement decisions may fail to follow from policy structures for a variety of reasons, such as presidential or military discretion in procurement decisions, and off-budget funding.

2.11.5 Budgeting. Military procurement should be coordinated with the budget process, to ensure that plans are affordable and fit with budgetary priorities. However,

this is often hampered by lack of transparency in military budgeting (Perlo-Freeman et al, 2010).

In many countries, very few details of the defence budget are made publicly available. According to Stockholm International Peace Research Institute (SIPRI) budgeting for the Military Sector in Africa and in several of its African case studies, the use of 'confidentiality' prevents the public from accessing information on military budgets (Perlo-Freeman et al, 2010). The existence of off- budget sources of funding for arms procurement is another common way in which procurement can be disconnected from budgeting. These include dedicated natural resource funds for arms procurement Perlo-Freeman et al, 2010 or credit purchases of arms from overseas. However, even where budgeting is comprehensive and transparent, long-term procurement plans may fail to match long-term budget planning (Perlo-Freeman et al, 2010).

2.11.6 Procurement decision processes

Arms procurement decision processes may fall wholly outside regular frameworks, or otherwise fail to follow standards of good practice. Guatemala's procurement laws explicitly exclude the military Ad hoc exceptions to normal procedures, such as direct government-to-government arms deals made by the president are not uncommon, as in Indonesia in 2003 (Geneva: Geneva Center for the Democratic Control of Armed Forces 2003). Arms procurement may display far greater tolerance for sole sourcing of contracts, secrecy surrounding tender requirements, and preference for domestic suppliers. A further concern can be political interference in tendering processes, as in the controversial 1999 South African Strategic Defence Procurement package, which has been the subject of severe corruption allegations Feinstein et al, 2008. The

persistent use of agents in arms procurement, a major source of corruption vulnerabilities, is another feature typical of the sector (Feinstein, et al, 2008).

2.12 PROCUREMENT CONTRACTING AND IMPLEMENTATION

The procurement of major weapon systems in major arms-producing countries is perennially the subject of major delays and cost over-runs. This partly results from the enormous size and complexity of projects, especially those involving new technology, and partly from the cosy relationship between government and the arms industry. In the United States, a 2010 Government Accountability Office (GAO) report found that the 98 ongoing Major Defence Acquisition Programs were collectively \$402 billion over budget (Feinstein et al, 2008). In the United Kingdom, the National Audit Office (NAO) similarly reports continually highlight failures in procurement processes and escalating delays and overruns (Feinstein et al, 2008).

2.12.1 Parliamentary scrutiny of the military sector in general, and budgeting and procurement in particular, is often weak, due to a number of factors. **Lack of capacity and/or interest** by parliamentarians can be a major obstacle to proper scrutiny of military procurement (Feinstein et al, 2008). In Colombia, for example, there is no parliamentary defence committee. Similarly, **lack of political will** sometimes interfere with proper scrutiny. This can be the result of an ingrained cultural belief that ‘the military’ sector is a ‘no-go area’. Especially in newly democratized systems, the military may retain certain prerogatives that make civilian oversight very difficult relate to legal restrictions; insufficient time to analyze the defence budget proposal; insufficient access to classified documents; existence of extra- budgetary resources; fragmentation of defence expenditures (in different parts of the general budget); ruling party parliamentarians failing to hold the executive to account; or

uncontrollable aspects of the defence budget (Feinstein et al, 2008).

2.12.2 Auditing and monitoring

Institutions may fail to effectively scrutinize the military due to ingrained cultures of secrecy and impunity. In Nigeria, the 2007 Public Procurement Act (PPA) has made some real progress in improving government procurement and the Economic and Financial Crimes Commission (EFCC) is active in tackling endemic corruption. However, although military procurement falls under the PPA, effective scrutiny of military procurement seems lacking. A 2010 survey by the Public and Private Development Centre, civil society monitoring group, on the effectiveness of the new PPA did not even include the Ministry of Defence in the list of agencies surveyed (Feinstein et al., 2008). The military also appears to have remained untouched by EFCC investigations, despite notorious levels of corruption in the institution. A list of 55 high profile cases pursued by the EFCC from 2007 to 2010, whose targets include former ministers and state governors, includes no cases against Ministry of Defence or military personnel (Feinstein et al, 2008).

2.13 REFORMING PROCUREMENT WITHIN GAF

Many countries have recognized the economic, political and security-related harm that can be caused by poorly designed or corrupt arms procurement systems. In the USA, acquisition reform is a perennial theme for successive administrations and congresses and numerous efforts at reform have been instigated (Andrea, 2009).

In many other countries, different aspects of reform have been undertaken, sometimes as part of broader efforts at security sector reform and improving civilian control of the military. Some of the key principles for effective reform include:

- **Tackling the ‘national security exception’.** Reforms need to question automatic

assumptions of privileged status for the military sector. Secrecy should only be invoked when there is a clear security justification. The military should, as a rule, be subject to the same oversight institutions as other sectors of government (Feinstein et al, 2008).

- **Engaging the parliament and civil society.** These actors often shy away from or are kept away from scrutinizing military issues. A key element of reform is to encourage greater parliamentary and civil society involvement. This often requires building capacity amongst them to scrutinize military matters (Feinstein et al, 2008).

- **Addressing all stages of the procurement cycle.** This includes policy and planning, budgeting, tender and selection processes, contracting and implementation, parliamentary scrutiny, and auditing and evaluation processes.

- **Holistic efforts to tackle corruption.** This requires action both by purchasing governments and exporters. Key elements include comprehensive legislation to ban all forms of corruption, strong anti- corruption institutions with the will and capacity to enforce measures. Some specific measures for arms procurement include Defence Integrity Pacts and banning or restricting the use of agents (Perlo-Freeman et al, 2010).

Reforming procurement can bring many benefits, in terms of ensuring the best use of scarce public funds, minimizing diversion of resources to the military, and democratic debate and oversight. At the same time, the status quo has its beneficiaries, and reform may face powerful cultures of secrecy and military privilege. Tackling this requires not only executive-led reform but the constant efforts of both parliament and civil society (Perlo-Freeman et al, 2010).

2.14 SUMMARY

According to Kalkota & Robinson 1999, the purchasing of goods and services in an enterprise cost about 50% to 60% of every dollar spent and therefore the control of this cost will help the enterprises to reduce cost of production. The Public Procurement Act was an equivocal that public bodies, with contract value above the stated thresholds required to be approved by appropriate bodies and agencies. Competition must be encouraged by advertising contract, the actual process of evaluating tenderers and winner be announced for value creation PPA, Act 663, (2003).

Procurement life cycle in modern businesses usually consists of seven steps Standler & Kilger 2005: Needs identification, Supplier identification, Supplier communication, Negotiation, Supplier liaison, Logistics management and Tender notification.

In order to promote value for money and competition in the Public Procurement Process within GAF failure to adhere to the Public Procurement Act, and Store Regulations must be checked. These irregularities related to contract variations and payments for uncompleted works would cost the country. Other lessons learnt from the developed world procurement process are worthy to note and develop along side in evaluating GAF procurement process.

CHAPTER THREE

RESEACH METHODOLOGY

3.1 INTRODUCTION

This chapter comprises the methodological choices encountered during research period. In addition to explanation of scientific methods, it also includes research design and data collection methods.

3.2 RESEARCH PHILOSOPHY

There are two types of research philosophies as mentioned by Bryman & Bell 2007, which support to identify the appropriate research approach and research strategy to address the research questions. First philosophy is Ontological philosophy where it's more concerned with the nature of the world and human beings in the social context (Bryman & Bell, 2007). Also the Ontology philosophy has been divided into two aspects which are Objectivism and Constructionism, where Objectivism emphasizes on social phenomenon and their meanings exist independent to the social actors while Constructionism emphasizes that social phenomena and their meaning are continually being accomplished by the social actor (Bryman & Bell, 2007).

Second research philosophy is Epistemological philosophy which provides genuine knowledge of the social world, Bryman & Bell 2007, and helps to find the acceptable knowledge in a particular field of study Saunders et al 2009. However this research considered interpretivism view as suggested by Bryman & Bell 2007 that interpretative research must be brought into operation to make it well understood and also according to the nature of the thesis topic it relies on Qualitative research where the researcher made a lot of interpretations (Bryman & Bell, 2007).

3.3 RESEARCH APPROACH

There are two research approaches as mentioned by Saunders et al 2009, first approach is a deductive research approach which is mainly used in the field of natural sciences, where researchers start by developing theories or hypothesize and then test them in a laboratory. This process may be repeated until they get final results. The major characteristic of deductive approach is trying to explain causal relationship between variables and mainly concerned with quantitative data (Saunders et al 2009). Also it can be used where the researcher wants to test the relevance of the given theory in the different environment (Long et al 2000). According to Bryman & Bell 2007, deductive process can be mapped as:

Theory → Observations → Findings.

The second approach is the Inductive research approach, where researchers use grounded theory approach to analyze the data with an aim to generate new theories or build on current theories (Saunders et al 2009). Researchers may use various methods to collect and analyze data in order to establish different viewpoints of phenomena Saunders et al 2009 and it is more common within social science. According to Bryman & Bell 2007, Inductive process can be mapped as: **Observations/findings theory**

This research study used more of the inductive approach and where possible some deductive. In the meantime, the researcher used stakeholder opinion theory, by comparing Procurement Procedures from various countries within the EU so as to find the best principles that can be used to make amendment to the Ghanaian experience or Public Procurement Act of Ghana. Questionnaires were constructed using theoretical framework to solicit appropriate answers from the institution within

which the research focused. This study diagnosed some of the theoretical problems of Public Procurement processes in the Ghana Armed Forces (GAF) and Ghana in general and recommended measures that would help to increase value for money (Bryman & Bell 2007).

3.4 RESEARCH STRATEGY

According to Bryman & Bell 2007, research strategies can be either qualitative or quantitative. Quantitative research strategy normally involves statistical data or numerical data which demonstrates deductive relationship between theory and research. It gives preference to natural science approach especially positivism while conducting research (Bryman & Bell, 2007).

Qualitative research strategy is more concerned with words rather than statistical figures or numerical data. However, this demonstrates inductive view to the relationship between theory and research. It finds the acceptable knowledge in a particular field of study and applies it to interpret the findings. It is normally used in social science research which gives emphasis on understanding social world by examining the interpretation of the world (Bryman & Bell, 2007). This study will use a qualitative research, as it gives more detailed information on the topic in comparison to the quantitative method. Furthermore, Public Procurement Processes are highly subjective that depends on country, culture and organization. According to Bryman & Bell 2007, there are various ways to conduct qualitative research such as through participant observations, qualitative interviewing, the collection and qualitative analysis of text and documents and Focus groups. In this study, the researcher will use observations, interviewing various respondents, and analyzing various text and documents concerning public procurement of the Ghana Army.

3.5 RESEARCH DESIGN

According to Saunders et al 2009, research design -general plan of research that clarifies the process of answering the research question from the respondents. This has been supported by Bryman & Bell 2007, who showed that research design provides clearer framework for collection and analysis of data. Also they mentioned five types of research designs such as experimental, cross-sectional or social survey, longitudinal, case study and comparative designs.

This study employed cross-sectional or social survey and case study design. Ghana Armed Forces (GAF) under the Ministry of Defence (MOD) in Ghana and was considered for the study. According to Bryman & Bell 2007 the tendency of associating case studies often with qualitative research which lead to gaining insights and allows conducting a thorough investigation and empirical enquiry of the organization and assessing the change process. This has been useful for answering cause and effect questions which enable the researcher have an in depth some aspects of stakeholder, value for money, procurement, and transparency in relation to Public Procurement process within GAF in this context.

3.6 SAMPLING TECHNIQUE

Purposive sampling, which represents a non-probability sampling technique, was used. Also known as judgmental, selective or subjective sampling, purposive sampling relies on the judgment of the researcher when it comes to selecting the units (e.g., people, cases/organizations, events, pieces of data) that are to be studied. Usually, the sample being investigated is quite small, especially when compared with probability sampling techniques (Saunders et al, 2009).

The main goal of purposive sampling is to focus on particular characteristics of a population that are of interest and provide expert opinion on the subject under study. It provides the researcher with the justification to make analytical generalizations from the sample that is being studied, which best enabled the researcher to answer the research questions (Saunders et al, 2009). The sample being studied is not representative of the population, but for researchers pursuing qualitative or mixed methods research designs, this is not considered to be a weakness. Rather, it is a choice, the purpose of which varies depending on the type of purposive sampling technique that is used. For example, in homogeneous sampling, units are selected based on their similar characteristics because such characteristics are of particular interest to the researcher (Saunders et al, 2009).

The population of the study was Ghana Armed Forces numbering about eleven thousand and fifty (11050). However due to limited time available for this study the research was carried out with concentration on the **Directorate of Engineering Services of the Ghana Armed Forces** with a population of one hundred and eighty (180). In all eighty, (80) questionnaires were purposively distributed and sixty, (60) were completed representing seventy five percent (75%) rate of response. The researcher purposively selected Senior officers, Junior officers, and Principal officers who are Civil/Electrical Engineers, Procurement Officers (Quantity Surveyors), and Clerk of works as sample frame from the Directorate of Engineering Unit for which questionnaires were administered as they are familiar with the procurement activities within the units.

3.7 DATA COLLECTION

The researcher adopted a field survey approach to data collection in which questionnaires were used to elicit information from the respondents as a research instrument which believed that the respondents' opinions would generate data for the analysis of the research. The questionnaires form part of primary source of data used in this research. However, secondary sources of data were also used which were obtained from Corporate Annual Reports, textbooks and the internet materials. The questionnaires were designed and self-administered. That is, respondents filled out the questionnaires in their privacy and without the presence of the researcher. Questionnaires are sets of questions and scale designed to generate enough raw data for accomplishing the information requirements between the actual sampled results and the estimated true population results (Saunders et al, 2009).

Both closed-ended and open-ended type of questions was administered in collecting the raw data. All the questions in the survey were pre-tested for content validity, following standard process (Saunders et al, 2009). This was to obtain feedback from experienced respondents for clarity, accuracy, and readability of the survey items. Based on this feedback, the instrument was modified and some factors were dropped to reduce the length of the survey materials. Data were analyzed using tables and frequency distribution for interpretations.

3.8 FRAMEWORK OF DATA ANALYSIS

This section elaborates on the techniques used in the data analysis to obtain the information required to answer the questions in the project. Ideally, the data was analyzed based on the objectives of study on the topic: **“Evaluating the procurement processes in the Ghana Armed Forces”**

The research questions below have been investigated for the study.

1. What procurement processes are adopted by the Ghana Armed Forces?
2. Does Ghana Armed Forces evaluate its' procurement process?
3. What is the significance of innovation in evaluating the procurement process at GAF?

The above have been analyzed using the following grid summary of analytical framework as shown below.

Table 3.1 Grid summary of analytical framework

Objectives	Questions	Hypothesis (if any)	Sources of Data	Type of Data	Technique Of Analysis
(A)	0-4	N/A	Questionnaires	Qualitative/Quantitative	Frequency distribution
(B)	5-16	N/A	Questionnaires	Qualitative/Quantitative	Frequency distribution
(C)	13	A	Questionnaires	Qualitative/Quantitative	One-T-Test

Source: Field Survey, 2014

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This section focuses on the data gathered and analysis of information from respondents. The main “credibility characteristics” in this study were the respondents’ profession and experience, defined as encapsulating: professional background; number of years working with the Ghana Armed Forces; Directorate of Engineering. More than fifty percent (50%) of respondents (refer to table 4.2) are involved in procurement process for more than five years; such percentage of individual experience was considered appropriate to the accrual of credible and reliable research data. The respondents were assigned weightings based on five point likert scale (strongly agree-5, agree-4, Uncertain-3, disagree-2 and strongly disagree-1).

In furtherance to the above mean for each attribute including the associated standard deviation and standard error are presented. For each attribute, the null hypothesis was tested of either $H_1: \mu > \mu_0$ or $H_1: \mu < \mu_0$, but not both were used. Thus: $H_0: \mu_{60} \text{ respondents} \leq 1$, $H_1: \mu_{60} \text{ respondents} > 1$ and Specify the α level: $\alpha = .05$. Thus, U_0 represented the critical rating above which the attribute is considered important. With higher rating scales (namely 1 and 5) being ascribed to critical and very critical attributes, U_0 was fixed at an appropriate level of 1.5. The significance level was set at 95 percent in accordance with conventional levels, which is, based on the five-point Likert rating scale. Attributes are deemed critical if it has a mean of 5. Given two or more criteria with the same mean, the one with the lowest standard deviation is assigned highest importance ranking (Field, 2005). Because the standard error

associated with all the means is relatively close to zero, it is reasonably asserted that the sample is an accurate reflection of the population (Field, 2005).

The findings have been summarized in order to make reading easier for users of this research work. The responses were grouped and analyzed using tables and graphs below.

4.1 SECTION A: Analysis of Management and Biographical Data

Table: 4.1 The Professional Level of respondents

Respondents	Frequency	Percent
Procurement/Quantity Surveyors	20	33
Clerk of works Officers	15	25
Civil Engineers	10	17
Electrical Engineer	15	25
Total	60	100

Source: Field Survey 2014

The table 4.1 described the respondent's level of professionalism and capacity of undertaking procurement at Ghana Armed Forces. From the above, thirty-three percent (33%) were Procurement or Quantity Surveyors, another twenty-five percent (25%) were also Clerk of Works, seventeen percent (17%) were Civil Engineers and the remaining twenty-five percent (25%) of the respondents were the Electrical Engineers in the Directorate of Engineering Services of the Ghana Armed Forces. The respondents were Senior, Junior or Principal Officers according to the Ghana Armed Forces level of rankings. The management implications are that all the respondents

have been equally represented and their professional inputs on issues of procurement management in Ghana Armed Forces are considered in the analysis of this research. Each of the respondents has equal representation and responded to the same sample of questions for the study. The implication was to eliminate any form of bias from the study.

Table: 4.2 Respondents No. of years working in GAF in procurement capacity

No. of years at GAF	Frequency	Percent
1-5 years	32	53
6-10 years	18	30
11 years and above	10	17
Total	60	100

Source: Field Survey 2014

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

Table: 4.3 Respondents level of Education

Level of Education	Frequency	Percent
HND	40	67
BSc (Hon)	16	27
MBA/ MSc/MPhil/PhD	4	6
Total	60	100

Source: Field Survey 2014

Measuring the educational qualifications of respondents was deliberate. This was because procurement has to do with knowledge with the law especially the Public Procurement Act (the Act 663, 2003). It therefore required some level of technical know-how to appreciate some expertise and educational qualifications to understand sections of the Act.

As indicated in table 4.3 above, sixty-seven percent (67%) of the respondents are Higher National Diploma (HND) holders, twenty-seven percent (27%) are holding Bachelor of Science (Hons) degrees and the remaining six percent (6%) of the respondents are holding Masters degree certificates. The implications are that each of the respondents are having some level of understanding on issues concerning procurement in the Public Procurement Act, Act 663, 2003 of Ghana and capable of making an informed decision on the implementation of the Act.

Section B: Knowledge of Procurement and Public Procurement Act (Act 663, 2003)

Table: 4.4 Respondents level of knowledge of the Public Procurement law in Ghana

Responses	Frequency	Percent
Strongly Disagreed	12	20
Disagreed	16	26
Strongly Agreed	18	30
Agreed	10	17
Uncertain	4	07
Total	60	100

Source: Field Survey 2014

From the table 4.4 above, when asked the respondents their level of knowledge and familiarity of Public Procurement Act 663, since its' promulgation. Twenty percent (20%) of the respondents strongly disagreed; twenty-six percent (26%) disagreed. However, thirty percent (30%) strongly agreed with the responses while seventeen percent (17%) agreed. The remaining seven percent (7%) were uncertain about their responses and indication that they are deficient in knowledge as a result of poor capacity training programs on procurement for the updating of knowledge on the Act. Also findings could be linked with the questionnaire when asked the respondents about whether GAF has department responsible for the activities of procurement in which the result proved negative. They however indicated that Quantity Surveyors and other senior or principal officers in the Directorate of Engineering Services are responsible especially for the procurement of works, other procurement activities are normally done by Units heads subject to approval by Chief of Defence Staff (CDS)

following the Armed Forces procurement cycle refer to fig. 2.1 and procurement flowchart fig. 2.2 in line with Public Procurement Act, (Act 663, 2003).

Table: 4.5 GAF Procurement Processes are too long and bureaucratic

Responses	Frequency	Percent
Strongly Disagreed	4	07
Disagreed	6	10
Strongly Agreed	18	30
Agreed	22	36
Uncertain	10	17
Total	60	100

Source: Field Survey 2014

When asked the respondents their assessment of the longevity and bureaucratic nature of the GAF procurement process and how it affects their level of operation, seven percent (7%) of the respondents strongly disagreed and ten percent (10%) also disagreed with the responses. The respondents have indicated that the processes are not too long but individual procuring officers have to follow the processes and the procedures as outlined in the GAF procurement process alongside that of Public Procurement Act, Act 663, 2003. In the process of doing so and taking instructions from military commands before implementing any procurement decisions seems to prolong the process. However, about sixty-six percent (66%) of the respondents have agreed and strongly agreed with the responses that the GAF procurement process is too long and bureaucratic enough to allow for improvement. The remaining seventeen percent (17%) of the respondents were uncertain about how long or bureaucratic nature GAF procurement processes are.

The management implications are that the Technical Division which is responsible for supplier evaluation, request for procurement, evaluation of technical proposal and inspections should merge with Purchasing and Contracting Department for the synchronization and harmonization of their activities to make the process shorter than before. It is very important for due diligence be made to prevent bureaucracy in the procurement and to avert corruption in the process.

Table: 4.6 Procurement Processes are not evaluated pre contract award and post contract

Responses	Frequency	Percent
Strongly Disagreed	4	07
Disagreed	6	10
Strongly Agreed	18	30
Agreed	22	36
Uncertain	10	17
Total	60	100

Source: Field Survey 2014

From the table 4.6 above, the respondents were asked whether the procurement process were evaluated pre and post contract award, seven percent (7%) of the respondents have strongly disagreed and ten percent also disagreed with the responses. The respondents have indicated that the processes are evaluated for lessons learnt. In contrast, sixty-six percent (66%) of the respondents agreed and strongly agreed with the responses that the GAF procurement processes are often not evaluated for lessons learnt and to serve as historical record for future improvement in the procurement process. The remaining seventeen percent (17%) of the respondents were uncertain about whether the GAF procurement processes are evaluated or not.

Management implications are that failure to evaluate the procurement process creates platform for repeating the same irregularities and non-compliance in the procurement process, awarding of contract to incompetent tenderers, notwithstanding non-competitiveness of the entire GAF procurement process. The resultant effect is the inability for the institutions to meet the objectives of Public Procurement Authority as outlined in Public Procurement Act, Act 663, 2003.

Table 4.7 Significance in evaluating the procurement process at GAF

One-Sample Statistics

Variables	N	Mean	Std. Deviation	Std. Error Mean
Ensures compliance with procurement rules and procedures	60	2.8833	1.40329	.18116
Creates value for money and ensure transparency	60	2.7333	1.27381	.16445
Encourages competition within the process and among prospective tenderers	60	2.6667	1.25774	.16237
Prevents irregularities and upward adjustment of contract prices	60	2.6667	1.25774	.16237
Leads to continuous process improvement in the procurement process	60	2.9167	1.39359	.17991

Source: Field Survey 2014

Table 4.7: presents the descriptive statistics of survey results on the impact of procurement planning. The significance of evaluating GAF procurement process was measured with dichotomous (NVI-1, NI-2, U-3, I-4, or VI-5) which was interpreted as (Not Very Important, Not Important, Uncertain, Important and Very Important) where values greater or equal to 5 indicate agreement to the alternative hypothesis that evaluating the procurement processes have positive significance on procurement management. The mean values of the responses obtained from the survey range from 2.6667 to 2.9167. These mean values are greater than the test value of 1. The standard deviations of the means range from 1.25774 to 1.40329 with standard error of 0.16237 to 0.18116. In order to test the significance of the difference between these means and the test value (1), a one-sample t-test was computed. This t-test asserts that there is no significant difference between the estimated mean and the test value (1) when the computed corresponding t-value is significant. A positive t-value means positive effect and vice versa. The results of the test have been shown in the table 4.9.

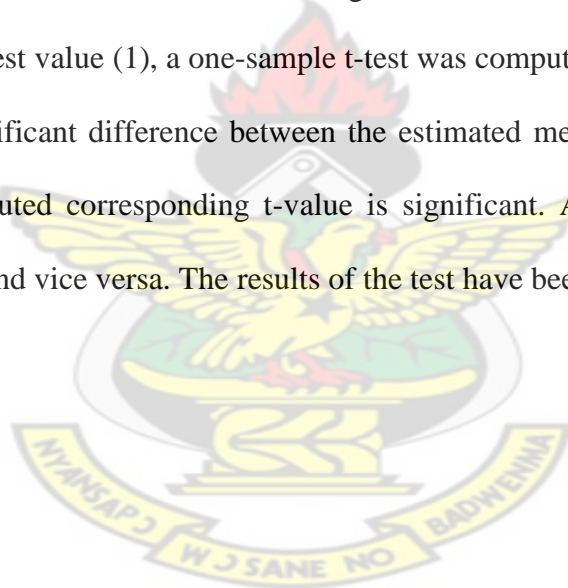


Table 4.8 Estimated Means of Test Values

One-Sample Test						
	Test Value = 1					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Ensures compliance with procurement rules and procedures	10.396	59	.000	1.88333	1.5208	2.2458
Creates value for money and ensure transparency	10.540	59	.000	1.73333	1.4043	2.0624
Encourages competition within the process and among prospective tenderers	10.264	59	.000	1.66667	1.3418	1.9916
Prevents irregularities and upward adjustment of contract prices	10.264	59	.000	1.66667	1.3418	1.9916
Leads to continuous process improvement in the procurement process	10.653	59	.000	1.91667	1.5567	2.2767

Source: Field Survey 2014

The one-sample t-test therefore revealed that evaluating procurement process exerts positive significance on Public Procurement Management such as:

- a. Ensuring compliance with procurement rules and procedures
- b. Creating value for money and ensures transparency
- c. Encouraging competition within the process and among prospective tenderers
- d. Preventing irregularities and upward adjustment of contract prices
- e. Continuous process improvement in the procurement process

This means that the null hypotheses that evaluating the Procurement Process do not exert positive effect on procurement management is rejected. In other words the study affirms that evaluating procurement process exert positive effect on procurement management based on the significance of evaluating procurement process enlisted above.

The findings from the test has agreed with earlier works from various authors and the world Bank on the value of evaluating Public Procurement Process which enables the procuring entities to abide by the various time frames in the procurement process, ensures compliance with procurement rules and procedures, creates value for money and ensure transparency, encourages competition within the process and among prospective tenderers, prevents irregularities and upward adjustment of contract prices, leads to continuous process improvement in the procurement process to mention but a few (PPA Act 663, World Bank, 2004). Furthermore, Andrea et'al 2009), have indicated that evaluating the procurement process prevents public corruption, and rush of procurement activities as well as improper budget allocation, estimation and utilization which are often in secrecy within Defence Ministry in that lessons learnt would go a long way to improving the procurement system (Callender and Matthews, 2002).

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter presents the summary of the research findings, conclusions and the necessary recommendations.

5.2 REVIEW OF THE OBJECTIVES

5.2.1 Review of Objective one (1): To identify procurement processes adopted by the Ghana Armed Forces

The Public Procurement Act, Act 663 (2003), aimed to harmonize the processes of public procurement in the public service to secure a judicious, economic and efficient use of state resources in public procurement and ensure that public procurement is carried out in a fair, transparent and non-discriminatory manner PPA 2003. The findings also agreed with Ramesh 2001 comprehensive repository work on public procurement evaluation in which the author indicated lack of shared information, over-reliance on transmitting tacit information and knowledge, repeated mistakes, reinvention of solutions, loss of skills developed due to collaboration, inability to transfer existing procurement knowledge into other parts of the organization, and particularly, and loss of tacit knowledge to understand proper procurement process within the GAF. GAF procurement process consists of eleven steps whereas procurement life cycle in modern businesses usually consists of seven steps Standler & Kilger 2005.

5.2.2 Review of Objective two (2): To determine whether GAF evaluate its' procurement process.

It has been identified from the study that GAF procurement processes are often not evaluated for lessons learned. The inability to keep evaluated records as historical records could deprive the institution for future improvement in the procurement process. Evaluation of the procurement process prevents irregularities including upward adjustment of contract prices without any justification and failure to complete contracts on schedule. The finding has agreed with Callender & Matthews 2002 that evaluation of procurement process is significant as such process leads to value preposition creation and better management of public projects. Evaluation of the procurement process must serve as lessons learnt as quality assessment leads to conformance to the Law on Public Procurement.

According to Olajide 2009, the continues parlance of *Secrecy*-‘National security’ as a blanket justification for avoiding scrutiny does not improve the procurement process and defeat the aim of the Public Procurement Act, Act 663.

5.2.3 Review of Objective three (3): To find out the relevance of evaluating the procurement process at GAF.

The evaluation of the procurement process is relevant as the benefits outweigh the cost. Feinstein et al 2008, has shown that it is very important that the procuring entity evaluates the procurement process in order to conform to the organizational needs as such process guides the smooth operation of activities to be incorporated into future project activities. Its' becomes very relevant especially when procuring public goods, works or service in order to provide value for money for the state. The extent, to which public procuring entity realizes these goals, creates anticipated and unexpected

social and organizational changes, and meeting Ghana's Public Procurement Act, Act 663 objectives.

Furthermore, from the findings it was revealed that evaluating procurement process exerts positive significance on Public Procurement Management:

- a. Ensures compliance with procurement rules and procedures
- b. Creates value for money and ensures transparency
- c. Encourages competition within the process and among prospective tenderers
- d. Prevents irregularities and upward adjustment of contract prices
- e. Leads to continuous process improvement in the procurement process

The findings agreed with PPA, Act 663 2003, World Bank 2004 that evaluating Procurement Process enables the procuring entities to abide by the various time frames in the procurement process, ensures compliance with procurement rules and procedures, creates value for money and ensure transparency, encourages competition within the process and among prospective tenderers, prevents irregularities and upward adjustment of contract prices, leads to continuous process improvement in the procurement process. Andrea 2009, has also indicated that evaluating the procurement process prevents public corruption. Andrea indicted that a well informed society may have the relevant information available and whiles serving as watchdog on the activities of public procuring entities thereby preventing corrupt practices within the procurement process and inevitably leading to proper budget utilization and eventual value for money creation for the nation.

5.3 CONCLUSIONS

Public Procurement in Ghana has undergone several reviews since independence with the intent of strengthening Public Financial Management Systems. Major review of

public expenditure system, in 1993, revealed huge and unsustainable foreign debt, excessive budget deficits, huge contractual payment arrears, poor construction performance, and corruption. This coupled with the government's concept of good governance and "zero tolerance" for corrupt practices and pressure from international donors forced the government to commit to a reform of public procurement which led to the passing of the Public Procurement Act, 2003 (Act 663).

Evaluating Procurement Process is very important because all the monies spent on public projects should be accounted for and to achieve value for money. GAF often procures large projects that requires withdrawal of large amounts of money from extra budgetary arrangements towards their procurement implementation. An effective monitoring and evaluation of such procurement activities will improve the level of compliance in the system, harmonizing the process of procurement to secure fiscal transparency, efficiency, and increase competition among the local industry.

From the study, it was found that Ghana Armed Forces does not evaluate its' procurement processes for lesson learnt a significance determinant that improves the public procurement process. The null hypotheses that evaluating the Procurement Process do not exert positive effect on procurement management was rejected. In other words the study affirms that evaluating procurement process exert positive effect on procurement management such as: Ensuring compliance with procurement rules and procedures, creates value for money and ensures transparency, encourages competition within the process and among prospective tenderers, prevents irregularities and upward adjustment of contract prices, leads to continuous process improvement in the procurement process.

5.4 RECOMMENDATIONS

The Following recommendations were made towards improving procurement functions within Ghana Armed Forces upon request:

5.4.1: That there should be, political will sometimes to interfere with proper scrutiny to prevent an ingrained cultural belief that ‘the military’ sector is a ‘no-go area’. Especially in newly democratized systems like Ghana, the military may retain certain prerogatives that make civilian oversight very difficult.

5.4.2: That there must be sufficient time to analyze the defence budget proposal; sufficient access to classified documents; existence of extra- budgetary resources; fragmentation of defence expenditures to improve performance.

5.4.3: Also there must be quarterly auditing, monitoring and evaluation of procurement process within GAF regularly to prevent corruption, promote good governance and lessons learnt for procurement process improvement.

5.4.4: That GAF procurement process, refer to fig. 2.1 pg. 28, which is too long and bureaucratic should be made flexible enough opening to the public without any reservations.

5.4.5: That capacity training should be given to both junior and senior procurement staff members to be abreast with the Public Procurement Act, Act 663, (2003) and other relevant knowledge and skills towards monitoring and evaluation of the GAF procurement process.

5.4.6: The account and budgetary estimation of GAF procurement should be transparent enough to avoid suspicion.

5.4.7: Finally, due to time constraint, it is recommended if a research is done into the procurement practices of the Ghana Armed Forces using this work as a basis.

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APPENDIX I

Questionnaire for Respondents

Dear Respondent,

The researcher is a student of Kwame Nkrumah University of Science and Technology, College of Architectural and Planning, Department of Building and Technology-Ghana. As part of completion requirements for the award of MSc. Procurement Management the student is undertaking a research by using your Institution as case study on the topic: **“EVALUATING THE PROCUREMENT PROCESSES IN THE GHANA ARMED FORCES: A STUDY OF DIRECTORATE OF ENGINEERING SERVICES.”** The research has been designed purely for academic purposes. The information given will be accorded the greatest degree of confidentiality.

Tick (✓) where appropriate

Section A: Biographical Data

1. Level of Education ☐
- a. HND ☐
- b. 1st Degree /HND ☐
- c. MSc/MBA/MPhil/PhD ☐
2. Your profession within the Directorate of Engineering and Service Units
 - a. Procurement/Quantity Surveyors ☐
 - b. Clerk of works ☐
 - c. Civil Engineers ☐
 - d. Electrical Engineers ☐
3. Indicate your current position
 - a. Senior officer ☐

- b. Junior officer ☐
- c. Principal officer ☐
- 4. Number of years worked in the Ghana Armed Forces (GAF)
 - a. 1-5 years ☐
 - b. 6-10 years ☐
 - c. 11 years –above ☐

Section B: Knowledge of Procurement and Public Procurement Act (Act 663, 2003)

- 5. The procurement law was promulgated in 2003, your level of knowledge of the procurement law in Ghana is limited
 - a. Strongly Disagree ☐
 - b. Disagree ☐
 - c. Agree ☐
 - d. Strongly Agree ☐
 - e. Uncertain ☐
- 6. There are 9 sections to the procurement law (Act 663), passed in 2003. Are you familiar with all of the 9 sections:
 - Yes ☐
 - No ☐
 - Uncertain ☐

7. The following are the sections of the Act, indicate those you are familiar with:

Tick	Section	Tick	Section
	Establishment of the Board		Procurement Structure
	Procurement Rules		Methods of Procurement
	Tendering Procedures		Methods & procedures to engage the services of contractors
	Review		Disposal of stores, plant & equipment
	Miscellaneous Provisions		

8. How involved are you in GAF procurement process?

Directly ☐

Indirectly ☐

Uncertain ☐

9. GAF does not have procurement department?

a. Strongly Disagree ☐

b. Disagree ☐

c. Agree ☐

d. Strongly Agree ☐

e. Uncertain ☐

10. The procurement processes adopted by the Ghana Armed Forces is too long and bureaucratic?

a. Strongly Disagree ☐

b. Disagree ☐

c. Agree ☐

d. Strongly Agree []

e. Uncertain []

11. Procurement Processes are not documented for lessons learnt?

a. Strongly Disagree []

b. Disagree []

c. Agree []

d. Strongly Agree []

e. Uncertain []

12. The previous Procurement Processes are not evaluated prior to contract award and post contract at GAF?

a. Strongly Disagree []

b. Disagree []

c. Agree []

d. Strongly Agree []

e. Uncertain []

13. What is the significance in evaluating the procurement process at GAF?

	Significance	Please tick				
		NVI	NI	N	I	V I
a.	Ensures compliance with procurement rules and procedures					
b.	Creates value for money and ensures transparency					
c.	Encourages competition within the process and among prospective tenderers					
d.	Prevents irregularities and upward adjustment of contract prices					
e.	Leads to continuous process improvement in the procurement process					

NB: NVI – Not Very Important, NI – Not Important, N – Uncertain, I – Important, VI – Very Important

14. Indicate the procurement process(es) in the Ghana Armed Forces you are familiar with

a. Requirement identification
b. Determining procurement method
c. Procurement planning and strategy development
d. Procurement requisition processing
e. Solicitation documents preparation and publication
f. Pre-bid/proposal meeting and site visit
g. Bid/proposal submission and opening
h. Bid/proposal evaluation
i. Contract award recommendation
j. Contract negotiations
k. Contract Award (signing)

15. Which step (s) do you think should be eliminated or merged

i.	Requirement identification
ii.	Determining procurement method
iii.	Procurement planning and strategy development
iv.	Procurement requisition processing
v.	Solicitation documents preparation and publication
vi.	Pre-bid/proposal meeting and site visit
vii.	Bid/proposal submission and opening
viii.	Bid/proposal evaluation
ix.	Contract award recommendation
x.	Contract negotiations
xi.	Contract Award (signing)

16. Make a final comment on the general procurement process of the GAF.

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