

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND
TECHNOLOGY, KUMASI**

COLLEGE OF ARCHITECTURE AND PLANNING

DEPARTMENT OF BUILDING TECHNOLOGY

**ENHANCING PUBLIC SECTOR PERFORMANCE WITHIN THE
FRAMEWORK OF THE PUBLIC PROCUREMENT ACT, 2003 (ACT 663) -
CASE STUDY OF DEPARTMENT OF FEEDER ROADS.**

BY

ATTAKORA AMANIAMPONG AWUAH (B-Tech)

**A THESIS SUBMITTED TO THE DEPARTMENT OF BUILDING
TECHNOLOGY, KWAME NKRUMAH UNIVERSITY OF SCIENCE AND
TECHNOLOGY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF**

MASTER OF SCIENCE

IN

PROCUREMENT MANAGEMENT

JUNE, 2014

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.

KNUST

Attakora Amaniampong Awuah

(PG-20295026)

Signature

Date

Certified by

Dr. Bernard K. Baiden

(Supervisor)

Signature

Date

Prof. Joshua Ayarkwa

(Head of Department)

Signature

Date

ABSTRACT

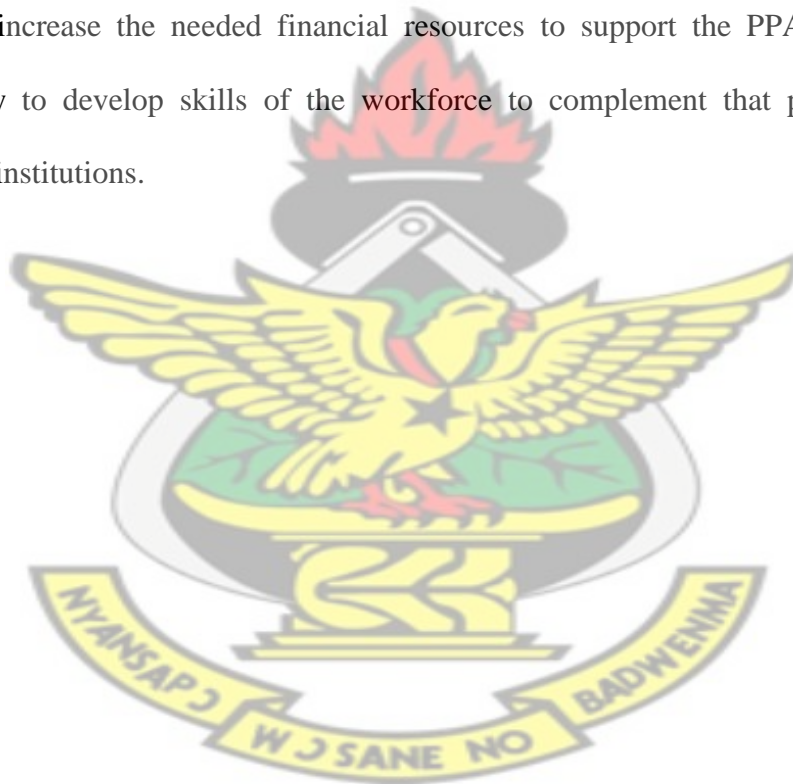
Public procurement (PP) management is a cornerstone of good governance. Ghana's public procurement accounts for fifty per cent to seventy per cent of the national budgets. The Ministry of Roads and Highway received a substantial budgetary allocation for road construction and maintenance since the sector played a significant and strategic role in the socio-economic development of Ghana. Despite this important role, the industry is still on grand scale inefficiency. The road agencies are challenged with varying degrees of weak management and inadequately trained workforce. Again, in spite of the legal and institutional reforms carried out in the public procurement sector in Ghana, Public Procurement Law has failed to eradicate corruption in the sector. Party loyalty to the government, ethnicity and bribes are the three main factors that influence the award of contracts, rather than merits and compliance with procurement requirements. (Ghana Integrity Initiative's, 2010)

It is against this background the study was designed to enhance Public sector performance in procurement and ascertain challenges that hinder the development of procurement within Department of Feeder Roads (DFR). The study adopted interviews methodology as the main approach to collect data from procurement workforce within DFR.

The results bring to light that the changing procurement environment is reflected in the importance of skill areas towards global shift to collaborative working relationships between client and contractors to achieve value for money. The study further indicates a substantial proportion of lower rate performance of procurement skills. Moreover, DFR is challenged with unavailability of funds and political interference which ultimately hinder skills development. The implication is, however,

that if adequate funding can be provided and the political interference managed, then skills development is possible to achieve the expected outcomes.

The study concluded that skills development within DFR have to be generally welcome towards improving competencies to manage the current changing global procurement shift. This would fill the skill gaps to manage the changing procurement practice in order to achieve maximum value for money. The study recommends that progressive, deliberate action must be developed to enhance skills of the procurement workforce to manage and safeguard taxpayer's money. The central government should increase the needed financial resources to support the PPA and the Road Ministry to develop skills of the workforce to complement that provided by the partner institutions.



DEDICATION

I humbly dedicate this work to my precious parents Mr. Kwabena Awuah and Madam Ama Serwaa whom the Lord used as my passage to this world; and my daughter Ama Serwaa Amaniampong, my son the “General” Baffour-Awuah Amaniampong and Nana Kwadwo Amaniampong. Also, my beloved wife Francisca Serwaa Amoako for their love throughout the entire study period.

KNUST



ACKNOWLEDGEMENT

We have this treasure from God. But we are only like clay jars that hold the treasure. This shows that this great power is from God, not from us. 2 Corinthians 4:7. *To God be the glory.*

I would like to thank Dr. Bernard K. Baiden my supervisor for his expert guidance and support throughout the study. I would like to express my deepest appreciation to Mr. Tenkorang Isaac the District Engineer of Offinso North District Assembly and Mr. A. Braimah the deputy regional manager of Department of Feeder Roads in Ashanti Region, for their constructive criticism and valuable advice. Appreciation to my family for their patience and moral support throughout the years of this study.

Finally, I wish to express my gratitude to the management and staff of the Department of Feeder Roads, who showed their willingness to make considerable sacrifices in the midst of their own very hectic working hours in order to respond to the request for essential information during data collection. My great debt of gratitude goes to all that have contributed to the successful completion of this study.

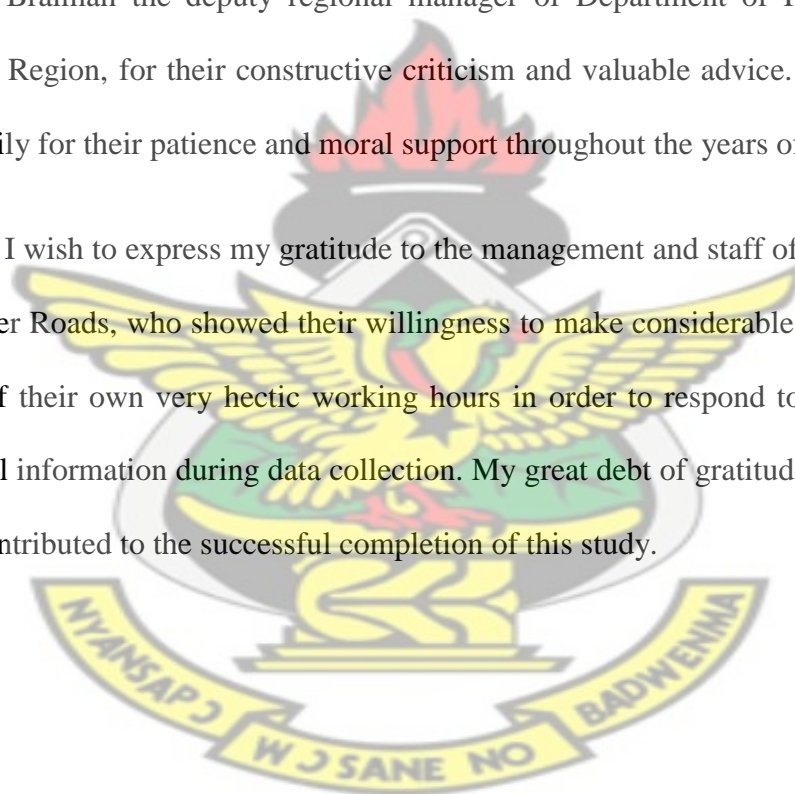


TABLE OF CONTENT

DECLARATION.....	i
ABSTRACT	ii
DEDICATION.....	iv
ACKNOWLEDGEMENT.....	v
CHAPTER ONE	1
1.0 INTRODUCTION.....	1
1.1 Background	1
1.2 Problem Statement.....	2
1.3 Research Questions.....	4
1.4 Aims and Objectives	4
1.5 Research Justification.....	5
1.6 Scope of the study.....	6
1.7 Organization of the study	6
1.8 Limitations and constraints	7
CHAPTER TWO.....	8
2.0 LITERATURE REVIEW	8

2.1	Introduction.....	8
2.2	Overview of the Department of Feeder Roads	9
2.2.1	Procurement of feeder roads in Ghana	10
2.2.2	Scope of public sector procurement.....	11
2.3	Skills requirement of public Sector procurement.....	15
2.3.1	Enabling environment and systems to aid skills	18
2.4	Challenges facing public sector procurement	20
2.4.1	Political environment	23
2.4.2	Ethical standards of public sector procurement.....	24
2.5	A closer look at corruption as challenge in procurement	25
2.5.1	Why do we care about stopping corruption as a challenge in procurement?.....	25
2.5.2	Why corruption occurs in procurement	26
2.5.3	Factors that influence the opportunities for corruption	28
2.5.4	How corruption occurs in procurement.....	28
2.5.5	Signs of corruption in procurement.....	31
CHAPTER THREE.....		33
3.0 METHODOLOGY		33

3.1 Introduction.....	33
3.1.1 Stage 1: Literature Review	34
3.1.2 Stage 2: Exploratory Interviews.....	35
3.1.3 Interview Questions	36
3.1.5 Ethical considerations	37
3.1.6 Response Rate	37
3.5 Analysis of Data.....	38
CHAPTER FOUR.....	39
4.0 RESEARCH ANALYSIS AND FINDINGS	39
4.1 Demographic Characteristics of respondents	39
4.2 Interviewees view on procurement skills required	40
4.3 Cost Analysis skills.....	40
4.4 Legal procurement skills	41
4.5 Project Management skills	42
4.6 Quality Management skills.....	42
4.7 Variation/Change management skills	43
4.8 Interviewees view on challenges facing development of procurement management.....	44

CHAPTER FIVE	48
5.0 DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS.....	48
5.1 Introduction.....	48
5.2 Objective one: To identify the skills required to carry out effective and efficient public sector procurement in DFR	48
5.3 Objective two: To identify the challenges that are likely to hinder smooth development of public procurement in DFR	50
5.4 Other findings.....	51
5.4.1 The role of PPA and partner institution in developing skills.....	51
5.5 Conclusions.....	52
5.6 Recommendations.....	53
5.7 Further research	53
REFERENCES.....	54
Appendices.....	64

LIST OF TABLES

Table 3.1 Interviewee's Profile.....	35
Table 4.1 Interview Profile (Professional Background of Respondents)	39
Table 4.2 Rating The Performance of Dfr In Terms of Cost Analysis	40
Table 4.3 Rating The Performance of Dfr In Terms of Legal Procurement Skills.....	41
Table 4.4 Rating The Performance of Dfr In Terms of Project Management Skills	42
Table 4.5 Rating The Performance of Dfr In Terms of Quality Management Skills	43
Table 4.6 Rating The Performance of Dfr In Terms of Variation/Change Management Skills	44
Table 4.7 Response Agreement To Challenges	45



LIST OF FIGURES

Figure 2.1a Procurement cycle for works in the public sector.....12

Figure 3.1 Methodological flowchart for the study.....33

KNUST



ABBREVIATIONS

ADB	African Development Bank
ADF	African Development Fund
DFR	Department of Feeder Roads
GDP	Gross Domestic Product
ILO	International Labour Organization
MRH	Ministry of Roads and Highway
PPA	Public Procurement Act
PP	Public Procurement
VfM	Value for Money
GHA	Ghana Highway Authority
DFR	Department of Urban Roads
MWH	Ministry of Works and Housing
GoG	Government of Ghana
PE	Procurement Entity
PPB	Public Procurement Board
OAG	Office of the Auditor – General
WTO	World Trade Organization
CPI	Corruption Perception Index
MDA	Ministry, Department and Agencies
DAs	District Assemblies
ODPP	Office of the Director of Public Procurement

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Public Procurement (PP) Management is the cornerstone of good governance. It cuts across all economic sectors and constitutes around 15 to 30 percent of Gross Domestic Product (GDP) in all countries (<http://www.iteilo.org>, ILO 2014). Ghana's Public Procurement accounts for fifty to seventy per cent (50%-70%) of the national budgets, representing 14% of GDP (World Bank Economic Report, 2003; Adjei, 2006). Ghana Integrity Initiative's survey of households identified party loyalty to the government, ethnicity and bribes as the three main factors that influence the awarding of contracts, rather than merits and compliance with procurement requirements.

In 2003, the Government of Ghana embarked upon procurement reforms to improve overall public financial management (Adjei, 2006; Anvuur et al., 2006). The exercise is as a result of identified organizational inefficiencies and weaknesses within the country's procurement system which is showcased in weak institutional infrastructure, lack of effective monitoring mechanisms and inadequate integration of procurement functions towards achieving result-based public management (Westring, 1997; World Bank, 2001; Anvuur et al., 2006). According to Osei-Tutu et al. (2009), these are some of the inefficiencies which characterized the Ghanaian procurement system. As a result, the Public Procurement Act 663 (PPA) was legislated to address the various organizational inefficiencies and weaknesses bedeviling the procurement process in the country (Westring, 1997; Anvuur et al., 2006; Glavee-Geo, 2008). The Act was framed under the five basic pillars of public sector procurement: legal framework,

independent central body, standardized procurement procedures and documents, proficient procurement workforce and anti-corruption criteria or measures (World Bank, 2001; Osei-Tutu *et al.*, 2009)

1.2 Problem Statement

The Ministry of Roads and Highway (MRH) received a substantial budgetary allocation for road construction and maintenance in recent years (Lampitey and Elle, 2000; Adu, 2009; Foster and Pushak, 2011). The industry has contributed widely to national economy. The road sector played a significant and strategic role in the socio-economic development of Ghana (Lombard and Coetzer, 2006). Despite this important role, the industry is still on grand scale inefficiency, especially regarding contract management (World Bank, 2006). However, road agencies are challenged with varying degrees of weak management and inadequately trained workforce (Word Bank, 2003; World Bank, 2008; Owusu-Manu *et al.*, 2011). The framework for the enactment and operation of the Procurement act in Ghana was to sanitize the processes that led to the choice of eligible contractors for the delivery of public works and services. The essence therefore has a lot to do with the pursuit of value for public funds commitment into contracts. It is worth mentioning that the practices of some public officials in handling public works are in direct conflict with the interest of the state which the Public Procurement Act 663 of 2003 seeks to uphold.

However, according to Appiah (2011), no matter how robust the regulation or law on public sector procurement is structured, its effective application and implementation depends largely on trained skilled workforce. Again, in spite of the legal and

institutional reforms carried out in the public procurement sector in Ghana, Public Procurement Law has failed to eradicate corruption in the sector (Ware *et al.*, 2007). The main problem cuts across the entire system and endorses what Dorsey (1997) termed or described as the "eternal triangle" of construction, which include the client, consultants and the contractor. The procurement system has other institutional weaknesses that does not only undermine its capacity for carrying out the mandates effectively but also led to a public perception that the public sector is not getting maximum value for money (VfM) spent on procurement.

Recent scandals such as the “Woyome saga” which cost Ghana over GH¢ 51 million in connection with corruption in public procurement is worrying (Africa watch, February 2012). Procurement at the local level is reported to be more prone to corruption than at the central level. (Business Anti-Corruption Portal, 2010). This raises a fundamental legal question; why has the Public Procurement Act, 2003 together with other supporting legislations largely failed to tame corruption and related irregularities in public procurement? If indeed the problems facing public procurement sector in Ghana were purely due to weak legal and institutional framework, as Ghanaians were made to believe, then why is it that ten years after the endorsement of such legal and institutional reforms, the sector still experiences numerous procurement-related challenges? This implies that fixing public procurement in the country needs to go beyond legal and institutional reforms.

According to African Development Bank (ADB) and African Development Fund (ADF) (October, 2002), Department of Feeder Roads (DFR) failed to act expeditiously in preparing work programs for tendering and approval by the Bank and protracted argument on the design of the road component and delay in responding to

fund disbursement. There were also considerable delays in the completion of studies and avoidable cost-over-runs from non-performing contractors. All these are active factors that culminate in violation of procurement rules and procedures. There was no effective contract management and supervision and proper sanctions were not applied to consultants/contractors who defaulted in their duties. The severity of these weaknesses has direct implications and threatens to restrain commitment aimed at offering value for money outcomes (Anvuur *et al.*, 2006). However, the regular and continuous development or training of procurement workforce has been cited as the main strategy for achieving value for money and increasing enforcement and compliance with the procurement rules and directives (Stuijts *et al.*, 2009).

1.3 Research Questions

1. Do public sector officials have the requisite skills to carry out effective and efficient public sector procurement management in DFR?
2. What are the challenges that are likely to jeopardize effective and sustainable public procurement management in DFR?

1.4 Aims and Objectives

This research is aimed at enhancing the public sector performance within the framework of Public Procurement Act, 2003 (Act 663).

Specifically, this study will explore the following objectives:

1. To identify the skills required to carry out effective and efficient public sector procurement management in DFR.
2. To identify the challenges those are likely to hinder smooth development of public procurement management in DFR.

1.5 Research Justification

Public Procurement Act (2003) Act 663 together with other back-up laws has been enacted to guide the management of public procurement in Ghana.(Osei-Tutu et al., 2009) However, more than nine years down the line, these laws are yet to effectively streamline the performance and the entire operating systems in this sector. Corruption, impunity and other related challenges are still rampant in the public procurement sector. This therefore explains why the Public Procurement Law as currently constituted has largely failed in the display of its operational deliverables and other performance anticipated in the area of procurement of works. Besides, the results of this study, indicators will be expected to ignite debate among other interested stakeholders and policy reformers in this sector. It is therefore imperative to ensure that public officials who are entrusted with the taxpayers' money are adequately trained to enhance their skills for the delivery of the needed outcomes (Carr and Smeltzer, 2000). The study provided the basis for development of future procurement skills for effective and efficient procurement practices. It provides a platform that encourages procurement institutions such as DFR to upgrade and equip their workforce through training to meet future dynamic challenges as the procurement requirement becomes more complex.

1.6 Scope of the study

The research will concentrate mainly on enhancement of procurement of works within Department of Feeder Roads (DFR) under the Ministry of Roads and Highways. Out of the ten (10) regions in Ghana, the study was narrowed to two regions (Ashanti and Brong Ahafo Region) that manages majority of the total road network in the country.

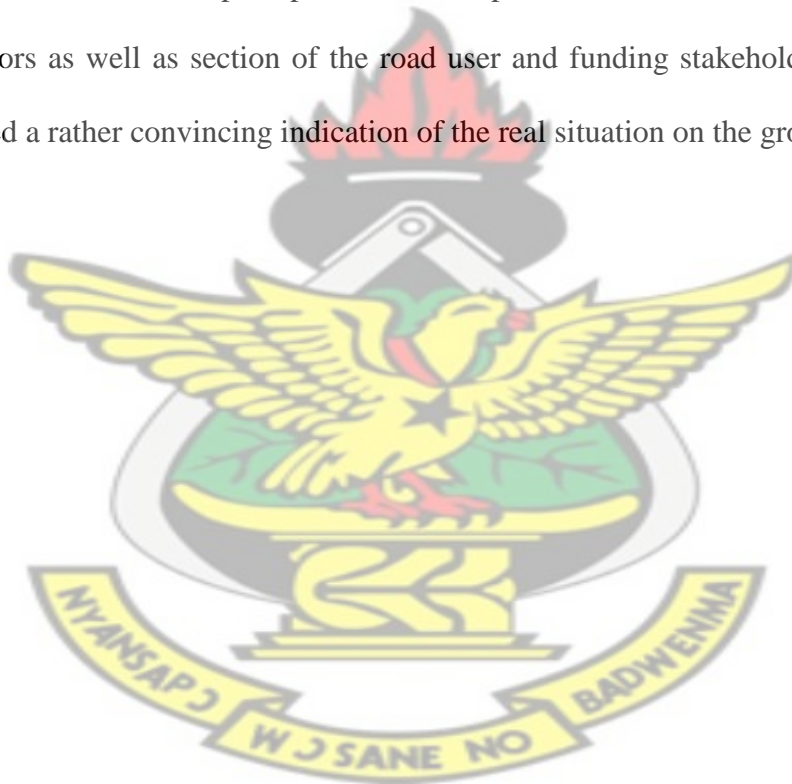
1.7 Organization of the study

The study is arranged into five chapters. Chapter One provides background introduction of the study and explain the problem at hand; the aims and objectives with the contributions and justification of the study. Chapter (2) two presents the literature review dealing with equipping the public sector within the framework of public procurement Act. Issues on ethics and challenges that affect the procurement is also explore in this chapter. Research methodology in chapter (3) three which provides concrete considerations in conducting qualitative case study. The chapter underlines the research design and methodology that will be used to gather and analyze data towards the achievement of the study objectives. The Fourth Chapter focused on analysis of the findings from interviews. Chapter (5) five which is the last chapter in this research is mainly concerned with discussion of the key results that will emanate from the analysis of the findings which is also a vital exercise in this chapter and also conclusion and recommendations base on the research objectives.

1.8 Limitations and constraints

The study sought for information only from the most experienced and well-informed respondents of DFR to enhance the accuracy of data and solve the problems of cost and time constraints. Data collection was restricted to Department of Feeder Roads under the Ministry of Roads and Highways as it was considered typical in management operations, coupled with the fact that it manages the majority of road networks.

However, a blend of the perceptions of these professionals and those from renowned contractors as well as section of the road user and funding stakeholders would have presented a rather convincing indication of the real situation on the ground.



CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews the main literature that underpins the research study and aims to unearth the entire theme in the research area to enable analysis and discussion to be conducted. The first part provides a brief overview of the Department of Feeder Roads and description of a kind of road procurement as well as the scope of procurement in the public sector. The second part reviews the key themes of the study: challenges and ethical issues of public sector procurement, skills requirement and development methods

Strong procurement management in the public sector is a tool for achieving political, economic and social goals. The phrase public procurement sparks a lot of sentiments and controversies across the world. Indeed, in all countries in the world, estimates of the financial activities of government procurement managers are believed to be in the order of 10% – 30 % of GNP (Callender & Mathews, 2000). Efficiently handling this size of procurement outlays has been a policy and management concern as well as a challenge for public procurement practitioners. Public procurement has been utilized as an important tool for achieving economic, social and other objectives (Arrowsmith, 2003; Thai, 2001)

The Government of Ghana uses public procurement to provide infrastructure projects such as roads, bridges, hospital and education. Despite attempts by successive governments to improve the procurement system, there are many challenges that threaten the procurement of these important development infrastructural facilities. The absence of solid technical expertise with the requisite skills and competence have

been cited by several publications from institutions including the World Bank as the cause of the weaknesses and underperformance of Ghana's road sector (Peprah 2001; World Bank, 2001; World Bank, 2003; World Bank, 2008; Ameyaw et al., 2012).

It is against this backdrop that Government has in recent years enacted legislative reforms bringing about a new Public Procurement Act 663, Act 2003. Authors like Giunipero and Handfield (2004), Tassabehji and Moorhouse (2008) and Owusu-Manu et al. (2011) are of the view that as the global procurement function challenges to achieve maximum value for money, different categories of capabilities are required. Public procurement practitioners have always faced challenges imposed upon them by a variety of environmental factors including market, legal environment, political environment, organizational environment, socio-economic and other environmental factors. (Khi V. Thai, 2011). It is in this regard that Department of Feeder Roads is assessed with the aim of establishing the skills required to manage these changes and determine the level of development to enhance the competence of the procurement workforce.

2.2 Overview of the Department of Feeder Roads

The Ministry of Roads and Highways (MRH) has three road agencies with different assigned responsibilities: Ghana Highway Authority (GHA) (in charge of trunk roads); Department of Urban Roads (DUR) (managed the roads network in the Cities and Urban centers); and Department of Feeder Roads (DFR) (responsible for road network in rural Ghana) (Mwale, 1997; Heggie, 1999; Quagraine, 2007). The agencies are subjected to the budgetary, managerial and economic policies of the central government (Lamptey and Elle 2000; Quagraine, 2007).

The DFR was established in 1981 under the Ministry of Works and Housing (MWH) and was shifted to Ministry of Roads and Highways in 1982 (Mwale, 1997; Heggie, 1999; Lamptey and Elle 2000). The agency is in charge of rural road policies and strategic development to organize and manage projects funded by Government of Ghana (GoG) and donor partners.

In 2003, with the passage of the Public Procurement Act 663, under section 14(2) b and 16(1), the agency was declared as Procurement Entity (PE) (PPB, 2003b). According to the Office of the Auditor-General, OAG (2010), the DFR exists to ensure the provision of safe all weather accessible feeder roads at optimum cost effectiveness to facilitate the movement of people, goods and services and to promote socio-economic development, particularly in agriculture. It operates through its management headquarters, regional and Area/District offices implementing and supervising construction and maintenance of road projects (OAG, 2010). The procurement workforce consists of teams of professionals mostly of Civil Engineers and Quantity Surveyors.

2.2.1 Procurement of feeder roads in Ghana

Department of feeder roads in Ghana has currently a total road network of 42,010km (The IDLGroup, 2011). Out of this, Ashanti region has a total road network of 5,557.97km comprising 3,736.02km Engineered, 869.21km Partially Engineered and 957.74km Poor. (DFR Annual report, 2012). Since the last three decades, Government of Ghana has injected huge resources to the construction and maintenance of rural roads infrastructure across the country with the aim of developing the rural economy and reducing poverty (World Bank, 1998; World Bank, 2001; The IDLGroup, 2011).

According to Foster and Pushak (2011), Ghana has a strong and quality road network, with 74% - 75% of both unpaved and paved “network in good or fair conditions”. (Gwilliam et al., 2008; Foster and Pushak, 2011). Globally, the majority of poor population reside in the rural areas where infrastructure facilities especially roads are extensively poor or underdeveloped (Saburi, 2012). Lombard and Coetzer (2007) argue emphatically that, access to good rural roads reduces high transportation cost and poverty thereby raising the standard of living of the rural populace.

Procurement of feeder roads is an expensive investment (van de Walle, 2008) and is funded through the Road Fund (GOG projects), loans, and creditor grants from the World Bank, donors, international financial institutions and development partners. Rural roads play a significant role in the socio-economic growth and development of Ghana at large. (Lombard and Coetzer, 2007). The huge sums of money expended on rural roads and the link to the socio-economic growth and development of Ghana calls for the justification of the demand for maximum management skills in this sector. This reveals the important linkage between enhancing the skills of the procurement workforce and delivery of economic growth.

2.2.2 Scope of public sector procurement

The Ghanaian public sector spends 50% to 70% of the taxpayers’ money annually to procure goods and services, including works, required to deliver public services (World Bank, 2003; Adjei, 2006). In order to establish the procurement skills of the road subsector to manage the changing role of government procurement, the scope of procurement must be identified (McCue and Gianakis, 2001). This gives defined boundaries, requirements and processes involved in government procurement. Having

identified and explained the processes involved in the scope, a more vigorous representation of the capability required to administer the procurement process will arise (McCue and Gianakis, 2001).

Callender and Matthews (2004) defined public procurement as “the entire series of events relating to the acquisition of goods and services required by government institutions from conceptualization of the need for the product to its utilization and ultimate disposal.” It incorporates “all actions from planning and forecasting, identification of needs, sourcing and solicitation of offers, evaluation of offers, review and award of contracts, contracting and all phases of contract administration until delivery of the goods or services, the end of a contract, or the useful life of an asset”.

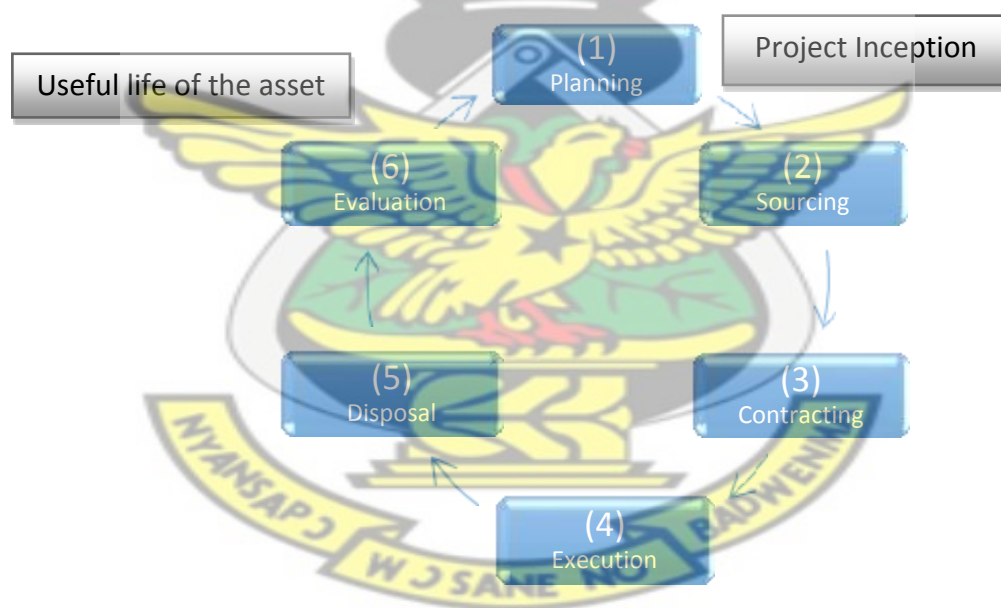


Figure 2.1a Procurement cycle for works in the public sector

Source: Adapted from PPB (2007b)

The goods and services involved in public procurement range from hand towel through to complex works and large construction projects, such as bridges, hospitals, roads and airports. The traditional method of contracting is largely used within the

road subsector to procure these goods and service (Anvuur et al., 2006; Osei-Tutu et al., 2009). The stages involved are significant and contribute to achieving quality performance and value for money (VfM) outcomes. This is categorized into six phases: planning, sourcing, contracting, execution, disposal and evaluation as illustrated in Figure 2.1a.

2.2.2.1 Planning phase

The planning phase involves pre-feasibility and feasibility studies, identification of requirements or items to be procured which is determined by the user or relevant stakeholders (McCue and Gianakis, 2001; Atuahene, 2010). Competencies of skills in taking decisions with regards to specification, contract packages, source of funding, estimated cost, procurement method and processing steps and times (schedule of delivery and implementation dates) are determined (PPB, 2007b). It is a task that sets in motion the whole procurement process and any lapses has a grave implication for the outcomes of the whole process (Basheka, 2008). Procurement planning is a legal requirement under Section 21 of the Act 663 which requires adequate planning and prioritization of needs by the Procurement Entities as an important prerequisite to effective procurement.

2.2.2.2 Sourcing phase

Determination of an appropriate procurement method is decided at this stage. The choice of procurement method is selected based on VfM and factors such as complexity and nature of project, risk, source of funding, urgency of the project and

available client management workforce. Skills relevant in managing the activities involved in the process includes advertisement or pre-qualification of potential suppliers, bid preparation and invitation, submission and opening of bids, evaluation of offers and determination of the successful bidder (PPB, 2007b).

2.2.2.3 Contracting phase

This phase deals with the award and formation of contract to establish the legal relationship between the client (Government of Ghana, represented by the DFR) and the suppliers/contractors. This establishes a cooperative relationship, which shapes the behaviour of the buyer and the supplier throughout the contract period. It defines the legal boundary, budget, contract duration and sets standards for the project. The contract outlines the method of executing the project, payment mechanism, and it is the legal documents from which any disagreement, conflicts and disputes are referred to for settlement.

2.2.2.4 Execution phase

Activities involved in the awarded contract has to be managed and supervised to ensure that all parties (client and supplier) perform their contractual obligations. Skills required to implement these activities may include project planning and mobilization, project implementation and supervision, inspection and inventory control, as well as payments (Glavee-Geo, 2008; PPB, 2007b).

2.2.2.5 Disposal phase

This phase is to ensure that unserviceable and obsolete items are disposed off in an auditable manner and in compliance with appropriate procedure.

2.2.2.6 Evaluation phase

Controlling and reviewing the performance of the procurement process to ensure its efficiency and effectiveness is important. Evaluation may include a formal procurement audit to assess the effectiveness to acts as an improvement device for future projects (Matthews, 2005).

These stages as explained require competencies in various activities involved in each phase of the procurement cycle in order to implement the procurement process. In-depth understanding and competencies at each stage will enable the concerned workforce to take decisions to coordinate resources and achieve maximum value for money and in turn conforms to international ethical procurement practice.

2.3 Skills requirement of public Sector procurement

A skill is the ability either to perform some specific behavioral task or the ability to perform some specific cognitive process that is related to some particular task (Peterson& Van Fleet, 2004). Skills required by procurement professional have changed due to the role shift of the procurement function itself. From that of a buyer to that of a professional managing strategic long-term, complex agreement between internal stakeholders and suppliers (Faes et al, 2001); professionals require a complex

set of managerial and technical professional skills. These role shifts affect professionals in both developed and developing countries. It affects procurement professionals in central and local government systems as well as those in the public and private sector environments. For purchasing to be at a strategic level, professionals need to possess a set of skills and competencies (Carr & Smeltzer, 2000). Governments use public procurement to undertake public works, build roads, provide health care, and provide education and public order (Errigde & McIlroy, 2002). The practitioners who manage this function usually face many challenges (Thai, 2005). The dynamics, complexity and diversity, characteristic of global environments have led to increasing demands on management and leadership competencies demanded of procurement professionals. (Jokinen, 2005)

Public procurement professionals have to strive to achieve three competing demands of meeting commercial interests with key themes of value for money, economy, efficiency and effectiveness; the regulatory interests with key themes of competition, transparency, equality and compliance and the social interests whose key themes include public interest, employment concerns, social exclusion, economic development and environmental policy. (Errigde & McIlroy, 2002). In an effort to attain these demands, organizations constantly look for employees who have skills necessary to deal with the wide variety of tasks faced by purchasing professionals (Monczka et al, 1998). Procurement professionals in a local government context will undoubtedly be expected to have a multiplicity of skills to manage the critical acquisition processes.

Kolchin & Guinipero (1993) proposed three skill areas of business, interpersonal and technical skills important to the procurement function. Business skills include skills of

marketing analysis, negotiating with partners, managing internal and external relationships. They also include global sourcing development, change management, and organizational skills. Interpersonal skills include risk taking, written and oral communication, conflict resolution, influence and persuasion, group dynamics, leadership, problem solving, interpersonal and cultural awareness. Technical skills include cost analysis, product knowledge, computer literacy, total quality management and government legislation. In similar attempt, Murphy (1995) identified four skills important for purchasers, which included: - negotiation, management, computer literacy and mathematics. In an interview research, Carr & Smeltzer (2000) identified 35 purchasing skills, which were divided into three categories of technical, behavior and skill techniques. Information and communication technology will continue to play a key role in contemporary organizations (Eriksson-Zetterquist, et al; 2009)

Writing from a financial perspective, Storer and Rajang(2002) observed that the structural changes that had affected organizations increased the importance of technical skills, risk management skills, IT skills, business awareness and behavioral skills. Professions are in an open ecological system in which individual professions exit in interdependence. In day-to-day practice, professionals mobilize a variety of resources both tangible and abstract (Lamont & Molnars, 2002). Competencies reflect certain traits, behaviors, skills, values and knowledge (Jokinen, 2005). Public procurement professionals in modern times should have global competencies.

Having procurement skills involves understanding globally recognized procurement principles, knowledge of national laws, regulations and procedures, and a commitment to ethical responsibilities (Jones, 2007). However, as Hunja (2003)

rightly observed, most procurement practitioners in developing countries possess technical procurement skills and lack knowledge of other issues necessary to plan, manage and implement wide-ranging reform efforts. In day-to-day practice, professionals mobilize a variety of resources both tangible, abstract (Lamont & Molnars, 2002), and require a complex set of skills.

2.3.1 Enabling environment and systems to aid skills

In order to facilitate long-term development and utilization of available capabilities, the establishment of an enabling environment, departmental, internal, political culture and atmosphere ought to be reinforced by the relevant policy, legal and efficient frameworks (Blackman and Kennedy, 2008). The significance of an enabling environment in public sector capability building is widely acknowledged. An enabling environment overcomes constraints such as salaries, incentives and provides good working environment and tools to implement procurement functions. Even though the road sector's capabilities depend largely on the quality of workforce, the necessary resources required for implementing and performing the procurement function and the framework in which they are accomplished is critical. It is possible for an organization to have a competent workforce, yet lack the ability or capacity to execute its roles since the working environment and policy framework does not permit acceptable outcomes and further development. High procurement skills can be developed to achieve a high-level performance through an established enabling working environment. Franks (1999) believes that without conducive and enabling environment backed by legislative framework, organizations will not have the ability to perform effectively and thereby develop competencies.

The dynamic role and the paradigm shift of the procurement function demands strong systems having efficient checks and balances equipped with information technology which provide essential operational tools for collecting, storing, monitoring and reporting procurement data. These allow for the incorporation of new technologies such as e-procurement to enhance transparency and improve the procurement process. (Thai, 200; Tassabehji and Moorhouse, 2008). Furthermore, the operational strengths and weaknesses of public sector depend largely on its available financial resources (budget allocation), legal resources, government and political support (World Bank, 1998; World Bank, 2001; Ameyaw, 2012). The extent to which these resources translate to the department's core objectives to achieve the VfM principle and meet the socio-economic aims, require workforce with the requisite capability to manage these resources in a conducive working atmosphere.

Collaboratively, the public sector's ability to build rapport and long-term relationship with suppliers to enhance its capabilities and competitive advantage in the global market cannot be overemphasized. The existence of this relationship enables the public sector to make maximum use of suppliers' resources and technology to its advantage. Long-term relationships and collaboration within the public procurement functions opens the way for improved utilization of procurement skills; organization's resources; and encourages good procurement practice (Lawther and Martin, 2005 in Mandiyambira, 2012). This relationship helps both procurer and supplier to manage all procurement risks together for mutual benefit.

2.4 Challenges facing public sector procurement

The challenges to the institutionalization of national laws are pervasive in developing countries, Ghana not being an exception. The sheer magnitude of procurement outlays has a great impact on the economy and needs to be well managed. Indeed, in all countries in the world, estimates of the financial activities of government procurement managers are believed to be in the order of 10% – 30 % of GDP (Callender & Mathews, 2000). Efficiently handling this size of procurement outlays has been a policy and management concern as well as a challenge for public procurement practitioners.

Public procurement has been utilized as an important tool for achieving economic, social and other objectives (Arrowsmith, 2003; Thai, 2001). In its report to the Congress, the Commission on Government Procurement states: “The magnitude of the Government’s outlays for procurement and grants creates opportunities for implementing selected national policies” (Federal Acquisition Institute, 1999). Due to numerous reasons (including greater scrutiny of taxpayers and competing vendors), public procurement has been perceived as an area of waste and corruption (Nakamura, 2004). Corruptions and bribes are widespread in government contracts (www.transparency.org). Recent scandals, such as the “Woyome saga”, which cost Ghana over GH¢ 51 million in connection with corruption in public procurement is worrying (Africa watch, February 2012). Similar newspaper reports can be found in many countries. Overcoming the negative perception and the objective reality, to a certain extent is one of the biggest challenges in public procurement.

As many countries have moved to a regional and or global economy, public procurement practitioners face another challenge that is, how to comply with their

government's procurement regulations and social and economic procurement goals without violating regional and/or international trade agreements. For example, how to comply with national economic policies (in nurturing domestic firms), without dealing unfairly with foreign firms as provided in regional trade agreements and/or the World Trade Organization (WTO) agreements is not easy, which requires a careful study of trade agreements in order to take advantages of special provisions. World Trade Organization's general rule requiring that contracts are advertised for a period of no less than 40 days from the date of publication of the notice to the tender submission deadline. The 40-day requirement would hinder a speedy procurement. (GPA Article XI.3.)

Ghana remains one of the most corrupt nations in the world judging from the annual Corruption Perceptions Index (CPI) released by Transparency International in 2012(Transparency International, 2012). Though corruption is said to be present in all societies (Sahr, 1998), Lengwiler and Wolfstetter (2006) revealed that the quantum of money changing hands through corruption in public procurement is estimated between \$390-400 billion per annum all over the world. However it is estimated that corruption in Sub-Saharan Africa exist in about 70% of public contracts and results in about 20-30% rise in contract sums. The cost of corruption in Africa is estimated at around \$148 billion a year (Mawenya, 2008). Corruption occurs throughout the procurement process and project cycle, through the actions and inactions of political officers, public servants, clients, consultants, contractors and suppliers (Osei-Tutu, Badu & Owusu-Manu, 2009). There is no evidence that the passage of the Public Procurement Law and its implementation has made any significant impact in curbing corruption in public procurement in Ghana. According to the 2010 and 2011 annual Corruption Perceptions Indices (CPI) released by Transparency International, Ghana

ranked the 62nd and 69th most corrupt country respectively, out of 183 countries worldwide (Transparency International, 2012). It was established further that, regardless of the effort by central government and its related agencies to overcome implementation challenges, and an understanding of the value adding potential of procurement departments, a large number of internal customers act on their own and frequently bypass the procuring department. The Country Procurement Assessment Report of Ghana produced in 2003, revealed that most staff members of Ministries, Departments and Agencies (MDAs) and District Assemblies (DAs) responsible for procurement were not procurement-proficient, even though they have been trained. Application of the PPA and the Standard Tender and Contract Documents will not be successful without broad training and 'refresher' programmes for officials in charge of procurement. Similarly Forgor (2007) agrees that lack of proper training of managers on the procurement process is a challenge that confronts procurement reforms. This supports the assertion that poor dissemination of procurement law is one of the challenges facing the smooth implementation of public procurement laws (Azeem, 2007).

Political interference with the procurement process poses a challenge to the implementation process and public procurement reforms. A good number of politicians think that they have the right to intervene in the procurement procedures thereby leading to capricious procurement decisions (World Bank, 2004). The lack of career development path and low salaries of procurement personnel also militate against procurement reforms implementation (World Bank, 2003b). Poor record keeping (World Bank, 2003b), delays in payment of contractors and suppliers are also cited as some of the crucial factors that challenge procurement reforms implementation (Azeem, 2007).

In a similar vein, low level or absence of capacity building for service providers has been identified as one of the factors inhibiting successful public procurement reforms. Many bidders are limited in various capacity issues including lack of basic knowledge of the law, inadequate capacity to appreciate the standard tender documents, poor access to tender information and insufficient technical and managerial skills to be competitive in the tendering process (ODPP Annual Report, 2007). Shortage of qualified personnel, lack of adequate financial resources, lack of adequate office space, non-compliance with some provisions of the law, poor records management by entities and overpricing of goods, works and services by bidders.

2.4.1 Political environment

In a democratic atmosphere, many individuals, groups, and organizations in the private sector including trade associations, professional associations, and business firms or companies (commonly known as interest groups) are actively involved in all aspects of the public procurement system. Having various interests, objectives and beliefs, interest groups are involved in the public procurement system in several ways such as lobbying legislative bodies to pass or alter procurement statutes, influencing implementation of these statutes, and influencing budget authorization and appropriations processes. Normally, a government program that is eventually adopted is a compromise among different views of interest groups, policy makers and management. In this democratic environment, there are cases of a strong coalition of policy makers, bureaucrats and interest groups in their effort to get their programs adopted. This coalition has led to the concept of the 'iron triangle,' which is very popular in the area defence of procurement (Thai, 2001).

2.4.2 Ethical standards of public sector procurement

Dedicated, energetic, and ethical employees are always hard to find, and hiring individuals with special skills is even harder (Lan, Riley & Cayer, 2005). The requirements to educate professionals and equip them with new and higher-level skills have consequently become urgent (Sauber et al, 2008).

The doctrine and practice of ethical behaviour is complicated (Callender and Matthews, 2000) and difficult to assess or measure. Public sector engages in all stages of the procurement projects. The successful execution of such projects relies on how well they have been conceived, drafted, offered, supervised and constructed (Mlinga, 2008). This has a bearing on the type of professional, technical and ethical conduct of the procurement workforce involved in the procurement process (Mlinga, 2008). Even though, government procurement suffers fraud, corruption and similar unethical practices, ethics are the foundation of an effective and professional procurement function. Ensuring standard ethics implies an exemplary approach within the procurement process that cannot be questioned or criticized (Mlinga, 2008; PPB, 2007a). Professional ethical conduct goes beyond legal technicalities and is concerned with moral principles and values that govern beliefs, actions and decisions. These characteristics are a set of principles and kinds of character dispositions that govern the manner the profession is practiced and developed. The guiding principles of ethical behaviour in Ghana's procurement system are impartiality, independence, integrity, compliance with legislative requirements and public policies (PPB, 2007c; Glavee-Geo, 2008; Mlinga, 2008).

2.5 A closer look at corruption as challenge in procurement

Corruption is the misuse of entrusted power for private gain (Transparency International, 2006). The World Bank Enterprise Survey gives a reminder of the relevance of corruption in government procurement. As many as 38 percent of the firms covered by the survey in sub-Saharan Africa responded that they were expected to give a gift to secure a government contract (World Bank, 2010).

KNUST

2.5.1 Why do we care about stopping corruption as a challenge in procurement?

Corruption in public procurement makes the officials or the politicians in charge to purchase goods or services from the best briber, instead of choosing the price-quality combination (Søreide, 2002).

Corruption in public procurement is an important obstacle to development. For example, the firm responsible for building a new school may not offer the best price-quality combination, but is rather the best briber of government officials. The outcome may be more expensive, but inferior school compared to what otherwise would have been the case (Tanzi & Davoodi, 1997). The misallocation of resources reduces the funds available for other public services. Corruption has in this way direct negative impact on service delivery to citizens. Corruption can also reduce the profitability of doing legal business and, thus, provide incentives for corrupt activities (Andvig & Moene, 1990).

Further, corruption can lead to a disregard of laws and procedures, and a lower level of trust and confidence in the government.

2.5.2 Why corruption occurs in procurement

Corrupt activities in procurement will depend on the individuals that are involved and the structural framework they operate within. Structural causes refer to the political system, history, culture and other systematic factors that can influence the level of corruption. In countries where institutions are not well-developed, corruption is more likely to take place.

Ellman et al (2000) sees this as privatization of public policy where companies manipulate policy formulation and even shape laws and regulations to their own substantial advantage by 'buying' politicians and state officials. This individual causes are related to the procurement officer's choice to engage in corruption and will depend on:

2.5.2.1 Authority

The procurement officer must have authority to deal with rules and regulations in a discretionary manner

2.5.2.2 Capability

The power that authority provides must give the procurement officer the capability to extract value.

2.5.2.3 Incentives

The officer must have incentives to exploit the power that comes with the position. The incentive for a procurement officer to take part in corruption depends on the value of possible benefits, professional integrity and the actual need of the procurement officer. Poor salaries, low probability of being detected, weak or no sanctions if detected, small opportunities for promotion based on merit, unattractive or absent pension schemes and weak management are also factors that are likely to impact on the likelihood for corruption (Heggstad et al, 2010)

2.5.2.4 Corruption networks

Corruption in public institutions is often conducted by reasonably well organized networks, where trust and reciprocity is found between network members. Such relationships are likely to reduce transaction costs of corrupt acts, as well as any moral costs that may arise from allowing oneself to involve in corruption (Fjeldstad, 2006). Furthermore, the peer networks often function as ‘repositories of knowledge’ for members, for example on the attitude of the top management of the procurement department to corruption, how the internal monitoring unit works, who is potentially bribable among staff members and management, and so on. Hence, the individual procurement officer’s behaviour is likely to be influenced by the behaviour of colleagues and management.

- ❖ **Size of the contract:** the larger the contract the bigger the bribe
- ❖ **The sector involved:** some sectors are more prone to corruption than others, such as construction, oil and gas, property development and manufacturing
- ❖ **Restricted access to information:** poor transparency over executive decisions may boost corruption
- ❖ **Funding schemes:** direct budget support and sector wide approaches can increase opportunities for corruption due to limited possibilities for financial control
- ❖ **Immediacy:** urgency increases the possibility to inflate prices

2.5.3 Factors that influence the opportunities for corruption

Source: The basics of integrity in procurement. A guidebook (Heggstad et al 2010)

2.5.4 How corruption occurs in procurement

Bribery can be defined as an offer of money, goods or services in order to gain an advantage. Bribes can influence the government's choice of suppliers of goods and services, which again can distort the allocation of resources and talents. The choice of offering bribes is closely linked to risk, since being detected in bribery can result in severe punishment. Further, since bribery is an illegal agreement, the benefits to be gained are uncertain. The offer of bribes may lead to demand for more bribes, and thus creating uncertainty whether the briber will ever receive the originally wanted good (Søreide, 2009). In business environments where corruption is common place,

an 'honest firm' may fear to lose contracts because its competitors are perceived to bribe their way to winning contracts (Søreide, 2006).

Favouritism

is the penchant of state officials and politicians who have access to state resources and the power to decide upon the distribution of these, to give preferential treatment to certain people. Client list is rather everyday proclivity of most people to favour his own kin (family, clan, tribe, ethnic, religious or regional group) Favouritism or cronyism is for instance to grant a public contract to a friend or a relative, regardless of merit.

Nepotism is a special form of favouritism in which a procurement officer favours relatives when granting contracts (Andvig and Fjeldstad 2001)

Patronage systems take place when local public office holders grant favours, jobs and contracts in return for political support. Such systems tend to disregard formal rules, and instead give importance to personal channels (Andvig and Fjeldstad, 2001)

Bid rigging takes places when companies conspire to fix the price for goods and services, purchased through a bidding process, to an artificially high level. The additional funds obtained through the inflated contracted price tend to be distributed to the conspirators.

One can distinguish between bid rigging where a public procurement officer takes part in the bid rigging and situations where only companies take part in corruption (collusive bidding). Bid rigging comprising procurement officers includes cases where qualified bidders are excluded, bids are manipulated, criteria in the requests for

proposals have been modified in order to fit a particular company, and relevant information is only shared with selected bidders.

(Heggstad et al, 2010). Examples of bid rigging by contractors are;

- (a) Complementary bidding, which occurs when the bidders agree in advance who will submit the winning bid.
- (b) Market division where the market is divided into different segments, competitors agree not to compete in each other's segment and
- (c) Bid rotation, where competitors take turn in being the successful bidder.



2.5.5 Signs of corruption in procurement

Red flags of corruption
Pre-tendering red flags
Purchase of unnecessary or inappropriate items Corruption
Manipulation of procurement thresholds to avoid prior review
Inadequate evaluation criteria or procedures
Unreasonable prequalification requirements
Ambiguous, incomplete or misleading contract Specifications
Contract specifications are too narrow or too broad
Tendering red flags
Failure to make bidding documents available
Short or inadequate notice to bidders
Unusual bidding patterns
Apparent connections between bidders
Bidder not listed in business or telephone
Multiple contract awards to the same company
Qualified companies fail to bid
Rotation of winning bidders
Unreasonably high bids
Unreasonably low bids

Non-transparent bid-opening procedures
Award to other than the lowest qualified bidder
Disqualifications that are poorly supported
Pressure to select a certain contractor subcontractor or agent
Winning bid is very close to budget or estimate
Long unexplained delays in contract award or approvals
Post-award red flags
Use of questionable agents or subcontractors
Complaints regarding poor quality goods, works or services
Continued acceptance of poor quality goods, works or services
Delivery of poor quality goods, works or services
Questionable contract amendments
Questionable invoices
Payment of unjustified high prices
Absent or questionable documentation

Source: (Kari K. Heggstad et al., 2010) based on the U4 Red Flag Tool (U4 2010)

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

The topic of this study was developed as a personal area of interest. The road sector is one of the areas the author has great interest to pursue a career after this research work. Besides the numerous glaring challenges of enhancing public sector procurement particularly Department of Feeder Roads show that more attention to the sector is still crucial. This part involved two stages:

1. Literature Review
2. Interviews

The data information for this research was regarded as having considerable significance; this means initial discussions for obtaining the data from Department of Feeder Roads were on-going in February 2013.

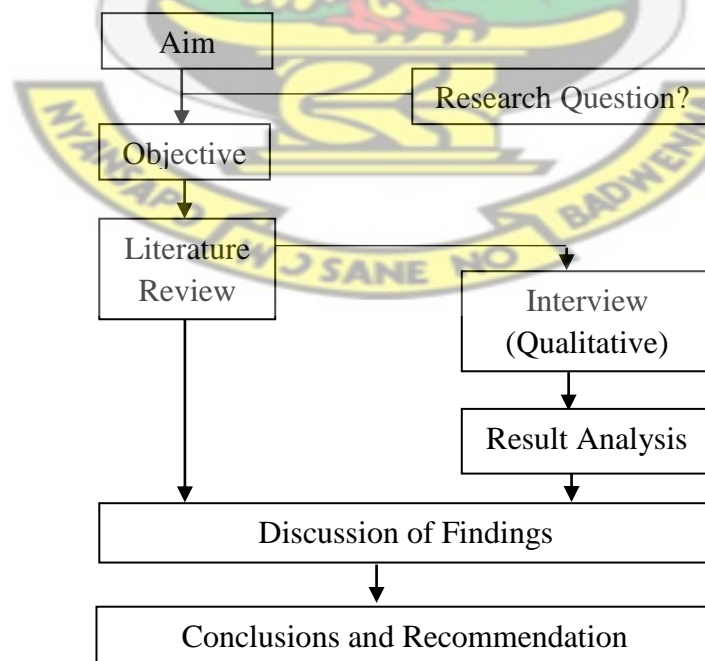


Figure 3.1 Methodological flow chart for the study

The methodological flowchart of the study as illustrated in figure 3.1 shows a sequential order of the study.

3.1.1 Stage 1: Literature Review

The literature review offers the research framework and indicates the data to be collected as well as the appropriate approaches and analysis techniques (Fellow and Liu, 2008). This stage concerned reading and appraising both theoretical and empirically existing knowledge relating to the phenomenon under investigation (Berker and Bryman, 2004). It is also meant to cover key concepts and ideas relevant to the research and closely related areas of importance. The literature used information from several sources such as government reports, journals articles, textbooks, conference proceedings and other useful information from the internet. The literature review was used to establish the skills required for public sector procurement and challenges. The key areas covered include: overview of Department of Feeder Roads, procurement skills required, challenges facing public sector procurement and ethical standards of public sector procurement. The literature review had two main purposes:

1. To identify procurement skills required and challenges of public sector procurement as to be used as a base line for the research.
2. To provide background knowledge with regards to the research questions, which provide “pegs on which to hang” the data (Berker and Bryman, 2004) and is critical in the choice of an appropriate unit of analysis (Yin, 2003).

3.1.2 Stage 2: Exploratory Interviews

Stage 2 focused on obtaining data through semi-structured interviews, as required for the completion of objectives by undertaking a qualitative based study which explores key personnel perspectives. This required contacting senior management consisting of both Quantity Surveyors and Civil Engineers and investigating their views. Interviews opened up the opportunity to discuss procurement issues with contracts managers, Quantity Surveyor and Civil Engineers, all of whom have first-hand experience of procurement management (feeder roads projects). As such, the purpose of these interviews was to gain a better understanding of how the participants felt about the whole procurement system, considering the number of very challenging issues.

A series of interview questions was developed and reviewed. The next step was to develop a list of contacts to be interviewed. As the list of possible contacts was being developed, the interview process began. Given that this research focuses on a very important aspect of the public sector organization, this category of respondents as presented in Table 3.1 were considered most appropriate to solicit accurate and detailed information. In total, 17 key personnel were interviewed.

Table 3.1 Interviewee's profile

Reference	Position	Profession	Number of Targeted	Number of Interviewed	Percentage (%) Interviewees
ITQS 1	Senior Quantity Surveyor	Quantity Surveyor	10	10	100
ITCE 1	Senior Engineer	Civil Engineer	10	7	70
Total			20	17	85

Source: Field Survey – 2013

To avoid bias, interviewees were selected from the workforce within divisions of the senior members of the Regional management. The selection of these interviewees was out of twenty personnel comprising the ten regional Quantity Surveyors and Civil Engineers agreed to participate in the interview during internet and phone call conversation. These personnel are experienced procurement workforce, highly educated and hold high-level positions within Department of Feeder Roads. This was also done with the aim of gaining different in-depth convergence perspectives of the subject under study.

The qualitative data collected from these interviews were analyzed and reported. Knowing the data were often of a subjective nature and the sample size was limited, no extensive statistical analyses could be performed. On this basis, the responses to the interviews were compared and contrasted to each other and to the literature review.

3.1.3 Interview Questions

Shaped by the issues raised in the literature review, the interview questions were in two sets exploring key dimensions. The first set of interview questions were designed and developed to gain views on procurement skills required in DFR. The second set of interview sought the interviewees' views about the challenges facing procurement in DFR.

3.1.4 Limitations of the Study

The study used semi-structured interview instead of face to face interview even though the latter can probe into interview questions better.

3.1.5 Ethical considerations

The credibility and authenticity of research findings largely depends on the ethical conduct of the researcher. Due to the author's role as an employee within the organization studied, the Department of Feeder Roads, his independence and objectivity may be questioned. However, efforts were made to avoid undue influence by participants and third parties while conducting the study. In fact, all efforts were made by the researcher to maintain a high degree of professionalism from topic choice, through data collection to writing up the report.

3.1.6 Response Rate

The response rate was 85% see table 4.1 on Page 26.

This was achieved as a result of constant phone calls and internet conversation to remind respondents. Also respondents were assured of confidentiality of views or opinions expressed and their secrets shared with the researcher.

3.5 Analysis of Data

The data collected was collated. Microsoft excel was mainly used to analyze the data. Frequency tables, percentages and descriptive models were used to analyze the results from these analyses provided the basis for finding the common trends through the responses with respect to the research objectives.

KNUST



CHAPTER FOUR

4.0 RESEARCH ANALYSIS AND FINDINGS

This chapter presents information that was obtained through the interviews. Semi-structured interviews were adopted to gain more in-depth knowledge into the relevant issues, which contributed to accurate judgment and conclusions. The interviews were focused on key aspects to seek explanation and clarification on critical themes. As illustrated in Table 3.1, 20 experienced senior management officials holding higher strategic positions within Department of Feeder Roads were targeted but 17 interviews were conducted constituting 85% response rate of interviewees. Appendix 1 presents a copy of the interviews questions.

4.1 Demographic Characteristics of respondents

Responses were received from Senior Quantity surveyors and Senior Civil engineers within Department of Feeder Roads. Out of the 17 responses, 10 responses representing 100% were Senior Quantity surveyors while 70% were Senior Civil engineers as presented in Table 4.1.

Reference	Position	Profession	Personnel Targeted	Personnel Interviewed	Percentage (%) of Interviewees
ITQS 1	Senior Quantity Surveyor	Quantity Surveyor	10	10	100
ITCE 1	Senior Civil Engineer	Civil Engineer	10	7	70
Total			20	17	85

Table 4.1 Interview profile (Professional background of respondents)

Source: Field Survey – 2013

4.2 Interviewees view on procurement skills required

The first objective of the study is to identify the skills required to manage public sector procurement. Interviewees were asked to rate the skills revealed in the literature to the procurement function.

4.3 Cost Analysis skills

As presented in Table 4.2, the Department of Feeder Roads had significant cost analysis skills, with 41.18 percent high rate. A significant proportion of 23.53 percent had very high rating, while 29.41 percent indicating low and 5.88 percent representing very low rate. The interviewees expressed the view that their high rating of Cost analysis as procurement skills was the fact that these skills are critical to their procurement functions.

Table 4.2 Rating the performance of DFR in terms of cost analysis

Reference	Ratings	No of Respondents	Percentage (%)
ITQS 1, ITCE 1	Very High	4	23.53
	High	7	41.18
	Low	5	29.41
	Very Low	1	5.88
Total		17	100.00

Source: Field Survey – 2013

4.4 Legal procurement skills

Interviewees were conscious of the punitive action within the procurement system when procurement laws are infringed, therefore procurement workforce attaches high importance to Legal procurement skills. Despite the importance of Legal procurement skills as expressed by the interviewees, the result indicated 35.29 percent high in Legal procurement skills. 17.65 percent very high and 11.76 percent very low rate as indicated in Table 4.3. ITQS1 had this to say: ‘we are careful about these legal issues so that at the end of the day everybody gets satisfaction’. The good working relationship which exists between the client and contractors has led to compliance with contract provisions throughout the procurement process which was cited to reduce to the barest minimum conflict. As a result, there is shared responsibility to reduce issues that are likely to spark conflict. This is narrated in the quote below. In addition, the low rating of legal procurement skills is linked to the fact that the Public Procurement Authority deals with procurement related conflicts (ITCE1).

Table 4.3 Rating the performance of DFR in terms of Legal procurement skills

Reference	Ratings	No of Respondents	Percentage (%)
ITQS 1, ITCE 1	Very High	3	17.65
	High	6	35.29
	Low	6	35.29
	Very Low	2	11.76
Total		17	100.00

Source: Field Survey – 2013

4.5 Project Management skills

From Table 4.4, it could be seen that 8 out of the 17 respondents representing 47.06 percent were of the view that, the Department rated low in terms of project management skills, while 35.29 percent rated the Department high and 17.65 rated very low. DFR project management success will depend on many factors, the most important of which is project completion within specified budget. The second most important factor affecting success is on time completion (ITQS1). Procurement function focuses on value for money (ITQS1, ITCE1). It is often true that a good project, if combined with poor project management will usually face serious difficulties. The role of the project management team is probably the most important element in controlling and or managing the cost of a project (ITQS1).

Table 4.4 Rating the performance of DFR in terms of Project management skills

Reference	Ratings	No of Respondents	Percentage (%)
ITQS 1, ITCE 1	Very High	0	0.00
	High	6	35.29
	Low	8	47.06
	Very Low	3	17.65
Total		17	100.00

Source: Field Survey – 2013

4.6 Quality Management skills

From Table 4.5, in the opinion of respondents, 47.06 percent rated the Department low on Quality management skills. A significant proportion of 29.41 percent rated DFR very low while 23.53 percent rated the Department high. According to all

interviewees, the importance of Quality management is to manage government-limited resources to deliver long-term quality work in cost effective manner. DFR's projects, performances are assessed by how well they are able to manage the time deliver quality and value they follow every clause in the conditions of contract (ITCE1). From the experience of the interviewees, it could be inferred that the percentage provides a realistic profile that can be used to represent the general practice of quality management skills.

Table 4.5 Rating the performance of DFR in terms of Quality management skills

Reference	Ratings	No of Respondents	Percentage (%)
ITQS 1, ITCE 1	Very High	0	0.00
	High	4	23.53
	Low	8	47.06
	Very Low	5	29.41
Total		17	100.00

Source: Field Survey – 2013

4.7 Variation/Change management skills

The statistics as indicated in Table 4.6, showed a significant proportion of 64.71 percent for a rating of very low performance of variation/change management skills. 29 percent rated low while 5.88 percent rated high. Obviously, the 64.71 percent changes/variation in construction projects in DFR is causing substantial adjustment to the contract duration and construction cost. The most common effect of variation order, during the construction phase, is the increase in project cost. Practically, it is true that the need for the project owner may change in the course of the construction, market conditions may also impose changes to the project, technological

developments may alter the design, errors, additions and omission may force a change during construction. The variations or the changes that may come as a result of the alteration may impose further cost on the project (ITQS1).It can therefore be inferred from interviewees that the DFR management skills is very low and therefore needs critical attention.

Table 4.6 Rating the performance of DFR in terms of Variation/Change management skills

Reference	Ratings	No of Respondents	Percentage (%)
ITQS 1, ITCE 1	Very High	0	0.00
	High	1	5.88
	Low	5	29.41
	Very Low	11	64.71
Total		17	100.00

Source: Field Survey – 2013

4.8 Interviewees view on challenges facing development of procurement management

Tables 4.7 indicate the opinion of professionals in DFR on the extent to which stated challenges are attributable to procurement management.

Table 4.7 Response agreement to challenges

Statement of challenges	Answer	Response	Percentage (%)
1. There is strict compliance to the procurement Act, 2003 (Act 663)	Strongly disagree	3	17.65
	Disagree	7	41.18
	Neutral	1	5.88
	Agree	4	23.53
	Strongly agree	2	11.76
2. There is a high Level of political interference in the procurement role	Strongly disagree	0	0.00
	Disagree	2	11.76
	Neutral	0	0.00
	Agree	10	58.82
	Strongly agree	5	29.41
3. Level of technical know-how of contractors and their staff is low	Strongly disagree	1	5.88
	Disagree	6	35.29
	Neutral	0	0.00
	Agree	9	52.94
	Strongly agree	1	5.88
4. There is inadequate financial provision (Budget allocation)	Strongly disagree	5	29.41
	Disagree	8	47.06
	Neutral	1	5.88
	Agree	1	5.88
	Strongly agree	1	5.88
5. There is regular payment of certificate of work done	Strongly disagree	11	64.71
	Disagree	6	35.29
	Neutral	0	0.00
	Agree	0	0.00
	Strongly agree	0	0.00

Source: Field Survey – 2013

Rating: 1 - Strongly Disagree 2 - Disagree 3 - Neutral 4 - Agree 5 - Strongly Agree

From Table 4.7, 41.18 percent of professionals disagreed that there is strict compliance to the procurement Act, 2003 (Act 663), while 23.53 percent thought otherwise by agreeing that there is strict compliance of the Act, it is not surprising that there is no evidence that the passage of the Public Procurement Law and its implementation has made any significant impact in curbing corruption in public procurement in Ghana, these were partly due to lack of enforcement of the Public Procurement Act, 2003 (Act 663).

Again, a substantial proportion of 58.82 percent of professionals agreed and 29.41 percent strongly agreed that there is high level of political interference in the procurement role as indicated in Table 4.7. These figures go to support the assertion of researchers such as Nakamura, 2004 that public procurement has been perceived as an area of waste and corruption. It also buttresses the point made by International Transparency (undated) that Corruptions and bribes are widespread in government contracts. Undoubtedly, (Osei-Tutu, Badu & Owusu-Manu, 2009) stated that, corruption occurs throughout the procurement process and project cycle, through the actions and inactions of political officers, public servants, clients, consultants, contractors and suppliers. All of these are confirmed by (World Bank, 2010) that political interference with the procurement process poses a challenge to the implementation process and public procurement reforms. Word Bank, (2010) further states that a good number of politicians think that they have the right to intervene in the procurement procedures thereby leading to capricious procurement decisions.

The result further indicated that 52.94 percent of the respondents agreed that there is low level of technical know-how of contractors and their staff and this implies that most contractors and their staff responsible for execution of works are not

procurement-proficient, even though they have been trained. Though 35.29 percent disagreed that technical know-how of contractors and staff is low, Similarly Forgor (2007) argued that lack of proper training of managers on the procurement process is a challenge that confronts procurement reforms. This supports the assertion that poor dissemination of procurement law is one of the challenges facing the smooth implementation of public procurement laws (Azeem, 2007). Concerning the results on inadequate financial provision (Budget allocation), 47.06 percent disagreed and 29.41 percent strongly disagreed as indicated in Table 4.7, and it is therefore not surprising that (World Bank, 1998; World Bank, 2001; Ameyaw, 2012), indicated that operational strengths and weaknesses of public sector depend largely on its available financial resources (budget allocation), legal resources and government political support.

From Table 4.7, eleven (11) interviewees, making up 64.71 percent of the total interviewees strongly disagreed that there is regular payment of certificate of work done, while other six (6) interviewees making up 35.29 percent disagreed that there is regular payment of work done. These figures go to support the statement made by (Azeem, 2007), that delays in payment of contractors and suppliers are also cited as some of the crucial factors that challenge procurement reforms implementation.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Detailed discussions of key issues, which emanated from interviews of the research, are presented in this chapter. The findings from the interviews are discussed in relation to the objectives of the study, which is underpinned by the literature to enable meaningful conclusions to be drawn and appropriate recommendations made.

5.2 Objective one: To identify the skills required to carry out effective and efficient public sector procurement in DFR

The results suggested an acceptance that public sector procurement requires competencies in all areas of skills for effective delivery of procurement functions. This corresponds with the need to adapt to the paradigm shift and changes in technology, global competition, and changing customer preference in accordance with international best practice as identified by Giunipero and Handfield (2004) and Tassabehji and Moorhouse (2008). Nevertheless, with competencies in areas like Cost analysis and Legal procurement skills the Department rated high to strategically promote and contribute to the competitiveness within the global market as suggested by Giunipero and Handfield (2004) and Feisel et al. (2008). These skills have been cited by Eltantawy (2005) to offer value in cost management, and establish good contractor relationships to improve delivery of quality works and yield optimum value for money as confirmed in the interviews.

Similarly, the need for competencies in project management and quality management as well as Variation/Change management skills needs immediate attention since DFR recorded a substantial proportion of low rate. This is due to the shift from a clerical role to a more strategic function as identified by Eltantawy (2005) requiring effective management and leadership competencies similar with that of (Jokinen, 2005). Such category of management is required to spearhead this revolution in order to enhance the use of modern procurement tools such as e-procurement and corresponds to the findings of Thai (2001) and Tassabehji and Moorhouse (2008). One possible explanation is also reflected in the argument of Carr and Smeltzer (2000) that, the drive to achieve higher quality works, greater innovation and maximum VfM is recognized around the globe (including developing countries as in this study) necessitating extensive investment towards developing skills to enhance performance. This shows the importance of development in all these skills to the success of the procurement function in the Department for improvement of what Feisel et al. (2008) termed competitive advantage. These skills are target to deliver procurement principles of value for money and enhance good procurement practice as echoed by authors such as Giunipero and Percy (2000), Carr and Smeltzer (2000), Giunipero and Handfield (2004) Giunipero et al. (2006) and Tassabehji and Moorhouse (2008) as well as Eltantawy et al. (2009) and Basheka (2010). The findings generally reflect recognition of the procurement practice that is focused on achieving value for money through collaborative procurement between client and contractors as highlighted by all interviewees. Lawther and Martin (2005) support such assumptions in suggesting that long standing relationships and collaboration in public sector procurement functions enhance procurement skills, encouraging good procurement practice, leading to maximum targeted outcomes.

5.3 Objective two: To identify the challenges that are likely to hinder smooth development of public procurement in DFR

The key challenges as observed in Table 4.7, political interference, inadequate financial provision and irregular payment of certificate of work done are likely to hinder procurement management. This supports contentions by various reports and authors including World Bank (2008), Thai (2004a), Osei-Tutu et al. (2009; 2011) and Ameyaw et al. (2012) of the reality of interference in public sector procurement, which the majority of interviewees believe has serious repercussions on the procurement functions in general. The findings further revealed that financial constraints are the key obstacle in developing procurement management skills, it rightly corresponds with the evidence of Lamptey and Elle (2000), Peprah (2001) and Adu (2009) who suggest that lack of adequate funding impede operations of the Ghanaian road subsector.

Over the last two decades, there has been sustained interest towards improving Government procurement around the world. These certainties have intensified the exploration for innovative measures of public services to achieve value for money (Anvuur et al., 2006). However, a continuing weakness and apparent lack of training of procurement workforce within DFR endangered attempts meant to deliver value for money. Various reports including Latham (1994) and Egan (1998) in the UK and the World Bank (2003) in Ghana emphasized these incidents and suggested recommendations for procurement reforms (Anvuur et al., 2006; Osei-Tutu et al., 2011). Ghana since 2003 has made sustained efforts to reform its procurement system aimed at strengthening the delivery of value for money for its limited resources. However, little attention is given to the empowerment and training of the procurement

personnel who implement this reform. This has resulted in misapplication and underperformance within DFR, leading to the loss of huge sums of taxpayers' money.

5.4 Other findings

5.4.1 The role of PPA and partner institution in developing skills

The findings from the qualitative study indicate an inadequate role of the PPA in aiding skills development. Majority of interviewees believe the PPA would have provided effective skill development if operating in the mainstream with adequate provision of resources. This suggests that if Department relies on the PPA to provide the needed training in their current state of absence of resource (Osei-Tutu et al., 2011), then its vision of ensuring professionally managed public sector procurement now or in future is blurred.

On the other hand, all interviewees believed that partner institutions have done tremendously well regarding skills development, which signifies a deep understanding of the concept of developing skills of the public sector to manage effectively funds entrusted. This finding is consistent to Lamptey and Elle (2000) who concluded that donor funded training dominated within the road sector particularly World Bank financed training. This can be attributed to the large amount of investment provided by these partner institutions and therefore demand maximum value for money.

Any improvement in the development of the procurement workforce to manage procurement reforms to improve road construction and maintenance will have a significant influence on the overall socio-economic environment of Ghana and enhance effective procurement practice. The study was well participated in by

personnel within Department of Feeder Roads indicative of its significance for improving the procurement practice. The results reveal weaknesses in skills as well as development of workforce coupled with financial constraints and political interference, based upon which relevant conclusions and recommendations have been made for improvement.

5.5 Conclusions

The results bring to light that the changing procurement environment is reflected in the importance of skill areas towards global shift to collaborative working relationships between client and contractors to achieve value for money. Evidently, core competencies in skill areas such as Cost analysis, Legal procurement, Project management and Quality management are unquestionably needed in public procurement. Further, there is a shift from clerical procurement functions to more strategic functions, involving the use of modern procurement tools and necessitating the development of skills in Variation/Change management which required immediate attention.

The need to develop skills within DFR has been generally welcome towards improving competencies to manage the current changing global procurement shift. This would fill the capability gaps to manage the changing procurement practice in order to achieve maximum value for money. There are existing platforms within DFR to boost skills development such as leadership commitment, good client-contractors relationship, sound ethical practice, and reliable partner institutional support. Notwithstanding this, the DFR is challenged by a combination of lack of funds and political interference, which hinder skill development. The implication is, however,

that if adequate funding can be provided and the political interference managed, then skills development is possible to achieve the expected outcomes.

5.6 Recommendations

Developing skills of the procurement workforce to manage the changing global shift of the procurement practice is pivotal in managing limited government resources for the socio-economic development of the nation. Based on the results of the study, progressive deliberate action must be developed to enhance skills of the procurement workforce to manage and safeguard taxpayer's money. The central government should increase the needed financial resources to support the PPA and the Road Ministry to develop skills of the workforce to complement that provided by the partner institutions.

5.7 Further research

Further research is recommended to explore the skills of other stakeholders particularly contractors. Also in the presence of more time and financial resources, other lower management staff within DFR should be involved in the study to provide insights on their views to skills development.

REFERENCES

- Adjei, A.B, (2006) Message from the Chief Executive' Public Procurement Authority (online). Available at www.ppbghana.org (Accessed 13 July 2013).
- Adu, J. (2009) Financing and Evaluation of Investments in Road Infrastructure Development [online]. MSc, Kwame Nkrumah University of Science and Technology. Available from: space.knust.edu.gh:8080/jspui/.../629/.../JAMES%20ADU.pd... (Accessed 15 August 2013).
- Arrowsmith, S. (2003). Government Procurement in the WTO. The Hague/London/New York: Kluwer Law International.
- Ameyaw, C., Mensah, S. and Osei-Tutu, E. (2012) Public Procurement in Ghana: The Implementation Challenges to the Public Procurement Law 2003 (Act 663). International Journal of Construction Supply Chain Management (online).. (Accessed 15 August 2013).
- Anvuur, A., Kumaraswamy, M. and Male, S. (2006) Taking Forward Public Procurement Reforms in Ghana. CIB W107 Construction in Developing Countries International Symposium "Construction in Developing Economies: New Issues and Challenges" January 18th – 20th; 2006 – Santiago, Chile
- Andvig, J. & K.O. Moene (1990) How corruption may corrupt Journal of Economic Behaviour and Organization
- Andvig, J. And Fjeldstad, O.-H. With Amundsen, I., Sissener, T. & Søreide, T. (2001) Corruption: a review of contemporary research. Bergen, Chr. Michelsen Institute.
- Appiah, R. E (2011) Building Relevant Skills for Public Procurement. E-Procurement Bulletin (online) 2 (1), pp. 1-6. (Accessed 28 August 2013)
- Atuahene, K. (2010) Economic Appraisal and Prioritization of Feeder Road Projects in Ghana (online). MSc, Kwame Nkrumah University of Science and

Technology. Available from: Dspace.knust.edu.gh College of Architecture and Planning (Accessed 15 August 2013).

Arrowsmith, S. (2003). Government Procurement in the WTO. The Hague/London/New York: Kluwer Law International

African Watch Magazine, (February, 2012) Edition “Woyome Saga”

African Development Bank and African Development Fund Report (October, 2002)
ADB/ADF/OPEV/02/10

Azeem, V. (2007). Impact of the Public Procurement Act, 2003 (Act 663) in Ghana integrity initiative’s perspective. Paper presented at a special forum on improving efficiency and transparency in public procurement through information dissemination.

Annual report, (2012) Management meeting report Department of feeder Roads, Koforidua

Basheka, B. C. (2008) Procurement Planning and Local Government in Uganda: A Factor Analysis Approach. IRSPM(online) Available from:
<http://www.irspm2008.bus.qut.edu.au/papers/documents/pdf/> (Accessed 28 August 2013).

Becker, S. and Bryman, A. (2004) Understanding Research for Social Policy and Practice: Themes, methods and approaches. 1st ed. Bristol: Policy Press.

Blackman, D. and Kennedy, M (2008) Talent Management: developing or preventing knowledge and capability? IRSPM (Accessed 28 August 2013)

Business Anti-Corruption Portal, (2010). (Accessed 3 June 2013).

Callendar, G. & Mathews, D. (2000). “Government Purchasing: An Evolving Profession?” Journal of Public Budgeting, Accounting & Financial Management

- Carr, A.S., Smeltzer, L.R. (2000), "An empirical study of the relationship among purchasing skills and strategic purchasing, financial performance and supplier responsiveness", *Journal of Supply chain management*, vol. 36 No.3
- Callender, G. and Matthews, D. (2004) *The Role of Immanence in the Future of Public Procurement*. International Public Procurement Conference Proceedings (online). (Accessed 14 July 2013).
- Dorsey, (1997) *Impact of Project Delivery System on TQM Implementation in Building Industry* (online) (Accessed 12 July 2013).
- ILO (2014), *International Training Centre of the ILO 2014*, (online) <http://www.itcilo.org>, (Accessed 10 July 2013).
- Errigde, A. & McIlroy, J. (2002). 'Public procurement and supply management strategies', *Public policy and administration*, volume 17, No.1
- Eriksson-Zetterquist, U. et al. (2009). 'When the good times are over: professionals encountering new technology', *Human relations*, Vol. 62
- Faes, W.; Knight, L. & Mattysens, P. (2001). 'Buyer profiles: an empirical investigation of changing organizational requirements', *European journal of Purchasing and Supply Management*, Vol 7 No3
- Foster, V. and Pushak, N. (2011) *Ghana's Infrastructure: A Continental Perspective*. Policy Research Working Paper 5600. The World Bank, Africa Region, Sustainable Development Department. Washington, DC: World Bank
- Forgor, E. S. (2007). *Proposed amendments to make procurement flexible: The practical experiences of District Chief Executives with respect to the implementation of the Public Procurement Law, Decentralization Agenda*, 1-3
- Franks, T. (1999). *Capacity building and institutional development: reflections on water*. *Public Administration and Development* (Accessed 28 August 2013).

- Fjeldstad, O.-H. (2006). 'Corruption in tax administration. Lessons from institutional reforms in Uganda.' International Handbook on the Economics of Corruption .
- Fellows, R. and Liu, A. (2008) Research Methods for Construction. Oxford: Blackwell Publishing.
- Giunipero, L. and Handfield, R. B. (2004) Purchasing Education and Training II
- Gwilliam, K., Foster, V., Archondo-Callao, R., Briceño-Garmendia, C., Nogales, A. and Sethi, K. (2008) The Burden of Maintenance: Roads in Sub-Saharan Africa. Background Paper 14 (Phase I), Africa Infrastructure Country Diagnostic. Washington, DC: World Bank
- Glavee-Geo, R. (2008) Public Procurement Reforms in Ghana: an evaluation of the implemented changes MSc, Molde University College. (Online). (Accessed 10 July 2013).
- Guinipero, L.; Handfield, B.R.; & Eltantawy, R. (2006), 'Supply management evolution: key skill sets for supply manager of the future', International journal of Operations and Production Management, vol.26, No.7
- Heggie, I. G. (1999) Innovations in Institutional and Management Structures for Roads: Restructuring Existing Road Agencies. Washington, DC: World Bank
- Heggstad, K. K., Frøystad, M. & Isaksen, J. (2010) The basics of integrity in procurement. A guidebook. Bergen, Chr. Michelsen Institute for DFID.
- Hunja, R.R. (2003) 'Obstacles to Public Procurement Reform in Developing countries', In Sue Arrowsmith and Martin Trybus, Public Procurement: The continuing Revolution, Kluwer International
- Hinson, C., & McCue, C. P. (2004). Planning, Scheduling & Requirement Analysis. Herndon, VA: National Institute of Governmental Purchasing, Inc.
- Jones, S. D. (2007), 'Public Procurement in Southeast Asia: Challenge and Reform', Journal of Public Procurement, Volume 7

- Jokinen, T. (2005). 'Global leadership competencies: a review and discussion', Journal of European Industrial Training, vol.29, No, 3
- Kolchin, M. and Giunipero, L. (1993), Purchasing Education and Training: Requirements and Resources Centre for Advanced Purchasing Studies, Tempe, Arizona.
- Lan,Z.G. ; Riley, L. & Cayer, J. N.(2005). 'How can local Government Become and Employer of Choice for Technical professionals?', Review of Public Administration, Vol25, No.3
- Lamont, M. & Molnars, V. (2002). 'The study of boundaries in social sciences, Annual Review of Sociology, Vol. 28
- Lamprey, J.L. and Elle, L. (2000) Evaluation Ghana Joint Evaluation of the Road Sub-sector Programme 1996-2000 (online). Available from: www2.jica.go.jp/ja/evaluation/pdf/2000_GH-P12_4_f.pdf (Accessed 10 July 2013).
- Lawther, W. C, and Martin, L. (2005) Contracting for the 21st Century: A Partnership Model. Lanham, MD: Rowman and Littlefield.
- Lengwiler, Y. and Wolfstetter, E. (2006). Corruption in procurement auctions, Governance and the efficiency of economic systems. Discussions Paper No. 90. (online). (Accessed 10 July 2013).
- Lombard, P. and Coetzer, L. (2007) The Estimation of the Impact of Rural Road Investment on Socio-Economic Development.
- Mwale, S. M (1997) Road Sector Reform: A Tale of Two Countries (Part I) Ghana: Serendipity or Foresight? African Transport Technical Note: Note No. 6
- Mandiyambira, R (2012) Managing supplier relationships to improve public procurement

performance. African Journal of Business Management (Accessed 12 July 2013).

Monczka et al.; (2004, 1998), Purchasing and Supply chain Management, International Thomson publishing, and United States of America.

Mawenya, A. S. (2008). Preventing corruption in Africa. Occasional paper, South African Institute of International Affairs (SAIIA), Johannesburg.

Murphy, E. (1995) "Half the Battle is Knowing What Skills to Acquire," Purchasing

Mlinga, R. S. (2008) Ethics in Public Procurement: A Missing Link in the Education and Training of Construction Industry Practitioners. The Construction Industry Forum 12 – 13 September. Karimjee Hall-Dares Salaam.

Matthews, D. (2005) Strategic Procurement in the Public Sector: A Mask for Financial and Administrative Policy. Journal of Public Procurement (online). (Accessed 28 August 2013).

McCue, C. and Gianakis, G. (2001) Public Purchasing: Who's Minding the Store? Journal of Public Procurement (online). (Accessed 14 July 2013).

Nakamura, D. (2004, September 4). "Untrained Staffers Blamed for Costing City Thousands." Washington Post.

National Institute of Governmental Purchasing, Inc. (1999). Advanced Public Procurement (5 edition.). Herndon, VA: Author.

Owusu-Manu, D., Badu, E and Edwards, D. J. (2011) Development of a Procurement Management Framework in Ghana: A New Paradigm for Interdisciplinary Postgraduate Education. Industry and Higher Education (online). (Accessed 10 July 2013).

ODPP Annual Report (2007). Office of the Director of Public Procurement Annual Report, 2007. Malawi

Quagraine, V. K. (2007) New strategies to improve the management capacity of contractors for labor-based methods in road rehabilitation in Ghana (online). PhD, Virginia Polytechnic Institute and State University. Available from: scholar.lib.vt.edu/.../VictorQuagraineDissertation05MayETD.p... (Accessed 10 July 2013).

Office of the Auditor-General, OAG (2010) Performance audit report of the Auditor-General on the maintenance of feeder roads in Ghana (online). Available from: www.ghaudit.org/reports/FEEDER+ROADS.pdf. (Accessed 12 July 2013).

Osei-Tutu, E., Badu, E. and Owusu-Manu, D. (2009) Exploring corruption practices in public procurement of infrastructural projects in Ghana. International Journal of Managing Projects in Business (online). (Accessed 28 August 2013).

Public Procurement Act, 2003 (Act 663)

Peprah, C. (2001). Coordination of the formulation of road transport investment policies in Ghana (online). MSc, Kwame Nkrumah University of Science and Technology. Available from: dspace.knust.edu.gh > ... > College of Architecture and Planning (Accessed 15 August 2013).

Public Procurement Board (2007a) Procurement Principles and Ethics; Short Term Training on the Public Procurement Act (Act 663), Module 3, September 2007. Accra, Ghana

Public Procurement Board (2007b) Procurement Cycle; Short Term Training on the Public Procurement Act (Act 663), Module 5, September 2007. Accra, Ghana.

Peterson, O.T. & Van Fleet, D.D. (2004). 'The ongoing legacy of R.L.Katz: An updated typology of management skills', Management decision, vol.42, No.10

Peter Duah, Developing capability of public sector procurement under Act 663, Ghana. The Case of Road Subsector.

Public Procurement Board (2003b) Public Procurement Act, 2003 (Act 663) Accra,Ghana.

Stuijts, M., Waterman, D. and Schreijen, J. (2009) Professionalizing communal procurement: The experience in the Dutch public sector (online). (Accessed 10 July 2013).

Schiele, J. J. and McCue, C. P. (2006). Professional service acquisition in public sector procurement, International Journal of Operations and Production Management

Storer, G. and Rajan, A. (2002). ‘New mindsets and new skills: The strategic importance of continuous competence in emerging financial services business models’, Journal of Financial Regulation and Compliance, Vol. 10

Sauber, M.H. et al, (2008). ‘Developing supply chain management program: a competency model’, Quality assurance in Education, Vol.16, No.4

Sahr J. K. (1998). Corruption and integrity improvement initiatives in developing countries. United Nations Development Programme. (online). (Accessed 10 July 2013).

Saburi, A. A. (2012) Determining the Consistency in Implementing Rural Road Transport Development using PEST Analysis: The Case of Kilimanjaro Region, Tanzania. International Journal of Trade, Economics and Finance (online). (Accessed 14 July 2013).

Søreide, T. (2006) Corruption in International Business Transactions: The Perspective of Norwegian Firms in Susan Rose-Ackerman, ed.: International Handbook on the Economics of Corruption.

Thai, K. V. (2001). “Public Procurement Re-examined.” Journal of Public Procurement

Thai, K.V. et al (eds.) (2005), and Challenges in Public Procurement: An International Perspective (Boca Raton: PR Academics Press)

- Tanzi, V. & Davoodi, H. (1997) Corruption, Public Investment and Growth, JMF Working Paper WP/97/139, International Monetary Fund Washington DC.
- Tassabehji, R, and Moorhouse, A (2008) The changing role of procurement: Developing Professional effectiveness. Journal of Purchasing and Supply Management (online). (Accessed on 15 July 2013).
- Transparency International (2006) Handbook for curbing corruption in public procurement, Berlin, Transparency International.
- The IDL group (2011) "More than just roads": Analysing Governance in the Rural Transport Sector Ghana. Working Paper No4 (online). Available from: www.theidlgroup.com/documents/report_4.pdf (Accessed 12 July 2013).
- Tucker, T. (1998). "A Critical Analysis of the Procurement Procedures of the World Bank." In S. Arrowsmith & A. Davies (Eds.), Public Procurement: Global Revolution London: Kluwer Law International
- Transparency International. (2012). Ghana Corruption Perception Index. Available at: (online). (Accessed 28 August 2013).
- van de Walle, D. (2008) Impact Evaluation of Rural Road Projects. Washington, DC: World Bank
- Ware, G., Moss, S., Campos, E. (2007) 'Corruption in Public Procurement: A Perennial Challenge' (2007) in Campos J.E, S. Pradhan (ed.) (2007) The Many Faces of Corruption, Washington DC, The International Bank for Reconstruction and Development / The World Bank
- Westring, G. (1997) Ghana Public Procurement Reform, An Audit Report prepared for the World Bank. Stockholm: Advokatfirman Cederquist KB
- World Bank (2008) Ghana - Road Sector Development Project. Washington D.C. - The Worldbank. (Accessed on 15 July 2013).
- World Bank (2001) Ghana - Road Sector Development Program Project. Washington, DC: World Bank. Available from: <http://documents.worldbank.org>. Ghana-road-sector-development-program-project. (Accessed on 15 July 2013).

World Bank (2003) Ghana Country Procurement Assessment Report – 2003 Main Report, Vol. 2. Washington, DC: World Bank

World Bank. (2004). Uganda country procurement assessment report. Main findings and recommendations. Washington D.C. The World Bank. Report No. 32499. (2). (Accessed on 15 July 2013)

World Bank. (2003b). Country procurement assessment report. Washington D.C. - The World Bank. Report No. 29055. (2) (Accessed on 15 July 2013)

World Bank (2010) World Bank Enterprise Survey, <https://rru.worldbank.org/>

Yin, R. K. (2003) Case Study Research: Design and methods. Thousand Oaks, California: Sage Publications.



Appendices

Appendix 1 – Interview Protocol



KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY -

KUMASI

All answers you provide in this interview will be kept confidential

Proposed interview protocol

Enhancing public sector performance within the framework of the public procurement Act, 2003 (Act 663) - Case study of Department of Feeder Roads.

1. Profession: Civil Engineer ☐ Quantity Surveyor ☐

	Very Low	Low	High	Very High	Remarks
1. Cost analysis skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Legal procurement skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Project management skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Quality management skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Variation/Change management skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. How do you rate the DFR's organizational skills in the following areas?
3. What is your level of agreement with the following statements regarding their impact on DFR procurement role?

1 - Strongly Disagree 2 - Disagree 3 - Neutral 4 - Agree 5 - Strongly Agree

	1	2	3	4	5	Remarks
1. Strict compliance to the procurement Act, 2003 (Act 663)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. There is a high Level of political interference in the procurement role	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Level of technical know-how of contractors and their staff is low	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. There is inadequate financial provision (Budget allocation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. There is regular payment of certificate of work done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4 (a) What role does Public Procurement Authority play in supporting the development of staff competencies?

.....

.....

(b) What role do partner institutions (donors) and learning centres like universities play in supporting the development of staff competencies?

.....

.....

5. Any further comments

.....

.....

KNUST

