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**APPRAISING EFFECTIVENESS IN DEFENCE PROCUREMENT OF  
WORKS: A CASE OF GHANA ARMED FORCES**

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**(BSc Civil Engineering)**

**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**

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## DECLARATION

I the undersigned declare that, the project research study presented is my own work.  
With the exception of specific quotations and ideas which were obtained from specific  
sources, this thesis has not been presented anywhere for the award of a degree.

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## **ABSTRACT**

There is a growing quest for effectiveness and efficiency in the Public Procurement of military equipment, works and or services in the Ghana Armed Forces. The purpose is to create value for money and promote good governance while ensuring accountability for the national interest. Defence procurement is quite capital intensive which includes a wide range of contract arrangements. Such procurement undertaking if not done with openness, transparency and fairness create perception and agitation among various stakeholders especially civil societies which are becoming a powerful force in current democratization. Furthermore, the core objectives of the Public Procurement Act that is ensuring value for money and promoting competitiveness within tendering processes are mostly overlooked when it comes to defence procurement. The objective of this study therefore was to appraise effectiveness of defence procurement practices of the Ghana Armed Forces. The specific objectives such as to determine legislative provision or clauses that exempt defence procurement activities from public scrutiny, challenges, and possible strategies for improving defence procurement performance were explored in the study. A sample size of eighty, (80) from the sample frame was used. Questionnaires were used as research instrument to collect data for analysis. The data were analysed using one-sample t-test and descriptive statistics in which the mean values were determined and ranked accordingly. It was found that there were no exemption clauses or sections of the act that barred the procurement activities of the Ghana Armed Forces (GAF) from professional adherence to public procurement guidelines and need to be more competitive. Besides, this research found that defence procurement is challenged by technical issues. It is also complex and costly and lacks some level of transparency. To improve performance, recommendations were made to be incorporated into the GAF defence procurement practices while improving public procurement in Ghana.

## **DEDICATION**

This thesis is dedicated to God Almighty who has enabled me to get this far and also to my dear partner and father who supported me with their prayers and understanding. I also want to dedicate this thesis to my bosses and colleagues at my work place for their assistance throughout my course of study despite my heavy schedule.

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I say God richly bless you all.

## **LIST OF ABBREVIATION**

RWAFF	-	Royal West Africa Frontier Force
G C R	-	Gold Coast Regiment
PUFMARP	-	Public Financial Management Reform Program
PWD	-	Public Works Department
GSC	-	Ghana Supply Commission
GNPA	-	Ghana National Procurement Agency
LTIPP	-	Long-Term Integrated Perspective Plan
SCAP	-	Services Acquisition of Capital
DPB	-	Defence Planning Board
AAP	-	Acquisition Annual Plan
AON	-	Acceptance of Necessity
SQR	-	Services Qualitative Requirements
TEC	-	Technical Evaluation Committee
TOC	-	Technical Oversight Committee
CNC	-	Contract Negotiation Committee
DFC	-	Defence Financial Comptroller
GAFCSC	-	Ghana Armed Forces Command and Staff College
KAIPTC	-	Kofi Annan International Peacekeeping Training Centre
GAF	-	Ghana Armed Forces
MATS	-	Military Academy and Training Schools

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# **CHAPTER ONE**

## **GENERAL INTRODUCTION**

### **1.1 Introduction**

The debate over subjecting defence budget and procurement activities to public scrutiny in addition to variant objections by parliament and other stakeholders brings to fore the need and interest for study in the academia and other research institutions. It is evident that keeping Ghana secure and dealing with threats is the priority of every government. The achievement such an objective depends on logistical supports that are unequivocal under the premise of national security. The national economic growth depends upon strong national defence system in which the economy thrives and for which the private sector perform for jobs creation and national peace.

It is on this premise that ensuring effectiveness and efficiency in defence procurement as one of the public institution becomes critical. The objectives though are the same; differing only in terms of disclosure of procurement information and procurement process implementations. Effective procurement of defence equipment is essential for maintaining flexible, viable and a battle-winning Armed Force. The current economic situation of Ghana has made it imperative to limit the defence expenditure and ensure that defence procurements are done with the objective of maximizing performance while maintaining national peace and security.

Whiles, procurement in the defence ministry may be different in many front compare to the general public procurement. However, public procurement seeks to harmonize the public procurement system by ensuring in value for money through judicious and

economic uses of scarce national resources, and that procurement activities are done in fair and transparent manner, defence procurement deals with procurement for the preservation of national security. The defence procurement involves complex issues to deal with. The environment and the processes are different creating fertile ground for perceived corrupt practices in the name of national security.

## **1.2 Background of the study**

The ratification of Public Procurement Act, Act 663, (2003) aimed to ensure fairness and competition, in the public procurement system. A judicious but economic use of scarce public resources especially within a democratic system calls for openness in defence public procurement dealings. The Public Procurement act applies to all central management agencies, ministries and department as well as other sub vented agencies of Ghana. What this means therefore is that the Act is applied to the security agencies including the Ghana Armed Forces under the Ministry of Defence. All purchase activities done by the Ministry of Defence must cogently adhere to the core guidelines of the Act to promote value for money for the state. Financing procurement activities either by the state; wholly and or partly are to follow guidelines enacted in the Act 663, 2003.

However, despite there are certain exceptions in the application of the Act 663, where the act does not apply to the finance Minister pupated to procure using alternatives procedures. This does not provide an avenue for fraudulent activities in defence procurement undertakings. There are two forms of defence procurement, core and non-core procurement (MoD, 2000)

The core defence procurement mainly includes procurement of goods and services the ministry intends to use for their operational activities. This includes items for military purposes, fighter jets, munitions, armoured vehicles, ships and their associated services. The non-core defence procurement involved, procurement of stationary, fuel, foodstuff, IT equipment, infrastructural facilities and other equipment needed in fulfilling international commitments like participation in peacekeeping operations abroad.

As a historically background, the Ghana Army started as military unit organised by the European merchants in the nineteen century to protect their trading activities in the then Gold Coast. In 1901, the various protection units were consolidated into what came to be known as the Royal West Africa Frontier Force (RWAFF), offered secondment from the British Army. The RWAFF comprised regiments from the Anglophone-English speaking West African countries namely then Gold Coast, Sierra Leon, Gambia and Nigeria Gold Coast, and all former colonies of the British Empire.

Even though RWAFF ended in June 1960, the Gold Coast Regiment (GCR) which had undergone considerable changes was survived by the Gold Coast Military Forces on 01 July 1956 (Addae, 2005). According to Aboagye (1999), in 1959, after the attainment of independence, this Force severed itself from the RWAFF and became the Ghana Army which consisted initially of an Infantry Brigade. A second Infantry Brigade was created in 1960. This was followed by conscious and well-orchestrated efforts to Africanize the officer Corps of the Army, aimed at equipping the institution

to assert itself completely, as well as champion the cause of the liberation struggle in Africa.

The Ghana Navy officially came into being in June 1959 (Addae, 2005). The Armed Forces Act of 1962 provided the necessary parliamentary authority for its establishment. It provided for a Navy consisting of a Regular Force, a Reserve Force, and the possibility of a Volunteer Force. As the „youngest“ of the Services, the Ghana Air Force was established under the provisions of Act 105 of parliament of Ghana entitled; The Armed Forces Act, 1962. Prior to the Act, the Ghana Air Force had existed since its inception in 1959 (Addae, 2005).

Additionally, Article 210 of the 1992 Republican Constitution enjoins Ghana as a sovereign state to maintain Armed Forces comprising the Army, Navy and Air Force. Section (3) specifies that the military and other security agencies must be adequately equipped and maintained to defend the territorial boundaries, external and internal of Ghana.

In order to fulfil this constitutional function, the nation maintains an Army, Navy and Air Force with the Ministry of Defence responsible for initiating policies and for maintaining a state of preparedness based on Government direction. This involves huge government expenditure on the procurement of logistics to enable all the categorized defence service departments to perform professionally. The composition of Ghana Armed Forces is made up of the Army, Navy, and Air Forces with it interallied head offices including GAFSCC, KAIPTC, MATS, and Military Hospital. The Army is organised as Army Headquarters, Northern and Southern Commands,

Support Service Brigade and five Combat Support Units.

The Northern command comprises of the Kumasi, Sunyani and Tamale Garrisons and the Southern Command comprises Accra, Tema and Takoradi Garrisons. It is also commanded by a Brigadier General with its Headquarters in Accra. The Support Services Brigade Group is being commanded by a Brigadier General who provides the necessary supporting Logistics Services to the entire Army. A Central Command is in its formative stages to take over garrisons that are centrally located within the country to enhance efficiency.

Most of the essential functions of the Armed Forces are, in a sense, “symbolic”.

They prove that there is a government which is “legally” in control of the state and accepted as such. In the ceremonial role, the Armed Forces of Ghana project a strong patriotic feeling which draws the attention of the Ghanaian public to its shared values and style of operation. The purpose for which Ghana maintains the Armed Forces could therefore be summarized as follows:

- protect by Land, Sea and Air the territorial integrity and sovereignty of Ghana against internal and external aggression
- ensure peace and stability within the sub-region and beyond through international peace keeping effort collaborations (ECOWAS, UN, AU)
- ensure security to the oil and gas field of Ghana and other natural resources for
- forestall civil unrest through pre-emptive and proactive deployment in order secure internal peace and security

- provide humanitarian assistance and relief during national, regional and district disaster during an emergencies
- participate in value for money productive ventures for national development (MoD, 2000)

The effect of all these and others have been to stem the tide of negative influences in the Ghanaian society, safeguard lives and property and, above all, create an enabling environment for economic growth.

**Roles in Socio-Economic Development** - Beyond the traditional role of the military which is to maintain peace and prevent outbreak of war, the Ghana Armed Forces have considerable capacity for contributing to the socio-economic development of the nation. Some of these roles are as follows:

**Environmental Protection:** The military are presently involved in a number of activities in support of environmental protection and conservation. One such activity is a bio-diversity project designed to protect and preserve game and wildlife in the game parts of Ghana. The military is also assisting the Ministry of Lands and Forestry in reducing illegal felling activities in our forest resources.

**Development Projects:** The Armed Forces Engineer Corps have been involved in a number of developmental projects. Construction of roads in the Afram Plains in the Eastern Region and Sefwi-Wiawso in the Western region have for instance made large areas of arable land which could otherwise not be utilized now accessible for



cultivation. They have also been involved in the rehabilitation of some government buildings (MoD, 2000)

In addition to the foregoing, the Ghana Armed Forces provides varied forms of assistance to civil, government and non-governmental organizations especially in times of emergency or natural disasters. The 37 Military Hospital for instance is designated for National Disaster and Emergency Hospital and operates a 24-Hour emergency centre. The Air Force and Navy also conduct search and rescue operations using fixed and rotary wing aircraft, or water transport to find or remove casualties and victims during floods and other disasters (MoD, 2000).

### **1.3 Problem Statement**

In recent times, due to the scarcity of funds to meet procurement needs of state institutions, defence infrastructure and other logistics are procured without adherence to the public procurement Act. Almost procurement decisions are made through single sourcing without competitively allowing potential bidders to access the process. Furthermore construction engineering procurement and or turnkey projects are mostly funded by government loans from banks and other donor agencies which have direct dealings with contractor but few selected eventually get the contract. This makes it improbable for a free competitive tendering process. However there is the prime need to provide GAF the needed equipment and capabilities to operate. The worrying part of this phenomenon is that core defence procurement activities are likely not to go for value for money auditing, undermining the principle of ensuring judicious uses of scarce public resources and smooth implementation and adherence to the Act 663. It is in the

light of this that this research seeks appraised the procurement practices in the Ghana Armed Forces.

#### **1.4 Aim of the study**

The purpose of the study is to appraise effectiveness of procurement practices in the Ghana Armed Forces in ensuring value for money.

#### **1.5 Objective of the study**

The study will be guided by these specific objectives:

- a) To determine existing legislative provisions that exempt defence procurement of works from the provision of Act 663.
- b) To identify the challenges to defence procurement of works.
- c) To find out techniques to ensure value for money in the defence procurement.

#### **1.6 Research Questions**

- a) What legislative provisions give exemptions to defence procurement of works from the provision of Act 663?
- b) What are existing challenges to the defence procurement of works?
- c) What strategies can be adopted in ensuring value for money within defence procurement?

#### **1.7 Significance of the study**

Considerably, this study could make available valuable contributions to knowledge in the area of defence procurement particularly in Ghana where there appears to be limited local studies on the subject against the backdrop of national security

notwithstanding an increasing public debt, transparency and accountability. Furthermore, the findings of this study may provide stakeholders and policy-makers with new insights for policy discussions aimed at overcoming the bottlenecks of implementing Act 663. Last but not the least, the study also provides a suitable foundation for further research in attempt to fill the huge literature gaps in defence public procurement in the ministry of defence.

### **1.8 Justification**

The Auditor General's report on Public Accounts, MDAs (2011) revealed that overall financial impact of the weaknesses and irregularities identified amounted to GH¢118,820,175.66, US\$246,744.24 and GBP136,084.22. Out of these financial irregularities, 0.65% was due to stores/procurement and 20.88% to contracts. It goes further to explain that the Defence Ministry accounted for 32.66% of the financial irregularities in stores/procurement. With contract irregularities, the Ministry defaulted in 45.32%. The major causes of the irregularities according to the report are the variation in contract sums without proper assessment of works and wrongful payments of interest and fluctuations to contractors. The misuse of the tax payers' money by public officials as a result of negligence in procurement is an issue of grave concern. The justification for this study therefore is to ensure effective and judicious use of public funds through approval and the need for the uses of alternative procurement methods instead of single sourcing in defence procurement of the Ghana Armed Forces.

### **1.9 Scope of the study**

Theoretically, the study has been restricted to defence procurement, public procurement, and value for money with judicious use of resources. Furthermore, the

study has been limited to the non-core defence procurement which looks at the procurement of infrastructural works and associated services within the Ghana Armed Forces. The purpose of this delimitation is to delineate the discretionary core procurement of defence equipment which borders on national security from the noncore defence procurement which is expected to follow the standard procurement cycle from the conception, through planning, method of procurement, contract formation and management, and then the contract closure and disposal. The anticipated limitation of the study is the acquisition of all the relevant documents pertaining to the study due to certain confidentiality issues when it comes to matters of defence. The recent separation of the responsibility of the Ministry of Defence and the Ghana Armed Forces in terms of defence procurement is likely to hamper on the information requirements. There is also the likelihood of some other limitations as result of financial and time constraints.

### **1.10 Research Outline**

This research has been organized into five main chapters, in which chapter one comprised of background of study, statement of the problem, the objectives of the study, hypothesis/research questions, scope and delimitations of the study as well as significance of the study. Chapter two has been devoted to literature review with a look at conceptual to theoretical aspect of procurement principles and theories and practice on defence procurement for judicious use of public funds. Furthermore, the research methodology has been tackled in chapter three, in which the data collection and presentation procedures were examined. Chapter four dealt with data analysis based on the responses from the respondents using descriptive statistics and one sample t-

test for data interpretations. Finally, summary of major findings, recommendations and conclusions were devoted to chapter five.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter two deal with review of literature on the topic under study. Important theoretical elements on public and defence procurement such as value for money, legislative framework on public procurement system among others are explored in this chapter.

#### **2.2 Overview of the public procurement**

The Public Procurement Act, (Act 663) is a document that provides a comprehensive system designed to meet the constraints and weaknesses that are prevailing in public

procurement in Ghana. The government of Ghana in consultation with its Development Partners identified procurement as an area requiring urgent attention due to the widespread perception of corruption practices and inefficiencies and requires confidence in the procurement system.

In 1996, the government of Ghana launched the Public Financial Management Reform Program (PUFMARP) to provide value for money in the procurement system. The goal of the program was, in Ghana improve public financial management system. The reform, (PUFMARP), identified weaknesses in the procurement system such as lack of comprehensive policy on Public Procurement, the lack of a central body with technical know-how in monitoring and evaluation of the public procurement system, lack of clear roles and responsibilities for procuring entities not a full legal protection for public purchases, and the lack of rules and regulations to direct, train and supervise public procurement officials improving performance. The program has also been found to be essential to raise the award and monitoring of the public procurement system and independent appeal process for dealing with complaints of bidders. These findings were later drafted into a comprehensive procurement reform program leading to the promulgation of the Act in September 2002, which was subsequently passed into law in 31<sup>st</sup> December, 2003.

## **2.3 Definition of key variables and concepts**

### **2.3.1 Definition of public procurement**

The activities of public institutions or agencies engaging in the purchase of goods or services, and acquiring on behave of government of infrastructural works at the best possible total cost of ownership, in the right quantity and quality, at the right time in

the right place for the direct benefit or use of Governments, corporations or individuals, usually with the help of the contract (PAP module, 2007). Defence procurement specifically involves the purchase of core and non-core items in the form of military equipment to infrastructural services for the Armed Force for defence purposes (Hans Born, 2008). In defence procurement, the tasks may include huge financial outlay from the taxpayers fund that are used in the purchase of military equipment, food services and other logistical support as well as intelligence collection and analysis which may be contracted to private cooperation (Hans Born, 2008). Moreover, procurement in management is the process of receiving purchases in accordance with appropriate laws and regulations that govern the acquisition process. In another word, it is that by which the government and public sector agencies procure materials for vital public sector investments in physical infrastructure and institutional strengthening of the human potential which are critical for national development (Hans Born, 2008). Furthermore, purchases may include purchase of commodities, real estate, capital equipment, built assets and services. Expenditures on purchases of many ministries, departments and agencies are essential, consuming limited resources severely limited state budgets. In public procurement critical determinants like quality of purchases, timeliness and relevance of resource procure are necessary to justify investment made. An effective system of public procurement is vital to ensure the wise use of public funds and, therefore, accelerated growth and development of the country (World Bank, 2003).

2.4 Conceptual and theoretical framework

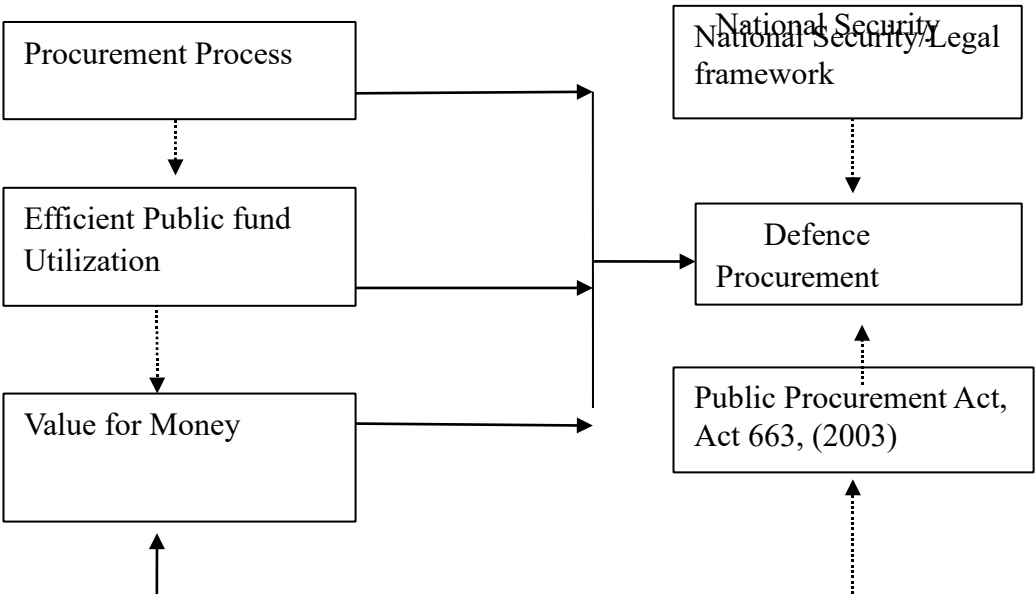
Independent variables

Dependent Variables

Figure: 2.1 Conceptual frameworks (author’s sourced: 2015)

Conceptually, defence procurement has been examined through the independent variable, such as efficient public fund utilization in defence procurement, ensuring value for money, procurement process improvement, among others in this study.

Relationships are drawn when entity ensures strict adherence to the Act for defence project while protecting state security information.



2.5 Public Procurement Policies in Ghana

Procurement policies refer to those policies that govern the procurement of goods, works and services by an organization and its clients in connection with their operations and management responsibilities, including certain consultancy or advisory services, required for the development and/or implementation of specific projects in the public and private sector (European Bank, 2014). According to the Partnership for



Public Procurement (CIPS, 2011), procurement organizations have developed detailed guidance policies that clearly defines the powers, responsibilities, and sets out the principles for the organization and procurement professionals to follow when carrying out their duties.

Procurement is a complex function guided by numerous policies and laws. Full manual on procurement policy - one that makes these policies and applicable laws is critical to ensure that the procurement agency staff, and all interested parties to follow proper procedures and rules, so that all will have a clear and consistent understanding of the necessary rules (Hans Born, 2008). In the absence of such an indication, the lack of consistency in how the work is carried out procurement becomes probable. This discrepancy leads to frustration within and outside of the procurement and the possibility that the purchasing activity may be arbitrary and unfair (Hans Born, 2008). Therefore, the Public Procurement Manual has stipulated the following to be guiding principles for public procurers irrespective of whether the procurement undertaking is for national security or for public use.

- Creating a legal authority of the procurement function within the organization.
- Simplify, clarify and reflect patterns of procurement.
- Including unified procurement policy across the organization.
- Build public confidence in government procurement.
- Make sure that the fair and equitable treatment of all bidders
- Provide increased effectiveness, efficiency and flexibility in public procurement and to fully maximize the purchasing power of the subject.

- Foster an effective, broad-based competition from all segments of the community supplier
- Protecting the integrity of the procurement system and protection from corruption, waste, fraud and abuse.
- To ensure appropriate public access to information, the contracting
- Receiving equal employment opportunities, which, in accordance with the laws, policies and practices of suppliers and subcontractors who want to do business with the person (PPP, Manual 2003).

Public Procurement Board Ghana has it as a function that proposal to develop procurement policies, ensuring the implementation of policies and the development of human resources for public procurement, as well as to develop draft rules, regulations and other regulations in the field of public procurement and formats for public procurement documentation. (Government Procurement Law, (Act 663, 2003). Pursuant to these functions, the Authority for Public Procurement instructed all ministries, departments and agencies to develop their procurement policies.

Ghana Armed Forces in the 2012, March edition of the STA pledged its commitment to the procurement rules in the country in an effort to ensure that procurement is carried out in an efficient, effective and transparent manner (Act 663, 2003).

## **2.6 Legal and Regulatory Framework**

The legal and regulatory framework of procurement policy in Ghana has existed since the colonial era. The constitution of Ghana contains guiding principles that requires state institutions to observe in their procurement undertaking. Furthermore, the officials of public procurement are to ensure sound management whiles integrating

value proposition in their procurement decisions. It is expected that the policy statement provide guides to public procurement application. What it therefore means is that the laws related to public purchases and other provisions, including various circulars in relations to public procurement are done within the guiding principles and in line with the constitutions of Ghana laws related to procurement policies, and other provisions, including various circulars on public procurement (Act 663, 2003).

Ghana has gained significant and valuable experience in terms of public procurement especially during the recent time thanks to the current democratic dispensation where civil society groups are always agitating for public and state institutions adhering to various Acts and Constitutional instruments that promote good government and value for money. In the pre-independence era and during military regimes, public procurements are done without recourse to the laws that guides public purchases. For instance, Public Works Department (PWD) engages in the procurement of works and Crown Agents for purchase of works and goods. Since independence in 1957 to 1967, the government relied on Crown Agents for purchased their goods for MDAs. However, for the for works procurement, government of Ghana established National Construction Corporation who sees to procurement of works. In 1960 the government set up a commission of Ghana Supply Commission (GSC) to undertake all purchases on behalf of government agencies.

The Ghana Supply Commission has taken over the functions of the Crown Agents and in 1976 established the Ghana National Procurement Agency (GNPA) for the purchase of bulk items such as fertilizer, spare parts, and sugar among others. The Architectural and Engineering Corporation was later established in 1975 to provide advisory services

for construction contracts of government works. The government created the central, regional and district tender boards as advisory bodies to the contract for work in 1996 and later changed their awarding authority.

The Ghana Supply Commission by 1996 had been hit with claims and counter claims by clients, inefficiency in procurement supply couple with complaints of contract price variations, and purchase delivery and at times wrong specifications. In contrast, the military began to take over the procurement activities following the FAR rules, but without constitutional arrangements. Proper procurement procedures were not followed nor the procedure been competitive. There were no guidelines for the procurement of consultants. However, due to less competitiveness of the process, the World Bank in 2000 directed the government to ensure the promulgation of procurement laws that will harmonize the public procurement system in the Ghana. This led to the subsequent enactment of Act 633, in 2000 into law and as standardized document to be followed by all government ministries, departments and agencies alike. This law establishes the legal framework in ensuring transparency and accountability within the public procurement system in Ghana. The law sets out five basic principles on which government purchases are done. These are legal and institutional framework, standard procedures for procurement and tender documentation, an independent control system, experienced personnel and anticorruption measures (Act 663, 2003). Table 2.1 below shows the legal framework of Public Procurement Act of Ghana.

**Table 2.1 The Legal Framework of PPA**

Public Procurement Act, 2003 (Act 663)	<p><u>Passed</u> by Parliament.</p> <p><u>Establishes</u> the Public Procurement Board (PPB), as a regulatory body and specifies functions of Tender Committees and Tender Review Boards in procurement entities.</p> <p><u>Specifies</u> outline rules for procurement methods, procedures, appeals by tenderers and disposal of stores.</p> <p><u>Defines</u> offences under the Act and applicable penalties.</p> <p><u>Specifies</u> thresholds, which require regular updating, in Schedules to the Act.</p> <p><u>Authorises</u> the issue of Regulations, which are enforceable in the same way as the Act.</p>
Public Procurement Regulations	<p><u>Issued</u> by the Minister for Finance in consultation with PPB.</p> <p><u>Contains</u> detailed rules and procedures for all aspects of the procurement system, including the operations of PPB and procurement entities and the conduct of procurement activities.</p>
Guidelines	<p><u>Issued</u> by the Public Procurement Board under the Act.</p> <p><u>Provide</u> supplementary guidance on specific topics e.g. disposal, single source procurement or margins of preference.</p>
Standard Tender Documents	<p><u>Issued</u> by the Public Procurement Board in accordance with a Schedule to the Act.</p> <p><u>Contains</u> standard invitation and contract documents for procurement of all values from tender documents to Requests for Quotations.</p> <p><u>Includes</u> separate documents for goods, works and services.</p>
Public Procurement Manual	<p><u>Issued</u> by the Public Procurement Board.</p> <p><u>Provides</u> practical guidance and step-by-step procedures to assist procurement entities to undertake procurement in accordance with the Act.</p> <p><u>Contains</u> standard forms to assist with procurement record keeping.</p>

**Source: PPA Regulations (2003)**

## 2.7 Legislature as Regards to Defence Procurement

Closely related to budgetary allocation is the role that the legislature performs as regards procurement of equipment for defence. Weapon procurement worldwide has ceased to be the preserve of the Armed Forces and the Defence Ministry of any democratic state. The procurement process in most established democracies is effectively divided between the legislature and Defence Ministries (Cox and Kirby, 1986). The funding and development of a particular weapon programme is therefore subjected to scrutiny and the influence of the legislature. Legislatures demand to be involved and informed about all stages of the procurement process from the definition

of an operational requirement, through to the stages of research and development and engineering to the eventual full scale production and entry into service of a piece of military equipment. In the US, military witnesses and political heads of service departments sometimes challenge the assessment and budgetary allocation proposals made by the Department of Defence for particular weapon systems and they are given a hearing at the Congress where a final decision is to be taken on procurement (Ibid). On the contrary, there is a show of solidarity for the United Kingdom Ministry of Defence when defence issues are dealt with at Parliament (Cox and Kirby, 1986).

This may be because of the concept of collective responsibility rooted on the parliamentary system of governance. The important lesson here is that, the legislature and the public are much better informed about how procurement process works and why certain decisions are taken. The legislature is therefore better placed to approve estimates for new equipment. In some states however, because of the resistance by the executive to provide information on vital procurements the legislature is denied its constitutional duty of oversight in procurement of defence equipment. This is evident in most emerging democracies which have transited especially from military regimes. In Ghana, the government purchased an executive aircraft for the Ghana Air Force without the approval of parliament in late 1999. Parliament and civil society groups protested vehemently against the process and the aircraft was resold eventually (Cox and Kirby, 1986).

## **2.8 Defence Procurement in Perspective**

Defence procurement is the process by which authorities in the field of defence acquire various goods, works and services that they need to perform their tasks and missions. For example, these bodies procure stationery and computer equipment to carry out their administrative duties, they buy food for their soldiers; they provide cleaning services of their locations; they purchase submarines, combat aircraft, armored vehicles, ammunition, missiles and other military equipment, to protect the national security and territorial integrity, and or meet other international commitments. For example, defence participation in peacekeeping operations in abroad required large sums of purchases and related maintenance of defence assets and equipment. Defence procurement is an important segment of public procurement which involve large sum of money that cost the taxpayer. In the EU, for instance, total defence budget among the 27 EU member countries amounted to about €200 billion (World Bank, 2003). This figure includes approximately € 90 billion on acquisition, operation and maintenance and around 50 billion euros for the acquisition of new military equipment in particular (World Bank, 2003).

In Africa, acquisition of equipment and defence stores has increased due to the unstable nature of the continent each year. From a legal perspective, the defence purchases are an essential part of the internal market and, as such must satisfy the general rules contained in international treaties. Defence procurement is subject to the fundamental rules and principles of non-discrimination on grounds of nationality, free movement of goods and the freedom to participate in the process. Fuior and Hans Born (2006), has indicated that in the field of defence procurement; procurement procedure may usually follow the steps below, though these may differ from country to country.

- Evaluation of the threats and operational requirements;
- Specification of the technical requirements;
- Exploration of options and or invitation to submission of bids;
- Negotiation, evaluation and selection;
- Manage deliverable and assessment of the process.

The procurement contract between defence and suppliers may take the form of: contract for the purchase or rental of weapons and or equipment; supply contracts covering the purchase or lease or rental, of military goods, employment contracts, services and logistical support for an operation (Fuor and Hans, 2006).

Furthermore, the tendency for government to use private suppliers may put the safety and security of the country at stake, which can affect defence systems and national peace as well as potential external aggression (Fuor and Hans, 2006).

Furthermore, instead of buying most of defence equipment and other infrastructural innovations for themselves, engaging private suppliers or to the public may potentially pose threats to the nation, hence the decision make or buy situation arise. There are technicalities involved in procuring defence needs which involve specific technical specifications most public procurers may not response to. In addition, a new set of structures and procurement procedures of defence was created within the Ministry of Defence in 2001. In India for instance, by implementing recommendations of procurement, the designated Minister in collaboration with the ministry of finance give approval for the procurement (Fuor and Hans, 2006). The Ghana Armed Forces also followed similar pursue where most purchases for the defence were done using sole sourcing procurement method In contrast to the above, periodic examinations from defence procurement purchases has made it possible for the case of “Buy or Make”



situation. Further the endorsement of Defence Procurement Process in 2003, 2005, 2006, 2008 and 2011 saw the categorization process from only cases, either to “Buy and or Make” guidelines for procuring (DPP, 2013).

The objective of this procedure is to ensure prompt supply and approval of Armed Forces requirements. The capabilities, timely prescription and optimal uses of allocated budget are essential. Whiles performing the same, the highest degree of probity and public accountability, transparency in operations are encouraged by professionals in their procurement duties, are kept in mind.

### **2.8.1 Defence Acquisition decision frameworks**

The closure of the award procedure for all capital acquisitions of defence procurement (excluding medical equipment) are undertaken by the Ministry of

Defence including defence coastguard services both local sources and imported. Defence Research and Development and defence public sector undertakings are inclusive. The purchase of fixed assets for the military classified are: (a) Acquisitions covered by the decision to "buy" or to purchase means a definitive purchase of equipment. This is normally based on the source of supply classified as "Buy (Ghana)" and or "Buy (Global). In for instance, within the Ghanaian defence purchasing system, sellers only mean global; meaning both foreign and local suppliers. Buy (Ghana) must be an indigenous content of 30% minimum on the basis of costs as a way of promoting local content within the defence procurement system. In addition, an overall indigenous content is applied to at least 30% of the total value of the purchases. A minimum contract content of 30% local will also help to reduce (i) the cost of basic material; (ii) cost the recommended list of manufacturers of spare parts; and (iii) the

cost of special maintenance tools and special test equipment which fall within this category (DPP, 2013).

Furthermore, within the defence procurement system, (b) acquisitions covered by the “Buy & Make” decision would mean the purchase made by foreign seller, followed by the production license/production in the country of origin. The final form of defence procurement system is covered by joint venture where indigenous Ghanaian supplier may jointly bid for supplies. A joint venture format or set of production deal followed by licensed production/domestic production in the country to procure or purchase the item. "Buy & Make (Ghana) 'must have a minimum of 50% indigenous content on the basis of costs. This implies that the content of natives in the total of (i) the cost of basic equipment; (ii) the cost of the suggested list of parts manufacturers parts; and (iii) the cost of special tools for maintenance and test equipment must follow special "Evaluation criteria and price of the offer format", which must be at least 50% of the total value of the contract. In this case, there must be at least 30% indigenous (DPP, 2013).

In addition, (c) Acquisitions within the framework of the decision 'Brand'. Acquisitions affected by decisions *structures 'make' should include complex systems or high-technology components essential to any weapon system to be designed*, developed and produced locally. A minimum 30% content based on costs is necessary in such cases in the prototype (DPP, 2013). In contrast, looking at the complexity of the defence procurement system, it is at time believed to be beyond the capacity of local contractors or sellers to bid (DPP, 2013). Finally, in all cases upgrade for the weapon system, service/equipment are covered by complex procedures. The categorization can be

performed according to the flow of the proposal, the availability of local technologies and the need to seek critical technologies from foreign suppliers (DPP, 2013).

### **2.8.2 Defence Acquisition Plans**

The planning process will cover long-term, medium-term and short-term outlook. Thus, based on the guidelines for defence planning, General Headquarters (GHQ) in consultation with Headquarters Services would make the 15-year long-term integrated perspective plan (LTIPP) for the Armed Forces. The defence plans to five years for services would also be made by the GHQ, which would include the requirement of five years for services acquisition of capital (SCAP). The SCAP should provide a list of equipment to be purchased, taking into account operational needs and the general obligation of funds. The planning process would be under the general direction of the Planning, Research and Development (PR & D). While SCAP LTIPP and would be approved by the PR & D, annual procurement plans (AAP) will be approved by the Defence Planning Board (DPB). The AAP is a subset of the SCAP who forecast the future needs of the Armed Forces. GHQ will come out a public version of the document that outlines the roadmap perspective view of technology and capacity for a period of 15 years. This document will be widely disseminated and made available on the website (MoD, 2001).

### **2.8.3 Annual Acquisition Plan (AAP)**

Annual Acquisition Plan (AAP) for each service, two years plan would then be roll out in terms of capital purchases and further plans five-year plan approved acquisition of the assets.

As a result, the projects would AAP be drafted taking into account the postponement of plans for the year preceding the systems Acceptance of Necessity (AON) would be granted by the during the year and plans being proposed to be placed before the military heads at the headquarter in next year for approval (DPP, 2013).

The acquisition process may be classified as:

- Services Qualitative Requirements (SQR)
- Acceptance of Necessity (AON)
- Solicitation of an offer (One floor two bids System) - Supply of Defense favorite simple step -Two system of bids.

It implies that request for proposal would be published to solicit technical and commercial offers together but in separate sealed envelopes. The system guarantees against the possibility of increasing the sellers" cost and consequent commercial provision to the buyer compare to sole sourcing. The evaluation of technical offers is done by Technical Evaluation Committee (TEC) and monitored by Technical Oversight Committee (TOC) for defence acquisitions. Furthermore, trade negotiations are done by Contract Negotiation Committee (CNC) to give approval of the certified financial competent bidders. Thus, a request for proposal would be published to solicit technical and commercial offers together but in separate sealed envelopes (DPP, 2013).

This system guarantees against the possibility of increasing the seller competent and consequential commercial provision to the development of a single vendor situation after evaluation. In summary, the evaluation process within the military is done by the following:

- Evaluation of technical offers by the Technical Evaluation Committee (TEC)
- Field evaluation
- Staff evaluation
- Monitoring by the Technical Oversight Committee (TOC) for acquisitions
- Trade negotiations with Contract Negotiation Committee (CNC)
- Approval of the contract negotiation committee (CNC)
- Award of contract/supply control (SO)
- Contract administration and post-contract management

#### **2.8.4 Turnkey Projects**

The defence procurement contract involving maintenance of facilities or infrastructure for equipment mostly takes turnkey approach. The scope of works are wide and varied range of activities involved, and so within defence procurement system, sole sourcing is mostly preferred choice of procurement method. The defence procurement has policy concerning tendering turnkey project (DPP, 2013). Turnkey projects are not primarily considered setting up a test bench and are therefore essential to choose suppliers with the capabilities required before issuing request for proposals. In such cases, a detailed project report would be developed by the SHQ concerned. Detailed bill of materials, rough estimates of costs and timing for completing the project report are placed before the TDC for ratification. The detailed project report would be transmitted and presented while seeking AON and categorization (DPP, 2013).

Furthermore, within the defence procurement system in some cases where the procurement undertaken is complex, the detailed project report may be outsourced by

the SHQ; the rationale for this can be given in case of declaration of seeking AON. The AON committee would then be formed comprising representatives of the User Management, Maintenance management, Defence Financial Comptroller (DFC), CTO and any other organization that considers it necessary, to make the selection of potential suppliers. The sequence of the procurement procedure for such project within defence procurement system would follow:

- Make a detailed project report
  - Acceptance of necessity required
  - Supplier selection
  - Question of the detailed project
  - Technical assessments to screen potential suppliers
  - Negotiations prices
  - CFA approval and contract conclusion
  - Implementation of test bed □                      The implementation of the project
- (MoD, 2000).

## **2.9 Defence Acquisitions verse other procurement**

Defence procurement involves acquisition of large military equipment making it highly capital intensive compared to other public procurement and budgets (CEC, 2004). It is unlike other public procurement that a follow the public procurement process according to the Act that regulate the activity of public procurement practices are followed to the letter.

**Offer process:** Although there are number of ways to solicit for deals and evaluate offers, defence procurement prefers sole/single sourcing and or two ways sourcing or

restricted sourcing methods instead of other competitive mechanisms (Sanjeev et al., 2000).

**Lead time:** It takes time to manufacture and procure defence weapons due to complex specification, and after sales cost of maintaining defence product purchased could be high compared to other public procurement undertakings

(Sanjeev et al., 2000).

**Cost overruns:** Due to continued research and development, currency fluctuations and other unpredictable environmental and economic factors, the cost of running and maintaining defence equipment is always high (Sanjeev et al., 2000).

**Security supply:** one of the vital elements of defence procurement is its security implications hence, for the sake of national security; weapons specifications and contract details are done in secrecy. Also, the complexity within defence procurement system called for guaranteed for arms programs for instance. The quality and risk that characterized defence procurement are vital and complex and that continue update and technological capacity development are necessary for every military product procure which must be monitored throughout the life cycle of supplies (Sanjeev et al., 2000).

**Transferred of knowledge:** In military procurement, there is possibility of transferred of knowledge creating compensation plan and offer order where the finished equipment already available for purchase is subjected to offset arrangements (Sanjeev et al., 2000).

## **2.10 The supply challenges of Defence Procurement**

Since defence procurement involved detail design, and complex acquisition process, the process often poses security threats making defence procurement complex, slow and costly (CEC, 2004, Sanjeev et al., 2000). To a certain extent, this affects the smooth implementation of defence procurement system. Despite little public continue call for scrutiny and cry over the waste of money, the sector has been challenged with various impediments including: the issue of transparency, promotion of individual interest, corrupt practices where politicians collude with high defence officials to sub vent the procurement process, no form of competition within the process, neglecting the legal framework that ensure transparency, misprocurement, and sub-institutional procurement process (Sanjeev et al., 2000; CEC, 2004; World Bank, 2005).

## **2.11 Promoting Value for Money in Defence Procurement**

Justifying investment made out of public procurement is essential. Deploying scares public resources without necessary return on investment deprive other sectors of the economy of proper functioning. Value for money only based on cost and quality based purchases, but maximum, effective and efficiency throughout the public procurement process. Promoting accountability and transparency are hallmarks of ensuring defence procurement value for the state and public confidence in procurement activities. Ensuring fairness and competition not only add value but promote efficient supplies (World Bank, 2003). There are widespread beliefs that public sector procurement decision is based on "lowest price" buying decisions. This must be made on the basis of best value for money criteria. This requires consideration of many factors, including; costs over the lifetime of defense equipment and or services; status and



reputation of the supplier; exact details of defense equipment, goods or services offered; financial aspects including payment, due to contractual price, transportation, etc; level of support through the life of the procured products maintenance to disposal (Baily et al., 2008).

Furthermore, considerable sums of money are spent annually in the public defence procurement which affects taxpayers. Public accountability principles are essential.

Telgen & Sitar (2001) has pointed out that companies add value by ensuring that entity purchases add value to contract, improved procurement efficiency. Public satisfactions are derived from improved quality and service delivery; closer and cooperative relationships and suppliers; reduced costs, improved quality and delivery time. However, to improve defense procurement and added value, value for money principles of investigating into defence procurement operation or activity to establish whether it is economical, efficient and effective (Baily et al., 2008). This is done by reviewing compliance of entity particular laws or regulations for control. Defence procurement is a procurement strategy; plan early and vote requirements to actively manage contracts; think about supply chain; looking, continuous monitor and improve the performance are essential in improving the value of the procurement in the public sector (Sanjeev et al., 2000; World Bank, 2005).

## **2.12 Conclusion**

According to Sanjeev et al., (2000); and World Bank 2003), considerable amount of government budget goes into defence procurement in acquiring varying degrees of military equipment, helicopters, and other non core products. Further, the defence procurement processes are complex involving technicality especially when it comes to

specifications and kind of contract documentations. Also, the issues of protecting state information from external and internal unnecessary aggression, and for national security policy sake create a perceived ineffectiveness of defence procurement system in the public mind. Moreover, parliaments have been seen to play pivotal role in ensuring that defence procurement and budget are subjected to scrutiny. However, in many developing countries like Ghana, parliament are marginalized, scrutinizing defence expenditure are compromised as there is possible collusion. The principle of effective and efficient utilization of public funds with the objective of ensuring value prepositioning with adherence to the Act 663 by defence procurement authorities through civil society support which are necessary in ensuring better but effective defence procurement.

### **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

### **3.1 Introduction**

The chapter includes the research methodology adopted for carrying this study and which comprise of the sample size and sample technique, research instrument design, data collection procedure and framework for analysis of data.

### **3.2 Research Design**

Descriptive research design was used in this research to explore in order to gain insight into the defence procurement system. The main features of data collection were applied to populations for which the properties of the population denoted as respondents experiences in procurement were considered as significant in this study. Research design has been used in which mixed approach as descriptive design to gain insight to the study. The mean and standard deviation (parameters) was adopted for which mean marks obtained were ranked.

Furthermore, the mixed approach uses qualitative and quantitative design for content analyses and of validation. The descriptive research design is determine by the nature of the problems or the potential benefits thereof for the entity intends to gain after the research has been carried out, the set of research questions and the objectives (Bowling, 2009).

### **3.3 Research Method**

Both qualitative and quantitative techniques have been adopted for this study. The reason behind the adoption of a mixed research method was that although the study adopted the use of questionnaires which is typical with qualitative research, it also employed the use of statistical procedures in analysing the data (Bowling, 2009). Whiles qualitative research focuses on discovery and identification of thought and

feelings to obtain preliminary insights; quantitative design focuses on validation of numerical facts (Haire et al., 2006). According to (Cooper, & Schindler, 2008), qualitative research involves the interpretation and making sense out of what is seen and this makes it critical for understanding the social phenomena of the study. Qualitative research helps to define the importance of a study. When that study has very little information or when there is no variable known or when a relevant theory base is not adequate or missing, this means that qualitative research provides what needs to be studied in such circumstances. However, quantitative attaches numerical form to the analysis of the responses using close and open ended structured questions. Both however, uses closed and open ended structure of questionnaires to solicit data or information from the respondents (Haire et al., 2006).

### **3.4 Population of Study**

The population of the study was made up of two hundred (200) senior staff of the Directorate of Engineer Services and Directorate of Procurement of the Ghana Armed Forces from which sample size of eighty (80) was used for the study. Due to limited time for the submission of final work, the technical personnel were made up of fifteen (15) procurement officers fifteen (15) Civil Engineers, ten (10) Quantity Surveyors, ten (10) Geodetic Engineers, ten (10) Valuers, ten (10) Architect and ten (10) Mechanical Engineers. The respondents have been carefully chosen ostensibly that they have the necessary characteristics and the experience in responding the questionnaires.

### 3.5 Sample Size of the study

Sample, a fraction of the whole of the population was selected to participate in this research due to limited available. In this survey, sample size of eighty (80) out of the two hundred (200) of the total population was selected from the sample frame of study. From the 10% margin error i.e (0.1) and confidence level of 90% the sample

size was obtained using the formula:  $n = \frac{N}{1+N(\sigma)^2}$  Where N=Total population

(sample population),  $\sigma$  =margin of error (10%), n=sample size, Confidence level=90%. Therefore:  $n=200/1+200(0.1)$ , **n=80** as the sample size for the study (Cooper & Schindler, 2008). After sending the questionnaires, seventy five (75%) were returned completed and with valid responses as the actual representative of sixty (60) used for the analysis. The eligibility criteria in this study are that the respondents involved in the procurement undertaking for the Ministry of Defence.

### 3.6 Sampling Technique

The type of sampling technique used in study was stratified sampling technique where the population was divided into different subgroup (strata) and sample size selected from each stratum. This technique is useful when the divisions of the target population are skewed and or when there are extremes present in the probability distribution of the target population. This is to minimize the variability within each stratum and maximize the differences between strata (Hair et al., 2006).

More so to ensure that the sample maintains the required precisions, and representations of defence personnel are chosen for this study, the representative samples were drawn from each of the units in the Army representative within the engineering section as smaller population groups (each stratum). This is done by segmenting the target population into homogeneous subgroups or data follow by

drawing the random samples from each stratum and later combining the samples from each stratum into a single sample of the target population (Hair et al., 2006). The advantage of this method is to ensure representativeness in the sample, and the ability to estimate for the target population with the expectations of greater precision with less error despite that the techniques waste time for the researcher.

### **3.7 Instrumentation**

The study considered a descriptive survey approach which uses questionnaire as research instrument for the collection of data. Questionnaires were designed and directed to the respondents to solicit their opinion to determine the nature of situation within defence procurement system. It focuses on vital facts about the respondent's beliefs, opinions and attitudes and behaviour, which provide an understanding of the phenomenon (Cooper & Schindler, 2008).

### **3.8 Data Collection Procedures**

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. The questionnaires form part of primary sources of data used in this research.

Secondary sources of data were also used, and they were obtained from corporate annual reports, textbooks and the Internet materials. Questionnaires were the primary data for the study which were self-designed and self-administered. The respondents however, filled the questionnaires on their own privacy to eliminate any form of biasness.

### **3.9 Data Analysis**

Finally, the data collected were analysed using descriptive statistics (mean values, standard deviation, standard error and sample t-test). In order to get the result, statistical package for social science software (SPSS version 17) was used in which data collected were coded into the software and edited to ensure consistency and validity.

## **CHAPTER FOUR**

### **ANALYSIS OF DATA AND DISCUSSION OF FINDINGS**

#### **4.1 Introduction**

The chapter four involved analysis of the data gathered and discussion of major findings from the study. Respondents' professional background and experience in defence procurement were taken into consideration. The purpose of this was to ensure information given for the analysis were accurate and practical to validate the results of the findings. The respondents were assigned five point scale and which was weighted accordingly to determine the statistical means for each attributes including standard deviation, standard error, variances, and which was subsequently ranked for verifications (Aderson et al; 2010). Thus, for each attribute, the null hypothesis was tested for either  $H_1: \mu > \mu_0$  or  $H_1: \mu < \mu_0$ , but not both were used. Consequently:  $H_0: \mu_{60} \text{ respondents} \leq 1$ ,  $H_1: \mu_{60} \text{ respondents} > 1$  and Specify the p-value  $\alpha$  level:  $\alpha = .05$ . Therefore,  $U_0$  represented the critical rating above which the attribute is considered

important (Tabachnick, & Fidell, 2007). The findings have been summarized into two sections: Section A: Analysis of demographic Data; Section B: Knowledge of Defence Procurement to make reading easier for users of this research work.

#### 4.2 Section A: Analysis of Biographical Data

**Table: 4.1: Professionals within the Ghana Armed Forces (GAF)**

Respondents	Frequency	Percent
Procurement Officers	8	13.3
Architects	8	13.3
Civil Engineers	10	16.7
Quantity Surveyor	10	16.7
Geodetic Engineer	8	13.3
Mechanical Engineers	8	13.3
Valuer	8	13.3
<b>Total</b>	<b>60</b>	<b>100.0</b>

**Source: field survey, 2015**

Table 4.1 above described respondents' profession in undertaking procurement activities within Ghana Armed Forces under the Ministry of Defence. From the above, sixteen point seven percent (16.7%) were Civil Engineers and Quantity Surveyors respectively. The remaining thirteen point three percent (13.3%) were representing Architects, Geodetic Engineers, Valuers and Mechanical Engineers respectively. The management implications are the respondents were equally represented and their



professional inputs on defence procurement were considered critical in the analysis of this research. Each of the respondents has equal representative and responded to the same sample of questions for the study. The implication was to eliminate any form of bias from the study.

**Table: 4.2: Respondents level of Qualification/Professional Membership**

Qualification/Professional Membership	Frequency	Percent
Higher National Diploma	12	20.0
Bachelors Degree (Including Professional Membership Association)	20	33.3
Postgraduate degree	28	46.7
<b>Total</b>	<b>60</b>	<b>100.0</b>

**Source: Field Survey 2015**

Table 4.2 above, twenty percent (20%) of the respondents were Higher National Diploma (HND) holders, thirty three point three percent (33.3%) were holding Bachelors degrees including professional membership association and the remaining forty six point seven point seven percent (46,7%) of respondents were holding Master degree certificates with professional memberships. This implies that each of the respondents were qualified and experienced as well as capable of providing professional inputs relevant to defence procurement.

### 4.3 Section B: Knowledge of Defence Procurement

**Table 4.3: Legislative provisions on exemptions in defence procurement**

Responses	Frequencies (60)	Percentages (100)
Agree	4	7
Strongly Agree	4	7
Disagree	12	20
Strongly Disagree	4	7
Uncertain	36	59
Total	60	100

**Sources: Field survey, 2015**

Table 4.3 above, when asked respondents about whether there is any legislative provision, which exempt defence procurement to be subjected to scrutiny, and which the respondents were aware of, about fifty six percent were uncertain about such provision and cannot indicate any particular legislative provision which protected defence budget and their procurement activities to be subjected to public interrogation. From the study respondents were aware of the Public Procurement Act, Act 663; however they could not specifically indicate the section of the act that exempts defence procurement budget from being subjected to public scrutiny. They also indicated that defence procurement revolved around national security, and that vital information is not to be disclosed to the public, they are sensitive and eventual disclosure could expose the country to threats. However, to ensure transparency and value for money within the process, defence procurement budget were professionally approved by the defence ministry under auspices of ministry of finance and supervised by the parliament of Ghana.

**Table 4.4: Promoting Effectiveness of PPA (Act 663, 2003) via Defence**

**Procurement of Works**

	<b>N</b>	<b>Mean</b>		<b>Std. Deviation</b>	<b>Variance</b>	<b>Ranked</b>
Variables	Statistic	Statistic	Std. Error	Statistic	Statistic	
Defence Procurement activities concern national security; therefore need not subjected to scrutiny	60	2.6167	0.19324	1.49680	2.240	5 <sup>th</sup>
PPA, Act 663 does not make legislative provisions on exemptions in defence procurement	60	2.6333	0.19010	1.47254	2.168	4 <sup>th</sup>
The legislature does not have oversight control on defence procurement budget and plans	60	2.9000	0.15892	1.23096	1.515	1 <sup>st</sup>
GAF Procurement Process is non-adherence to Act 663, 2003	60	2.6667	0.18513	1.43405	2.056	3 <sup>rd</sup>
Adherence to the act by GAF ensures value for money	60	2.5500	0.17535	1.35828	1.845	6 <sup>th</sup>
GAF procurement activities are mostly funded by Government loans and other donor agencies	60	2.8167	0.19088	1.47857	2.186	2 <sup>nd</sup>

**Source: Field survey, 2015**

Table 4.4 above has shows the varied levels of questions on defence procurement and the promotion of effective use of Public Procurement Act (Act 663). Table 4.4 above, the mean values ranges from 2.5500 to 2.9000 whiles the standard deviation ranges from 1.23096 to 1.35828; an indication that there is insignificant difference between estimated mean and the cut-off point of 3.00. Conversely, Defence Procurement activities concern national security; therefore need not be subjected to scrutiny, PPA, Act 663 does not make legislative provisions on exemptions in defence procurement. Also the legislature does not have full oversight of and control over defence procurement budget and plans, GAF Procurement Process is nonadherence to Public Procurement Act, (Act 663), GAF procurement activities are mostly funded by Government loans and other donor agencies, and that adherent to Public Procurement Act, by GAF could ensure value for money in the process. The variables were significant for this study and were ranked accordingly to appreciate uniqueness of defence procurement in relation defence procurement and the effective use of the Act 663. The finding implies that the silent nature of Act 663 and Act 105 on defence procurement, and the inability to thoroughly scrutinize defence procurement activities by regulatory bodies quite apart from the Parliamentary Select Committee on Defence, creates a loop hole in the Act. Such revelation implies that there is possibility for corrupt practices within the defence procurement system. This invariably devalues the objective of the Act 663 as well as sustainable public procurement process for Ghana.

**Table 4.5a: Challenges in Defence Procurement System**

One-sample test				
Challenges	N	Mean	Std. Deviation	Std. Error Mean
Lack of transparency and civilian control	60	2.3000	0.25279	0.16173
Individuals Parochial Interest and corruption in the name of the national interest	60	2.3333	0.40056	0.18081
No competitiveness in the tendering process or sole sourcing	60	2.0167	0.30568	0.16856
Lack of manpower & training rather than logistics support	60	2.1167	0.34154	0.17319
Under-institutionalized procurement process and poor procurement planning	60	2.1167	0.41531	0.18272
The secrecy on defence budget within public procurement affects value for money	60	2.4000	0.39247	0.17977
The legislature does not have oversight control on defence procurement budget and plans	60	2.0333	0.18846	0.15343

**Source: Field survey, 2015**

Table 4.5 presents descriptive statistics of survey results concerning challenges in defence procurement faced by Ghana Armed Forces in the implementation of entity Public Procurement Process in order to ensure value for money, transparency, fairness, among other as indicated in the Act 663.

From the study, challenges in defence procurement were measured on five-point likert scale and weighted in order to find the p-values and means according to

Anderson et al. (2010). The mean values obtained from the survey range from 2.0167 to 2.4000 and standard deviation of means ranging from 0.30568 to 0.39247 with standard error of 0.16856 to 0.17977.

Furthermore, in order to test the significance of the estimated mean, a t-test was conducted at five percent (0.05) level of significance. It was revealed that there is of lack of transparency and civilian control, individuals' parochial interest and corruption in the name of the national interest characterized defence procurement process, major procurement method being adopted by the entity there is no competitiveness in the tendering processing and or sole method. Also, there is lack of manpower & training in defence procurement and vice versa in public procurement rather than logistics support. It was further revealed that the entity underinstitutionalized procurement process due to annual poor procurement planning. Whiles there is phenomenon of secrecy on defence budget which often are not subjected to public scrutiny, in order to realize the impact of value for money within public procurement process. There is tendency to perceive that legislature does not have oversight control on defence procurement budget and plans. It has been found that these challenges impact on

defence procurement in ensuring effective public procurement process. In addition, using standard normal distribution, it was found that the cumulative probability for two (2) =2.0167, which in this case, has a p-value of 0.30568.

**Table 4.5b: The Challenges to the Defence Procurement**

Challenges	One-sample Test				
	Test Value = 10				
	T	Df	Mean Difference	90% Confidence Interval of the Difference	
				Lower	Upper
Lack of transparency and civilian control	16.694	59	0.3342	0.0236	0.3764
Individuals Parochial Interest and corruption in the name of the national interest	12.536	59	0.2123	0.0285	0.9049
No competitiveness in tendering process or sole sourcing procurement method	15.326	59	0.5333	0.0206	0.2460
Lack of manpower training on public procurement, capacity planning rather than logistical support	10.874	59	0.8333	0.0299	0.5368
Under-institutionalized procurement process and poor procurement planning	12.497	59	0.2333	0.0489	0.9177

The secrecy on defence budget within public procurement affects value for money	14.463	59	0.3001	0.0597	0.2403
The legislature does not have oversight control on defence procurement budget and plans	17.380	59	0.4753	0.0737	0.3597

**Source: Field survey, 2015**

The one-sample t-test therefore established that there was agreement among respondents that the variable identified pose threats to defence procurement activities as well as the public procurement system of achieving the intended objectives of the act.

**Table 4.6a: Techniques/strategies in improving defence procurement**

One sample test				
Strategies	N	Mean	Std. Deviation	Std. Error Mean
Ensuring adherence to Public Procurement Act, Act 663	60	2.2133	0.48543	0.14177
Ensuring maximum efficiency and effectiveness of defence procurement transaction through continuous research and planning	60	2.2167	0.43198	0.18487
Ensuring competitive bidding instead of singlesource procurement	60	2.3167	0.22808	0.15855
Establishing and promoting stronger oversight				0.19010



mechanisms by the legislature	60	2.2333	0.47254	
Promoting civil society engagement and professionalism	60	2.3832	0.46243	0.18880
Defence budget must be subjected to scrutiny for transparency in public procurement	60	2.4512	0.37070	0.17696

**Source: Field survey, 2015**

Table 4.5a above; has shown descriptive statistics of survey results on the various strategies in improving defence procurement process in realizing the objectives of public procurement process for the Ghana Armed Forces. From the study, variables term as strategic or techniques were measured on five point likert scale and weighted accordingly in order to find the p-values and statistical means of the results. The mean values obtained from the survey range from 2.2133 to 2.4512 and with standard deviation of means ranging from 0.48543 to 0.37070 and standard error of 0.14177 to 0.17696 respectively.

In addition, to test the significance of the estimated mean, a t-test was conducted at five percent (0.05) level of significant and it has revealed that ensuring adherence to Public Procurement Act, Act 663. Thus; the entity should ensure maximum efficiency and effectiveness in defence procurement transaction through continuous research and planning. Furthermore, ensure competitiveness in bidding process instead of single-source or two sources tending which prevalent within defence procurement whiles establishing and promoting stronger oversight mechanisms by the legislature, not forgetting promotion of civil society engagement within defence procurement as well

as ensuring professionalism in the procurement process. Last but not the least the respondents have indicated that defence budget must be subjected to scrutiny for transparency in public procurement. That is if the objectives of the public procurement are to be achieved the finding concluded.

**Table 4.6b: Techniques/strategies in improving defence procurement**

One-sample test					
Strategies	Test Value = 10				
	T	Df	Mean Difference	90% Confidence Interval Difference	
				Lower	Upper
Ensuring adherence to Public Procurement Act, Act 663	13.645	59	0.61667	.0204	0.2329
Ensuring maximum efficiency and effectiveness in defence procurement transaction through continuous research and planning	13.433	59	0.48333	.8533	0.1134
Ensuring competitive bidding instead of single-source procurement	16.925	59	0.68333	.0006	0.3661
Establishing and promoting stronger oversight mechanisms by the legislature	12.449	59	0.36667	.7471	0.9863

Promoting civil society engagement and professionalism	13.860	59	0.61667	.9945	0.2389
Defence budget not subjected to scrutiny for transparency in public procurement	14.410	59	0.55000	.9041	0.1959

**Source: Field survey, 2015**

Therefore, the one-sample t-test have established that the defence procurement system could be improved if the above intended strategies are fully implemented to ensure value for money are achieved not only within the public procurement process but also defence procurement are done with professionalism as well as less continues public perceived perception of corruption elsewhere which tend to be difficult to proof in less developed country like Ghana.

#### **4.4 Section C: Discussion of results**

The major finding from the study that respondents do not know any specific legislative provision, which exempt defence procurement from being subjected to scrutiny. Also, despite the respondents being aware of Public Procurement Act, Act 663, they often failed to follow the act to the later. About fifty six percent were uncertain about specific provisions or sections of the Act that shielded GAF from ensuring effective utilization the public documents and or indicate any particular legislative provision which barred defence budget and their procurement activities to be subjected to public interrogation and scrutiny. From the study respondents were however, aware of the Act 663 as guideline to public procurement in Ghana and substantially on the opinion that the Act is capable of achieving value preposition for the public if followed to the later. The findings have however agreed with (Baily et all, 2008) that to improve defence procurement and added value, value for money principles of investigating into defence

procurement operation or activity be established in order to gain its economic, efficient and effective principles and or objectives. And by reviewing compliance of entity particular laws or regulations for control, which Act 663 promulgated; continue public outcry and perception could be eliminated for perceiving defence procurement to be non-compliance or ineffective.

Furthermore, it was found from the study that defence procurement faces challenges such as lack of transparency and civilian control, individuals' parochial interest and corruption in the name of the national interest characterized defence procurement process; major procurement method being adopted by the entity were not competitive and sole sourcing the major procurement method within defence procurement. The findings have agreed with (Sanjeev et al., 2000; World Bank, 2003) who have indicated that there is the tendency perceived lack of transparency and civilian control, and individuals' parochial interest due to corrupt officials in the name of the national interest who will like to circumvent defence procurement process.

Also, the findings have further agreed with (Fuior & Hans, 2006; DPP, 2013) who earlier indicated that there is lack of manpower & training in defence procurement visor vice public procurement training support for the personnel rather than logistics support. The entity under-institutionalized procurement process due to annual poor procurement planning while there is phenomenon of secrecy on defence budget which often are not subjected to public scrutiny to realize the impact of value for money within public procurement process (Fuior & Hans, 2006; Hans Born, 2008; DPP, 2013). Finally, there is tendency to perceive that legislature does not have oversight control on defence procurement budget and plans which was further shared by (Sanjeev et al.,

2000; World Bank, 2003). It has been found that these challenges impact on defence procurement in ensuring effective public procurement process (Act 663, 2003).

Finally, it has been found from the study that to improve defence procurement performance; adding value to defence procurement operations by economically and efficiently ensuring effective compliance to Act 663 while assessing whether costs are under proper control, defence resources are being used efficiently and activity or operation is achieving its purpose. The finding agreed with Act that entity should ensure adherence to Act 663, 2003. That the maximum and effective utilization of the Act 663, not only adds value but ensure efficiency and effectiveness of public procurement transactions. Entity should ensure continuous research and planning this could help procurement professionals in delivering their procurement duties with less interference, corrupt practices and update of current procurement techniques to improve performance.

Finally, it has found that there must be competitiveness in bidding process within the defence procurement instead of single-source or two sources tendering process. According to the World Bank, 2003 the tendency of not ensuring competitiveness within the procurement process not only create less value for money but rather continuous public perception of corrupt activities within the process. It has been found that single or two tendering and or restricted tendering process though has it on merits, it does not add value and less competitive to the best bidder. Despite the challenges identified within defence procurement, establishing and promoting stronger oversight support by the legislature and civil society engagement within defence procurement

despite “national security” issues especially on procurement budget allocation and ensuring professionalism in the procurement process are paramount if the state is to gain value for money within defence procurement process.

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

The study appraises effectiveness of defence procurement system and employed various statistical analyses to arrive at the results. This chapter however presents the conclusion and recommendation of the study by first the reviewing of the research objectives. It concludes with areas for further research.

#### **5.2 Review of the Objectives**

##### **5.2.1 Objective one (1)**

To determine the existing legislative provisions that exempt defence procurement from adhering to the procedures in Act 663.

The preliminary research questionnaires and other relevant studies and documents from the literature review as well as the Act 663 on Public Procurement along with Act 105 of the Ghana Armed Forces and other legislative instrument identified both do not

make any exemption clauses. It is therefore imperative that the defence procurement should be opened and competitive enough whiles adopting different procurement methods instead of single or two sources tending approach as identified.

### **5.2.2 Objective two (2)**

To identify the challenges to the defence procurement of works.

The findings have agreed with (Sanjeev, et al; 2000; CEC, 2004), when contributing on the challenges of defence procurement works. These authors have indicated that many of the challenges involved in defence procurement are of technical issues and involve complex process. Defence procurement requirements are done with specific details hence subject to defence procurement designs and the acquisition process is often criticized by the public whiles other see it for being complex, slow and costly and are often off public control. Moreover, this research has found challenges such as lack of transparency and civilian control, individuals' parochial interest and perceived corruption in the name of the national interest characterized defence procurement process. Furthermore, major procurement method being adopted by the entity was found not to be competitive enough as procurement and tendering process are sole sourced instead of alternate but open procurement methods. Also, there is lack of manpower & training in defence procurement vice visor public procurement rather than logistics support. The entity under-institutionalized procurement process due to annual poor procurement planning whiles there is phenomenon of secrecy on defence budget which often are not subjected to public scrutiny to realize the impact of value for money within public procurement process. Finally, there is tendency to perceive that legislature does not have oversight control on defence procurement budget and

plans. It has been found that these challenges impact on defence procurement in terms of ensuring effective public procurement process.

### **5.2.3 Objective three (3)**

To find out techniques to ensure value for money in defence procurement of works.

The finding has further agreed with (Act 663, 2003), about ensuring value money within the public procurement system in order to serve money for the nation. Entity needs to justify the procurement outcome by ensuring that the deployments of resources are effectively and efficiently utilized in the realization of expected output values. Peter Baily, (2008) further indicated that seeking to develop world class procurement professional who practice best practices in terms of whole-life cost saving and highest stand benchmarking with contractors and suppliers with the objective of adding value into the public procurement process are the prerequisite techniques if defence procurement are to succeed. The value added principle is based on not only the acquisition price or lowest cost (economy) but also on the maximum efficiency and effectiveness of procurement transactions for the public. Thus, GAF ensuring an adherence to Public Procurement Act ensures maximum efficiency and effectiveness of a procurement transaction through continuous research and planning for the Ghana Armed Forces on procurement sanitized defence procurement. Additionally, to ensure value for money, competitive in bidding process as an alternative of single-source or two sources tendering which is common within defence procurement are relevant.

## **5.3 Discussion**

Procurement process in the public sector irrespective of national security is to be done professionally intact. Though the procurement process has been heavily decentralized,



with guidelines to guide intended public institutions in their public procurement duties, defence procurement and for that matter Ghana Armed Forces procurement activities are done in secrecy in the name of protecting important national information to the very public the entity intends to serve. More so, all public institutions must perform their functions with independence and within the framework of public procurement Act which is the national guidelines. These do not only promote openness and transparency within the procurement process but rather encourage competition as a means of achieving value for money as the best but qualified bid is approved for defence.

Despite the increasing complexity and importance of purchasing decisions by defence procurement as entity, the need for more strategic focus and improved management of defence procurement process is relevant. Effective and efficient procurement policy, procedures and practices by defence authorities can significantly impact on the accountability and value for money aspects of the purchase of goods and services. More so, potential for real savings exist in defence procurement if effective policies and practices are put in place. Thus achieving savings is important as it frees up resources which can be redirected to provide services for other sectors of the nation. The uses of Act 663, 2003 aims to achieve value for money if defence procurement could also adhere to the guidelines. The Act involves number of core principles, in position to maximize competition in the market for the goods and services purchased by the State. The Act practically and legally seeks to promote whole of government objectives of promoting accountability; competitiveness; nondiscriminatory within the procurement process as well as providing for equality of treatment to procurers; fair

and transparent; and conduct of probity and integrity which both Act 663 and Act 105 which established the Ghana Armed Forces.

#### **5.4 Recommendations**

In the light of the foregoing conclusions; the following recommendations have been made to be incorporated into Ghana Armed Forces defence procurement activities and in promoting the achievement of the objectives of the Public Procurement Act upon request.

- That to improve defence procurement performance whiles dissuading the public of the perception of corrupt practices that characterize the system, and add value to public procurement process. Ghana Armed Forces should ensure effective utilization of the Act, Act 663, 2003. That entity adherence to the Act 663, 2003 maximizes the sustainability of the Public Procurement in Ghana where efficiency and effectiveness approach are essential throughout public procurement transactions for the country.
- That to ensure professionalism and integrity within defence procurement, there should be continuous research and planning which could help procurement professionals in exacting procurement duties with less interference, eschewing corrupt practices and update of current procurement techniques to improve performance.
- There is the need for training and continuous education and research on public procurement to create platforms for building capacity for defence personnel. This involves building organizational capacity to strategically manage procurement effort to maximize measurable savings and benefits for the Ghana Armed Forces. The training and education would be to develop capabilities and

competencies among employees which are necessary to sustain measurable improvements in procurement performance whiles eliminating procurement agitations and to reduce cost through leveraging defence demand in certain markets. In addition, promoting e-procurement efforts to improve efficiency through the targeted use of cost effective technologies to support various aspects of procurement offer for defence.

- In addition, there must be competition in bidding process within the defence procurement instead of single-source or two sources tending process. Single or two tendering approach though has merits; it does not add value being less competitive to the best bidder.
- Also, establishing and promoting stronger oversight responsibility in examining defence procurement process is critical. Thus an independent body in collaboration with the legislature should provide oversight responsibility for defence procurement.
- That targeting best value in defence procurement is best achieved through “best value” focused contractor selection which must be done with continuous improvement and performance monitoring throughout defence the procurement process.
- Last but not the least, civil society engagement within defence procurement process and budget allocation scrutiny are relevant and that such innovative development should not be seen as attack on the Ghana Armed Forces procurement and other activities but rather aimed at ensuring professionalism and value for money within the procurement process as well as helping to bridge the information and accountability gaps and good governance process.

## 5.5 Scope for further research

For future research, investigating the possibility of promulgating legislative instrument into the public procurement act that specifies sections and clauses that should guide defence procurement is worthy to explore.

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## **APPENDIX**

### **APPENDIX A: 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 Master of Science Procurement Management, the student is undertaking a research by using your Assembly as case of study. The topic under study is “**Appraising effectiveness in Defence Procurement: A Case of Ghana Armed Forces**”

The research has been designed purely for academic purposes. The information given will be accorded the greatest degree of confidentiality. You are kindly requested to give your opinion by answering the questions below:

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

#### **SECTION A: Biographical Data**

##### **1. Your Profession/Occupation**

Civil Engineers [ ☐ ] Quantity Surveyors [ ☐ ] Geodetic Engineers [ ☐ ] Valuers [ ☐ ]  
Architect [ ☐ ] Mechanical Engineer [ ☐ ]

##### **2. Highest educational and professional level**

Higher National Diploma [ ☐ ] Bachelors Degree (including honors) [ ☐ ]

Postgraduate (MA/MSc/MPhil/PhD) [ ] Other (please specify).....

**3. How long have you been working and or staying in the GAF?**

1 to 5 years [ ] 6 to 10 years [ ] 11 to 15 years [ ] 20 years and above

**SECTION B- Data on Public Procurement/Defence Procurement**

**4. Defence Procurement activities concern national security; therefore need not subjected to scrutiny**

Agree [ ]

Strongly agree [ ]

Disagree [ ]

Strongly disagree [ ]

**5. PPA, Act 663 does not make legislative provisions on exemptions in defence procurement?**

Agree [ ]

Strongly agree [ ]

Disagree [ ]

Strongly disagree [ ]

**6. The legislature does not have oversight control on defence procurement budget and plans**

Agree [ ]

Strongly agree [ ]

Disagree [ ]

Strongly disagree [ ]

**7. GAF Procurement Process is non-adherence to Public Procurement Act, Act 663**

Agree [ ]

Strongly agree [ ]

Disagree ☐

Strongly disagree ☐

**8. Adherence to Public Procurement Act, Act 663 by GAF ensures value for money**

Agree ☐

Strongly agree ☐

Disagree ☐

Strongly disagree ☐

**9. GAF Procurements are in the form of Core defence and Non-Core – defence procurement**

Agree ☐

Strongly agree ☐

Disagree ☐

Strongly disagree ☐

**10. Core defence procurement covers only goods and services**

Agree ☐

Strongly agree ☐

Disagree ☐

Strongly disagree ☐

**11. Non-core defence procurement covers contracting infrastructural facilities**

Agree ☐

Strongly agree ☐

Disagree ☐

Strongly disagree ☐

Q12-16	Indicate challenges currently facing GAF defence procurement activities	Please tick			[√]
		SA-3	DA-1	SDA-2	AG-4
a.	Lack of transparency and civilian control				
b.	Individuals Parochial Interest and corruption in the name of the national interest				
c.	Non competitive tender process or single source procurement				
d.	Lack of manpower, training or planning capacity rather than logistics support				



e.	Under-institutionalized procurement process and poor procurement planning				
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**NB: SA-strongly agree, DA-disagree, SDA-strongly disagree, A-Agree**

**17. GAF procurement activities are mostly funded by Government loans and other donor agencies**

Agree [ ]  
Strongly agree [ ]  
Disagree [ ]  
Strongly disagree [ ]

**18. Are there exemptions clauses in defence procurement?**

Agree [ ]  
Strongly agree [ ]  
Disagree [ ]  
Strongly disagree [ ]

**19. If any.....kindly indicate those exemptions clauses**

.....  
.....  
.....

**20. The exemptions clauses do not have financial effects on Ghana Armed Forces**

Agree [ ]  
Strongly agree [ ]  
Disagree [ ]  
Strongly disagree [ ]

**21. The secrecy on defence budget within public procurement affects value for money principles?**

Agree [ ]  
Strongly agree [ ]  
Disagree [ ]  
Strongly disagree [ ]

Q22-26	What are the techniques are available to ensure value for money in the defence procurement?	Please tick			[√]
		SA-3	DA-1	SDA-2	AG-4
a.	Ensuring adherence to Public Procurement Act, Act 663				

b.	Maximum efficiency and effectiveness of a procurement transaction through continuous research and planning				
c.	Ensuring competitive bidding instead of single-source procurement				
d.	Establishing and promoting stronger oversight mechanisms by the legislature				
e.	Promoting civil society engagement and professionalism				

***NB: SA-strongly agree, DA-disagree, SDA-strongly disagree, A-Agree***