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**Examining the Impact of Works Procurement Methods in the Ghana Armed
Forces**

by

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and Built Environment in partial fulfilment of the requirements for the degree
of**

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DECLARATION

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

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ABSTRACT

Public procurement continues to evolve amidst efforts by governments to regulate, control and maximize their expenditure. In Ghana public procurement is regulated by the Public Procurement Act, 2003, Act 663. The Auditor General's Annual Reports for 2011 and 2012 revealed there were lapses in the procurement activities of the Ghana Armed Forces (GAF). These lapses were in the acquisition of goods, works and services and included non-compliance with rules and regulations and disregard of the principles of procurement. The aim of the study was to examine the impact of works procurement methods GAF in the past 10years. The aim is supported by two objectives, thus; to identify the most frequently used methods of procurement for works contracts in the GAF and to identify the impact on time of the frequently used methods of works procurement. The study is descriptive in nature and used purposive sampling to draw its sample size from the Directorate of Engineer Services and Directorate of Procurement in the GAF. The data was collated, coded and inputted into Microsoft Excel and Statistical Package for Social Science (SPSS) for analyzes and interpretation. The research discovered that apart from the Two-Stage tendering, the other four (4) methods of procurement were used for works procurement in the GAF and the open competitive method was the most frequently used. Also it discovered that GAF having been using an in-house procurement procedure for minor works contracts (CSIP Vol IV). The study recommended that the GAF continue to apply open competitive tendering, restricted tendering and request for quotation methods to non-core defence procurements while sole sourcing and restricted tendering were used for core defence procurement tendering.

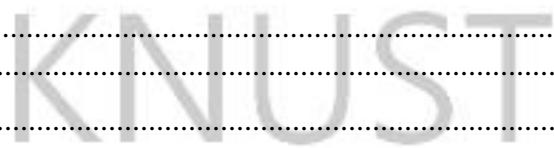
TABLE OF CONTENT

DECLARATION.....	iii
ABSTRACT	iv
TABLE OF CONTENT.....	v
LIST OF TABLES.....	viii
LIST OF FIGURES	viii
ACKNOWLEDGEMENTS.....	ix
DEDICATION.....	x
LIST OF ABBREVIATIONS	xi
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Background of Procurement in Ghana.....	1
1.2 Problem Statement	3
1.3 Aim of Research.....	5
1.4 Objectives.....	5
1.5 Research Question.....	5
1.6 Significance of Research.....	6
1.7 Scope of Research	7
1.8 Limitations of Research	8
1.9 Outline of Research.....	8
CHAPTER TWO.....	9
LITERATURE REVIEW	9
2.1 Public Procurement in Ghana.....	9
2.2 Defining key related terms of procurement.....	12
2.2.1 Procurement.....	12
2.2.2 Public Procurement	12
2.2.3 Procurement of Works.....	14
2.2.4 Methods of Procurement	14
2.3 Principles of Procurement	15
2.3.1 Competition	16

2.3.2 Transparency	17
2.3.3 Fairness.....	18
2.3.4 Ethics	18
2.4 Value for Money in Public Procurement.....	19
2.4.1 Time in Value for Money.....	22
2.4.2 Cost in Value for Money	23
2.4.3 Quality in Value for Money	23
2.5 Ghana Public Procurement Legal and Regulatory Framework	24
2.6 Public Procurement Policies	27
2.7 Public Procurement Methods.....	29
2.7.1 Competitive Tendering.....	29
2.7.1.1 National Competitive Tendering	29
2.7.1.2 International Competitive Tendering.....	30
2.7.2 Two Stage Procurement	32
2.7.3 Restricted Tendering	33
2.7.4 Request for Quotation	33
2.7.5 Single Source Procurement	34
2.7.5.1 Definition.....	34
2.7.5.2 Application of Single Source Procurement	36
2.7.5.3 Preference for Single Source Procurement.....	38
2.7.5.4 Reasons for using Single Source Procurement	38
2.8 Selection of Methods of Procurement	39
2.9 National Security	40
2.10 Completion Timescales - Works Procurement.....	43
2.11 Works Procurement in Ghana Armed Forces	44
2.11.1 Minor Works	44
2.11.2 Minor Contractual Services.....	45
2.11.3 Procurement procedure for minor contractual services.....	45
2.12 Turnkey Projects.....	47
2.13 Ghana Armed Forces	47
2.13.1 Establishment of Ghana Armed Forces.....	47
2.13.2 Brief History of Ghana Armed Forces	48
2.13.3 Command Organization	49

2.13.4 Ghana Army	51
2.13.5 Ghana Navy.....	51
2.13.6 Ghana Air Force	52
CHAPTER THREE	53
RESEARCH METHODOLOGY	53
3.1 Introduction	53
3.2 Research Design	54
3.2.1 Descriptive Research	54
3.3 Research Strategy	55
3.4 Research Method.....	55
3.5 Population of Research.....	56
3.6 Sampling Size.....	56
3.7 Sources and Methods of Data Collection.....	57
3.8 Data Analysis and Presentation.....	58
CHAPTER FOUR	58
RESULTS ANALYSIS AND SUMMARY	58
4.1 Introduction	58
4.2.1 Respondents Profession.....	60
4.2.2 Respondents Level of Education.....	61
4.2.3 Professional association of respondents	62
4.2.4 Years of experience of respondents.....	63
4.2.5 Stages of procurement cycle involved by respondents	64
4.3 Procurement Procedures Used in Ghana Armed Forces	65
4.4 Selection of Procurement Procedures in Ghana Armed Forces	67
4.5 Solicitation of Ghana Armed Forces procurement.....	69
4.6 Other reasons for selection of methods	70
4.7 Timely delivery of works contracts in Ghana Armed Forces	72
4.7.1 Impact of procurement methods used on time	72
4.7.2 Efficiency of methods of procurement based on time.....	75
4.8 Summary of Results	75
CHAPTER FIVE	78
CONCLUSIONS AND RECOMMENDATIONS	78
5.1 Introduction	78

5.2 Major Findings	79
5.2.1 Review of Objective One	79
5.2.2 Review of Objective Two.....	80
5.3 Conclusions	80
5.4 Recommendations	82
REFERENCES	
1	83
APPENDIX	89



LIST OF TABLES

Table 2.1: Works Completion Timelines	44
Table 4.1: Details of Questionnaire Distribution	61
Table 4.2: Knowledge of Public Procurement Procedures	67
Table 4.3: Extent of Usage of Procurement Procedures	68
Table 4.4: Public Procurement Methods used in Ghana Armed Forces	68
Table 4.5: Factors Influencing Selection of Methods of Procurement	70
Table 4.6: Reasons for Procurement Practices in Ghana Armed Forces	72
Table 4.7: Statistical Analysis of Responses on the reasons for Procurement Practices in Ghana Armed Forces	73
Table 4.8: Open Competitive Method	74
Table 4.9: Restricted Tendering	75
Table 4.10: Single/Sole Source Procurement	75
Table 4.11: Request for Quotation	76
Table 4.12: Most Efficiency Method of Tendering	77

LIST OF FIGURES

Figure 2.1: Legal Framework of Public Procurement in Ghana	27
Figure 2.2: Decision Process for Selecting Procurement Methods	41
Figure 2.3: Organogram of Ministry of Defence	51
Figure 4.1: Employment of Respondents.....	62
Figure 4.2: Qualifications of Respondents.....	63
Figure 4.3: Professional Association of Respondents.....	64
Figure 4.4: Experience in Procurement Practice	65
Figure 4.5: Involvement in Stages of Procurement Cycle	66
Figure 4.6: Sources of GAF Procurement Contracts	71

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DEDICATION

This thesis is dedicated to God Almighty who has enabled me to get this far and also to my dear Wife and family who supported me with their prayers and understanding. I also want to dedicate this thesis to my colleagues at work for their assistance throughout my course of study and in this research work.



LIST OF ABBREVIATIONS

AON	Acceptance of Necessity
APS	African Partnership Stations
CDS	Chief of the Defense Staff
CIPS	Chartered Institute of Purchasing and Supply
CO	Commanding Officer
CSIP	Command and Staff Instruction and Procedures
DPR	Directorate of Public Relations
GAF	Ghana Armed Forces
GHQ	General Headquarters
GSCL	Ghana Supply Commission Limited
GAFCSC	Ghana Armed Forces Command and Staff College
KAIPTC	Kofi Annan International Peacekeeping Training Centre
PUFMARP	Public Financial Management Reform Programme
RWAFF	Royal West African Frontier Force
SMC	Supreme Military Council
SHQ	Service Headquarters
WAFF	West African Frontier Force

CHAPTER ONE

INTRODUCTION

1.1 Background of Procurement in Ghana

Reforms in public procurement in Ghana has happened several times from the days of independence until the most recent reforms in 1996. The 1996 reforms initiated by the Government of Ghana with support from the World Bank and other development partners were part of the Public Financial Management Reform Programme (PUFMARP). The objective of PUFMARP was to improve government's financial management through implementing discipline in public disbursements, optimizing the use of public resources and the promotion of fiscal sustainability (European Commission Delegation Ghana, 2010). The public procurement reforms, part of PUFMARP, only gained government policy priority in the year 2000, after 4 years of commencement and having being made a conditionality for debt relief and development support from the World Bank and others (McDonald, 2008).

The procurement reforms in the following 3 years culminated in the promulgation of the Public Procurement Act 2003, Act 663. Thematic areas of reform included the establishment of a Procurement Board, procurement structures, methods of procurement, tendering procedures and procurement rules. These thematic areas are evident in the establishment of the Public Procurement Authority, Procurement Entities and Tender Committees among others.

The Ghana Auditor-General's Reports on procurement, have over the years highlighted lapses and irregularities in almost all public entities, some of these irregularities recur

year-on-year and in the same departments (Ofori-Mensah and Rutherford, 2011 as cited by Asenso-Boakye and Etse, 2014). However, Ghana's public procurement reforms have been aimed at improving government's acquisition of works, goods and services by public funded agents like Ministries, Assemblies and Departments. The Ghana Public Procurement Authority in 2011 reported that public procurement was about 80% of tax revenue or 17% of Gross Domestic Product (GDP) in Ghana. It was estimated that improved management of public financed procurement, could reap in about US \$150 million annual savings (World Bank, 2003) in public revenue.

Asenso-Boakye and Etse (2014) have also observed that, the public procurement reforms have brought about a harmonized set of rules, empowerment of stakeholders and citizens for government's accountability, improved fair and transparency competition (Asenso-Boakye and Etse, 2014). Moreover, is expected from these reforms to ensure fairness, transparency and value for money in the public procurement of Ghana.

The Ghana Armed Forces has for many years combined its traditional role of protecting the territorial integrity of Ghana against external aggression with international assignments and internal operations. All over the world the Ghana Armed Forces is considered one of the most experienced force in peacekeeping operations and has been promoting the country's foreign diplomatic missions and agenda. All these activities involve loads of logistics, other goods, works and services requirements; all financed from the public purse and so must conform with the Public Procurement law of Ghana.

The Ghana Armed Forces is currently involved in sixteen different internal security operations (Department of Joint Operations, 2013). These operations are in support of the civil authority to restore peace after conflicts, combat armed robbery in the urban areas and highways, check illegal lumbering and mining, environmental degradation, encroachment on government lands and illegal structures in water ways. Other operations are geared towards halting cocoa smuggling, surveillance of the countries entry/exist points by monitoring movement of people and goods, negative activities of alien herdsmen, protection of national assets like the Ghana Broadcasting Corporation and Flagstaff House. Additionally, the Armed Forces undertake operations against illegal pair trawling in Ghana's territorial waters and the protection of the national oilfields, manmade and natural disaster management as in fire outbreaks and floods, road construction to penetrate the Afram plains, search and rescue operations by land, sea and air. The Ghana Armed Forces also provide backup security in support of the civil authority in the electioneering periods to ensure a peaceful atmosphere (Department of Joint Operations, 2013).

1.2 Problem Statement

In spite of the effort by the governments of Ghana, the World Bank and development partners to improve performance of the procurement function in the country, public procurement is still flawed with instances of shoddy works and poor quality of goods and services. The PPDA (2006) reported that the procurement functions of many public entities were not adhering to the set procurement process and performance procedures and has led to irregular and subjective decisions which have been very costly to the public entities and the country at large.

Goods, services and works procurement for the GAF at the face of it rings national security concerns, unlike other public organizations in the country. It is therefore easy to associate every procurement in the GAF with national security, urgency or limited availability of suppliers. Undoubtedly military apparatuses are specialized items by nature and there is a paramount need for secrecy in military acquisitions. Combining these and other characteristics of military requirements connote limitations in exposing procurement information on the procurement processes in every security organization and more so the national Armed Forces.

History supports the claims that sole sourcing of defense logistics is a sure way of ensuring that information about logistics are spread on "need-to-know" basis. Many wars have been won on the bases of nondisclosure of information on munitions, tactics, plans, locations and so on. This principle has been adopted and christen to cover many of military acquisitions of goods, works and services.

The Ghana Public Procurement Act, 2003, Act 663 insist on national security as a reason to embark on single source procurement. Therefore, any procurement of goods, works or service that can be associated with national security concerns, ordinarily may be sourced through single source procurement. Though the security advantages of this method abound it is non-competitive and opens opportunities for undesirable procurement practices. More so when non-competitive procurement methods are used to procure non-core defence goods, works and services which are in practice more suitably obtained through open and competitive methods of procurement, the question which emerges is whether the other methods of procurement have a place in the Armed Forces procurement activities.

The GAF like any other public institution in Ghana is faced with frequent budgetary cuts and delayed cash inflows from the Central Government. In such instances the need to make judicious use of scarce resources to receive the best value for money must be the foundation of every procurement transaction. Arguably the end state of every public procurement is attaining the best value for money. How then is the Ghana Armed Forces positioned to use the public procurement methods to achieve the end state of best value for money in their defence procurement?

1.3 Aim of Research

To examine the impact of works procurement methods on contract procurement in Ghana Armed Forces, over the past 10 years.

1.4 Objectives

- (a) To identify the most frequently used methods of procurement for works contracts in the Ghanaian Armed Forces in the past 10 years.
- (b) To identify the impact on time of the frequently used methods of works procurement.

1.5 Research Question

- (a) What has been the effect of the frequently used methods of procurement on works contracts in the Ghanaian Armed Forces in the past 10 years?
- (b) Has these methods optimized the delivery time of works procurement in the Ghana Armed Forces?

1.6 Significance of Research

In the growing phenomenon of recurring public budgetary cuts and downward revisions, public organizations need to fully implement the provisions of the Public Procurement Act, 2003, Act 663 and procurement regulations to achieve best value for money from their scarce resources. However, the Auditor General's Annual Reports on accountability for public funds entrusted to Ministries, Metropolitan, Municipal and District Assemblies, Agencies and Departments are inundated with malpractices and corruption cases which deny the public of value for money.

The 2011 Auditor General's Report revealed some procurement lapses in the delivery of contracts and stores services in the Ghana Armed Forces including the upward adjustment of contract sums, avoidable payments of variations, non-compliance with procurement procedures and rules at the units' level, non-evaluation of procurement activities and the endemic bureaucracy in the procurement chain.

However, in the 2012 Auditor General's Report it was again noted that the principles of competitiveness, transparency and fairness, being the mainstay of the Public Procurement Act, Act 663 were compromised by the Ghana Armed Forces in its procurement activities.

The Report pointed out that a total sum of Ghc 21,282.00 of purchases were made through Single Sourcing alone without the approval of the Procurement Authority. In order to curtail such poor procurement practices and eliminate corruption in public procurement this thesis is justified to research into the frequent use of single source procurement in the

Ghana Armed Forces.

There has been an uplift in the interest of the Ghanaian public and media in the procurement activities of the Ghana Armed Forces. This thesis is intended to provide some answers to the questions and add to the available knowledge on Ghana Armed Forces procurement activities. The findings of this dissertation would be used by stakeholders to inform their decision during policy making on the use of the single source procurement method for works in the security sector of the public service. Lastly the thesis provides a solid base upon which further research can be undertaken to avail more information on Ghana Armed Forces procurement system.

1.7 Scope of Research

The study theoretically was restricted to value for money and public procurement through the judicious use of the methods of procurement. Value for money takes the form of cost, time or quality of the procurement method employed, however this thesis was only based on the time factor. The study opted for the time factor of value for money basically as a result of the principle of time essence of money and to reduce the load of work to meet submission date of the final thesis. The thesis has further been limited to the non-core procurement activities which look at the procurement of infrastructural works and associated services within the Ghana Armed Forces. The purpose of this restriction is to delineate the discretionary core procurement of defence equipment and goods from the non-core procurement activities like defence works.

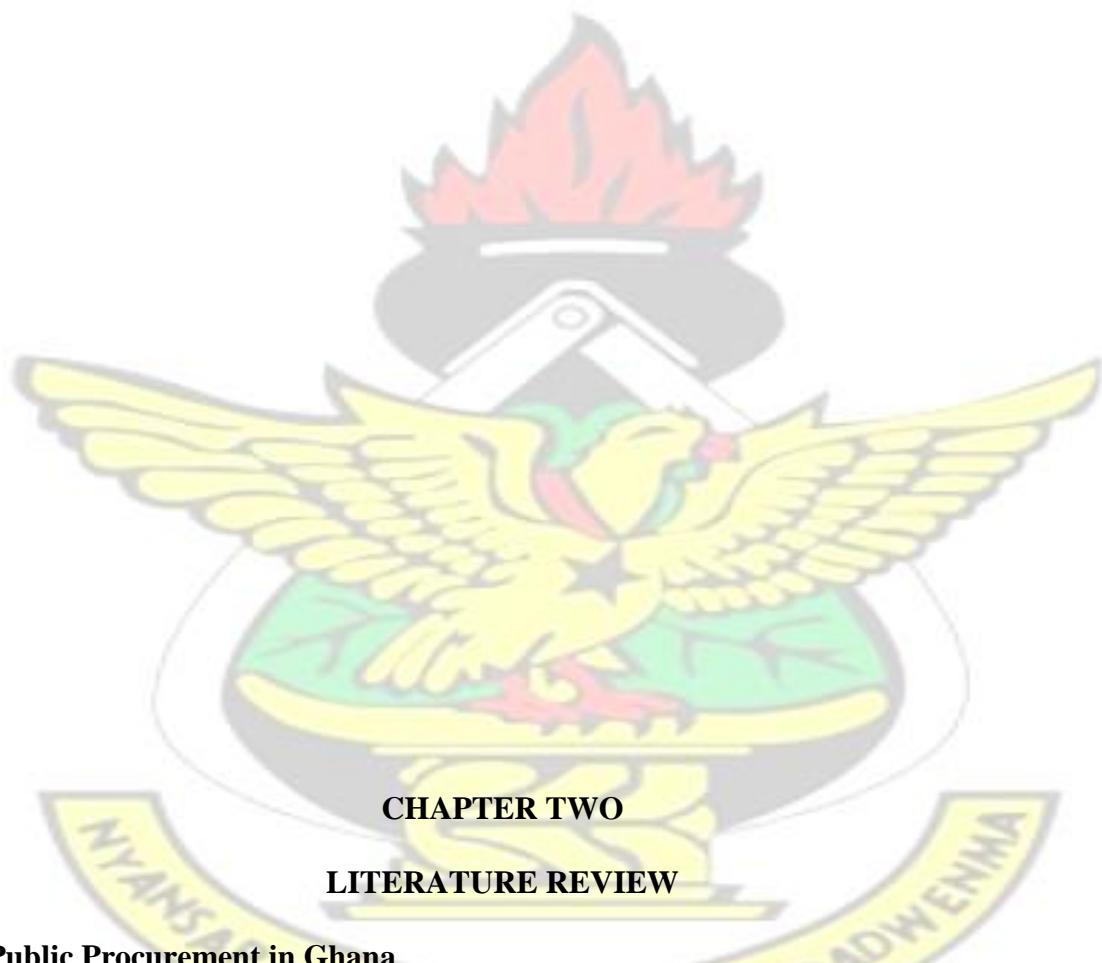
1.8 Limitations of Research

The Ghana Armed Forces carryout procurement of goods, services and works. However, because the Ghana Armed Forces is a security institution some detailed information could not be revealed for analysis. Close-ended questions were predominantly used in the gathering of data for analysis, through a questionnaire. Some data were therefore not captured in the limited options provided to respondents. Furthermore, the time available was too short for a detailed and comprehensive theoretical investigation and field survey on the topic. These constraints notwithstanding, the results are thought provoking and serve as a good basis for further research in the future on the impact procurement methods have on delivery time, quality and cost of works contracts in public institutions.

1.9 Outline of Research

This research has been structured into five main chapters. The first Chapter comprises of the study's background, problem statement, the aim and objectives of the research, justification of the study, scope and delimitations of the study. Chapter two (2) has been devoted to literature review with a look at conceptual to theoretical aspect of procurement principles and theories and practice on public procurement for judicious use of public funds. Furthermore, the research methodology has been tackled in chapter three (3) where the data collection and presentation procedures would be examined. Chapter four (4) will deal 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 will be handled in the chapter five (5).

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2.1. Public Procurement in Ghana

The procurement system in Ghana has evolved from numerous legal and financial instruments, passed in both constitutional and non-constitutional periods, to deal with the shortcomings in public procurement in the country. Constitutional and legal instruments,

financial circulars and administrative instruments were widely used to coordinate and regulate public procurement (Adusie and Awunyo-Vitor, 2015).

Adjei (2006) reported that in 1960 the Ghana Supply Commission Act was enacted with the mission to carry out all government procurement and stores services, however a related law, the Contracts Act thus Act 25 also approved in the same 1960. In 1990 Ghana Supply Commission Act was reviewed by PNDCL 245 to become a company, Ghana Supply Commission Limited (GSCL) and operated on five (5) branches namely; Procurement Consultancy, Procurement Audit, Supply of Goods and Service, Training of Stores and Procurement Personnel and Haulage Services (The Statesman, 2008). Adjei (2006) further stated that in order to provide an all-inclusive framework of administrative authority, regulating the procurement activities of government, the National Procurement Agency Decree 1976, SMCD 55 and Financial Administration Decree, SMCD 221, were enacted in the time of the Supreme Military Council. These laws were not successfully implemented as the GSC and NPA were involved in direct procurement to the neglect of their supervisory responsibility of seeing to the implementation of the laws.

The results of the lack of supervision as observed by Adusei and Awunyo-Vitor (2015) were that the system of procurement was bedevilled with; indistinguishable authorized framework, poorly harmonized procedures and regulations, unclear arrangements for institutional and organizational management of procurement, ambiguous definition of responsibilities and roles of the various entities, no independent complaints and appeals procedures and non-existent authority to perform the functions of asset disposal and audit. These shortcomings of the existing system necessitated further work on the Ghana

procurement system to inject effectiveness and efficiency in the operational, administrative and personnel capacity.

In 1996, Government outdoored the Public Financial Management Reform Programme which aimed at improving the totality of public financial management in Ghana (McDonald, 2008), including procurement. A Public Procurement Oversight Group was established in 1999 to perform the task of developing a programme to comprehensively address all aspects of government procurement. By 2002 the Public Procurement Bill was laid in Parliament and in 2003 passed into law as the Public Procurement Act (PPA), 2003, Act 663. A key issue addressed by the Act is the requirement of all Ministries, Departments and Agencies (MDA) of Government to put in place procurement departments to directly carry out procurement responsibilities in respect of each organization.

Ahead of the coming into force of the PPA 2003, Government had instituted measures to improve the procurement system (Anvuur et al, 2006) including the issuing of expenditure ceilings in the annual budget and monitoring their implementation by MDA, publication of code of conduct for all officials of MDA was needed to nip in the bud corruption and required MDA to seek clearance on the availability of sufficient funds for works contracts from the Ministry of Finance, before contracting. Literature supports the view that reforms in procurement usually comes with restructuring and reorganization of public institutions like the security sector, civil service, budget and revenue services, judiciary and legal and decentralize finance and administrative functions (McDonald, 2008).

2.2 Defining key related terms of procurement

2.2.1 Procurement

The word procurement has been defined by many scholars in different contexts, simply as a synonym for purchasing and others define it as a process of acquisition. Sarpong (2007) among other writers, defines procurement as the management of the sustainable acquisition of goods, works and services in order to maximize value for money and through a transparent, professional and auditable framework.

The Contract Services Division of the South Australian Government's Chief Procurement Strategist, Andrew Kidd, in contributing to the CIPS Australia Steering Group work on definitions of supply chain management and procurement, defined Procurement as " a function of business management that ensures sourcing, identification, management of the external resources and access which an organization may need or needs to accomplish its tactical objects" (CIPS Australia, 2007). Procurement could be referred to as the process of obtaining goods, services and works to satisfy the procurers necessities in terms of quantity, quality, cost and timely delivery to a place of the procurer's choosing.

2.2.2 Public Procurement

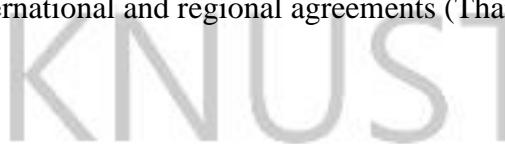
Public procurement also known as government procurement has been variously defined in theory and practice. Public Procurement "is the acquisition of services and goods in the right quality and quantity, in the correct place, at the precise time, at the best possible total cost of ownership for the direct use or benefit of individuals, corporations, or governments usually through a contract" (Ghana Integrity Initiative, 2007). Furthermore, the Initiative stated that public procurement is a way of implementing public policies and has a vital effect on the state of the economy and a direct impact on the people. Lyson, (1996) on his

part defined public procurement as the process of obtaining supplies, equipment, materials and services through purchase, lease or other legal means, by public entities. Public Procurement is also defined by PPDA (2004) as the acquisition by purchase, lease, rental, license, hire-purchase, franchise or tenancy or any mixture of any type of supplies, services and works up to the point a client consumes or utilizes the service according to his requirement, procurement act and regulations of the country. According to Waara (2007) there are "threshold values" for public procurement which go with different rules in public institutions purchasing entities and differ in terms of goods, works or services.

Public procurement is therefore a regulated process to acquire goods or supplies, works and services through purchasing, leasing, renting, hiring, franchise or tenancy, by a public institution in a country using public or government funds. The legal provisions are captured in Acts of Parliament, regulations, directives and instructions or circulars from a lawfully mandated ministry or authority. It is all about using public funds and likened resources of the public to promote the functions and activities of a government or quasi government institution.

United Nations posited that public procurement is an “overall process of obtaining goods, services and civil works together with all functions from the identification of needs, solicitation and selection of options, planning as well as award of contract, and all stages of administering the contract through to the end of a services’ contract or the valuable lifecycle of an asset” (UNDP, 2007 cited in Thai, 2008). Harink (1999) cited in Thai (2008), emphasize that public procurement “goes beyond the mere procurement procedure alone” and should not only comprise of supporting, but also “important components”

containing methods and procedures, strategy and policy of the organization, personnel and organization and information. Public procurement is faced with a challenging environment of fast emerging technologies, environmental issues and concerns and rising product choices and the intricacies of international and regional agreements (Thai, 2008).



2.2.3. Procurement of Works

The procurement of works "includes all activities related to construction, demolition, reconstruction, renovation or repair of a structure or building or surface and embraces preparation of site, excavation, construction, installation of the factory, assembly, the attachment equipment and installation, decoration materials and finish, and any ancillary activities " (PPB Manual, 2006). These are the works procurement activities that engage the Directories of Engineer Services and Directorate of Procurement in the Ghana Armed Forces.

2.2.4 Methods of Procurement

According to Miller et al (2009) A Procurement Method is a comprehensive approach to undertaking procurement assignments and involves procurement systems and procurement strategies. It is a procedure employed in converting requirements and requisitions into purchase orders or contracts, for example competitive bidding, single source acquisition or direct negotiations (www.businessdictionary.com, accessed 16 May, 2016). According to the Northwest Territories Public Works and Services Procurement Guidelines (2009) the selection of the best technique of procurement or procurement strategy in a given situation is determined by several factors. Some of the important factors are; the complexity of the need, the value of the procurement, the time horizon, the interest

of probable suppliers in competing, the availability of potential suppliers for the procurement and the risk of undergoing the process (Northwest Territories, 2009). The process could range from a simple decision to directly award (sole source) a contract to multi-stage processes involving gathering of information, prequalification and activities of solicitation. A Procurement strategy is the process through which project objectives are attained and involves contracting arrangements for design, maintenance actions, operation activities, subcontract arrangements and construction (Miller et al, 2009).

The method of procurement is an important part of the procurement process because it determines the processes to be monitored in acquiring goods, services and works from invitation to tender, submission of tenders, evaluation as well as award of contract.

2.3 Principles of Procurement

A principle is "a basic rule or idea which controls or explains how something works or happens" (Cambridge English Dictionary, 2015). The Business Dictionary defined principle to mean "fundamental rules, norms or values that signify what is positive and desirable for a group, a person, a community, or an organization and help it in determining the wrongfulness or rightfulness of its actions" and that principle governs both policy and objectives. The Concise Oxford English Dictionaries also defines it as "a fundamental proposition or truth serving as the basis for a system of behaviour or belief or for a chain of reasoning" or "a general scientific law/theorem that has several exceptional applications across a wide field" (Concise Oxford English Dictionary, 2009).

These principles are therefore the fundamental ideas, rules, norms, values, truth, prepositions or scientific theorem that are the foundation, determinants of right and wrong,

chain of behaviour, that together or separately have a wide application in the field of procurement and public procurement in particular.

The public procurement system of every country thrives on principles which must be seen in its structures, decisions, procedures and standards. The Ghana Public Procurement systems main objective is to achieve value for money, in the usage of public or government funds. The system relies on the principles of transparency, efficiency, fairness, accountability and ethics (PPA Manual, 2003). Sarpong (2007) in harmony with PPA stated that the key principles of procurement are competition, transparency, efficiency, ethical approaches, effectiveness and fairness.

2.3.1. Competition

Being competitive means active partaking of the suppliers, contractors as well as consultants in the process of procurement. Competition is achievable by making procurement information available and easily accessible through advertisement of tenders, prequalification, reviewing of sourcing as well as adoption of fair procedures in the system of procurement. Benefits of competitiveness in procurement are numerous and include potential for resource savings, increases numbers of suppliers, contractors and consultants and the development of the private local business and by extension the economy (GlaveeGeo, 2008). Competition also is a sure way of obtaining best offers from suppliers, contractors and consultants tendering for contracts and further competition aims at achievement of VfM.

Competition is used in public procurement process in order to avoid manipulation by any organization or individual. Since public procurement is funded primarily with tax payers' money, competition enables all eligible organizations and individuals to participate by submitting tenders in response to a specific requirement for which they are qualified. Competition in tendering is achieved by widely disseminating procurement package, which is expected to receive an increase market response and leads to the awarding of a competitively-priced contract (Lynch 2010).

2.3.2 Transparency

The Longman Dictionary of Contemporary English (2007) defines transparency as the quality of being easy to understand or know about or being clear and about which there is no uncertainty. Osafo-Marfo (2003) explains transparency to mean information on decisions made that is freely accessible and available to those affected by the decisions and their enforcement. The decisions and enforcement should follow rules and regulations and the information provided in a medium easily understandable to interested parties. The OECD & World Bank (2007) regard the principle of transparency as one that should allow stakeholders affected by administrative decisions, business transactions or charitable works to also know the basic facts and figures, mechanisms and processes of a procurement system.

Transparency may therefore be explained as adequate availability of information on performance and decisions of the public procurement process. Armstrong (2005) adds that the information must be available to everybody as and when needed and must be reliable. Public procurement process is said to be transparent if the conditions and terms are

available and clear to the public and following the decisions the information on these conditions and terms can be so confirmed (Evenett and Hoekman, 2003).

Barden (2006) wrote that transparency in Government agencies depends on some strategies including: effective advertising, awareness of opening procedures of public tender, ensuring tender evaluation criteria is effective; independent evaluation methods that are consistent with the tender documents provisions and the award of contracts to contractors that are evaluated and qualify without negotiations, appropriate publication of award results, speedy and fair dispute resolution procedures as well as the disclosure of signed contracts and contract sums/prices.

2.3.3 Fairness

Fairness is achieved in public procurement when the procurement is non-discriminatory, unbiased and consistent with laid down process and instructions. It is required that all procedures are made clear to the stakeholders and they should be treated equally (World Bank, 2003) in order to guarantee fair responses from suppliers. According to Cyprus Procurement Directorate (2008), the principle of fairness must be demonstrated all the way through the life span of the procurement without the imposition of any burdens on sellers or preferential treatment for suppliers, contractors or consultants.

2.3.4 Ethics

The system of public procurement involves people who must have good ethical behaviour to ensure the integrity of the system. Honest behaviour, integrity and avoidance of perceived conflict of interest situations are pillars of ethic. The Chartered Institute of

Purchasing and Supply (2012) affirm that honesty and high integrity on the part of procurements officials is highly essential in the procurement process. Ethical issues extend to the maintenance of consistent documentations in the process of procurement activities. The Code of Ethics spell out the prohibited conducts in procurement, bordering on revelation of confidential information, favouritism, discrimination, bribery, concealment of evidence of misconduct and ignoring unethical behaviour or activity of tenderers (PPB Manual, 2006). According to the PPA Manual (2006) impartiality, integrity and independence are the guiding principles of unethical behaviour which must be promoted by the right procedures and systems.

According to Thai (2008) the principles of value for money, fairness, and transparency are internationally acclaimed cornerstones of good procurement practice, prevent manipulation in the award of contracts in public entities and as well serve as grounds for reviewing the procurement procedures and decisions. In South Africa the principles of procurement have been provided for in the national constitution (Section 217) and this obliges state institutions to ensure compliance in their procurement activities (Thai, 2008).

2.4 Value for Money in Public Procurement

The concept of Value for Money (VfM) is gaining higher profile in public procurement (Heinrich, 2002). It originated from the auditing profession (GSCRC, 2010) rising to importance as a result of increased auditing across society (Power, 2007). The term is fast becoming synonymous with transparency and accountability. It is often used to demonstrate to stakeholders that management is working to reduce risk, curtail needless spending, and avoid waste of funds (IDRC/CRDI, 2013). Tibbett (2011) argues that value

for money will remain at the top of political agenda looking into the foreseeable future of accountability to the public on public expenditure.

The concept of value for money (VfM) is commonly used to measure a firm's capability to achieve the utmost advantage from goods, work or services it provides or acquires and in close connection to its available resources. The assessment does not only measure the cost but equally considers a composite mixture of factors, like use of resource, quality, timeliness, cost, fitness for purposes, and chance (KPMG Romania, 2014). Nonetheless, most of these factors are measured subjectively and makes them not easy to understand or quantify.

In the theories of public management, arriving at VfM entails a balance among the "3 E's coordinates": economy, efficiency and effectiveness. Economy is the judicious use of resources to reduce efforts required, expenses and time; Efficiency stands for reducing a certain factor for the conveyance of the identical results (maintenance of the quality) or the delivery of improved results for a certain factor; in addition Effectiveness is about coming out with a better return for the same level of effort, expenses and time or delivery of better results (KPMG Romania 2014).

The OECD (2012) based on the 3Es, defines VfM "as the optimum balance among and mix of the entire life-cycle cost of a service, work or product as well as quality (in the sense of fitness for purpose) so as to meet the beneficiary's/end user's necessities". Omer (2008) published in the Public Contract Journal, that the theoretical approach looking at economic efficiency in the light of maximum serviceability of tenders drew a conclusion

that efficiency in public procurement cannot be realized lest a multifaceted method is adopted to establish serviceability besides not just by having a look at prices.

Against the background of public establishments budgetary cuts and limited resources available to meet competing needs, achieving value for money in the contract award processes turn out to be a vital constituent, backing the notion of an optimal usage of budgetary resources. This technically explains into the getting hold of goods, services or works for the lowest cost and fitness for purpose envisioned by the procurer in relation to time, cost and quality among other specified requirements. Therefore, in order to realise the purpose of VfM the contracting authority needs to consider the whole process of the choice of the method of procurement up to the award procedures. The preparatory stage requires an unambiguous meaning of the organization's objectives, a sound analysis of experience from earlier award processes as well as methods used and a comprehensive market knowledge. When the contract is awarded it is very important to ensure efficient administration and management of the contract to meet the terms, deadlines and completion requirements. It should also ensure that it is within the budget and achieve the specifications and requirements prepared by the procuring authority.

Amo-Richmond (2014) in a Case Study of 3 Procurement Entities in Ghana reported that the concept of value for money was subjective and abstract and some procurement players lack knowledge of the concept. In Ghana all government procurements are required to achieve value for money and it is a legal provision in the PPA, 2003. Butt and Palmer (1985) identified barriers such as tradition, weak governing bodies, lack of training and education programmes and politics which need to be conquered so as to achieve VFM in

public procurement. Ademan (2014) on his part, reported that insufficient skilled personnel in the sector of public procurement and lack of monitoring measures as well as procurement policy evaluation inhibit the achievement of VfM in public procurement in Ghana. VfM is all about been competitive and cost effective.

2.4.1 Time in Value for Money

Tamakloe (2011) defines the success of projects as one that achieved its technical goals for performance, keeps to schedule (in time) and remain within budget expenditures. Although the focus of his study was at the stage of post - contract (construction) procurement of works, through his literature it was revealed that some jurisdictions around the world have begun to adopt procurement methods to the field of transport, employment, incentive or disincentive contract clauses to boost competition and tendering time. Therefore, it follows that if the contract terms, conditions and details of the project contract are adjusted during the bidding phase to provide incentives to minimize the duration of projects, or timely delivery is presented as a selection criterion contractors and then applied during the later stage contract value in terms of delivery can be achieved. With prices of basic goods and services have skyrocketed due to inflation, it is questionable to say that most employers want to compromise on quality as a means to recover losses in a timeout during the project and when the clauses fluctuation are not applicable to the contract. Therefore, it is imperative that contracting entities should ensure that considerations are made in terms of time when planning purchases and tendering and contract award.

2.4.2 Cost in Value for Money

Dawood (1994) and Pasquire and Collins (1997) in separate studies, identified that the contracting entities were wasteful in tender expenditures and therefore called for reforms to reduce costs .This was supported in a study by Ameyaw et al (2012) to investigate the cost of the tender in three public entities which revealed that the average cost of bidding for these institutions between 2009 and 2012 was equivalent to \$ 1, 879.90 per project ,and represents 0.70% of their respective amounts of contract. They also established that the majority of expenses were related to the evaluation of tenders. Arguably, cost effectiveness should be achieved at the tender selection process before it develops into a larger cost at the post tendering stage against the client.

2.4.3 Quality in Value for Money

Time, cost and quality in the works procurement are inextricably linked so that when one is compromised, one or both variables are also affected. Ravi Shankar et al (2011) found that one of the fundamental measures of project success is the quality of its performance but it can be affected by any attempt to alter the completion deadline through supplementary budgets.

Amin (2011) explained that the term quality is an ambiguous term understood by different people, however it is believed that it is the characteristics of a service or product that lies on its capability to affect decisions by customers and their satisfaction and also is a factor affecting entities choices. Moreover, Amin (2011) believed that any serious attempt to improve quality must take into account the cost associated with achieving quality and should be done at the lowest possible cost. He also identified time, cost, quality and risk

as the four (4) essential objectives of project management that are not independent , but interrelated.

The two researchers highlight the fact that the three variables of value (delivery time , cost and quality) are important and practical measures that should be considered in procurement to ensure that they are achieved. Therefore, not only is it essential that consultants conform to the terms of the contract to ensure that the objectives are achieved in terms of quality of service, but also imperative that the method of selection of contractors that fits ensure that the contractor technical expertise, personnel, equipment and necessary experience is dedicated to the execution of the work to the specifications and ensure that the value for money is achieved in terms of quality.

2.5 Ghana Public Procurement Legal and Regulatory Framework

The Ghana Public Procurement legal and regulatory framework is made up of the Public Procurement Act, 2003 (Act 663), Standard Tender Documents, Public Procurement Regulations (Draft), Public Procurement Guidelines, Instructions and Circulars of the Ministry and the Public Procurement Manual (PPB, 2003).

The Public Procurement Authority, then a Board was established in 2003 by the enactment and passage of an Act of Parliament (Ghana), to serve as a comprehensive legal regime to harmonize and safeguard public procurement (Ayitey, 2012), bring sanity and conformity to public procurement. Dabaga (2013) noted that the Act instituted the authority and other bodies and spelt out principles to harmonize the public procurement process and activities

in Ghana. The Act vested the regulatory authority of public procurement in Ghana in the Public Procurement Authority, under the Ministry of Finance; established Procurement Entities, Entity Tender Committees and Tender Review Boards among other structures (Parts I and II of PPB 2003; Quaynor, 2009). The Act in Part III outlines the procurement rules applicable in varying situations and Parts IV and V specifies the Methods of Procurement and Tendering Procedures. Parts VI, VII, VIII and IX cover the Procedures and Methods to Engage the Services of Consultants, Review generally, Disposal of Plant and Equipment, Stores and Miscellaneous Provisions respectively. The Act 663 generally establishes structures, guidelines, principles and procedures to be in charge of its objects (Dabaga, 2013). The Act also defined offences and applicable penalties (Sections 89, 92, 93 and 97) and provided schedules on value thresholds and so on.

The Public Procurement Authority formulates procurement policies and has oversight responsibility for the procurement process and training (Dabaga, 2013). The Regulations are released by the Ministry of Finance in agreement with the Public Procurement Authority (Section 97 of Act 663) on the detailed procedures and rules for all facets of the procurement system and includes actions of the Authority and Entities and also the conduct of procurement undertakings (Ayitey, 2012; PPA Regulation (Draft), 2006). The Guidelines for public procurement are issued by the Authority as provided in Act 663 (Dabaga, 2013) and offer additional direction on exact topics such as margins of preference, single source procurement, framework contract agreements, sustainable public procurement and disposal of stores, plant and equipment. The Authority issues the guidelines as and when necessary (PPB, 2003). The Public Procurement Authority also releases the Standard Tender Documents (STDs) to be utilize in line with the provisions

of Schedule 4 to the Act 663 (PPA STD, 2010). These STDs include contract documents and standard invitation for the contracting of various values (Ayitey, 2012) for services, goods, and works (PPB, 2003). The Public Procurement Manual is also dispensed by the Authority to provide practical guidance as well as step-by-step processes to aid procurement entities in undertaking procurement assignments and record keeping (PPB Manual, 2006).

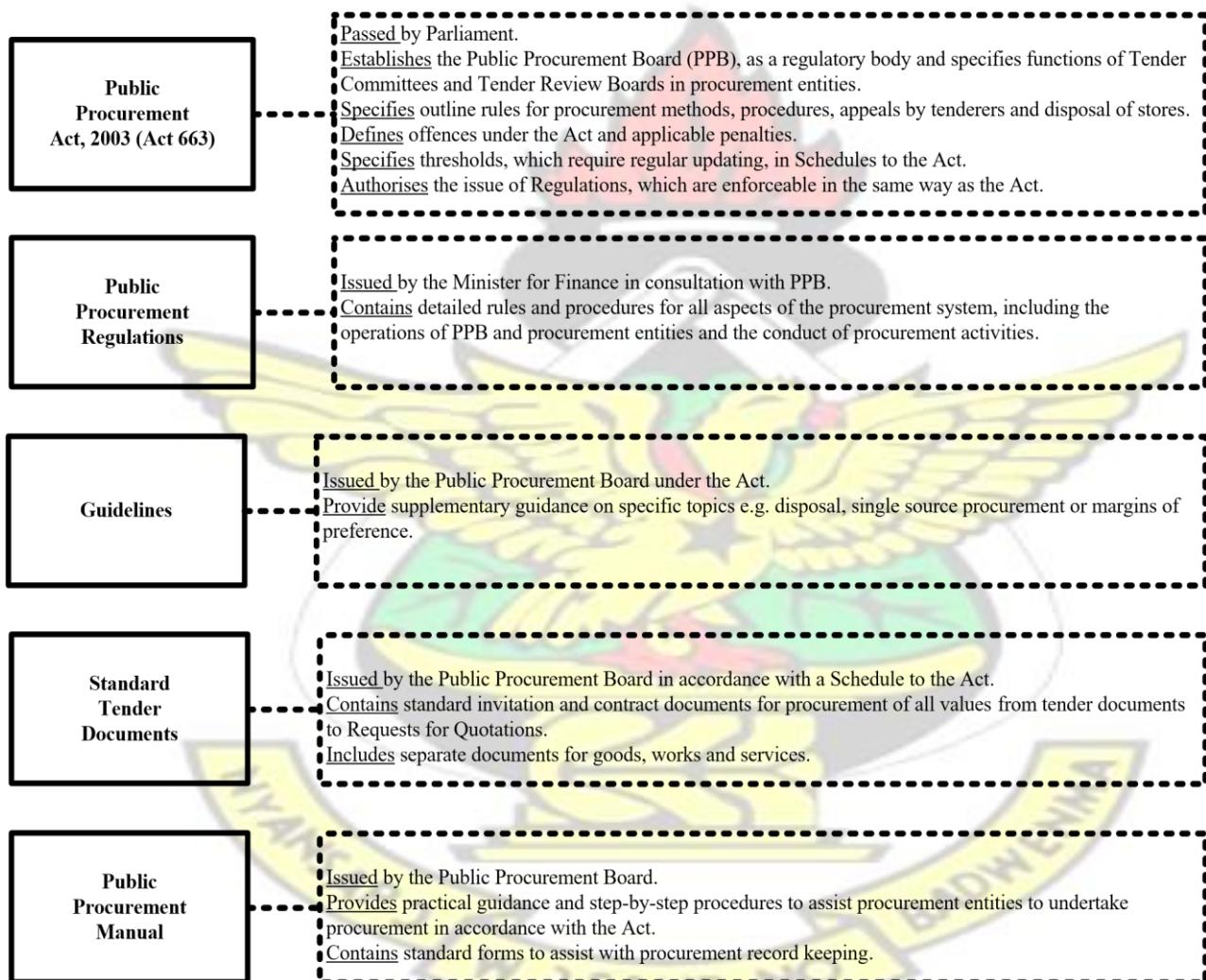


Figure 2.1: Legal Framework of Public Procurement in Ghana (PPA Regulations, 2003)

2.6 Public Procurement Policies

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. A full manual on procurement policy - one that explains these policies and applicable laws is critical to ensure that the procurement agency staff, and all interested parties 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, there would be lack of consistency in performance procurement functions. This discrepancy may lead to frustration inside and outside of procurement and the possibility that the purchasing activity may be arbitrary and unfair is high (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.

- (a) Create a legal authority of the procurement function within the organization.
- (b) Simplify, clarify and reflect patterns of procurement.

- (c) Include unified procurement policy across the organization. (d) Build public confidence in government procurement.
- (e) Make sure that the fair and equitable treatment of all bidders
- (f) Provide increased effectiveness, efficiency and flexibility in public procurement and to fully maximize the purchasing power of the subject.
- (g) Foster an effective, broad-based competition from all segments of the community supplier
- (h) Protect the integrity of the procurement system and protection from corruption, waste, fraud and abuse.
- (i) To ensure appropriate public access to information, the contracting
- (j) Receiving equal employment opportunities, which are in accordance with the laws, policies and practices of suppliers and subcontractors who want to do business with the person (PPB, 2007).

The functions of Ghana Public Procurement Authority include the development of 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 (PPA, 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.

2.7 Public Procurement Methods

Public procurement methods are usually the procedures used in the procurement or acquisition of goods, works and services, by public entities. These methods can be grouped into competitive and non-competitive methods. The Public Procurement Act, 2003, Act 663 stipulates the methods of procurement of goods and works as Competitive Tendering, Two-Stage Tendering, Restricted Tendering, Single Source Procurement and Request for Quotation. In public procurement there is a preference for usage of competitive methods of procurement on the grounds that competition tends to promote efficiency, economy, transparency and limit favouritism in the procurement process.

2.7.1 Competitive Tendering

Competitive Tendering also known as open tendering or open competitive bidding or open solicitation is where all qualified tenderers are invited to tender for a particular procurement requirement. It comes in two (2) types, namely International Competitive Tendering and National Competitive Tendering. In both situations the submitted tenders are competitively evaluated and the highest ranked responsive evaluated tenderer is recommended for the contract award, followed by the second, third and in that order. The selection is therefore hinged on a competitive criterion which is usually disclosed to all tenderers in the tendering documents and also tenderers may take part in the opening of tender (PPB, 2007).

2.7.1.1 National Competitive Tendering

National Competitive Tendering (NCT) is the tendering procedure normally used for public procurement opened to only national suppliers, contractors and consultants. NCT may be the preferred method of public procurement where foreign bidders are unlikely to

be interested as a result of low/small contract values, nature and scope of the works or where the works are considerably scattered geographically or spread over time or where the works are labour intensive or where the contract value falls within the threshold for NCT as specified in Schedule 3 of Act 663 and/or where the goods or works are available locally at prices below the international market (Act 663). NCT procedures may also be used where the administrative or financial burden of the requirement outweigh the advantages of inviting tenders beyond national boundaries (PPA 2003, PPB Manual, 2006). According to the World Bank NCT procedures would only be acceptable for use in the Bank's financed procurement, if these procedures guarantee efficiency, economy and transparency and in line with other appropriate guidelines of the Bank.

NCT begins with a limited advertisement to the national press and PPA official gazette and website. The tendering documents are usually in the national official language of the country and their local currency is used in the processes of tendering and payment (PPB Manual, 2006: Act 663). Tenders are expected from suppliers and contractors whose companies are fully owned or has majority ownership by nationals and is registered in the country.

2.7.1.2 International Competitive Tendering

International Competitive Tendering (ICT) is the method of public procurement whereby NCT does not ensure effective competition unless foreign firms are invited to tender or the estimated value threshold of the requirement exceeds NCT amount as indicated in Schedule 3 of Act 663. Section 45(2)(a) of the Act requires the language for tenders to be in English but Section 52 exempt the tenderer's supporting documents and printed

literature which may be in another language but appropriately translated. The tender invitation for ICT must be placed in international newspapers of wide circulation in order to attract foreign competition and the technical specifications must be compatible with international standards (Act 663: PPB Manual, 2006).

Deming (1994) an astute writer of many important articles in the area of Customer - Supplier relationships, cited by Murray (2011) in arguing against competitive tendering, related that "The idea of several suppliers for any one item, competing with each other for lower prices (as advocated by some authors), makes good talk, but as a practical matter it is only talk, even under long term contracts". He states that competition destroys any possibility of a good relationship between customer and supplier and the resultant losses are labelled as one of those unknowable figures. According to Deming (2011) loss of trust is an example of an "unknowable" in competitive tendering but trust has a propensity to erode the likelihood of collaboration for continual improvement of products or service and reduction in costs. He continued that because several sellers are pit against each other to drive down price, good suppliers and good services can actually be driven out of business due to the practice.

Competitive tendering though widely advantageous comes with disadvantages, according to Deming (2011), which makes the method economical and inefficient. Some demerits of the method are:

- (a) Barriers to communication between supplier and buyer because competition is hinged on open disclosure of communication and Bidder "A" may avoid asking questions in order to protect his approaches, features and the like. (b) The cost-

plus phenomenon enables sellers to come out ahead of buyers in terms of cost in the event that the buyer requests a vital engineering change. (c) Use of cheaper, poor quality materials and/or labour resulting in a less satisfactory product and raising the overall cost.

- (d) Competitive tendering can be extremely slow, especially where the requirement is urgently needed or the process of tendering has to be repeated due to the supplier's inability to meet the contract provisions.
- (e) Insufficient profit margin to allow for investment in research and development of new technology or equipment and less supplier growth and development in the long run.

Murray (2011) explained that the choice of the type of method of competitive tendering may vary and depends on factors including the type of industry, the complexity of the product, the price of the purchase, whether the purchase is a one-off or a long-term supply relationship. Murray suggested that a procurement method should equal address key principles including a thorough research of the purchasing requirement and/or alternatives; an open communication with current or potential suppliers; purchasing decisions based on a strong relationship of trust; developing a long-term and healthy relationship with a reputable supplier or suppliers; paying the supplier a fair profit margin.

2.7.2 Two Stage Procurement

According to the Ghana Public Procurement Manual the method involves two stages. The objective of the first stage is to produce a competitive and detailed specification of the works, as a result of insufficient information on the intended project available to the

Procurement Entity. The second stage is used for restricted bidding among the contractors who qualified in the first stage. According to the International Handbook on Public Procurement this method is suitable for turnkey projects, large and complex works or plants and contracts for major computer and communication systems. Two Stage procurement is recommended for situations in which the Entity is unable to produce detailed specifications and plans of the works or clearly identify the characteristics of the project or in situations where the works are liable to rapid technological changes (PPB Manual, 2006).

2.7.3 Restricted Tendering

Restricted Tendering is also known as Limited Bidding or Selective Tendering. In this method of procurement there is an intentional limitation to the request for tenders to a select number of suppliers, contractors or consultants. The tenderers are invited based on registration with the procuring entity, shortlisted or directly invited to compete in the tender. Restricted Tendering is suitable where the goods, works or services are obtainable only from a limited number of suppliers or contractors or if the time and cost required to evaluate a large number of tenders is disproportionate to the value of the goods, works or services required (PPB Manual, 2006: Act 663).

2.7.4 Request for Quotation

Request for Quotation (RFQ) also known as shopping is based on simple comparison of price quotations from a number of contractors (PPB Manual, 2006). It is used for low value contracts up to the threshold amount specified in Schedule 3 of Act 663 (PPA, 2003). The works are often simple, standardized and widely available activities like minor

alterations and repairs and redecoration, which may be readily estimated from a site visit (PPA Manual, 2006). The request may be through advertisement or directly send to three (3) recognisable contractors and when it is an international RFQ, the 3 bidders must be from at least two different countries (Kingdom of Colombia Procurement Manual Volume One, 2012 and Khai, 2008). According to Khai (2008) international shopping is used instead of international competition “when the market value is insufficient to allow a large international tender, or when there is a limited number of foreign suppliers for the goods or works required, or when the urgency (of the procurement) is such that it does not permit an international tender” (RGC, 1995 cited in Khai, 2008).

2.7.5 Single Source Procurement

2.7.5.1 Definition

Single source procurement is variously known as sole-source selection, direct procurement or direct contracting. It is a non-competitive procurement method and generally recommended in public procurement under defined situations and require authorization by the appropriate organization to be used for procurement.

Single source procurement refers to obtaining goods, works and services from one selected seller, even though there are other suppliers, contractors and consultants that provide similar products, works or services. For instance, if Ghana Armed Forces decided to buy only Toyota pick-up vehicles, that is single sourcing, because there is a choice to switch suppliers (Nissan, Mitsubishi or Isuzu), but for strategic and possibly cost reasons the Entity decided to use only a specific supplier (Toyota). Single Source procurement therefore differs from sole source procurement, though the terms are loosely used

interchangeably. Sole source procurement refers to the procedure of sourcing where there's only one supplier that provides the product. Generally sole sourced products are unique in nature and character and cannot be found anywhere but only through a sole (one) supplier/manufacturer. The PPA 2003, recognizes single sourcing but also captures some features of sole sourcing (Act 663, Section 40).

However, both sole and single source procurement require buying from only one seller. There is therefore a very precarious situation as the procurer is positioned as a dependent upon the services of a single seller and the seller is also dependent upon only one buyer. Where the relationship between the buyer and seller becomes difficult, or either company experiences financial difficulties, then both of them are affected and continuing the trade becomes problematic. In a sole source procurement such a strain in relation brings serious limitations to finding a substitute supplier and buyers rather have to radically change their requirements. In a single source procurement, however such strains are easily absorbed because an alternative supplier can easily be solicited.

According to the Kingdom of Columbia Public Procurement Manual (2012) single source selection method of procurement has no element of competition and it is not transparent and could promote undesirable practices in procurement (Khai, 2008). The method is recognized by Development Partners like the African Development Bank (ADB) and World Bank.

2.7.5.2 Application of Single Source Procurement

The World Bank considers single source procurement appropriate where there is a need for extension of an existing contract for additional goods or works of a similar nature, for reasons of standardization of equipment or spare parts, to be compatible with existing equipment, or the required equipment is proprietary and obtainable only from one source, to enable a contractor responsible for a process design to acquire critical items from a particular supplier as a condition of a performance guarantee and/or in unanticipated circumstances of needed response to natural disasters (www.worldbank.org).

Section 40 (1) of the Public Procurement Act 2003, Act 663 provides that a procurement entity may engage in single-source procurement with the approval of the Public Procurement Authority:

- (a) where goods, works or services are only available from a particular supplier or contractor, or if a particular supplier or contractor has exclusive rights in respect of the goods, works or services, and no reasonable alternative or substitute exists;
- (b) where there is an urgent need for the goods, works or services and engaging in tender proceedings or any other method of procurement is impractical due to unforeseeable circumstances giving rise to the urgency which is not the result of dilatory conduct on the part of the procurement entity;
- (c) where owing to a catastrophic event, there is an urgent need for the goods, works or technical services, making it impractical to use other methods of procurement because of the time involved in using those methods;

- (d) where a procurement entity which has procured goods, equipment, technology or services from a supplier or contractor, determines that
 - (i) additional supplies need to be procured from that supplier or contractor because of standardization;
 - (ii) there is a need for compatibility with existing goods, equipment, technology or services, taking into account the effectiveness of the original procurement in meeting the needs of the procurement entity;
 - (iii) the limited size of the proposed procurement in relation to the original procurement provides justification;
- (e) where the procurement entity seeks to enter into a contract with the supplier or contractor for research, experiment, study or development, except where the contract includes the production of goods in quantities to establish commercial viability or recover research and development costs; or
- (f) where the procurement entity applies this Act for procurement that concerns national security, and determines that single-source procurement is the most appropriate method of procurement.

The Head of Public Affairs of the PPA, Mrs Rhoda Appiah, in an interview with Charles Benoni Okine of the Graphic Business, on PPA's responsibility to grant approval for the use of other methods of procurement either than competitive tendering, stated that Public Procurement “Entities are to ensure that budgeted amounts for these methods of procurements are close to accurate, with actual contract sums, in order to clear any ambiguities.” She further revealed that “additionally, entities applying for these methods of procurement will have to continue to provide sufficient justification with due reference

to Section 40 of Act 663 including a proof of capacity of the selected firms; a value for money analysis as well as draft conditions of the contract to be signed at the end of the process.”.

According to Mrs Appiah, the PPA will normally grant approval to any public entity seeking to use the single sourcing process “but we will ensure that, there is clear and unambiguous justification for it to be used”.

2.7.5.3 Preference for Single Source Procurement

In a PPA publication in the International Journal of Construction Supply Chain Management, Volume 2 Number 2 2012, it was reported that out of 205 contracts for goods reviewed, 33% were procured through Single Sourcing, 62% by Request for Quotation and 4% by National Competitive Tendering (Okine 2014). However, Mrs Appiah said “contrary to public perceptions, single source procurements per PPA’s annual procurement assessment findings have always remained one of the least used methods of procurement.” For instance, she said in the year 2011 it single source procurement constituted 2.29% of the number of procurements undertaken with a total value of 6.09% of contracts.

2.7.5.4 Reasons for using Single Source Procurement

The reasons why single source and RFQ methods were preferred to other methods were given as: the lack of funds and the uncooperativeness of suppliers and that suppliers refused to participate in tenders because they had failed to win previous tenders using the RFQ method process (Okine 2014).

Thakur (2002) cited by Shana (2004) posted that single sourcing provides multiple benefits for an organization including reductions in product variation, training required and cost of quality. The organization is able to use a brand known for producing quality products, helps to optimize the company's supply chain, lower production costs, possible streamlining of training, reduced downtime and inefficiencies caused by interoperability issues (Thakur, 2002; Shana, 2004).

2.8 Selection of Methods of Procurement

During the need and requirement identification phase, the procurement entity determines when they want the goods delivered, services rendered or construction works completed and it is important at this stage also to determine the most appropriate procurement method for the specific need. In order to curtail too much discretion in the use of the public procurement methods and the potential for corruption in the procurement system, the Public Procurement Act 2003, Act 663, Part IV, Schedule 3 gives sound bases for the application of any method of Procurement taking into consideration thresholds and appropriate conditions that will necessitate using each method.

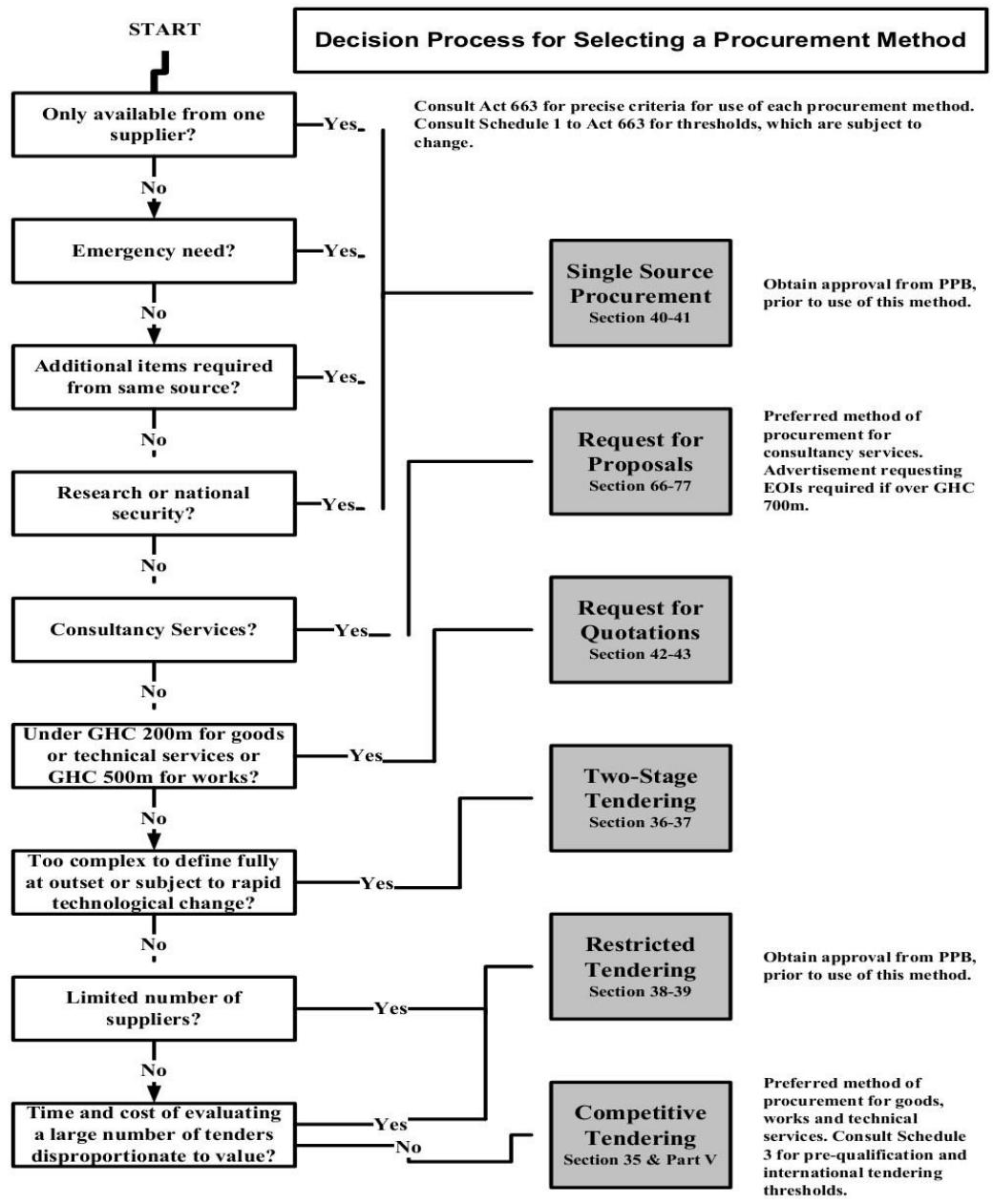


Figure 2.2: Decision Process for Selecting Procurement Methods (Amoah, 2014)

2.9 National Security

The Public Procurement Act, 2003, Act 663 in Section 40 (1)(f) states that a procurement entity may engage in single source procurement where the procurement concerns national security and it is determined that single source procurement is the most appropriate

method of procurement. The Armed Forces rely heavily on this provision in their procurement of goods, works and services.

The term security defies an exact definition but is variously construed in disciplines to mean the state of being secured, that is freedom from danger, fear or anxiety or measures put in place to guard against attack or escape. In commerce security refers to a surety that is something given, deposited or pledged to assure the performance of an obligation or an instrument of investment like bonds and stock certificates which provide evidence of ownership (merriam-webster.com).

According to Kim (2015) the concept of national security incorporates the requirements of power, military strength, force and national defence. Power refers to a nation's possession of control over its sovereignty and destiny and military strength defines the military capacity and capabilities of the armed forces. The concept of force refers to the use of law enforcement or military capacity to achieve a certain objective while national defence generally is the ability of the armed forces to defend the sovereignty of the nation and the lives of its people (Kim, 2015).

National security therefore exists along a spectrum stretching from using force to diplomatic measures of persuasion to secure the nation against harm from outside forces. The instruments of national security include the armed forces, law enforcement and intelligence agencies and other governmental agencies committed to bilateral and public diplomacy, aid and financial controls.

National security has hitherto focused on the armed forces because armies fought it out in set-pieces of battles, but in the wake of total war, nuclear age and technological advances the concept of national security has extended over and beyond what the armed forces can or cannot do. National security in recent times means different things to different people and include captions such as political security, economic security, energy and natural resource security, human security, cyber security, homeland security or environmental security (Kim, 2015).

The proliferation of different meanings for what national security is generates a problematic thinking of what national security should mean. National security should be something that involves the safety, security or freedoms of a people of a nation and not issues of social injustices or inequality, health or environmental issues which could be addressed through domestic economic policy mechanisms, humanitarian aid, mediation, peacekeeping, food and disease control programmes or improved infrastructure (Kim, 2015).

In the view of Kim (2015) national security would be meaningless if it means "all things to all people" therefore its definition should be limited to what the government is expected to do as well as what it should not do, especially in the situations of budgetary constraints being experienced in many countries. He argues that national security policy should be focused on the understanding of power which is "the degree to which a state can influence and control its destiny." Hard military power, however should not be confused with soft power which basically is all about influences. The hard and soft powers must be seen as mutually reinforcing and not treated severally.

Kim (2015) therefore defines national security as "the safekeeping of the nation as a whole. Its highest order of business is the protection of the nation and its people from attack and other external dangers by maintaining armed forces and guarding state secrets." Due to the fact that national security comprises both national defense and the protection of a series of economic, geopolitical and other interests, it affects not only defence policy, but also foreign and other policies as well.

2.10 Completion Timescales - Works Procurement

Table 2.1: Works Completion Timelines

Procurement Cycle Step	Duration
Estimated lead times for ICT	
Preparation of Tender Documents	2 weeks min - 4 weeks
Prior Review/ETC/TRB approval	1-2 weeks
Advert/Tender Invitation	6-8 weeks
Tender Close/Opening	same date
Tender Evaluation and Report Submission	2-4 weeks
Post Review / ETC/TRB Approval	1-2 weeks
Contract Award	1-2 Weeks
Contract Signature	2-3 Weeks
Estimated lead times for NCT	
Preparation of Tender Documents	2 weeks min
Prior Review/ETC/TRB approval	1-2 weeks
Advert/Tender Invitation	2 - 4 weeks
Tender Close/Opening	same date
Tender Evaluation and Report Submission	2-4 weeks
Post Review / ETC/TRB Approval	1-2 weeks
Contract Award	1-2 Weeks
Contract Signature	1 - 3 Weeks
Estimated lead times for RFQ	
Preparation of Tender Documents	0 - 1 week
Invitation or Solicitation Letter	0 - 2 weeks
Tender Close/Opening	same date
Evaluation and Submission of Report	0 - 1 week
Contract Award	0 - 1 week

Contract Signature	1 week
--------------------	--------

Source: PPB Manual, 2006

2.11 Works Procurement in Ghana Armed Forces

The PPB Manual (Manual) defines Works as any work connected with the construction, reconstruction, demolition, repair or renovation of a building, a structure or surface. The works include site preparations, excavations, erections, assembly and installation of plants, fixing of equipment and laying out of materials, decorations and finishing and any associated incidental activity under a public procurement contract (PPB Manual, 2006).

In Ghana Armed Forces works may be broadly grouped into minor maintenance, minor contracts and external contracts. The works cover all routine maintenance and renovations works and major construction and rehabilitations works. These works are sponsored through annual budgetary allocations. Turnkey projects sponsored by government agencies and donor/development partners has become a major source of getting GAF works requirements.

2.11.1 Minor Works

Minor works cover the maintenance works that have been initiated and carried out by units and finance through funds provided for the purpose by the Service Headquarters. Minor works are generally repair or replacement of engineer fixtures and works involved in making good any minor structural and related defects at a cost not exceeding the equivalent of \$3,000.00 (CSIP Vol IV). The coordinating of minor engineer services initiated by units is the responsibility of the respective Service Commanders. The overall control and administration of minor maintenance services in the GAF however is exercised by the Director-General of Logistics (DG Log). The DG Log is also responsible for final

acceptance of works, allocation of funds and priority of execution of works in the GAF (CSIP Vol IV). The Directorate of Engineer Services (DES) is the functional and technical branch of the Department of Logistics and responsible for construction works. DES through the Commanding Officer (CO) 49 Engineer Regiment, exercises technical control of works in the various garrisons and units of the GAF.

2.11.2 Minor Contractual Services

The minor contractual services is a works procurement provision designed to enable GAF contract works contractors with private contractors. It is an in-house procedure aimed to provide an alternative means of carrying out current maintenance works to complement the efforts of the GAF maintenance units (CSIP Vol IV). Minor contract works are contracts with a contractual sum not exceeding the equivalent \$30,000.00. The funds for minor contracts are drawn from the annual budgetary allotment for recurrent maintenance works and the approving authority is the Chief of the defence Staff (CDS).

2.11.3 Procurement procedure for minor contractual services

The procurement procedure for contracting minor works services from private contractors in the GAF follow the procedures of competitive procurement. The CSIP Vol IV Article provides that "in arriving at the cost of these project all existing procedures for the preparation and award of major contracts shall be adhered to in order to fully describe the works to be undertaken by the potential contractor." The procurement process for minor contracts services is initiated by DES which raises a works procurement Defence Form (DFP) for the purpose of obtaining authority to contract a works service (CSIP Vol IV).

The completed DFP and cost of the works is forwarded to the Directorate of Procurement which then carries out the actual sourcing of the contractor. The CSIP Vol IV provides that the Directorate of Procurement shall carry out verifications on the specifications before sending out trade inquiries to the public, requesting for tenders to undertake the works. The trade inquiries also known as invitation to tender specifies the place and deadline for submission of tenders. At least three (3) tenders must be obtained. On receipt of the completed tenders, the Directorate in conjunction with the DG Log arrange for the opening of the Tender Box. Attendance at the opening of the Tender Box includes: DG Log, Defence Financial Comptroller, Indenter (DES), Procurement Directorate and Chief Director Ministry of Defence. The opening of tenders is opened to the tenderers who wish to attend.

After the opening an evaluation panel is constituted to carry out analysis of tenders and make recommendations to the Tender Valuation Panel chaired by the DG Log. The Tender Valuation Panel would then meet to discuss the Quotation Analysis and the minimum tender analysis of the evaluation panel in order to determine the most cost-effective source(s) of supply. Other members of the Valuation Panel are the Director Procurement, DES (Indenter) Representative, DFC Representative and a Secretary (from the Procurement Directorate). The Valuation Panel report is then forwarded to the CDS for his approval and thereafter the contract award proceedings are undertaken.

The procedure described above is akin to the request for quotation method of procurement. These procedures have existed side by side the PPA 2003, however with the promulgation of the amendments to this act, a second look would have to be taken at the existing arrangement.

2.12 Turnkey Projects

More and more of the Ghana Armed Forces works procurement contracts are taking the form of turnkey contracts. The construction of hospitals, hangars and tied quarters have been undertaken under turnkey terms. These sort of projects are large and involve varied activities which require the identification of a single seller who has the capability to deliver the project successfully (DPP, 2013). Prior to the issue of Request for Proposal (RFP) in going into a turnkey project the concern Service Headquarters (SHQ) must develop a detailed project report covering the scope of works including the bills of materials and estimated cost and their timeframes for project completion. The preparation of a detailed project report for complex projects may be outsourced to enable the need Unit justify its necessity (DPP, 2013). The detailed project report must be ratified and pass an Acceptance of Necessity (AON) as envisaged in the strategic plans. A selection committee composing of the user unit or directorate, technical directorates for maintenance, plans, research and development, financial controller, treasurer and other representatives necessary for seller selection before a RFP is issued. The procurement procedure for turnkey projects typically follow: compilation of a detailed report, acceptance of necessity, seller selection, issuing the RFP, short listing of sellers through evaluation, cost and quantities negotiations, financial authorization and conclusion of contract and then contract implementation (DPP, 2013).

2.13 Ghana Armed Forces

2.13.1 Establishment of Ghana Armed Forces

Generally, all nations need a viable military establishment and viable security arrangements in order to guarantee their sovereignty and sustained existence. The growth

of states and nations and their position in the international scheme of affairs, throughout history, has been linked to the influence of their military organization. The 1992 Constitution of Ghana, Article 210 spells out the need for Ghana to maintain an Armed Forces which shall comprise the Army, Navy and the Air Force. It further stated that, the Armed Forces shall be so equipped and maintained to perform their primary role of defence of sovereign Ghana as well as carry out any other functions as the President of the Republic may so determine in the interest of Ghana (1992 Constitution of Ghana)

2.13.2 Brief History of Ghana Armed Forces

The Ghana Armed Forces traces its origins as far back as pre-colonial time with the formation of community guardians known as "asafo" company. The early European traders/settlers for varied reasons, including competition among themselves, recognized the need for some form of personal protection and safeguarding of their trading interests which consequently resulted in the raising of militias. These militias had over the years metamorphosed to emerge as an effective, closely knit institution, which were well endowed with highly qualified and motivated personnel. In the 19th century the emergence of Britain as a political force on the Gold Coast heralded the beginning of military institutions, with the formation of the Gold Coast Regiment (GCR).

The consolidation of the various military institutions in Nigeria, Sierra Leon, Gambia and Gold Coast, all of Anglophone-West Africa and others in the sub-region, culminated in the formation of the West African Frontier Force (WAFF) in 1897, which transformed into the Royal West African Frontier Force (RWAFF) in 1901 (www.gaf.mil.com).

RWAFF was subsequently deployed and fought in the World Wars I and II. The June

1960 RWAFF dissolution was survived by the Gold Cost Military Force (Aboagye, 1999).

Upon mismanagement of post-war demobilization of these forces, their struggles and involvement of ex-servicemen in Ghana's independence, gave rise to the formation of Ghana Armed Forces in 1959 (Aboagye, 1999) and consisting then of one infantry brigade. The President, Dr Kwame Nkrumah took to "Africanize" the Army Officer Corps and equipping it to empower it to assert itself and promote his African liberation struggle endeavour.

The Ghana Navy begun in 1959 and the Armed Forces Act, 1962, Act 105 provided the needed parliamentary authority for its establishment (Aboagye, 1999). It provided for a Navy comprising a Regular Force, a Reserve Force, and the possibility of a Volunteer Force. The Act 105 then provided for the 'youngest' Service, Ghana Air Force, even though it was incepted in 1959 (Aboagye, 1999).

The Ghana Armed Forces has made a full evolution, learned lessons and developed institutions and structures that have stood the test of time and today, it is an efficient and effective military institution that is evidently a national asset and considered a worthy and reliable partner in the national development agenda. Ghana Armed Forces is known today for and often associated with expressions and roles such as defenders of the constitution; guardians of our (Ghana) territorial integrity; valued partners in national development, a priceless tool in Ghana's foreign policy and internationally acclaimed peacekeeper.

2.13.3 Command Organization

The President of the Republic of Ghana is the Commander-in-Chief of the GAF or the Superior Commander as known in other jurisdictions parlance. The command and control

of the Armed Forces therefore lies with the President. According to Hutchful (2003) the organizational control over the Ghana Armed Forces is exercised by the Minister for Defence at the Ministry of Defence (MoD). The MoD is divided into two broad wings known as the Civil Wing, which is headed by the Chief Director and the Military Wing, commanded and administered by the Chief of Defence Staff (CDS).

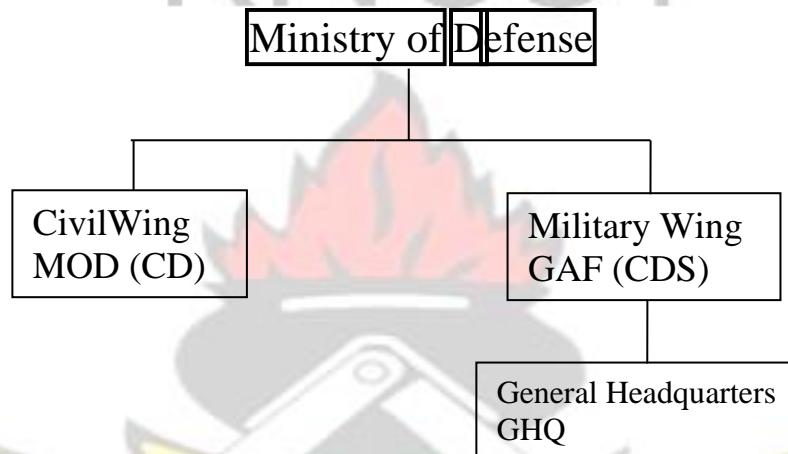


Figure 2.3: Organogram of Ministry of Defence (General Headquarters Presentation File, 2016)

The Military Wing is popularly called Ghana Armed Forces and below it is a tri-service General Headquarters (GHQ) for the Army, Navy and Air Force. The GHQ was established in 1962 to enhance coordination and economize on administrative costs and it is headed by a Chief of Staff (Hutchful, 2003). Below GHQ are the three Service Headquarters (Army, Navy and Air Force) which exercise both command and administrative functions, respectively.

The functions of the General Headquarters include the formulation and implementation of policies relating to force levels (i.e., manpower, equipment and logistics) and the planning, training, development and use of the human resources of the GAF. General Headquarters, administered by the GHQ (Chief of Staff) is further divided into departments such as GHQ

Logistics, GHQ Plans, Research and Development (P&D), Defence Financial Comptroller (DFC) and Office of the Military Secretary. Other tri-service institutions: Defence Intelligence Agency (DI), Directorate of Legal Services (DLS), Ghana Armed Forces Command and Staff College (GAFCSC), Military Academy and Training Schools (MATS) and Kofi Annan International Peacekeeping Training Centre (KAIPTC).

2.13.4 Ghana Army

The roles and responsibilities of the Ghana Army is primarily all land operations including the following:

- (a) Safeguarding the territorial integrity of Ghana against external aggression.
- (b) Assisting and cooperating with the civil authority to maintain and/or restore law and order.
- (c) Building capacity to participate in International Peace Support Operations.
- (d) Forestalling civil strife through pre-emptive and proactive deployment in order to secure internal peace and security.
- (e) Providing disaster relief and humanitarian assistance during national, regional and district disasters and emergencies.
- (f) Participating in productive ventures and activities in support of national development.

2.13.5 Ghana Navy

The Ghana Naval forces provides protection and defence of the maritime territorial integrity of Ghana to support the national efforts for peace, stability and prosperity by:

- (a) Conducting patrols in the territorial waters and maritime boundaries of Ghana.
- (b) Enforcing the maritime legislations and protecting national maritime assets and resources against local and foreign encroachment.
- (c) Combating the drug trafficking, conducting anti-piracy and anti-dumping operations within the maritime domain of Ghana.
- (d) Conducting bilateral and multilateral cooperation with allied Navies within the provisions of the African Partnership Stations (APS).
- (e) Rendering all the necessary assistance to Civil Authorities in their maritime activities, disaster missions and the like.

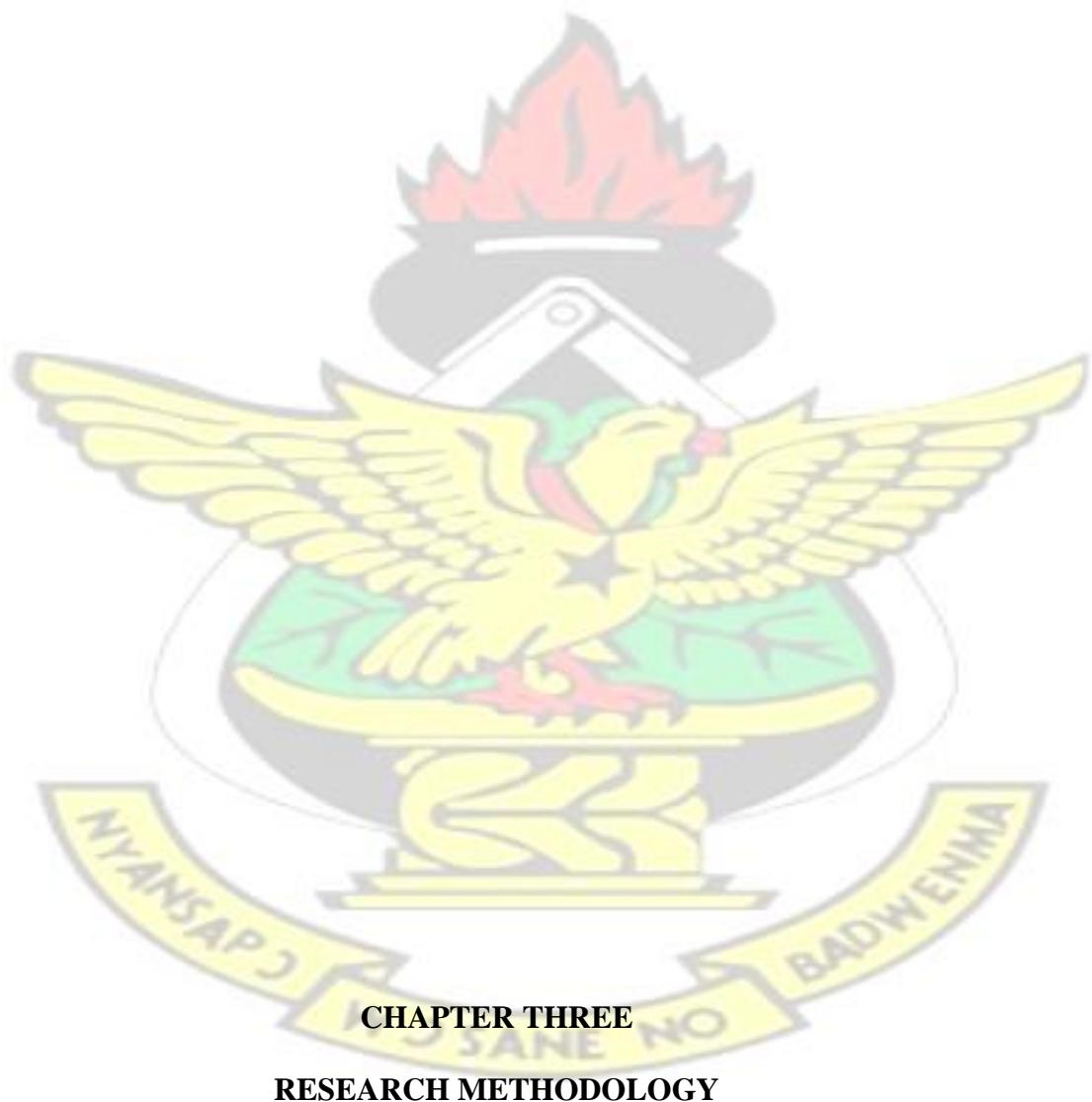
2.13.6 Ghana Air Force

The Ghana Air Force role is to provide protection of the territorial airspace of Ghana by conducting appropriate and sustained combat operations in the air to defeat enemy airpower and the provision of air transport support to the Armed Forces and civil authority.

Its activities include:

- (a) Providing VVIP/VIP flights to the Government of Ghana and its state agencies.
- (b) Provision of adequate and timely intelligence in support of military operations.
- (c) Undertake peacetime surveillance over Ghana's airspace and show of force.
- (d) Available for casualty and medical evacuation flights to the military and civilian populace, within Ghana.
- (e) Provision of humanitarian relief and rescue assistance during national disasters such as floods.
- (f) Provides logistic and offensive air support to the Army and Navy in re-supply, airborne operations, interdiction and close air support.

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CHAPTER THREE RESEARCH METHODOLOGY

3.1 Introduction

Chapter three (3) covers the research design, the research strategy and methods of research used. It also covers the population of the research and the sampling techniques applied

and further delve into the sources and methods of data collection. It ended with the manner data has been analysis and has been presented.

3.2 Research Design

The Research Design is the plan or strategy the researcher intends to use to integrate the different components of his research into a consistent and logical manner in order to effectively address the problem of the research, from data collection, data measurement and to data analysis (Writing Guide, 2016). The research problem determines the type of research design (Writing Guide, 2016). There are basically two (2) research designs namely descriptive research and correlation research designs. The descriptive research design would be used in this research to address the problem, aim and objectives of the research.

3.2.1 Descriptive Research

Description, prediction and explanation are the basic goals of science (Hale, 2016). Gross (2015) added that essentially the three (3) kinds of science are descriptive, predictive and normative. Descriptive research describes situations rather than make accurate predictions or determine cause and effect (Hale, 2016). Gross (2015) explains that descriptive science simply means " there is a thing and this is how we know the thing. "; predictive science means " given this thing, we can anticipate that thing" and normative means "here's how to change things". According to Hale (2016) descriptive research has three main types namely: observational or field observation, case study and survey methods. The survey method of descriptive research has been adopted for purposes of this research.

3.3 Research Strategy

The survey method of descriptive research was used to gather data in order to comprehend the opinions on the subject matter of applying the methods of procurement in the GAF. In using this method, the participants would answer questions which are the nature of what or who or when or how and where, which are associated with the research problem. The strategy uses the instruments of questionnaire and interviews (Hale, 2016). The information to be obtained would concern the current application of works procurement methods and what exists in respect of the situational conditions. The use of this method is intended to result in valuable pointers of the situation that are worth testing and also to come out with practical recommendations (Writing Guide, 2016).

3.4 Research Method

The triangulated or mixed method of research was adopted to take advantage of the strengths and weakness of both the quantitative and qualitative methods. Although survey strategy produces quantitative information which emphasises the statistical significance of the data collected, the qualitative research helps the researcher in focusing on identifying and discovering the feelings and thoughts of respondents in order to gain insights into their opinions on the subject of works procurement in the Ghana Armed Forces.

In using the quantitative method, the statistical procedures would be used to analyze the data (Bowling, 2009) and validate the numerical facts. The qualitative method would be used to define the importance of the study, interpret and make sense out of the opinions of the responds on the phenomenon of procurement of works (Cooper& Schindler, 2008).

In both cases open-ended and close ended questions structures would be used in the

questionnaire and interview. Qualitative methods would be used to addressed the research objectives of identifying the reasons and impact of procurement methods of works contracts on value for money while the quantitative methods would be used to interpret the statistical significance of the reasons for the frequent use of the method.



3.5 Population of Research

The research population is the set of people, events, units, departments and the likes from which the sample is drawn and the results generalized on. The population of this research is the Ghana Armed Forces, which may be clustered into the 3-Services (Army, Navy and Air Force), Departments and Directorates (GHQ level), Commands and Units. Even though all these components participate in the procurement of works, directly and indirectly, the decisions are taken at the service, department, directorate and command levels. The directorates are the technical units for procurement activities with the Directorates of Engineer Services and Procurement being directly involved in works procurement in the GAF. The sample size for the research would therefore be drawn from the Directorates of Engineer Services (GHQ DES) and the Directorate of Procurement (GHQ Procurement).

3.6 Sampling Size

A sample is the fraction of the population selected to participate in the research. However, it is impracticable to reach out to the over 11,000 soldiers and civilian employees of the GAF within the limited time for completion of this research work. The research therefore concentrated on the staff of the Directorates of Engineer Services and Procurement, who are into works procurement matters. These directorates have a population of about 100 soldiers and civilian staff, working as quantity surveyors, architects, civil engineers,

electrical engineers, structural engineers, mechanical engineers, technician engineers and procurement officers. In the determination of sample size for research, Stoker (1985) established that for a population of 100 units 45% may be an acceptable sample size. This approach was adopted in this research and a 10% allowance was purposively made to provide for chances of inability to locate respondents and other irregularities in the distribution and collection of the questionnaire. A total number of 50 questionnaires were purposively sent out to architects (10), quantity surveyors (12), civil engineers (10), electrical engineers (10) and procurement assistants (8).

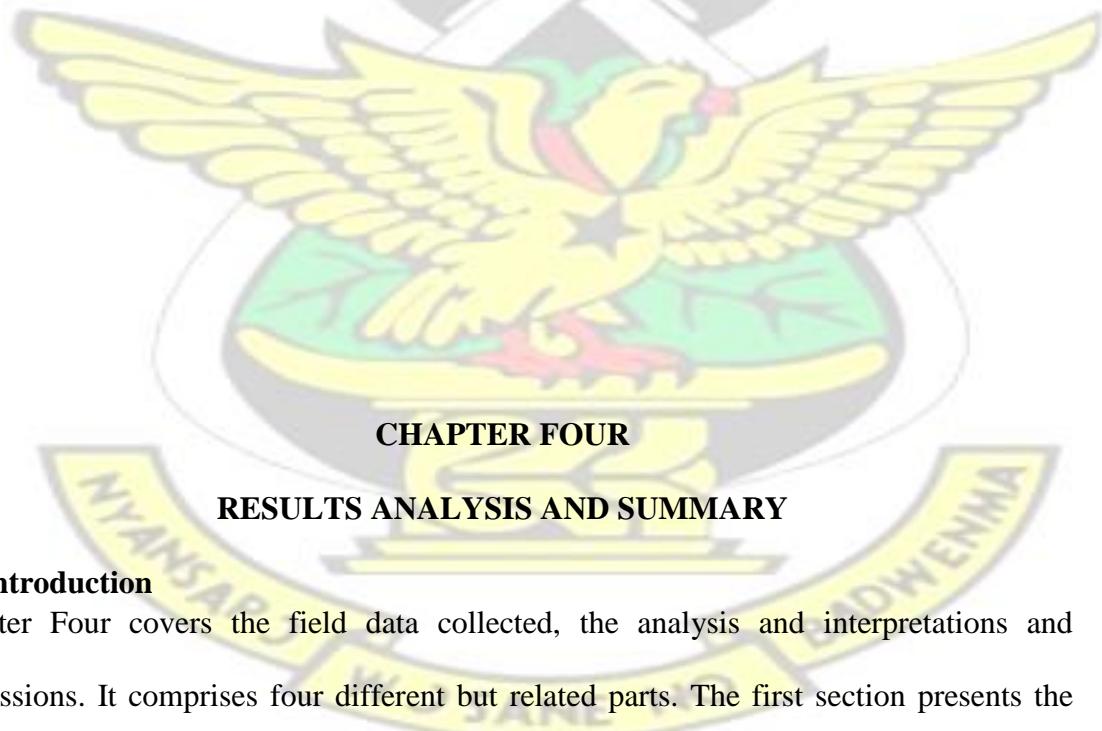
3.7 Sources and Methods of Data Collection

The research data was obtained from both primary and secondary sources. Questionnaire and interviews were used to obtain primary data on the research problem to address the study objectives. The questions were a combination of open-ended and close-ended structured questionnaire adopted in order to favour the research with their respective strengths. According to Jackson (2009) open-ended questions have the advantage of allowing a greater variety of responses from the questionnaire respondents but poses statistical analytical difficulties, because the data might be reduced in some manner or coded. Close-ended questions are however easier to analyze statistically but seriously restricts the participant's responses to questions (Jackson, 2009). In order to circumvent the difficulty of statistical analysis, Jackson (2009) agrees with most researchers that the Likert-type scale is most appropriate. The Likert-type scale was also adopted in data collection for this study. The data for Likert-scale analysis adopted the ordinal scale integers between 1 and 4 for strongly agree, agree, disagree and strongly disagree, respectively. Interviews were being used to solicit purposive data to address the problem

of the research. The secondary data was sourced from literature in published thesis, books, journals and the internet.

3.8 Data Analysis and Presentation

The raw data were appropriately coded and entered into Microsoft Excel and Statistical Package for Social Sciences (SPSS) programs software to produce descriptive statistics including diagrams (pie charts and bar graphs), mean values, standard deviation, standard error, sample t-test, frequencies and percentages, to help validate and interpret the data gathered. These tools of analysis easily support word processing and presentations. The analysis and results were presented in tables, graphs and pie charts on the one hand and other interpretations were described in written statements.



CHAPTER FOUR

RESULTS ANALYSIS AND SUMMARY

4.1 Introduction

Chapter Four covers the field data collected, the analysis and interpretations and discussions. It comprises four different but related parts. The first section presents the personal data of respondents, which analyses the educational and professional qualifications and the experience of the respondents in the procurement of works in Ghana Armed Forces. The second section concerns the Public Procurement Methods used for

works in the Ghana Armed Forces and touches on respondents' knowledge and experience in the stages of the procurement cycle, the public procurement methods and procedures, the Ghana Armed Forces procurement procedures and the factors and influences in the selection of procurement methods for works contracts. The third section is on the analysis of the impact of procurement methods and related factors on the timely delivery of works contracts in the Ghana Armed Forces. The forth section covers the discussion of the major findings from the data and literature.

The researcher assigned to respondents four-point scale and was weighted therefore to determine the statistical means for each attributes including mean, standard deviation, standard error and variances which was subsequently ranked for verifications. For each attribute, therefore 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 α level: $\alpha = .05$. Therefore, U0 represented the critical rating above which the attribute is considered important (Tabachnick, and Fidell, 2007)

A total number of fifty (50) questionnaires were administered to personnel of the Ghana Armed Forces Directorate of Engineer Services and Directorate of Procurement. Thirtyfive (35) responsive questionnaire were returned representing seventy percent (70%) of total questionnaire distributed. Table 4.1 below shows the questionnaire distribution and response received from the various sections of the directorates.

Table 4.1: Details of Questionnaire Distribution

Designation	Number Issued	Number Received	Number Responsive	Percentage Responsive
Architectural Design Section	10	8	8	29%

Quantity Surveying Section	12	10	10	23%
Civil Engineering Section	10	7	7	20%
Electrical Engineering Section	10	6	6	17%
Procurement Section	8	4	4	11%
Total	50	35	35	100%

Source: Field Survey, 2016

4.2 Respondents Background and Experience

The questionnaire was administered to personnel with relevant educational and/or professional association background and work experience in the Ghana Armed Forces works procurement. The questions asked were on their current educational certificates obtained, membership of professional bodies and years of experience in their sections of work. These were analyzed to bring out the worth and credibility of the source and data collected from them.

4.2.1 Respondents Profession

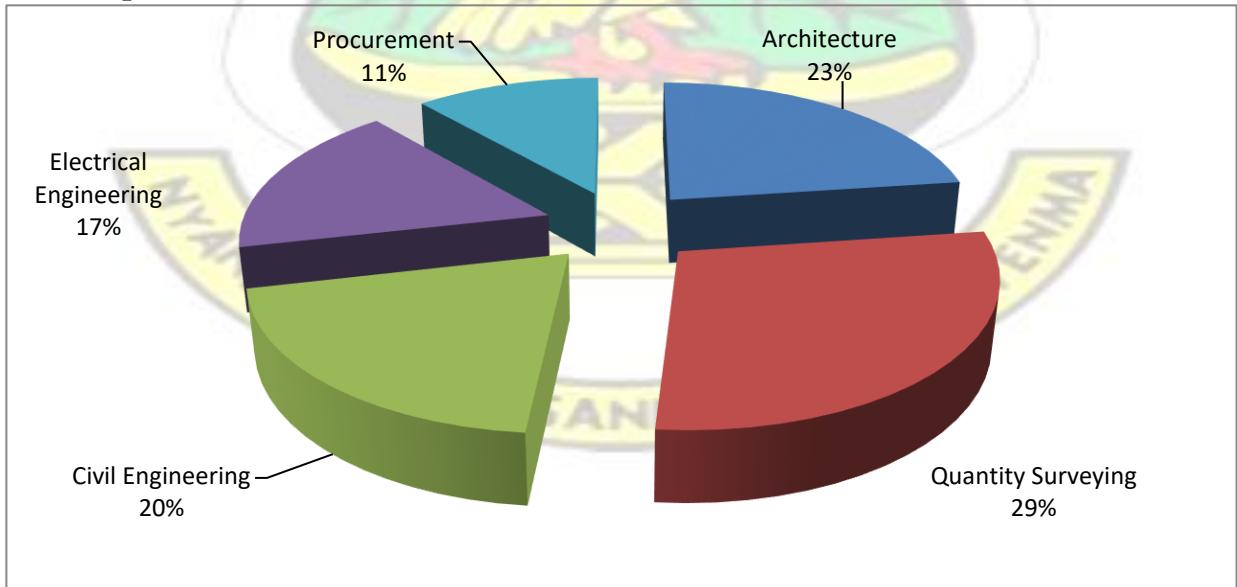


Figure 4.1: Employment of Respondents (Field Survey, 2016)

From Figure 4.1 above there were more respondents from the Quantity Surveying section (29%), followed by the Architectural section (23%) and Civil Engineering Section (20%) respectively. Out of the thirty-five (35) respondents, the Electrical and Procurement Sections together represented 28% or ten (10) respondents. The data gathered however did not indicate any peculiarities in favour of the estimators.

4.2.2 Respondents Level of Education

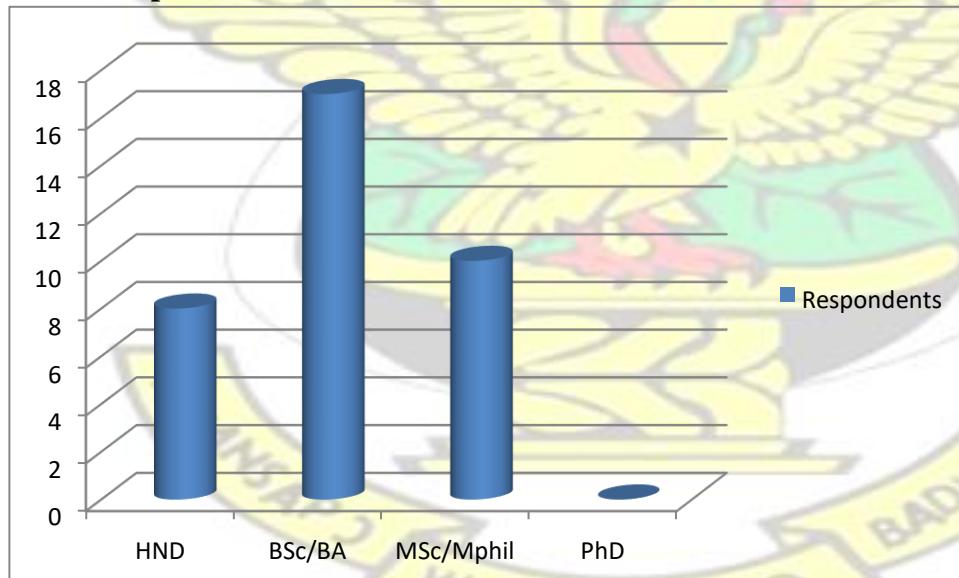


Figure 4.2: Qualifications of Respondents (Field Survey, 2016)

Figure 4.2 above shows that most of the respondents held bachelor's degree in the sciences and arts. The postgraduate (Masters of Science and Arts) holders were also many and even exceeded those holding the middle level manpower certificates, that is the Higher National Diploma (HND). This indicates that the sample size was made up of respondents with higher education levels sufficient to understand the intricacies of procurement activities.

4.2.3 Professional association of respondents

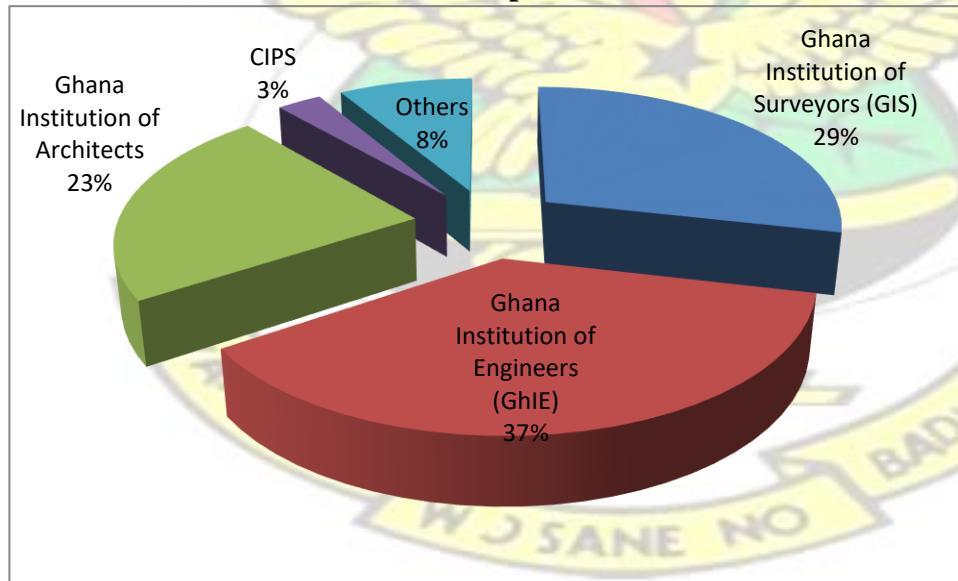


Figure 4.3: Professional Association of Respondents (Field Survey, 2016)

Figure 4.3 illustrates a clear indication that the respondents are professionals. The members of the Ghana Institution of Engineers with 37% of respondents, were drawn from civil and structural engineers. The others were technicians and draughtsman with HND qualification. The Ghana Institution of Surveyors members, representing 29% of respondents were BSc and MSc holders in Quantity Surveying, Land Survey, MSc Construction Management and Procurement Management. The respondents' professional association adds to the credibility of the data gathered through the questionnaire.

4.2.4 Years of experience of respondents

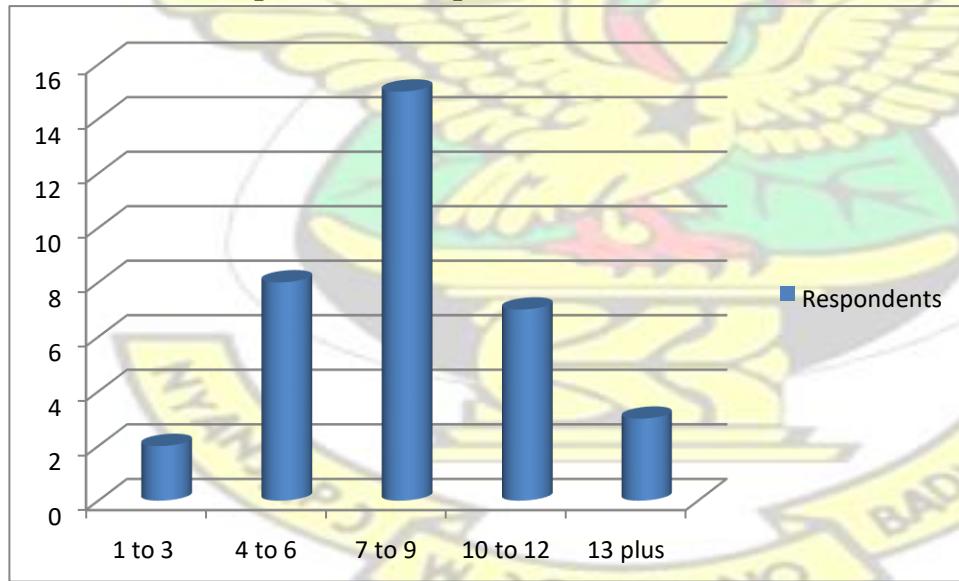


Figure 4.4: Experience in Procurement Practice (Field Survey, 2016)

Figure 4.4 above displays experience of respondents to the questionnaire administered. The respondents with working experience less than or equal to three (3) represent the

smallest group, while those with working experience not greater than nine (9) years were in the majority. Respondents with working experience above ten (10) years were ten (10) persons and gives the indication that they had sufficient working experience to respond to the questionnaire.



4.2.5 Stages of procurement cycle involved by respondents

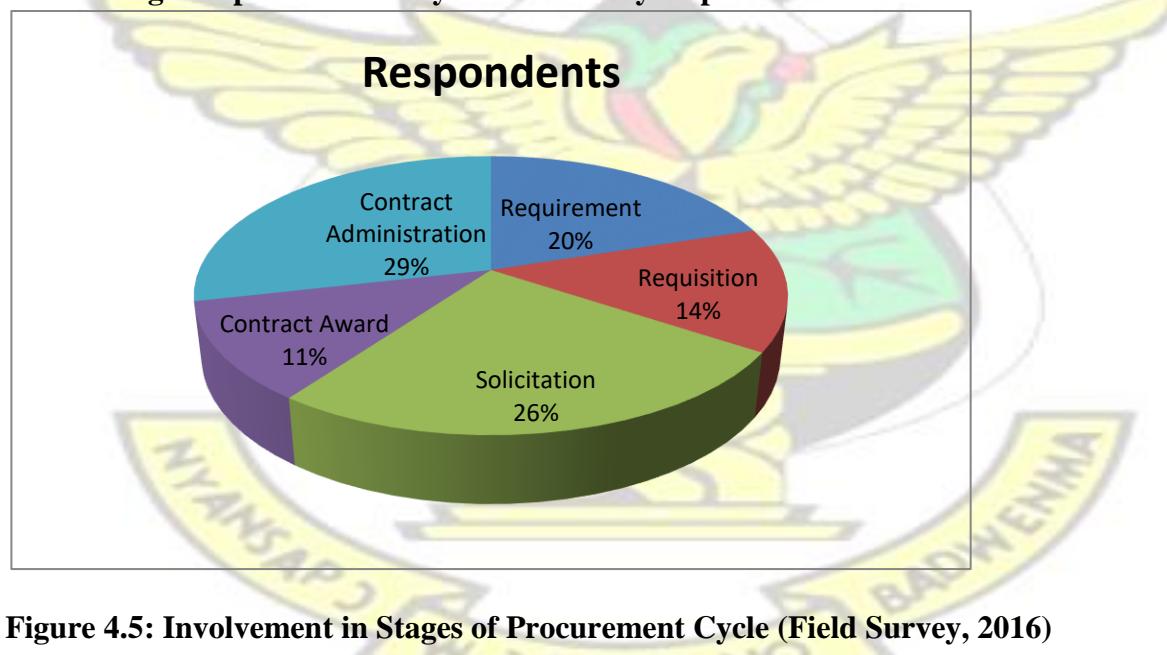


Figure 4.5: Involvement in Stages of Procurement Cycle (Field Survey, 2016)

Figure 4.5 above, is a distribution of the thirty-five (35) respondents in the five (5) stages of the procurement cycle. Seven respondents representing 20% were involved in the requirement stage while five (5) representing 14% worked in the requisition stage. The

solicitation stage was represented by nine (9) respondents and the contract stage had four (4) with 11%. Most of the respondents were from the contract administration stage, representing 29% or ten (10) out of the thirty-five (35) respondents. The distribution buttresses the quality of the data collected in that personnel from all the stages of the procurement cycle contributed to this research.

4.3 Procurement Procedures Used in Ghana Armed Forces

All the thirty-five (35) respondents indicated that they were familiar with the Public Procurement laws of Ghana and the various procurement procedures. Table 4.2 below illustrates the level of familiarity of respondents with the various procedures.

Table 4.2: Knowledge of Public Procurement Procedures

Procurement Procedure	Number familiar with the procedures	Percentage (%)
Open Competitive Tendering	33	94
Two-Stage Tendering	5	14
Restricted Tendering	25	71
Single/Sole Sourcing	28	80
Request for Quotation	32	91

Source: Field Survey, 2016

Almost all the respondents indicated they were familiar with the use of the open competitive and request for quotation procedures represented by 94% and 91% respectively, however they had different levels of knowledge and experience with their implementation. Two-stage procurement procedure was the least familiar among the respondents, represented by 14%.

The Ghana Armed Forces procurement procedures contained in Command and Staff Instructions and Procedures (CSIP Vol IV) were also often used as represented in the Table 4.3 below. The data gathered revealed that the procurement of routine maintenance works were done using the rules and procedures in the Ghana Armed Forces CSIP.

Table4.3: Extent of Usage of Procurement Procedures

Likert factor	Frequency	Percentage(%)
Often	28	80.00
Sometimes	5	14.28
Seldom	2	0.57
Never	0	0

Source: Field Survey, 2016

It is worth noting that in order to obtain this data, respondents were asked to rank on the basis of frequency the usage of the public procurement methods on the Likert scale of never, seldom, sometimes and often. The researcher used an average range of between 1 and 4 and analyzed the results in ascending order of significance. Therefore, values falling above 2 were more important than values below it and a value of 2 meant that the factor was fairly important. With a mean of two (2), the standard deviation values are significant when they are concentrated around one or equal to one (1). The upper limit of the significance test value was also 0.01.

Table 4.4: Public Procurement Methods used in Ghana Armed Forces

Public Procurement Method	Mean	Standard Deviation	Significance Test Value	Ranking
Open Competitive Tendering	3.8571	0.35504	0.0000	1 st
Request for Quotation	3.2857	0.45835	0.0000	2 nd
Restricted Tendering	2.2000	0.40584	0.0000	3 rd
Single/Sole Sourcing	2.0857	0.28403	0.0000	4 th
Two-Stage Tendering	1.0000	0.0000	-	5 th

Source: Field Survey, 2016

Table 4.4 above is a display of the rankings of the public procurement methods used in the Ghana Armed Forces. The open competitive method ranked first with a mean of 3.8571, standard deviation of 0.3550 and significance test value as 0.0000. This means that in order of usage, the open competitive method has been the preferred method for procurement of works in the Ghana Armed Forces. The Request for Quotation follows second with a mean value of 3.2857, standard deviation of 0.45835 and a significance test value of 0.0000. The third ranked was restricted tendering and followed by single/sole sourcing for works procurement with means 2.2000 and 2.0857. The two-stage tendering was not used within the period and therefore scored a mean of 1.0000 and a standard deviation of 0.000 and therefore the significance test could not be possible.

4.4 Selection of Procurement Procedures in Ghana Armed Forces

Respondents were asked to rate the influence of some general factors in the selection of procurement methods. Using the Likert scale style the respondents indicated whether the factors had immaterial, low, high or very high influence on the selection of the

procurement methods. Table 4.5 displays the results of the level of influence of these factors.



The logo of KNUST (Kwame Nkrumah University of Science and Technology) features the acronym "KNUST" in large, bold, grey letters at the top. Below it is a stylized red flame or torch symbol.

Table 4.5: Factors Influencing Selection of Methods of Procurement

General factors influencing selection of procurement procedures for works	N	Range	Mean	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic
Nature of Works	35	0.00	4.0000	0.00000	0.000
Provisions of Public Procurement	35	0.00	4.0000	0.00000	0.000
National Security Concerns	35	1.00	3.8000	0.40584	0.165
Source of Funding	35	1.00	3.3714	0.49024	0.240
Urgency of Work	35	1.00	2.2571	0.44344	0.197
Availability of Funds	35	1.00	2.1714	0.38239	0.146
Registered Contractors	35	0.00	1.0000	0.00000	0.000
Valid N (listwise)	35				

Source: Field Survey, 2016

From Table 4.5 it is clear that the provisions of public procurement procedures and the nature of the works had high influence on the selection of procurement methods. Also the national security factor was also significant in the determination of procurement

methods. Registered contracts for works in the Ghana Armed Forces, however had virtually no influence on the selection of procurement methods.

4.5 **Solicitation of Ghana Armed Forces procurement**

The data obtained from the questionnaire indicated Ghana Armed Forces procurement needs were either advertised, disclosed selectively or made known to stakeholders through scouting. Figure 4.6 below shows the results from the respondents.

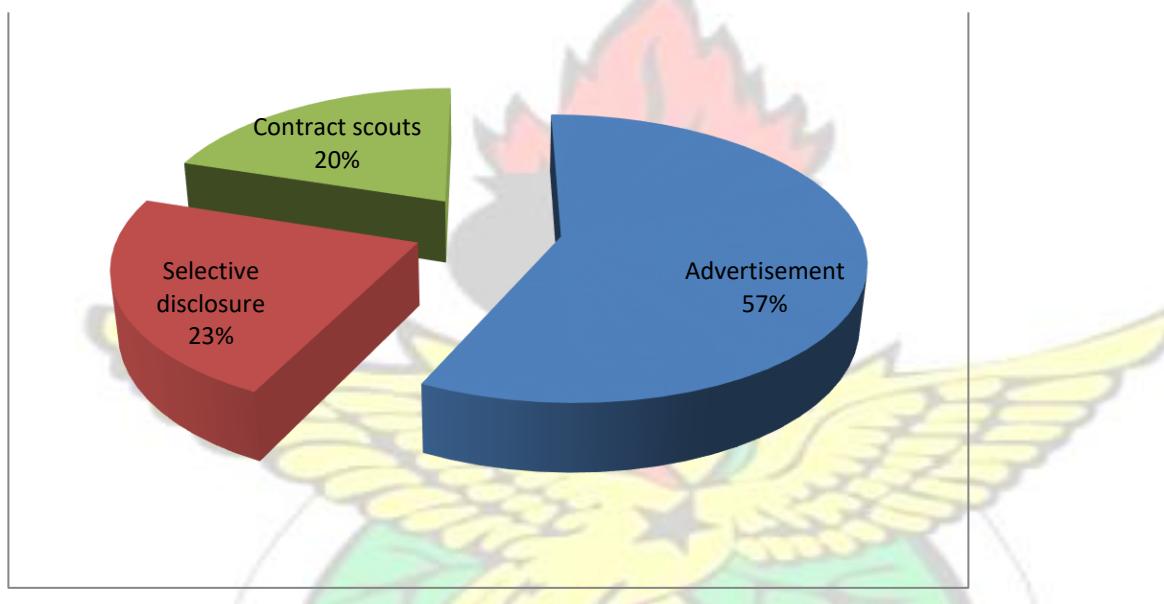


Figure 4.6: Sources of GAF Procurement Contracts (Field Survey, 2016)

From Figure 4.6 above 57% of the respondents agreed that the procurement needs of Ghana Armed Forces are published through advertisement. The other ways of obtaining information on the procurement needs were through contract scouts, representing 20% and selective disclosure with a percentage of 23%. Most contracts were therefore advertised.

In the case of turnkey projects respondents indicated that the financiers determine the contractor selection procedure. All respondents, that is 100% of respondents, agreed that the turnkey project financier selected the contractor (s). The respondents concurred and

validated their response by another unanimous (100% of respondents) agreement that the source of funding determined the method of procurement used for works contracts in the Ghana Armed Forces.

4.6 Other reasons for selection of methods

Respondents were asked to indicate their agreement or disagreement with the statements listed in Table 4.6. These statements are possible reasons why some actions are being practiced in works procurement practice, on the Likert test as shown below.

Table 4.6: Reasons for Procurement Practices in Ghana Armed Forces

Factor of reason	Strongly agree	Agree	Disagree	Strongly disagree
All Ghana Armed Forces works contracts must be done on the basis of national security.			12	23
National competitive tendering is time consuming and may lead to loss of funding for projects.		3	32	
International competitive bidding is not suitable for use in the Ghana Armed Forces for national security reasons.			30	5
Restricted and Single source are quicker and easy methods for the Ghana Armed Forces		10	16	9
Residential, administrative and educational works contracts are noncore procurements and could be done outside the reason of national security.		20	10	5
Ammunition Stores, Armourers, Fighter Plane Hangars etc are core defense procurement and their procurement methods should be national security sensitive.	14	21		

From Table 4.6 above it is clear that respondents in practice do not use national security as the reason for procurement of all works contracts and therefore other methods are also

in use. Twelve (12) respondents disagreed with the statement while twenty-three (23) strongly disagreed, representing 34.28% and 65.71% respectively. Three (3) respondents or less than one percent agreed with the statement that national competitive tendering is time consuming and could lead to loss of funding, while the overwhelming majority made

Table 4.7: Statistical Analysis of Responses on the reasons for Procurement Practices in Ghana Armed Forces

Factors	N	Range	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
All Ghana Armed Forces works contracts must be done on the basis of national security	35	1.00	3.6571	0.08140	0.48159	0.232
National competitive tendering is time consuming and may lead to loss of funding for projects.	35	1.00	2.9143	0.04801	0.28403	0.081
International competitive bidding is not suitable for use in the Ghana Armed Forces for national security reasons.	35	1.00	3.1429	0.06001	0.35504	0.126
Restricted and Single source are quicker and easy methods for the Ghana Armed Forces	35	2.00	2.9714	0.12626	0.74698	0.558
Residential, administrative and educational works contracts are non-core procurements and could be done outside the reason of national security.	35	2.00	2.5714	0.12492	0.73907	0.546

Ammunition stores, Armourers ,Fighter Plane Hangers etc. are core defense procurement and their procurement methods should be national security sensitive. Valid N (list wise)	35	1.00	1.6000	0.08402	0.49705	0.247
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Source: Field Survey, 2016

of thirty-two (32) or 91.43% disagreed with the statement. In the case of international competitive tendering respondents disagreed or strongly disagreed that it could not be used for work contracts in the Ghana Armed Forces. On the reasons for procurement of core works contracts fourteen (14) and twenty-one (21) respondents strongly agreed or agreed that the core works procurements should be acquired using national security as justifiable reason. These results were further analysed as presented below in Table 4.7.

4.7 Timely delivery of works contracts in Ghana Armed Forces

To obtain value for money the contracts procurement process must be geared to good quality, judicious cost and timely delivery of the works. This could be achieved starting from the pre-contract period and to the post contract and contract closure. Procurement methods used therefore should have features which maximize delivery time at all stages of the procurement cycle.

4.7.1 Impact of procurement methods used on time

Respondents were questioned on the impact the various methods of procurement had on the time attribute of value for money in the delivery of works contracts. Below in Table 4.8 up to Table 4.11 are the results of their responses.

Table 4.8: Open Competitive Method

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Time Savings	3	8.1	8.6	8.6
	Within Time	32	86.5	91.4	100.0
	Total	35	94.6	100.0	
Missing	System	2	5.4		
	Total	37	100.0		

Source: Field Survey, 2016

From Table 4.8 above, using open competitive tendering procedures, according to 8.6% of respondents, revealed that it led to time savings while 91.4% of respondents indicated that the contracts were completed within time.

Table 4.9: Restricted Tendering

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Time Savings	30	81.1	85.7	85.7
	Within Time	5	13.5	14.3	100.0
	Total	35	94.6	100.0	
Missing	System	2	5.4		
	Total	37	100.0		

Source: Field Survey, 2016

From table 4.9 the greater number of respondents, 85.7% indicated that the restricted tendering procedures resulted in time savings in contracts procedures. However, 14.3%

indicated that contracts procurement with the method led to completion periods within time, for works contracts in the Ghana Armed Forces.

Table 4.10: Single/Sole Source Procurement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Time Savings	32	86.5	91.4	91.4
	Within Time	3	8.1	8.6	100.0
	Total	35	94.6	100.0	
Missing	System	2	5.4		
	Total	37	100.0		

Source: Field Survey, 2016

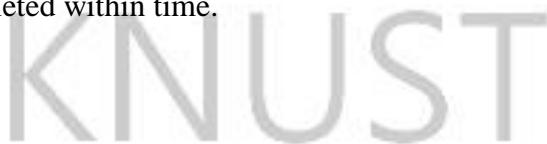
From Table 4.10 above, single or sole sourcing resulted in both time savings and completion within time on works contracts. In the period 91.4% of respondents believed that single sourcing resulted in time savings while 8.6% said it resulted in completions within time.

Table 4.11: Request for Quotation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Time Savings	5	13.5	14.3	14.3
	Within Time	30	81.1	85.7	100.0
	Total	35	94.6	100.0	
Missing	System	2	5.4		
	Total	37	100.0		

Source: Field Survey, 2016

The Request for quotation method of procurement was analyzed to determine how suitable it delivers procurement procedures on timely. The analysis displayed in Table 4.11 showed that 14.3% of respondents agreed time savings were made in the processes whilst 81.1% indicated they were completed within time.



4.7.2 Efficiency of methods of procurement based on time

Table 4.17 below is the detailed statistical analysis of the most efficient procurement method in terms of time for tendering, among the public procurement methods provided in the Public Procurement Act, 2003. The single sourcing method was adjudged the most efficient method with 33 respondents or 94.3% out of the total number of 35 respondents. The request for quotation method was indicated by two respondents representing 5.7% of total respondents as the most efficient method.

Table 4.12: Most Efficiency Method of Tendering

Method	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single Source Procurement	33	89.2	94.3	94.3
Request for Quotation	2	5.4	5.7	100.0
Total				
Missing System	35	94.6	100.0	
Total	2	5.4		
	37	100.0		

Source: Field Survey, 2016

4.8 Summary of Results

The respondents' personal data revealed that they were highly educated and experienced personnel on the subject of public procurement and the methods of procurement for works contracts in the Ghana Armed Forces. Most of them had working experience which

spanned beyond seven (7) years in various capacities of the procurement cycle. Their views on this research work was valuable and significant for valid conclusions to be drawn in respect of the impact of the various public procurement methods on works procurement in the Ghana Armed Forces. Also the Ghana Armed Forces Command and Staff Instructions and Procedures (CSIP) were mostly used for minor maintenance contracts procurement.

The data gathered made known that the public procurement methods namely, open competitive tendering, restricted tendering, single sourcing and request for quotation have been used in Ghana Armed Forces works since the last ten years. It also revealed that the open competitive tendering method was most frequently used, followed by the request for quotations, restricted tendering and single sourcing. Two-stage tendering was however not used over the period of ten years.

Some of the most influencing factors for selection of procurement methods for works procurement were the provisions of the public procurement laws, nature of works, national security concerns, source of funding, urgency of works and availability of funding, respectively. The selection of contractors for turnkey projects, however were determined by the financiers. These factors were also espoused in literature as reasons for the selection of procurement procedures for works contracts (PPA, 2003).

The Ghana Armed Forces works were loosely classified into core and non-core procurements. The data gathered and analyzed disclosed that the single source and restricted tendering methods were the most suitable methods for application in the

sourcing of the core works. However, the non-core works procurements were sourced using open competitive tendering and request for price quotation. respondents also indicated that the international competitive tendering was been used in works procurement most on engineering procurement and construction works for the Ghana Armed Forces.

The analyses of the impact of the public procurement methods on timely delivery of works contracts revealed varying effects. The single sourcing and restricted tendering resulted in predominantly time savings while the open competitive tendering and request for quotation methods resulted in the processes been predominantly completed within time. This means that the single sourcing and restricted tendering delivered best value for money in terms of time of delivery of works procurement procedures at the pre-contract stages. Also in the ranking of the methods on their level of efficiency in completing the tendering process, respondents believed that the single sourcing was most efficient followed by restricted tendering was the second best. The third best efficient method of completing timely tendering procedures was the request for quotation and open competitive tendering in fourth place.



CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This research was set out with the aim to examine the impact of the works procurement methods used in the Ghana Armed Forces over the past ten (10) years. Two (2) objectives were used to achieve the aim. These objectives were firstly "to identify the most frequently used methods of procurement for works contracts in the Ghana Armed Forces over the past 10 years" and secondly "to identify the impact on time of the frequently used methods on works procurement". These objectives also raised two (2) research questions. The first question asked was "what has been the effects of the frequently used methods of procurement on works contracts in the Ghana Armed Forces in the past 10 years?" The second research question was "has these methods optimized the delivery time of works procurement in the Ghana Armed Forces?" These aim, objectives and questions have been sufficiently researched and the conclusions and recommendations out of the data gathered are presented in the succeeding headings.

5.2 Major Findings

5.2.1 Review of Objective One

The objective one was "to identify the most frequently used methods of procurement for works contracts in the Ghana Armed Forces over the past 10 years." This objective was achieved through the review of relevant literature and supported by the field data gathered through a questionnaire. The Ghana Armed Forces is largely funded by the government and fits into the definition of entities to whom the public procurement act, regulations and other instructions apply to (PPA, 2003). The field data also abundantly concurred with the procurement provisions of the Act. The most frequently used procurement methods for the works procurement activities of the Ghana Armed Forces were the Open Competitive Tendering, Restricted Tendering, Single Sourcing and Request for Quotation. The TwoStage Tendering procedures have not been used over the ten-year period. These methods were used to procure works contracts funded through annual budgetary allocations, that is the government, from the GETfund, World Bank and other public private partners who are into engineering procurement and construction. The works were administrative buildings, residential buildings, sporting facilities, hangars among others.

It was also affirmed that the Ghana Armed Forces had its internal procurement procedures which were also being frequently used for works procurement purposes. These procedures were reviewed in literature sources gathered from the Command and Staff Instructions and Procedures (CSIP) of the Ghana Armed Forces. The sources also confirmed that the CSIP procedures were used by the Armed Forces for minor contracts procurement in the maintenance of buildings in barracks.

5.2.2 Review of Objective Two

The second objective was "to identify the impact on time of the frequently used methods for works procurement" in the Ghana Armed Forces. This objective was achieved through the review of literature and field data from questionnaire. The estimated lead times for completion of procurement of procedures were reviewed in literature for the open competitive tendering and request for quotation methods. In the manual the estimated lead times for works using international competitive tendering varied between three months and three weeks to five months three weeks. In the case of national competitive tendering the period varied from two months two weeks to five months three weeks. Request for quotation also takes between one month to one and half months to complete the procurement process (PPB Manual, 2006). The field data indicated that national competitive tendering procedures from preparation of tender documents to signing of contract took average period of five months for national competitive tendering, two months for restricted tendering, one month for both single source procurement and a month and a half for request for quotation, to be completed. This means that in terms of time of completion of the pre-contract procurement procedures the single source procurement and restricted tendering procedures were speedy methods than the others.

5.3 Conclusions

The Ghana Armed Forces is basically a full state funded institution and as such its procurement activities are expected to always be in tandem with the provisions of the Ghana public procurement laws. The procurement procedures mentioned in the Public Procurement Act, 2003 (Act, 663) and in use in the Armed Forces are the open competitive

tendering (both international and national), restricted tendering, single source procurement and request for quotation. The two-stage method of procurement mentioned in the Act is virtually not in use in the Armed Forces.

The methods are applied differently to the core and non-core procurement activities of the Ghana Armed Forces. The research established that the core procurement activities are done using the single source procurement procedures because of national security concerns and their specialized nature. However, the non-core procurement which is the interest area of this research is done using the open competitive tendering, restricted tendering, single source procurement and request for quotation procedures. There are established procurement procedures for minor works contracts in the command and staff instructions and procedures of the Ghana Armed Forces. These procedures are also in frequent usage especially for minor renovations and maintenance works in the various barracks of the Ghana Armed Forces.

The respondents largely disagreed that all Ghana Armed Forces works contracts must be done on the basis of national security and that national competitive tendering is time consuming and may lead to loss of funding for projects. The respondents also disagreed that international competitive bidding is not suitable for use in the Ghana Armed Forces for national security reasons. However, they largely agreed that restricted and single source procurement were quicker and easier methods for the Ghana Armed Forces procurement activities. The respondents also indicated that residential, administrative and educational works contracts are non-core procurements and could be done outside the reason of national security. However, ammunition stores, armourers, fighter crafts hangars

etc are core defense procurement and the procurement methods applied should be national security sensitive.

These methods have had some impacts on time in their application for works procurement. The open competitive method and request for quotation within the past ten years have resulted in completion of procedures within the lead timings given in the public procurement manual and Act. The single source procurement was adjudged the most efficient method in terms of time between the preparation of tendering documents and receipt of signatures to the contract documents between parties. The restricted tender method just like the single source procurement procedures also brings about time savings in its use within the Ghana Armed Forces. Additionally, the Public Procurement Authority approved timely, applications to sole source based on reasons of national security. This applied mostly to turn key projects some of which were from the engineering procurement and construction companies.

5.4 Recommendations

Having researched into the impact of the public procurement methods on the works procurement in the Ghana Armed Forces through literature and field data analysis and corresponding findings and conclusions, the following recommendations are made to improve the application of the methods of procurement to achieve value for money:

- Ghana Armed Forces should continue to limit the use of the single source procurement method and device ways to use more of the open competitive method for all non-core defence procurements.

- Ghana Armed Forces should maintain using the provisions of the Public Procurement Act 2003, and its own procurement procedures in the selection of contractors for their works.
- Ghana Armed Forces should innovate ways to shorten the time and efficiency in using the open competitive tendering method so that it becomes their default method.
- Ghana Armed Forces should continue to build its personnel capacity and professional abilities in order to enable them apply the procurement methods to the advantage of the Forces.

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APPENDIX

QUESTIONNAIRE

John Maxwell Gbogr (Student ID: 20367759)
KNUST Research Student
Department of Building Technology
Tel: 020 1485056
2016

Date: July

Dear Sir/Madam,

RESEARCH QUESTIONNAIRE SURVEY

I am a student researcher from Department of Building Technology, Kwame Nkrumah University of Science and Technology, Kumasi -Ghana. As part of completion

requirements for the award of Master of Science degree in Procurement Management, I am undertaking a research on the topic "**Examining the Impact of Works Procurement Methods in the Ghana Armed Forces**".

Your answers would help me understand the use of the public procurement methods and their impact on works procurement in Ghana Armed Forces and public institutions in general. The responses would be treated as strictly confidential and the analysis would be consolidated to avoid identification but would be reported and published for academic purposes only.

I will therefore very much appreciate your assistance with this my all-important research by you sparing about 15 minutes of your priceless time to complete the following questions. The information given will be accorded the greatest degree of confidentiality.

RESEARCH TOPIC: EXAMINING THE IMPACT OF WORKS PROCUREMENT METHODS IN THE GHANA ARMED FORCES.

There are **three sections** of this questionnaire, as follows:

Section I - **Personal Data.**

Section II - **Public Procurement Methods used for works in the Ghana Armed Forces.**

Section III - **Impact of the Procurement Methods on Works Contracts.**

Dr. Emmanuel Adinyira
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Instruction: Please tick (□) and/or provide answers as appropriate.

SECTION I - PERSONAL DATA

1. What position or appointment are you holding

2. What is your latest educational qualification?

- a. BSc/BA () b. MSc/MA/Mphil() c. PhD () d.HND ()

3. What is/are your professional qualifications?

- a. GhIS () b. GhIE () c.GIA () d. CIPS ()

e. Others

4. How many years have you been involved in procurement functions?

- a. 1 - 3 years () b. 4 - 6 years () c. 7 - 9 years d. 10 - 12 years ()

e. 13 years+()

**SECTION II - PUBLIC PROCUREMENT METHODS USED FOR WORKS
IN THE GHANA ARMED FORCES**

5. What aspect of procurement are you involved in?

- a. **Requirement Stage** - Originator of need, specification of works, costing, works authorization and approval etc ()

- b. **Requisition Stage** - Confirming specifications, review of sources, producing solicitation packages ().
- c. **Solicitation Stage** - Advertisement, tender opening and evaluation, negotiation etc ()
- d. **Contract Award Stage** ()
- e. **Contract Administration Stage** ()



6. Are you familiar with the Public Procurement Laws of Ghana?

- a. Yes () b. No ()

7. Indicate the procurement method you are most familiar with?

- a. Competitive Tendering () b. Two-Stage Tendering ()
- c. Restricted Tendering () d. Single/Sole Sourcing ()
- e. Request for Quotation ()
- f. Other(s), please specify

8. What is the extend of usage of the procurement procedures provided in the GAF

CSIP?

- a. Never b. Seldom c. Sometimes d. Often

9. Rank on the basis of the frequency of usage the following methods of procurement for works?

Method	1- Never 2- Seldom 3- Sometimes 4- Often	Please why?
Competitive Tendering		
Two-Stage Tendering		

Restricted Tendering		
Single/Sole Sourcing		
Request for Quotation/Selection		

10. How influential are the following factors in the selection of the method of procurement for works contracts in Ghana Armed Forces?

Factor	Level of Influence 1- Immaterial 2 - Low 3 - High 4 - Very high	Please why?
Provisions of Public Procurement Act		
Convenience		
Source of Funding		
Availability of Funds		
Urgency of Work		
Nature of Works		
National Security Concerns		
Registered Contractors		
Others (please specify)		

11. Which procurement methods are normally used to procure the following works?

Works	Open Competition	Two-Stage Tendering	Restricted Tendering	Single Source Procurement	Request for Quotation
Administrative Buildings					
Warehouses/Stores					
Barracks (Houses)					
Sports Complex					
Workshops					
Health Facility					
Amenity Centres					
Hangars					
Dockyards					

Ammunition Stores/Magazines					
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12. How do you select your contractors for turnkey projects?

- a. Nominated by financier ()
- b. Open competition ()
- c. Registered Contractors ()
- d. Nomination by Superior ()
- e. Other

13. How do prospective funding partners get to know about your procurement needs?

- a. Advertisement ()
- b. Selective disclosure ()
- c. Contract Scouts ()
- d. Proposal from Unit ()
- Others

14. Does the source of funding determine the method of procurement to use for the tendering process? a. Yes () b. No ()

15. Are there works contracts of the Ghana Armed Forces that are exempted from complying with the Public Procurement Act, 2003, Act 663.

- a. Yes () No ()
- b. If yes, please specify the contracts and the procurement methods used in contracting them

16. Rate the following factors in your works procurement process

Factor	Strongly agree	Agree	Disagree	Strongly disagree

All Ghana Armed Forces works contracts must be done on the basis of national security.				
National competitive tendering is time consuming and may lead to loss of funding for projects.				
International competitive bidding is not suitable for use in the Ghana Armed Forces for national security reasons.				
Restricted and Single source are quicker and easy methods for the Ghana Armed Forces				
Residential, administrative and educational works contracts are non-core procurements and could be done outside the reason of national security.				
Ammunition Stores, Armourers, Fighter Plane Hangars etc are core defense procurement and their procurement methods should be national security sensitive.				

SECTION II - IMPACT OF THE PROCUREMENT METHODS

17. What is the impact of the following methods of procurement on the time of completion in works contracts?

Method	Time Savings	Time Overruns	Within Time
Open Competition			
Two-Stage Tendering			
Restricted Tendering			
Single Sourcing			
Request for Quotation			

18. The Ghana Armed Forces may obtain value for money in its works procurement through?

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19. Which method of procurement do you think is more efficient in term of time in the selection of tenders for completion of Ghana Armed Forces works contracts. Please rank the methods from first position to fifth position.

Time variables in GAF works procurement?	Please tick (✓)			
	1-Strongly Disagree	2-Disagree	3-Agree	4-Strongly Agree
Ensuring adherence to the provisions of the methods of procurement in the Public Procurement Act, 2003, Act 663				
Ensuring the use of procurement methods that guarantee innovation and currency of designs from contractors to optimize cost and improved time and quality delivery of contracts.				
Promoting professionalism in their works procurement.				
Provisions of the CSIP on procurement of works should be strictly adhered to.				
Procurement Method	Ranking(1 st to 5 th)			
Open Competitive Tendering				
Two Stage Tendering				
Restricted Tendering				
Single/Sole Sourcing				

Request for Quotation	
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20. From your experience in the application of the methods of procurement, how long does it take to complete the process from preparation of tender documents to signing the contract? Please indicate the time period for every method of procurement in the table below.

Method	Duration (weeks/months)
National Competitive	
Two-Stage Tendering	
Restricted Tendering	
Single/Sole Sourcing	
Request for Quotation	

