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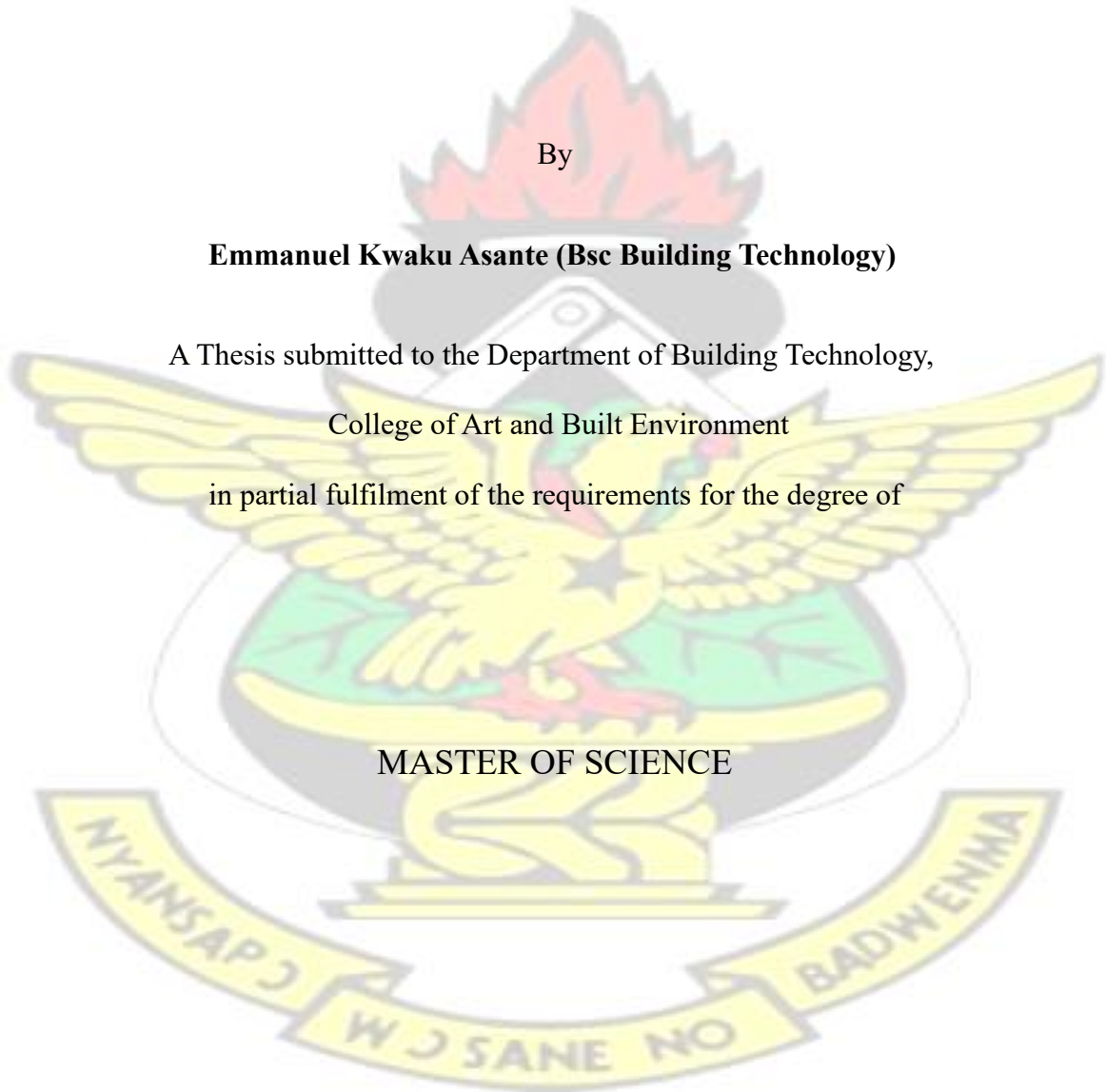
**Procurement Practices in the Ghanaian Building Sector: The Implementation
Challenges to the Public Procurement Act, 2003 (Act 663)**

By

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A Thesis submitted to the Department of Building Technology,
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in partial fulfilment of the requirements for the degree of

MASTER OF SCIENCE



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DECLARATION

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

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ABSTRACT

Academically, Public procurement in the building Industry has been an over looked area of study even though public procurement specialists and governmental entities have persistently attempted to enhance public procurement practices. This study ascertains common elements of public procurement knowledge and information through a brief analysis of literature and provides analysis on the bigger picture of the ongoing Procurement Practices in the Ghanaian Building Sector as well as some Implementation Issues /Barriers to the Public procurement Act, 2003(Act 663). The study adopted a quantitative research method with a sample size of 68 from some selected Metropolitan and Municipal Assemblies in the Greater Accra Region yielding a response rate of 100 percent. The Statistical Package for Social Sciences (SPSS) was basically used in processing the data and key statistical tools such as the mean value test, chi-square test, and the Relative Importance Index (RII) were used in analyzing the data. The study presented the major barriers or challenges confronting the implementation challenges to the public procurement Act, 2003 (Act 663) as; Corruption related issues, Political interference, Delays in payment of contractors and suppliers, Low salaries of procurement personnel, Compliance issues with some requirements of the law and Overpricing of goods, works and services by tenderers. This study has provided an excellent and solid information on the procurement system in the building industry and is of great benefit to consultant and contractors, project sponsors and investors in infrastructure developments the international and domestic lending agencies, governmental and non-governmental organizations interested in developing the economy through the Building Sector.

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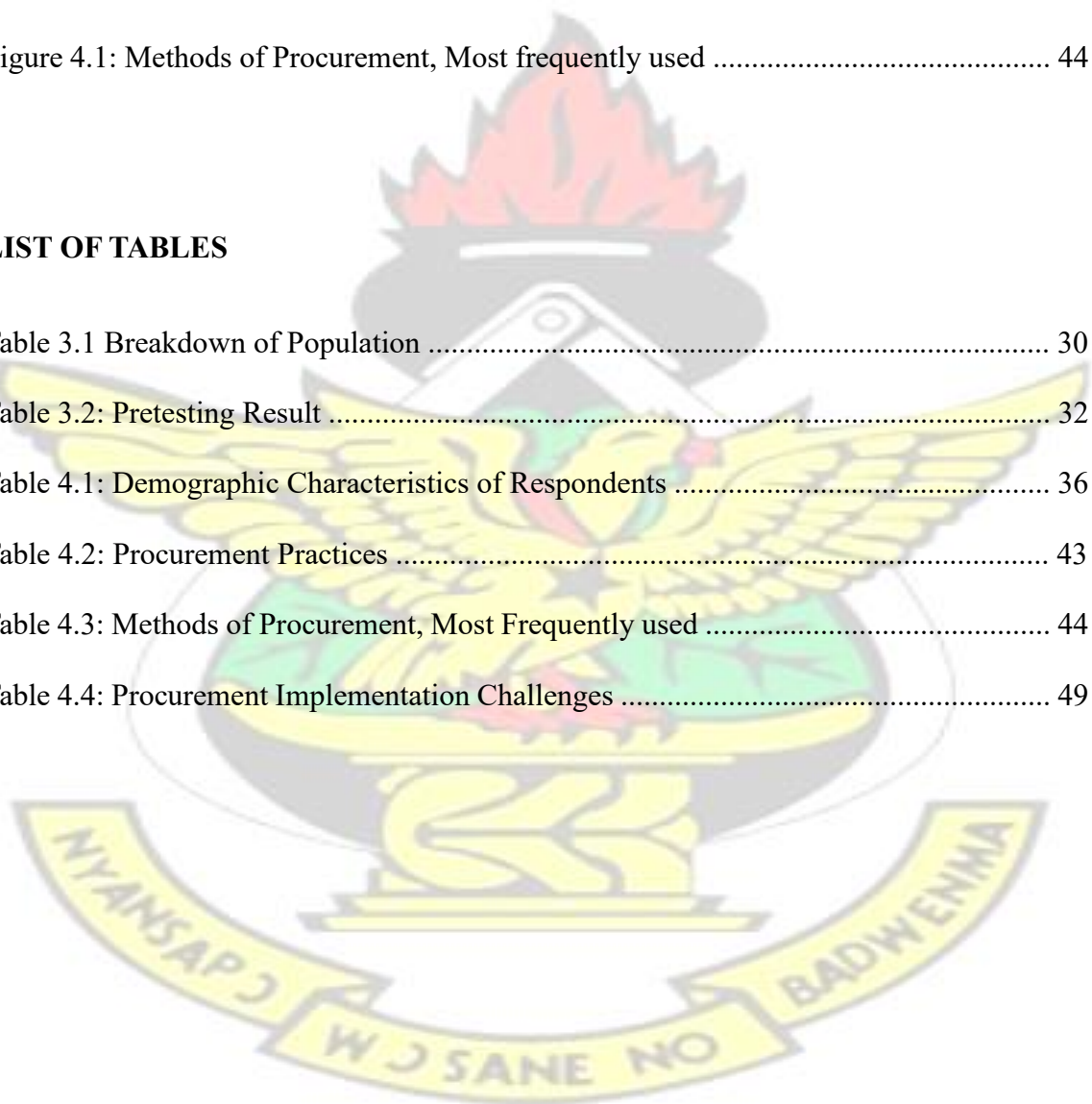
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DEDICATION

This work is dedicated to God the Father, the Son and the Holy Spirit whose grace, love and protection led me through it all. Also, I dedicate this work to my loving Parents (Mr. and Mrs. Asante), Pastor and Dr Mrs. Agyei-Kwakye and my best friend Sarah Naa Ashiokai Noi whose prayers, investment, support and encouragement saw me through in the completion of this thesis.



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Procurement can generally be described in terms of the acquisition of goods, works and services. The process may address pertinent issues like sourcing, purchasing and identifying qualified suppliers to deliver the right goods for buyers or beneficiary. It is significant that goods, services and works will meet the buyer's needs in terms of quantity; time, quality, and location also give a value for money (Mangan et al., 2008). It establishes the contractual framework that defines the structure of authorities and responsibilities for stakeholders in the building environment. It is a significant aspect that contributes to project success and complete client's satisfaction.

Procurement on a larger scale also involves critical issues such as management, culture and environmental, economic, political, ethical and political (Walker and Rowlinson, 2008a). The most appropriate procurement practices and systems adopted is very key for stakeholders to address these critical issues within the building industry worldwide.

Though the building industry's current environment is greatly diverse and speedily developing, a number of constrained procurement practices and structures are readily available for infrastructural development. The procurement systems and practices that are existing affects the success of projects variably in the building industry (Tookey et al., 2001).

Nevertheless, procurement advancement in the aspect of project administration in the building trade has emerged from various factors which has compelled the building industry into a position where survival depends on transformation (Walker and Rowlinson, 2008a).

Tookey et al. (2001) stated that several laid down procurement practices are available, but they have their individual inherent strong point and flaws which introduces the fundamental demand of how best they can be improved. The selection of the best procurement practices in the building industry has been observed to be challenging, in the light of the fact that even proficient stakeholders may not identify all the latent risks and benefits to the established practices. It can therefore be concluded that, a sequence of planned risks is very crucial under the subject of procurement (Tookey et al., 2001). The result of undertaking an inefficient procurement practice may possibly be an obstacle to the realization of some projected advantages related, and can ultimately contribute to project ruin in the building industry across the world (Luu et al., 2003). Unsuitable procurement practices may contribute to cost and time overruns disagreements and entitlements on building assignments (Abdel-Meguid and Davidson, 1996; Masterman, 1992). Equally, procurement practices exist to aid attain ideal results in relations to quality, time and cost in the building industry. They can likewise add absolutely to additional facets of execution, such as achieving set objectives (Jagger, 1995). In order to ensure successes in the procurement practices, most developing countries have adopted public procurement systems to achieve the objective of development. As a result of this, the public procurement system should efficiently ensure that spending of government provides value for money, as most developing countries are facing high progressive challenges (Ameyaw et al., 2012).

However some major barriers and constraints to the implementation of public procurement have been reported to be regulatory and legal, risks and contract management, principles of procurement, political, culture, inter and intra organizational issues, conditions of the country, lack of understanding, land acquisition, project revenue and finance issues (Noor,

2013).He further stated that procurement practices and challenges have an immediate relationship and control on the success and performance in relation to project delivery in the building sector and other development organizations.

According to Ameyaw et al. (2012), the Ghana government launched a reform programme in 1996 concerning the management of public finance to safeguard money in terms of value and rationality of procurement in the public setting. The programme outlined some flaws in the system set for procurement. The flaws outlined were lack of technical experts, low widespread concerning public procurement, inadequate rules and regulations and the absence of distinct roles and responsibilities for procurement entities.

1.2 Problem Statement

Notwithstanding the importance of public procurement, their processes and practices have been a subject of controversy in recent years. Almost every major government building project has generated debates. An example was the various debates and discussions on the construction defect of the new court complex, worth US\$50 million project, which began in August 2011 and was funded by the government of Ghana ("Construction Defect in New Court Complex; Washrooms Closed").

According to Ofori (2006) the building industry is considered as an important sector of the economy which contributes to gross domestic product (GDP), capital formation, and diverse employment (Hillebrandt, 2000).As it contributes to numerous physical infrastructure and other productive assets of most developing countries, the industry is of very critical importance (Ofori, 2006).

Quartey (1996) argued that it is very necessary that all developing countries focus on infrastructure development provision in order to maintain the growth of the economy and

seek the standards created by the developed nation .Quartey (1996) states further that the methods used in the procuring and implementing of building projects in developing countries are not accustomed to achieve successful operation of projects. The established procurement processes in developing countries hinders the success of building projects (Frimponga et al., 2003). From the above discussions it is clear that the building industry is of great importance in economic development and there is the urgent need to understand the procurement practices for better implementation of infrastructural developments (Noor et al., 2011c).

Rwelamila et al. (2000) supplementary suggest that to achieve the dramatic growths in efficiency and quality that are both possible and essential there is a need to start questioning current and emerging procurement approaches. They concluded that it is of paramount importance that there is a need to accept the reality that the problems of the building industries need their own solutions and these solutions should be appropriate to the building environment. There is the need to consequently find local solutions to procurement problems of developing countries and which can only be achieved with country specific research. Toor and Ogunlana (2008) advocate that extra researches should be piloted in most countries to explain the structure and nature of the building industry, scale of building projects, maturity of the concerned organizations, procurement practices and cultural norms and values.

Moreover, the ever changing systems and globalization of the building trade has presented several difficulties to stakeholders at all levels (Ofori,2007). There is therefore undoubtedly, the need to gather data and conduct studies to achieve a healthier understanding of what actually happens in the building industry in general and procurement in particular in developing countries (Noor et al., 2011c).

1.3 Aim of the Study

The aim is to provide an overview of the procurement practices in the Ghanaian building industry.

1.4 Research Objectives

1. To identify whether the public procurement Act, 2003(Act 663) is complied with, in the building sector when procuring in Ghana.
2. To identify the implementation challenges to the public procurement Act, 2003 (Act 663) within the building Sector in Ghana.

1.5 Significance/ Justification of the Study

The research will serve as an informational tool to organizations and institutions both governmental and non-governmental in the area of procurement practice in the building industry.

The study will also add to literature and serve as reference in the area. Findings from the study could also arouse some interest in the area of procurement, especially for the building industry and will also create the platform for further studies in this regard.

1.6 Scope and Delimitations of the Study

From the facts in the problem statement, it is clear that the building industry faces peculiar challenges and hence needs more research attention. The study focused on stakeholders in the building industry specifically those spearheading building projects and practicing effective procurement. These stakeholders included Procurement Officers, Contract

Managers, Engineers and Quantity Surveyors from some selected Metropolitan and Municipal Assemblies in the Greater Accra Region. The scope of the study was within the Greater Accra metropolis due to operational constraints and available construction head office located in Accra. Greater Accra was also chosen because infrastructural developments under the building sector currently are very high as compared to the other regions.

1.7 Proposed Methodology

1.7.1 Introduction

A descriptive research methodology was used for this study. A survey questionnaire was administered to a selected sample of Procurement Officers, Contract Managers and Quantity Surveyors from a selected Metropolitan and Municipal Assemblies in the Greater Accra Region. A designed questionnaire survey instrument was used to explore and ascertain the procurement practices as well as the bottlenecks impeding the implementation success of the public procurement Act 663 in the building sector in Ghana.

1.7.2 Ethical consideration

To ensure that the research meets the required ethical standard, a letter was attached to seek the consent of the stakeholders to conduct the data collection for the study. Individuals who will participate in this study will then do so in their own discretion. In order to ensure confidentiality, respondents were not required to indicate their identity in responding to the questions.

1.8 Organization of the Study

The study was grouped into five chapters.

1.8.1 Chapter 1: Introduction

This section presented the background of the study, problem statement, objectives, scope and limitations of the study, significance and organisation of the research.

1.8.2 Chapter 2: Literature Review

This section addressed the theoretical and empirical reviews in relation to issues concerning procurement practices.

1.8.3 Chapter 3: Methodology

This section presented the methodology of the study which included the research design, sample and sampling technique, data collection tool and ethical consideration.

1.8.4 Chapter 4: Data Analysis and Interpretation of Findings

Chapter four addressed the presentation of data analysis and interpretation of the findings.

1.8.5 Chapter 5: Conclusion and Recommendation

This section provided a summary of the key findings, conclusions and recommendations for practice and policy makers. It suggested some core areas for future research directions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Procurement is set by government to support its various development functions (Coe, 1989) through the make/buy decision (Murray, 2007). Procurement which is commonly considered as buying is generally well-defined as the act of obtaining works, services and goods by the private or public organizations (New Economic Foundation, 2005). The basic responsibility of government itself, conceptualized procurement as one of the major or core activities of the economy executed by government apart from establishing a legal structure, reallocation of income and the delivery of goods for the public at no supplementary cost (Thai, 2001).

According to the Construction Industry Development Board (2004: 1), procurement is a means of achieving economic improvement by regulating the unfairness in awarding contracts in good turn of the underprivileged entities in South Africa. This idea was initiated in 1998 in South Africa and was termed as preferential procurement. A provisional Strategy known as the ten-point plan for public sector procurement was established by the Public Works Department. The plan called ten-point led to the enactment of Act No. 5 of 2000 (Republic of South Africa, 2000a: 1). The Act addresses the attitude of fairness and the establishment of a conventional systems of procurement.

Procurement in the building industry is described and established by the use of a procurement strategy. The major goal of a procurement strategy is to attain the optimal equilibrium of planning, risk, monitoring, funding and controlling a specific project.

Building project is an endeavor that encompasses several risks and these risks vary dependent on the procurement strategies employed (Muhammad et al., 2015).

2.2 Role of Procurement in the Building Industry

In most developed building industries, procurement characterizes a very great proportion of the over-all spend and should be managed efficiently and effectively to attain optimal value. Procurement is viewed in the building industry as a process of turning demands into definite products or services to satisfy clients need (Caldwell et al., 2009).

According to Benslimane et al. (2005), the main aim and objective of procurement is to carry out procurement activities in such a way that the works and services are at the right cost, from the right source, of the right quality, and can be delivered, to the right place, in the right quantities at the right time. Procurement can be expressed in 'six rights' and they can be achieved through following specific objectives of procurement (Benslimane et al., 2005). Some of these specific objectives are;

- To economically buy quality materials and services from sources that are reliable.
- To select efficient and capable contractors and suppliers who will ensure delivery in a timely manner.
- To buy in accordance with organizations policies.

According to Shaw (2010), procurement has a significant part to play in every organization including the building industry and should protect shareholders funds by initiating effective procurement systems. It is argued that an industrial management strategy depends on the procurement function. The features of procurement can be the budgets involved, the activities frequency and complexity of the technical functions. The procurement function which includes best value cannot be ascertained by price alone, but needs to address the

issues of quality, time and sustainability (Shaw, 2010). To establish any good procurement practice, three major questions need to be asked (Nakamura, 2004). These questions are as follows;

- Does the project reflect or meet the industries objectives?
- How does it fit into the business plan, the development and asset management strategy?
- Will the project undermine current commitments when it is embarked upon?

2.3 Key Principles of Public Procurement Important to the Building Industry.

Caldwell et al. (2009) moreover stated that there are three important principles of procurement. Transparency is the first principle, which provides that all stages of the procurement process are conducted fairly and accurately documented. The issue of accountability is the second principle and it points out that there is the need to demand responsibilities and answers from stakeholders, who may follow certain rules when using the money provided for public development. There is finally the principle of efficiency and cost effectiveness which elaborate on the achievement of the 'six rights' of supply (right: quality, service, price, time, quantity and place of delivery).

However, the following are detailed principles which underpin how public procurement practices can be sustained and benchmarked.

2.3.1 Value for money (VFM)

The most important principle of procurement is to attain value for money. It involves the attention giving to developing government priorities and policies while attaining the best performance and return for the money spent in the public sector (Bauld and McGuinness,

2006). In some situations the administration can consider other criteria like qualification of personnel, technical capabilities, and past performance records in awarding contracts to potential suppliers other than the lowest price (Cummings and Qiao, 2003). The barriers that need attention or prioritization in order to achieve a good worth for money are tradition, lack of training and education programmes, weak governing bodies, and politics (Palmer and Butt, 1985).

2.3.2 Ethics

Procurement professionals or experts are characterized with higher conducts and ethics than individuals in several careers, yet some are ignorant about what is anticipated from them (Atkinson, 2003). If the total workforce is not adequately trained and educated in the matters of procurement, there will be diverse consequences in Benchmarking in public procurement. These may affect the standards set by the code of ethics. Atkinson (2003) presents that in the United States there are about 500,000 professional purchasers where only 10 per cent are affiliates of a professional association which trains and educate members in buying ethics, and the remaining with a small or no knowledge about ethical and legal standards involved in procurement. It is however studied that challenges associated with developing nations is corruption related issues in procurement. The World Bank studies indicate that countries like Kenya, Nigeria, and Venezuela record corruption and bribery at about 12 percent of the Gross Domestic Product (GDP). This practice has accrued to the corruption among these government procurement officials and also considering the frail enforcement of laws around these areas. (Nwabuzor, 2005). There is also a level of corruption in the process of estimation/budgeting and tendering process for

procurement of works and services in the majority of developing countries (Nwabuzor, 2005). There is therefore the urgent need to establish a global code of professional ethics which will create answers or operational standards.

2.3.3 Competition

Tendering done in a competitive manner is the most preferred method by government and most public organizations in procuring goods, works and services. To address this issue it is very important to appreciate how competition arises in procurement. In this process bids are received from tenderers and an evaluation committee would be engaged in the process of making decision. The various boards and committee would evaluate bids in accordance with the requirements specified in the condition of the tender. The supplier who has carried out previous contracts successfully, the tender price and the most responsive tenderer will be awarded the contract. Adopting the stated processes stimulates competition. Tendering done competitively avoids allegations of fraud and favoritism. This will create openness in the procurement system encouraging more sellers to participate. An increased competition would help improve quality and reduce prices (Erridge et al. 1999, pp. 37-42). Procurement rules invariably assist in the creation of competitive markets, benchmarks and improve competitiveness among suppliers.

2.3.4 Transparency

Transparency can be referred to as openness and it forms an important principle in procurement. Transparency is an indispensable characteristic of guaranteeing culpability and curtailing bribery and corruption, and has attained importance in Organizations for

Economic Cooperation and Development (OECD) countries; According to (SmithDeighton, 2004) the principal governance value is Transparency. Procurement is one of the major areas where corruption is widespread in both developed and developing nations. Government will ensure transparency when there is an adherent to higher standards and an open scrutiny of conducts (Smith-Deighton, 2004):But is without argument that the responsibility to invite bidders, the transparency of the contract award processes and the right to question decisions by the aggrieved would restrain both foreign and domestic suppliers/Contractors from offering bribes and discourage political parties and public officials engaging in such acts (Rege 2001, pp. 485-515).When procurement is transparent there will be the guarantee for both the foreign and domestic investors that the award of contract is done equitable and in a just manner. Lack of transparency in all stages void of adequate information on practices and rules will pose as a barrier to trade and may have ripple effects on foreign suppliers more than the indigenous seller (Arrowsmith, 2003). The procedures set would further make certain that works, goods and services are acquired at the utmost suitable and profitable prices and eventually decreases costs.

The most imperative advantage of open procedures and transparency is the effect which their implementation may have on the corruption level in nations having the highest record of prevalence (Rege, 2001). Thus, trust is built in transparency by permitting interested parties to judge and see the superiority of government decisions and actions (SmithDeighton, 2004).

Global best practices in procurement identify that transparency is achieved via such activities as public bidding and clear and reliable instructions (Rothery, 2003).

2.3.5 Accountability

Accountability in general is not limited to the public sector (Barrett, 2000) there is also a demanded accountability from the private establishments by their stakeholders (Hughes, 2003). The private sectors have direct consideration of the market dynamism while the public servants consider politics in the operation of their responsibilities (Stewart, 1999). Accountability is regarded at both the International and national levels, and it forms an important government procurement principle. Government at the global level, are frequently caught up in business activities and procure goods, works and services including equipment for defense, infrastructure for institutions, receive and provide support, and operate political supports in other countries and the manner of all these actions result in accountability problems and high financial risk exposures. The public is continuously demanding a safeguard of public funds or resources, excellent services provision and greater level of accountability (Gunasekaran, 2005). Therefore, when roles and responsibilities of members in the procurement process are not assigned clearly, there will be a high management of risk in a multifaceted competitive setting which will give rise to the problem of accountability (Barrett, 2000).

2.4 An Overview of Procurement Practices in the Global Building Industry

Procurement practices in the modern world are interrelated systems that are progressively increasing. When procurement practices are well planned and implemented, it forms a well-organized, efficient, swift and precise management tool that builds reliability and decreases cycle time thereby impacting positively on the performance of the Building and Civil industries across the world (Seahi et al., 2015).

Watts et al. (1992) defines procurement practices as a decision related pattern to acquiring needed services and materials to support operations activities that are constant with the overall corporate strategy. Carr and Smeltzer (1997) addressed that, procurement practices relate to the specific actions that top development organizations such as the manufacturing and building industry may take to achieve its objectives. They further stated that these actions may include the process of needs identification, construction specification writing: prescriptive, performance and proprietary specification, planning, dispute resolution, funding /budgeting, solicitation, award of contract, monitoring and evaluation.

According to Giunipero and Sawchuck (2000), procurement practices in the general building industry encompasses the activities and actions available to purchasing organization to integrate supply chain in order to increase productivity and reduce time and cost.

Industries that contribute to the built environment globally respond and react to the challenges of organizational performance through the implementation of procurement practices (Seahi et al., 2015). Procurement practices offer the right key and metric performance indicators that can support the global firm when rearranging performance, cost, resources and operational logistics from relocated manufacturing facilities and department (Chao and Shah, 2010). Procurement practices do not provide rapid fix to all infrastructural development under the building sector and market penetration but provide an integration to globalizing firms (Seahi et al., 2015).

2.5 An Overview of Public Procurement

In literature there has been substantial argument over the rationale for the existence of the public sector, and the most suitable purpose and role for government (Anderson, 1989;

Donnelly, 1999; Giddens 1998; Pollitt 1993). The theory of public value as propagated by Moore's (1995) states that the public sector exclusively exist to generate public value and that the effective practice of public administration should extensively increase the public value created by public sector organizations in both the long and short run. Projects on Infrastructure are as a result of an organization's strategic management process, and therefore necessitate aligning with the corporate unit's values, objectives and missions in order to achieve value for money (Kelly et al., 2002). There is an increasing understanding of the relevance of procurement in achieving value for all manner of clients. The public sector in its numerous operations invests in several physical assets in the delivery the goods, works and services that the general public value (Winch, 2002). The procurement of most building projects including schools, courthouses and hospitals empowers government to provide services in the capacities of education, justice and health respectively. The investment in infrastructure such as buildings and roads by territory governments and Australian state accounts for over \$59 billion in their 2009-2010 budgets (ACT, 2009). As a result of this sizable outlay, the process of procurement is prospective in delivering very significant public value to the various communities. Graycar (2007) remarks that in the public sector the interventions of policies are often by-products of another practice domain or policy. Graycar (2007) believes it is often these policies of unintended consequences that make the major impact, but summarizes that policy makers are often not well equipped to capitalize on these by-products of policy making.

Government concern with public development is often focused on retaining youth in the regions, sustaining regional centers and providing regional activity. State government and Commonwealth in Australia prioritize these areas in their policy forms. When procurement

of infrastructure is done in a regional location it is likely to advance these policy byproducts, whilst not upsetting the purpose behind creating the infrastructure.

An approach on lowest cost bidding to infrastructure procurement stresses on the core business of building a physical facility but not essentially generating additional value. A public sector client may however decide to some extent spend more to create proportionately more public value rather than procuring infrastructure at the lowest price. This might involve using regional development policies by selecting building contractors who are more capable of engaging local small- and medium-sized enterprises as subcontractors, and or creating employment and training apprentices (Staples et al. , 2011).

2.6 The Public Procurement Act Implementation

In 2007, an estimation of about 17 percent of Gross Domestic Product and approximately 80 percent of tax revenue were recorded as expenditures for public procurement in Ghana. Considering the significant role public procurement plays, there is an invariable relation between the efficiency of the national procurement system, its impact on the entire Public Financial Management and the accomplishment of development goals specified in the Growth and Poverty Reduction Strategy (GPRS II). Therefore it is highly necessary for government to implement the public procurement Act (Abukari, 2014).

According to (Ameyaw et al, 2012) the Procurement Act is a complete legislation intended to eradicate organizational weakness and shortcomings which were characteristics of the Ghanaian public procurement. The government identified the public procurement system in consultation with some development partners as a subject that urgently needed consideration with respect to the prevalent perception of inefficiencies and corruption, and to establish trust in the system. The World Bank (2003a) estimated and stated that about

fifty to seventy percent of the general budget is in relation to procurement. With these trending issues of procurement, the procurement system could guarantee value for money considering government massive spending, which is indispensable to an economy facing massive progressive challenges (Ameyaw et al., 2012).

According to (Abukari, 2014) implementation of the public procurement involves competent procurement workforces, clarification and use of some requirements of the procurement Act, regularizing the Draft Regulations, Management of records, clear processes for Alternative Procurement, Training Institutions, proficient handling of Suppliers' Objections, Good Procurement Planning, Implementation and Mobilization, Contract Management schemes and fair and transparent Advertisement. Any flaws of the outlined factors will stand as an implementation challenge of public procurement.

(Abukari, 2014) outlines that the challenges that faces countries wanting to implement national laws include a lack of capacity, a lack of political will, a lack of education and awareness and a culture of administrative secrecy. Various ad hoc arrangements including external expertise at various stages of the procurement process has been adopted as a result of lack of professional input in management. After an assessment of roughly 100 selected entities on the implementation of the procurement law it was discovered that majority of specialists involved in public procurement lacked the required knowledge and professional expertise of the law governing procurement practice (Abukari , 2014).

(Ameyaw et al., 2012) added that, the institutionalization of national laws and its implementation in developing countries are inescapable. Deficient staff strength, Inadequate funding, deficient and logistical and organizational limitations are among some of the challenges restraining the procurement operations in Africa. For the public

procurement law to achieve its core objectives all stakeholders must exhibit some level of concerted effort, supported by adequate budgetary backing and a very firm political will to ensure an active and efficient implementation, streamlining and improvement in public procurement procedures in Africa. Inadequate funding is the major problem affecting the implementation of the public procurement laws in Africa (Ameyaw et al., 2012). As a result of the effort to achieve effective implementation of the public procurement process, a Joint Venture for Procurement was set up in 2005 with a mandate to Strengthening Procurement Capacities in Developing Countries. Ghana has been involved actively and has developed a methodology for evaluating performance and compliance of procurement entities, referred to as the Public Procurement Model of Excellence (PPME). The tool has been used on large scale for assessing more than 200 entities to ensure value for money (VFM) (World Bank, 2008) as cited by (Abukari, 2014).

2.7 Implementation Challenges

Implementation challenges can be deduced from environmental factors under public procurement. These take account of political, market conditions, legal and economic and organizational aspects. It is argued further that a great number of customers act on personal initiatives and habitually avoid the procuring department irrespective of the work set out by the government and its associated organizations to solve the implementation challenges (Schiele and McCue ,2006).

Professionals in the building industry in Nigeria have tremendously commended the development of the Procurement Act of Nigeria and have labelled the Act as the best approach to ensure accountability, transparency and decent practice in public procurement.

Nonetheless, notwithstanding the achievement of promulgating a Procurement Act, the Nigerian public procurement has been faced with a myriad of implementation challenges due to the deliberate refusal to comply by some stakeholders, lack of widespread knowledge of the processes, political interference and many other internal and external factors beyond reproach (Muhammad et al., 2015). The Public sector procurement in Nigeria is regulated currently by the Bureau of Public Procurement (BPP). The World Bank collaborated with the procurement specialist from Nigerian to carry out an assessment on procurement. The report confirmed that there are a lot of implementation weaknesses in the public procurement sector in Nigeria (Muhammad et al., 2015).

In 2003, it was reported in the Ghanaian procurement assessment report that majority of the staff of the Assemblies tasked with the procurement of goods, works and services were not proficient, even though they have undergone some form of training. The Assessment Report stated that application of the Public Procurement Act, Contract Document and the Standard Tender will not be effective without 'refresher' programmes and extensive training for officials responsible for procurement. Correspondingly Forgor (2007) formed that nonexistence of suitable training for procurement experts concerning the available processes, challenges the reforms of public procurement.

Political prying with the procurement process contributes to the challenges that affect the implementation process. Various government officials considering their power, exercise some rights and interfere in the processes leading to unreliable procurement choices (World Bank, 2004).

The absence of a defined career path and low pay rates of procurement officers also have an effect on the implementation of the procurement reforms ,weak record keeping (World Bank, 2003b), payment delays of sellers are also critical elements that challenges

implementation (Azeem, 2007). In recent years, public procurement specialists have influentially confronted the observed task of public procurement. As a result, making public procurement an acknowledged profession has become another challenge. Raising a group of public procurement knowledge, one of attributes of a profession, is very critical in public procurement (Thai et al., 2005).

In a comparable manner, the absence of supplier and contractor development in Malawi has been recognized as one of the major issues constraining the effective implementation of the procurement reforms. Many of the tenderers of Malawi are restricted in several capacity matters including the ability to appreciate the Tender Documents (Standard), lack of elementary knowledge of the law, difficulty in getting access to tender information and inadequate managerial and technical know-how to stay competitive in the process of tendering (ODPP Annual Report , 2007). The report further outlined the following factors for impeding the implementation of the public procurement: scarcity of skilled and experienced personnel, inadequate financial resources, and some laws compliance issues, inadequate and weak records keeping by procurement entities and overestimating of tenders by tenderers.

Corruption is a social phenomenon that promotes an anti-democratic environment which is characterized by uncertainty, abating and unpredictability moral values and disregard for legitimate authority and institutions (Gyimah-Boadi, 2002; Mensah et al., 2003).The consequences of corruption related practices in the procurement systems have diverse negative consequences, most of which are revealed in financial, social and social dimensions (Larmour, 2006; Westring, 1997). A global survey reported that, the act of bribery in the public sector procurement is assessed between \$390-400 billion per year (Lengwiler and Wolfstetter, 2006). According to Mawenya (2008) about 70 per cent of

public procurement contracts in Sub-Saharan Africa have corruption related issues Project cost has been inflated by 20-30 percent as a result of the bribes and fraudulent transaction in the procurement function (Mawenya, 2008). According to Westring (1997) the public procurement processes and systems have been faced with several challenges such as corruption notwithstanding the efforts by government to implement the various Public Procurement Acts.

2.8 Empirical Review

2.8.1 Procurement Practices and Implementation Challenges in the Building Sector

A research conducted by Musanzikwa (2013) presented an overview of the challenges affecting the public procurement system in Zimbabwe a developing country. The study was focused on addressing the levels or extent to which the public procurement practices and systems have contributed to the dissatisfaction of pressure groups like the influential Upfumi Kuvadiki and the Affirmative Action Group (AAG) over the awarding of tenders and precisely projects to companies especially the foreign owned. The study allowed the researcher the convenience and flexibility to conduct an in-depth research by the adoption of a qualitative research design .The case studies were on key government projects such as the construction of the Harare airport road, the development of the District Hospital at Gokwe and the supply of the Zimbabwe Electricity Supply Authority (ZESA) prepaid meters. The results of the findings suggested that most of the procurement professional tasked to procure resources as their responsibility are incompetent. There was substantial evidence that the market survey and enquiries were woefully inadequate in the awarding of most tenders. The research argued out that the delay in the construction of the Gokwe district hospital as scheduled was as a result of Delays in Decision making.

There was also evidence of a high level of corruption activities in the public procurement system. The study finally recommended that, for the benefit of any developing country it is a must to adopt professional, advanced and highly monitored procurement practices in Public institutions. The main restraint of the study was the inadequate complex analysis undertaken to buttress the findings. The research was generally considered as one of the few attempts among others in addressing the public procurement system challenges in developing countries.

A study differently conducted by Hui et al. (2011) concerning the procurement system aimed at surveying the building industry's public procurement practices and the level of awareness of stakeholders on critical matters like corruption, transparency, accountability, reliability and discrimination relating to the Malaysian public procurement system. To gauge out the perception of stakeholders on procurement related issues in Malaysia, interviews were conducted. The facts gathered from the interviews were classified under six major themes; transparency, procurement processes and policies and its implementation, Entities involved in the procurement system, budget or estimation, ethics and professionalism and timeliness. One of the findings was associated with the frequent interferences of outside parties and matters of discrimination, which affects the credibility contracts awarded. The procurement experts were liable for them is conduct and noncompliance to the practices and policies of the procurement system. The data gathered were carefully categorized to help better understand the issues raised by the interviewees.

Osei-Tutu et al (2010) study was conducted with the aim of identifying corruption related challenges that must be addressed in order to accomplish an operative public procurement

system with regards to infrastructural developments in Ghana. The data for the research was focused extensively on published data and existing literature, the methodology entailed critical review of relevant literature; evaluation of several Annual Report of the Public Procurement Authority and appraisal of the Public Procurement Act, 2003(Act 663).The findings included, tender manipulation, kickbacks, bribery, misappropriation, fraud and Conflict of interest were detected as the corruption practices which affects infrastructural project delivery in Ghana. It was advocated and established that the determination to control corruption practices, would necessitate a sound procurement system and pro-social policies of equity that would nurture good governance, transparency, accountability, corporate social responsibility, judicious public expenditure and nationwide progress.

Also, a study by Ameyaw et al. (2012) outlined several implementation barriers to the Public Procurement Act of Ghana. The study used various research approaches, comprising; assessment of pertinent literature, questionnaire and interviews of Forty Nine (49) District, Municipal and Metropolitan Assemblages in the Brong Ahafo Regions and Ashanti Regions of Ghana. The research established deliberate controlling of competition, incapacity of procurement experts, inadequate communication between the Public Procurement Authority (PPA) and procurement entities, compliance issues with requirements of the Act 663, aggregation of contracts into insignificant sections, suppliers non-cooperativeness and Inadequate funds as the main challenges affecting the enactment of the Public Procurement Act,2003(Act 663).

2.9 How to Improve the Procurement Function in the Building Industry

According to Lewis and Roehrich (2009), to improve procurement, experts must appreciate and ascertain the market, create some risk management systems, establish strong relationships and records with suppliers/contractors, meet needs in an efficient and timely cost manner and constantly advance service delivery by monitoring performance. It is of considerable importance for industries to clearly define all their procurement policies and should be easily understood and amended if necessary. The policies regulate how diverse aspects of procurement will be carried out in an organization and checking the behavior of people working on matters relating to procurement. Industries must always ensure that appropriate procedures are followed to check all works to the best of approval before payment is made (Shaw, 2010). One likely area of concern is the issue of conflict of Interest. Consequently Caldwell et al (2009); Mangan et al (2008); Nakamura (2004) and Shaw (2010) all argue that industries/organizations must have clearly written rules that define when officers must affirm a personal interest that may be considered to be in conflict with their office. In addition, industries should objectively obtain value for money for all procurement activities. Traditionally industries have generally stated that the value for money was attained by agreeing to the lowest tender price by contractors and suppliers of goods, works and services. Currently there is much emphasis on the overall value for money offered, with the attention for nonmonetary aspects and not exclusively on the grounds of the lowest price tendered (Shaw, 2010). It is very indispensable that an industry compares itself with other equivalent industries partially to assess whether value for money is being achieved, but also as part of the process of seeking continuous improvement and identification of excellent practice. This is regularly done through a process called

benchmarking to achieve better performance and also monitor the rate at which the organizational performance is improving (Maurer, 2004).

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CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section covered the method used in conducting the study. This involved the type of data used in undertaking the study as well as the processes and procedures used in data collection. This section also included the research design, population and sampling technique, type and source of data, research instrument, ethical consideration and procedure for analysis of data collected.

3.2 Research Design

According to Vanderstoep and Johnston (2009), there are two major methods of research. These are qualitative and quantitative methods.

Qualitative research is aimed at ascertaining and understanding the proficiencies, perceptions and judgments of observers. In other words, qualitative method of research explores purpose, reality and meaning (Hiatt, 1986). Bryman and Bell (2007), describes it as an approach that stresses on words rather than quantification in the gathering and analysis of data. A qualitative research adopts an inductive view of the relationship between research and theory, and adopts an epistemological position known as interpretivist which suggests an understanding of the social world through an examination of the interpretation of that world by its participants and also adopts an ontological position called constructionist, thus where researchers seek to get an understanding of the environment in which they live and work by developing subjective meaning of their experiences, which happens to be varied and multiple (Cresswell, 2007).

Bryman and Bell (2007) described quantitative research, on the other hand, to mean a research strategy that uses quantification in the gathering and analysis of data. According to Hair et al. (2006), this approach is mainly concerned with numbers, representativeness and applies highly-structured methods of data collection and analysis. Bryman and Bell (2007) also stated that quantitative research adopts a deductive approach to the relationship between theory and research, adopts the practices of positivism and also adopts an ontological stance known as objectivism, but made it clear that not all quantitative researchers always subscribe to all the three features. This study adopted quantitative research method because the researcher sought to explore the procurement practices in the building sector. The approach to this research was deductive.

3.3 Population

According to Burns and Grove (2011), a population is all objects, individuals, elements and events that meet the sample standards for addition in a study. Zikmund (2003) also defined population as a comprehensive assembly of entities sharing a mutual set of characteristics. The population of this study is made up of Procurement Officers, Contract Managers, Engineers and Quantity Surveyors in some selected Metropolitan and Municipal Assemblies in the Greater Accra Region who are the most experienced, contribute to several public building projects and have been using the Public Procurement Act. The population as stated also form part of the stakeholders of the Building Industry. The Greater Accra region was selected because of its current active construction activities .The population chosen for the study was eighty (80) as represented in Table 3.1.

3.4 Sampling

Sampling techniques refer to the processes involved in selecting respondents. A sample size of sixty six (66) respondents was selected from the accessible population. At the end of the exercise, out of the estimated population of eighty (80) employees from the selected Metropolitan and Municipal Assemblies, a sample representative of sixty eight (68) was used for the study. The initial sample size of sixty six (66) respondents was obtained by using Krejcie and Morgan (1970) table for determining sample size. According to Krejcie and Morgan (1970) Table, when a population of 80 is chosen, 66 is used as the sample size. The non-probability purposive sampling technique was used to select stakeholders of the building sector to partake in the study. According to Neuman (2006) in purposive sampling technique, the researcher carefully selects the sample to reflect the purpose of the investigation. The reason for using the purposive sampling was to ensure that only those who do understand and are better informed on the subject matter are reached. For this study Procurement Officers, Contract Managers and Quantity Surveyors were targeted from the selected Metropolitan and Municipal Assemblies in the Greater Accra Region.

Table 3.1 Breakdown of Population

<i>Metropolitan and Municipal Assemblies</i>	<i>Respondents</i>
Accra Metropolitan Assembly	12
Tema Metropolitan Assembly	12
Adenta Municipal Assembly	7
Ashiaman Municipal Assembly	7
Ga-East Municipal Assembly	7
Ga-West Municipal Assembly	7
Ga Central Municipal Assembly	7
Ga South Municipal Assembly	7

La Dade-Kotopon Municipal Assembly	7
LA-Nkwantanang-Madina Municipal Assembly	7
TOTAL	80

Source: Ministry of Local Government and Rural Development

3.5 Types and Sources of Data

Saunders et al. (2003) explain data collection methods for any research as primary and secondary data. Primary data was used and obtained through questionnaire administration to solicit the views of stakeholders in the building sector on matters relating to procurement practices. Secondary Information were collected from books, articles, journals and periodicals to help in the write-up of the study.

3.6 Research Instrumentation

After an in-depth review of literature, questionnaires were adopted keeping the research objective in mind. Burns and Grove (2011) define questionnaire as a written self-report form designed to produce facts that can be gained through the written responses of the subject. The questionnaires were basically unstandardized questionnaire developed by the researcher to collect data from the respondents. The questionnaire was made up of different sections. The initial part of the questionnaire gathered data on the demographic characteristics of the respondents which sought information such as age, gender, position held and length of service. The last section of the questionnaire gathered data on respondents' perceptions and understanding on issues relating to the objective of the study.

3.7 Data Collection Procedure and Research Instrument

Data collection is described as a defined, systematic method of collecting facts relevant to the research aim, or covering the research objectives, and research assumptions (Burns and Grove, 2011). The main research instrument that was used for the collection of data was self-administered questionnaire developed in line with the research objectives and literature reviewed.

The instrument that was used in the study is a closed-ended questionnaire that consists of three sections (Sections A-C). Closed ended questionnaire provides responses and make coding and analysis easy (Neuman, 2006).

Section A: Demographic data of participants (age, gender, educational level, years spent with the organization and status of the employee).

Section B: Self-administered questionnaire relating to procurement practices in the building sector of Ghana. This questionnaire was developed in line with the literature review and the objective of the study. Ratings was done on a five point Likert scale ranging from strongly agree (5) to strongly disagree (1).

3.7.1 Pilot Study

A pilot study to test for the soundness of the research instrument was undertaken. A total of twenty (20) respondents were used for the pilot study and the results proved that the research instrument was duly valid to be used for the study. Table 3.2 shows the results of the validity test conducted to measure the consistency among the items that were used to measure the variables for the study.

Table 3.2: Pretesting Result

Item	Number of items	Cronbach's alpha
Procurement Practices	12	0.731
Procurement Implementation Challenges	17	0.845

Source: Field survey (2016)

According to Hair et al (2010), any variable that has a Cronbach's alpha less than 0.60 is not good enough. On the other hand, any variable that has a Cronbach's alpha of 0.70 is acceptable while ones greater than 0.80 are considered good. From table 3.2 the instruments used for procurement practices and procurement implementation challenges recorded a Cronbach's alpha of 0.731 and 0.845 respectively. The results clearly indicate that the research instrument under study is reliable and internally consistent since the Cronbach's alpha obtained is greater than 0.60. Overall the respondents indicated that the items and instructions were easy to understand and that the process of administration was clear and effective.

3.8 Data Analyses

Data was analyzed quantitatively with the aid of Statistical Package for Social Sciences (SPSS) version 20. Descriptive Statistics (such as frequency tables) was used for the analyses of data. The researcher used descriptive statistics to analyze the respondents' demographic data. Descriptive statistics according to Pallant (2011) shows the characteristics of any study's sample through the provision of summary statistics such as

mean, median or standard deviation for continuous variables, or frequencies on how many people gave each response for categorical variables.

Aside the use of mean and frequencies the researcher also used Relative Importance Index (RII) for the analysis. According to Badu et al. (2013), RII method is suitable for a fivepoint likert scale which was used in this study. Ugwu and Haupt (2007) maintained that RII values ranges from 0 to 1 which is computed as:

$$RII = \frac{\Sigma W}{A * N} [0 \leq RII \leq 1]$$

Where:

“RII” represents ‘The value for Relative importance index’

“W” represents ‘the weight given to each factor by the respondents and ranges from 1 to 5’

“A” represents ‘the highest response integer (5)’

“N” represents ‘the total number of respondents’.

A Chi-square test was conducted using the Statistical Package for Social Sciences (SPSS) to determine the significance of the results. Naoum (1998) stated that, if the chi-square (X_2) is greater than the critical chi-square ($X_{2\alpha}$) at $p < 0.05$, the result of the research is considered as significant. The interpretation of the chi-square test of significance of this study is based on the assertion of Naoum (1998).

3.9 Ethical Consideration

According to David and Resnik (2011), ethics in research refers to norms of conduct that distinguishes between acceptable and unacceptable behavior. To ensure that the research meets the required ethical standard, a letter of consent was attached to obtain by the

researcher and used to obtain the consent of the stakeholders in the building sector to conduct the data collection for the study. Therefore individuals who will participate in this study will do so in their own free will. Respondents were also assured that, their responses will be used exclusively for the purpose of this study.

In order to ensure confidentiality, respondents will be required not to indicate their identity on the questionnaire form during the time of responding to the questions. According to Babbie and Mouten (2001), in order to ensure confidentiality, particulars such as names, telephone numbers, identity number and address need not appear on the questionnaire. In accordance with this, respondents will not give details like their names, addresses, telephone numbers etc. on the questionnaires.



CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This section of the study deals with the analysis of data, presentation of findings and discussions of results on the ascertained procurement practices in the building sector and the implementation challenges of the public procurement Act, 2003 (Act 663). The analysis is divided into three sub-sections. The first division analyzes the demographic characteristics of respondents. The second section deals with the analysis on the procurement practices. The third section of the analysis addresses the procurement implementation challenges.

4.2 Demographic Characteristics of Respondents

This part of the analysis examines the demographic variables of the respondents used in the study which included gender, age, tenure with organization, years worked in the capacity of matters relating to procurement, level of educational qualification and current position.

Table 4.1: Demographic Characteristics of Respondents

	Frequency	Percentage (%)	Cumulative Frequency (%)
Gender:			
Male	48	70.6	70.6
Female	20	29.4	100
Total	68	100	
Age:			
18-24 years	2	2.9	2.9

25-34 years	46	67.6	70.6
35-44 years	14	20.6	91.2
45 years and above	6	8.8	100
Total	68	100	

Years worked in the capacity of matters relating to procurement: Below

3 years	30	44.1	44.1
3-6 years	28	41.2	85.3
7-10 years	4	5.9	91.2
11 years and above	6	8.8	100
Total	68	100	

Level of educational qualification:

Diploma	6	8.8	8.8
Bachelor degree	52	76.5	85.3
Master's degree	8	11.8	97.1
Others	2	2.9	100
Total	68	100	

Source: Field Data, 2016

Table 4.1 Continue: Demographic Characteristics of Respondents

	Frequency	Percentage (%)	Cumulative Frequency (%)
<i>Current Position Held:</i>			
Quantity Surveyor	30	44.1	44.1
Contract Managers	8	11.8	55.9
Engineer	6	8.8	64.7

Procurement Officer	20	29.4	94.1
Contractor	2	2.9	97.1
Others	2	2.9	100
Total	68	100	

Source: Field Data, 2016

4.2.1 Gender

The first question on the demographic characteristics was the gender of the respondent. From Table 4.1, out of the total respondents of 68 from the selected Metropolitan and Municipal Assemblies, 70.6% were male whereas 29.4% were female. It can therefore be concluded that there are more males in the selected Metropolitan and Municipal Assemblies. However in the era of gender balance the Metropolitan and Municipal Assemblies should consider employing more women in the area of procurement.

4.2.2 Age

The Table 4.1 summarizes the age of the respondents. The study revealed that, out of the 68 respondents from the Metropolitan and Municipal Assemblies, majority of them were between the ages of 25 to 34 years representing 67.6% while between the ages of 35 to 44 represented 20.6%. The ages of 45 years and above category recorded 8.8%. On the other hand, the ages of 18-24 years recorded the least respondents representing 2.9%. This implies that there are adequate number of young employees and appears that the Metropolitan and Municipal Assemblies are serious about succession planning.

4.2.3 Years worked in the capacity of matters relating to procurement

From Table 4.1, it is gathered that majority of the respondents that have worked in the capacity of matters relating to procurement for a period below 3 years represents 44.1% whereas 41.2% have worked in the capacity of matters relating to procurement for a period of 3 to 6 years. It was also revealed that 8.8% of the respondents have worked in the capacity of matters relating to procurement for a period of 11 years and above. On the other hand 5.9% of the respondents have worked in the capacity of matters relating to procurement for a period 7 to 10 years. It can then be deduced that there is a substantial number of respondent who are less experienced with respect to the procurement practices in the public sector. This implies that the building sector in Ghana has inadequate procurement experts and there is the need for more education and training.

4.2.4 Level of Educational Qualification

From Table 4.1 the researcher sought after the level of educational qualification of the respondents. It was however noted that majority of the respondents have attained a bachelor degree representing 76.5% whereas 11.8% have obtained a degree in masters. It was as well revealed that 8.8% of the respondents have obtained a diploma certificate. On the other hand, it was found out that 2.9% of the respondents indicated that they have obtained “other” educational qualification which they specified Professional qualification. It can be argued out that, all the respondents selected are educated and working in the various capacities which have a required educational level for its minimum qualification.

4.2.5 Current Position Held

From Table 4.1 it was found out that majority of the respondents were Quantity Surveyors representing 44.1% whereas 29.4% were Procurement Officers. 11.8% constituted Contract

Managers whereas 8.8% constituted Engineers. On the other hand, 2.9% of the respondents were Contractors whereas 2.9% of the respondents indicated “others” by specifying that they were in the position of Administrative and Finance Officers. These professions can be said to be the stakeholders in the building industry in the public sector and gives the indication of their input in public procurement issues. It also confirms the validity of the information provided from the appropriate quarter for this research.

4.3 Analysis of Research Objective one

This section of the analysis is concerned with identifying whether the public procurement Act, 2003 (Act 663) is complied with, in procurement practices in the Building Sector in Ghana. The analysis was done through the development of some variables for procurement practices in the public procurement Act, 2003 (Act 663). The result is therefore shown in Table 4.2.

Using the mean test value, the variable regarding procurement practices namely, the procurement department communicates their organizational needs very well (mean = 3.82); the procurement authority always do due diligence before approval of procurement plan (mean = 3.62); specification is designed by professionals (mean = 4.06); the tender documents are always clear and Unambiguous (mean = 3.44); The tender evaluators undergo technical or professional training to ensure quality (mean = 3.85); bidding documents are thoroughly evaluated before contracts are awarded (mean = 3.53); selection of contractors are based on long term relationship (mean = 2.94); the process of contractor selection is clear, open, fair and equitable (mean = 3.38); contract is always awarded to competent contractor without influence from authorities (mean = 2.94); Contract is always

awarded on merit (mean = 3.21); There is effective monitoring system by procurement entity to ensure that contractors comply with specification (mean = 3.50); and there are appeal and complains procedures to address issues arising from the procurement process (mean = 3.15) indicated a value above 2.50 from the five point-Likert scale used.

The findings also indicated that the “specification is designed by professionals” recorded the highest mean of 4.06 whereas both “selection of contractors are based on long term relationship” and “contract is always awarded to competent contractor without influence from authorities” recorded the lowest mean of 2.94 each.

From the perspective of the mean value test, it can therefore be concluded that, respondents administered were in agreement with all the variables relating to procurement practices in the building sector in Ghana as it was evident from the mean values obtained from the analysis indicating a value above 2.50 from the five point-Likert scale used. The results as gathered above have indicated that the building industry in Ghana considers and complies with the procurement practices as identified in the public procurement Act, 2003 (Act 663).

Also, the researcher further conducted an analysis to determine the significance of the variables regarding procurement practices in the building sector which was done using a chi-square test. The results from Table 4.2 shows that out of the 12 variables regarding procurement practices 11 variables were significant whereas 1 was not significant. The procurement department communicates their organizational needs very well ($X^2 = 36.000^a$, $df = 3$, $p\text{-value} = 0.000$); the procurement authority always (does) due diligence before approval of procurement plan ($X^2 = 16.235^a$, $df = 3$, $p\text{-value} = 0.001$); specification is designed by professionals ($X^2 = 48.235^a$, $df = 3$, $p\text{-value} = 0.000$); the tender documents

are always clear and Unambiguous ($X^2 = 43.176^b$, $df = 4$, $p\text{-value} = 0.000$); bidding documents are thoroughly evaluated before contracts are awarded ($X^2 = 44.353^b$, $df = 4$, $p\text{-value} = 0.000$); selection of contractors are based on long term relationship ($X^2 = 23.176^b$, $df = 4$, $p\text{-value} = 0.000$); the process of contractor selection is clear, open, fair and equitable ($X^2 = 38.471^b$, $df = 4$, $p\text{-value} = 0.000$); contract is always awarded to competent contractor without influence from authorities ($X^2 = 30.235^b$, $df = 4$, $p\text{-value} = 0.000$); Contract is always awarded on merit ($X^2 = 36.000^a$, $df = 3$, $p\text{-value} = 0.000$); There is effective monitoring system by procurement entity to ensure that contractors comply with specification ($X^2 = 37.294^b$, $df = 4$, $p\text{-value} = 0.000$); and there are appeal and complains procedures to address issues arising from the procurement process ($X^2 = 36.000^a$, $df = 3$, $p\text{-value} = 0.000$) were the variables of procurement practices that indicated a significant value whereas “The tender evaluators undergo technical or professional training to ensure quality” ($X^2 = 2.235^c$, $df = 2$, $p\text{-value} = 0.327$) was the only variable of procurement practices that indicated an insignificant value. It can therefore be concluded that most of the variables identified as procurement practices does make a significant contribution with the exception of “the tender evaluators undergo technical or professional training to ensure quality” which does not make a significant contribution.

A Relative Important Index (RII) was also used to rank the procurement practices in order of importance. From the summary of results in Table 4.2 The respondents attributed the top five factors contributing to procurement practices in the building sector in Ghana as; Specification is designed by professionals (RII=0.81), The tender evaluators undergo technical or professional training to ensure quality. (RII=0.77), The procurement department communicates their organizational very well (RII=0.76), The procurement authority always do due diligence before approval of procurement plan (RII=0.72) and

Bidding documents are thoroughly evaluated before contracts are awarded (RII=0.71).It can also be observed that the first 5 highest mean of the procurement practices in order, corresponds with the ranking generated by the RII value. It can then be concluded that, although most of the practices are significant as analyzed and interpreted under the chisquare test, immediate attention should be given to the above listed procurement practices in order to have an effective public procurement practices in the Ghanaian Building Sector.

‘The tender evaluators undergo technical or professional training to ensure quality’ was marked as insignificant but it was however ranked as number 2 out of the top five when addressing pertinent subjects on procurement practices.

Table 4.2: Procurement Practices

<i>PROCUREMENT PRACTICES</i>	Mean	RII	Chi-square	pvalue	RANK
<i>Specification is designed by professionals</i>	4.06	0.81	48.235 ^a	0.000	1 st
<i>The tender evaluators undergo technical or professional training to ensure quality.</i>	3.85	0.77	2.235 ^c	0.327	2 nd
<i>The procurement department communicates their organizational needs very well.</i>	3.82	0.76	36.000 ^a	0.000	3 rd
<i>The procurement authority always do due diligence before approval of procurement plan.</i>	3.62	0.72	16.235 ^a	0.001	4 th
<i>Bidding documents are thoroughly evaluated before contracts are awarded.</i>	3.53	0.71	44.353 ^b	0.000	5 th

<i>There is effective monitoring system by procurement entity to ensure that contractors comply with specification.</i>	3.50	0.70	37.294 ^b	0.000	6 th
<i>The tender documents are always clear and unambiguous.</i>	3.44	0.69	43.176 ^b	0.000	7 th
<i>The process of contractor selection is clear, open, fair and equitable.</i>	3.38	0.68	38.471 ^b	0.000	8 th
<i>Contract is always awarded on merit.</i>	3.21	0.64	36.000 ^a	0.000	9 th
<i>There are appeal and complains procedures to address issues arising from the procurement process.</i>	3.15	0.63	36.000 ^a	0.000	10 th
<i>Contract is always awarded to competent contractor without influence from authorities.</i>	2.94	0.59	30.235 ^a	0.000	11 th
<i>Selection of contractors are based on long term relationship.</i>	2.94	0.59	23.176 ^b	0.000	11 th

Table 4.3: Methods of Procurement, Most Frequently used

	Frequency	Percentage
Competitive tendering	58	85.3
Request for quotation	4	5.9
Restricted tendering	4	5.9
Two stage tendering	2	2.9
Total	68	100

Source: Field Data, 2016. a. Dichotomy group tabulated at value 5

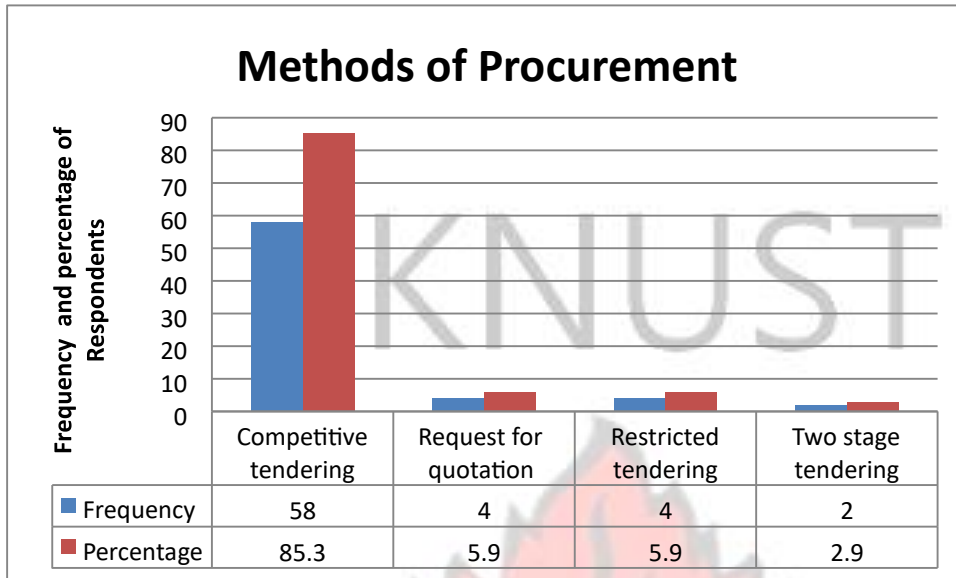


Figure 4.1: Methods of Procurement, Most frequently used

From table 4.3 or Figure 4.1 the researcher sought to find out from the respondents the methods of procurement (in order of) frequently used by the Metropolitan and Municipal Assemblies. It was found out that majority of the respondents agreed to the fact that the most frequently used method of procurement is competitive tendering representing 85.3%. Request for quotation recording 5.9% whereas restricted tendering also recording 5.9%. It was also found that two stage tendering was the next frequently used representing 2.9%. On the other hand, the findings did not record sole sourcing method of procurement as frequently used by the Metropolitan and Municipal Assemblies. From the perspective of the mean value test, it can therefore be concluded that the Metropolitan and Municipal Assemblies mostly use or prefer the competitive tendering method of procurement to request for quotation, restricted tendering, and two stage tendering and sole sourcing methods of procurement. This aspect of the analysis correspondingly addresses the issue of

compliance, since the building industry adopts some methods of procurement as stated in the Public Procurement Act, 2003(Act 663).

4.4 Analysis of Research Objective Two

This section of the analysis is concerned with identifying the salient challenges in terms of the implementation of the public procurement Act 2003(Act 663) within the building Sector in Ghana. The analysis was done through the development of seventeen (17) variables for procurement implementation challenges.

The result is shown in Table 4.4 with descriptive statistics revealing the mean values obtained. The mean or average score from the five point Likert scale with 5 as strongly agree and 1 as strongly disagree for all the variables as computed to show the proportion of the respondents that are in agreement or disagreement with the list of variables.

Where the mean for the variable is more than half of the 5 point Likert scale (i.e. 2.5) the respondents' agreed and where the mean for the variable is less than half of the 5 point

Likert scale (i.e. 2.5) the respondents' disagreed.

From Table 4.4 it can be said that the variables, deliberately refusal to comply by some stakeholders (mean =3.18); lack of widespread knowledge of the processes (mean =3.35); Political interference (mean =3.97); nonexistence of suitable training of managers on the procurement process (mean =3.29); the lack of career development path (mean =3.32); low salaries of procurement personnel (mean =3.59); delays in payment of contractors and suppliers (mean =3.88); inadequate capacity to appreciate the Standard Tender Documents (mean =3.38); lack of elementary knowledge of the law (mean =3.32); poor access to tender information (mean =3.18); insufficient technical and managerial skills to be competitive in

the tendering process (mean =2.97); scarcity of skilled and experienced personnel (mean =2.85); inadequate financial resources (mean =3.35); compliance issues with some requirements of the law (mean =3.50); poor records keeping by procurement entities (mean =3.35); overpricing of goods, works and services by tenderers (mean =3.50); corruption related issues (mean =4.21) recorded a mean value higher than 2.50.

This result implies that on average, respondents do agree with the fact that variables identified as procurement implementation challenges do exist in the Metropolitan and Municipal Assemblies. Aside the respondents' agreement to the fact that the variables identified are challenges to procurement implementations, it was found that the most dominant procurement implementation were corruption related issues, political interference, delays in payment of contractors and suppliers, low salaries of procurement personnel, compliance issues with some requirements of the law and overpricing of goods, works and services by tenderers as these recorded the highest mean value of 4.21, 3.97, 3.88, 3.59, 3.50 and 3.50 respectively.

Also, the researcher further conducted an analysis to determine the significance of the variables regarding procurement implementation challenges in the building sector which was done using a chi-square test. The results from Table 4.4 shows that out of the 17 variables regarding procurement implementation challenges 16 variables were significant whereas 1 was not significant.

Deliberately refusal to comply by some stakeholders ($X^2 = 39.647^a$, $df = 4$, $p\text{-value} = 0.000$); lack of widespread knowledge of the processes ($X^2 = 14.353^b$, $df = 3$, $p\text{-value} = 0.002$); Political interference ($X^2 = 59.059^a$, $df = 4$, $p\text{-value} = 0.000$); nonexistence of suitable training of managers on the procurement process ($X^2 = 21.412^b$, $df = 3$, $p\text{-value} =$

0.000); the lack of career development path ($X^2 = 47.882^a$, $df = 4$, $p\text{-value} = 0.000$); delays in payment of contractors and suppliers ($X^2 = 36.471^a$, $df = 3$, $p\text{-value} = 0.000$); inadequate capacity to appreciate the Standard Tender Documents ($X^2 = 26.588^a$, $df = 3$, $p\text{-value} = 0.000$); lack of elementary knowledge of the law ($X^2 = 40.706^a$, $df = 3$, $p\text{-value} = 0.000$); poor access to tender information ($X^2 = 29.647^b$, $df = 4$, $p\text{-value} = 0.000$); insufficient technical and managerial skills to be competitive in the tendering process ($X^2 = 41.412^b$, $df = 4$, $p\text{-value} = 0.000$); scarcity of skilled and experienced personnel ($X^2 = 43.176^b$, $df = 4$, $p\text{-value} = 0.000$); inadequate financial resources ($X^2 = 34.353^a$, $df = 4$, $p\text{-value} = 0.000$); compliance issues with some requirements of the law ($X^2 = 28.471^b$, $df = 3$, $p\text{-value} = 0.000$); poor records keeping by procurement entities ($X^2 = 17.647^b$, $df = 3$, $p\text{-value} = 0.001$); overpricing of goods, works and services by tenderers ($X^2 = 25.647^b$, $df = 3$, $p\text{-value} = 0.000$); and corruption related issues ($X^2 = 7.882^c$, $df = 2$, $p\text{-value} = 0.019$) were the variables of procurement implementations challenges that indicated a significant value whereas “low salaries of procurement personnel” ($X^2 = 6.353^b$, $df = 3$, $p\text{-value} = 0.096$) was the only variable of procurement implementation challenges that indicated an insignificant value. It can therefore be concluded that most of the variables identified as procurement implementation challenges make a significant contribution with the exception of low salaries of procurement personnel which does not make a significant contribution.

A Relative Important Index (RII) was likewise used to rank the implementation challenges in order of severity/importance. From the summary of results in Table 4.4 The respondents attributed the top five factors contributing to the implementation challenges to the public procurement Act, 2003(Act 663) as; Corruption related issues (RII=0.84), Political

interference (RII=0.79), Delays in payment of contractors and suppliers (RII=0.78), Low salaries of procurement personnel (RII=0.72) and Compliance issues with some requirements of the law and Overpricing of goods, works and services by tenderers (RII=0.70). It can also be observed that the first 5 highest mean of the implementation challenges in order, corresponds with the ranking generated by the RII value. It can then be established that, although most of the challenges as analyzed and interpreted under the chi-square test are significant, immediate responds and strategies must be put in place to address these particular implementation challenges listed above.

‘Low salaries of procurement personnel’ is marked as insignificant but it is however ranked as number 4 out of the top five when addressing implementation challenges to the Public Procurement Act,2003 (Act 2003).

Table 4.4: Procurement Implementation Challenges

<i>Procurement Implementation Challenges</i>	Mean	RII	Chisquare	pvalue	Rank
<i>Corruption related issues</i>	4.21	0.84	7.882 ^c	.019	1
<i>Political interference</i>	3.97	0.79	59.059 ^a	.000	2
<i>Delays in payment of contractors and suppliers</i>	3.88	0.78	36.471 ^a	.000	3
<i>Low salaries of procurement personnel</i>	3.59	0.72	6.353 ^b	.096	4
<i>Compliance issues with some requirements of the law</i>	3.50	0.70	28.471 ^b	.000	5
<i>Overpricing of goods, works and services by tenderers</i>	3.50	0.70	25.647 ^b	.000	5

<i>Inadequate capacity to appreciate the Standard Tender Documents</i>	3.38	0.68	26.588 ^a	.000	6
<i>Inadequate financial resources</i>	3.35	0.67	34.353 ^a	.000	7
<i>Poor records keeping by procurement entities</i>	3.35	0.67	17.647 ^b	.001	7
<i>Lack of widespread knowledge of the processes</i>	3.35	0.67	14.353 ^b	.002	7
<i>The lack of career development path</i>	3.32	0.66	47.882 ^a	.000	8
<i>Lack of elementary knowledge of the law</i>	3.32	0.66	40.706 ^a	.000	8
<i>Nonexistence of suitable training of managers on the procurement process</i>	3.29	0.66	21.412 ^b	.000	8
<i>Deliberately refusal to comply by some stakeholders</i>	3.18	0.64	39.647 ^a	.000	9
<i>Poor access to tender information</i>	3.18	0.64	29.647 ^b	.000	9
<i>Insufficient technical and managerial skills to be competitive in the tendering process</i>	2.97	0.59	41.412 ^b	.000	10
<i>Scarcity of skilled and experienced personnel</i>	2.85	0.57	43.176 ^b	.000	11

4.5 Discussions of the Findings

This section of the chapter discusses the findings of the study. The findings are discussed by relating it to the study objectives and the relevant literature reviewed.

4.5.1 Discussion of Research Objective One

First, the study sought to identify whether the public procurement Act, 2003(Act 663) is complied with, in procurement practices, in the building sector in Ghana.

The findings as deduced from the analysis indicated some aspects of compliance with respect to procurement practices in the Ghanaian building industry as specified by the

public procurement Act. However these aspects of procurement practices as ascertained in the building sector , significantly requires department communicating their organizational needs or specification; procurement authority ensuring due diligence before approval of procurement plan; designing of specification by professionals; clear and unambiguous tender documents; thorough evaluation of bidding documents before award of contracts; selection of contractors based on long term relationship; clear, open, fair and equitable contractor selection process; awarding of contract to competent contractor with no authorities influence; awarding of contract on merit; effective monitoring system to ensure contractors compliance with specification; the tender evaluators undergo technical or professional training to ensure quality; Appeal and complains procedures used in addressing procurement process issues.

The above findings can be related to the study conducted by Carr and Smeltzer (1997). It was addressed that, procurement practices relate to the specific actions that top development organizations such as the manufacturing and building industry may take to achieve its objectives. The findings with respect to the actions included the process of needs identification, construction specification writing: prescriptive, performance and proprietary specification, planning, dispute resolution, funding /budgeting, solicitation, award of contract, monitoring and evaluation.

This present findings although having dissimilar themes, is also in line with the findings of Hui et al. (2011) who aimed at surveying the procurement practices and the perception of stakeholders in the procurement system in Malaysia. However, the scholar ascertained and analyzed the procurement practices in terms of transparency, procurement policies and

procedures and its implementation, personnel involved in the procurement system, estimation/budget, professionalism and ethics and timeliness. The present study used quantitative method whereas Hui et al., used qualitative method to arrive at the various significant themes regarding procurement practices.

Also, the findings of this present study indicated that in the Metropolitan and Municipal Assemblies, the most widely used method of procurement is competitive tendering. It can be said that this finding supports the assertion made in the Public Procurement Act 663 which emphasizes that competitive tendering is the most preferred under the Act as it encourages maximum competition in the procurement system.

4.5.2 Discussion of Research Objective Two

This section of the analysis is concerned with identifying the salient challenges in terms of the implementation of the public procurement Act 2003(Act 663) within the building Sector in Ghana. It was revealed that the significant implementation challenges include deliberately refusal to comply by some stakeholders; lack of widespread knowledge of the processes; political interference; nonexistence of suitable training of managers on the procurement process; lack of career development path; delays in payment of contractors and suppliers; inadequate capacity to appreciate the standard tender documents; lack of elementary knowledge of the law; poor access to tender information; insufficient technical and managerial skills to be competitive in the tendering process; scarcity of skilled and experienced personnel; inadequate financial resources; compliance issues with some requirements of the law; poor records keeping by procurement entities; overpricing of goods, works and services by tenderers; and corruption related issues.

The findings of this study are to some extent comparable to the findings of the study conducted by Musanzikwa (2013) in the context of Zimbabwe. The extent of similarity can be traced to his findings that most of the people tasked with the responsibility to procure resources are incompetent and delay in decision making. These similarity in findings could be as a result of the fact that there are similar bureaucratic systems and inadequate professional procurement personnel in this two developing countries hence Ghana and Zimbabwe. Musanzikwa (2013) findings corresponds with the findings of this study as the scholar also deduced is a high level of corruption activities in the public procurement in Zimbabwe. This match in findings could be attributed to the similarities in the public procurement practices and processes although the study is situated in different geographical context.

Also, the present findings of this study is fairly in consistent and augment the study by Ameyaw et al. (2012) who outlined several implementation barriers to the Public Procurement Act of Ghana. The study used various research approaches, comprising; assessment of pertinent literature, questionnaire and interviews of Forty Nine (49) District, Municipal and Metropolitan Assemblages in the Brong Ahafo Regions and Ashanti Regions of Ghana. The research established deliberate controlling of competition, incapacity of procurement experts, inadequate communication between the Public Procurement Authority (PPA) and procurement entities, compliance issues with requirements of the Act 663, aggregation of contracts into insignificant sections, suppliers non-cooperativeness and Inadequate funds as the main challenges affecting the enactment of the Public Procurement Act,2003(Act 663).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter of the study contains the summary of the Key Findings, Conclusion, Recommendations and Direction for Further Studies. The key findings however met the objectives set by the researcher.

5.2 Summary of Key Findings

It was noted earlier in the findings that the major procurement practices in the Building Sector in Ghana are; Specification is designed by professionals, the tender evaluators undergo technical or professional training to ensure quality, The procurement department communicates their organizational needs very well, The procurement authority always do due diligence before approval of procurement plan and Bidding documents are thoroughly evaluated before contracts are awarded. It was further revealed that under the public sector the Metropolitan and Municipal Assemblies mostly use or prefer the Competitive Tendering to Request for Quotation, Restricted Tendering, Two stage tendering and Sole Sourcing methods of procurement as stated in the Public Procurement Act, 2003 (Act 663). Although these are the observed procurement practices, the building industry need to pay much attention to some specific areas as discussed in this study in order to enhance the public procurement system.

The finding of the study also attributed the major challenges affecting the implementation of the public procurement Act, 2003(Act 663) to; Corruption related issues, Political interference, Delays in payment of contractors and suppliers, Low salaries of procurement

personnel, Compliance issues with some requirements of the law and Overpricing of goods, works and services by tenderers. The draw backs as outlined in this research have some serious consequences on the integrity and outcome of the procurement process and practices in the building industry and the country as a whole.

5.3 Conclusion

The research was successful in ascertaining whether the Public procurement Act, 2003(Act 663) is complied with, in procurement practices, in the building sector in Ghana. It further outlined and discussed the relevant implementation challenges that affect the operation and achievement of the public procurement Act.

This study has provided an excellent and solid information on the procurement practices in the building industry and will be of great benefit to consultants and contractors, project sponsors and investors in infrastructure projects, the international and domestic lending agencies, governmental and non-governmental organizations interested in developing the economy through the Building Sector. The outcomes of this research will accordingly aid in improving the procurement management practices in the other industries aside the building sector.

This study has consequently contributed to existing knowledge in this area and will be influential in finding future directions for additional research. This knowledge is also projected to be exploited by other developing countries having analogous issues to Ghana.

5.4 Recommendation

The study recommends the following:

- Disciplinary measures ought to be set up to demoralize officers who might intentionally mishandle the procurement practice.
- It is prerequisite to ensure transparency in the awarding of contract. Contracts must be awarded to deserving tenderers irrespective of their political affiliation and nationality.
- There is the need to promote and ensure continuous training of public procurement officers, consultants, contractor and suppliers by the Public Procurement Authority (PPA) on modern procurement trends. This will develop a team who are well informed and can make reliable and sound decisions when it comes to matters relating to public procurement.
- All stakeholders in the Ghanaian building industry must work together and make conscious effort to promote the laws governing public procurement to enhance the procurement practices and tackle emerging implementation challenges.
- Procurement practitioners must be paid adequately and given other incentives to enable them exhibit the appropriate ethical concepts and principles such as conflict of interest, loyalty, respect for rules and regulations, impartiality and fairness, due diligence and confidentiality.

5.5 Direction for Further Studies

An overview of the procurement practices in the Ghanaian Building sector and the implementation challenges to the public procurement Act have been ascertained by this research. The researcher believes that, this was only limited to the Greater Accra Region

with a smaller sample size. It can for that reason be contended that the work may have provided a skewed outcome. It would be very necessary to conduct similar research in the other regions with a larger sample size to augment this study.

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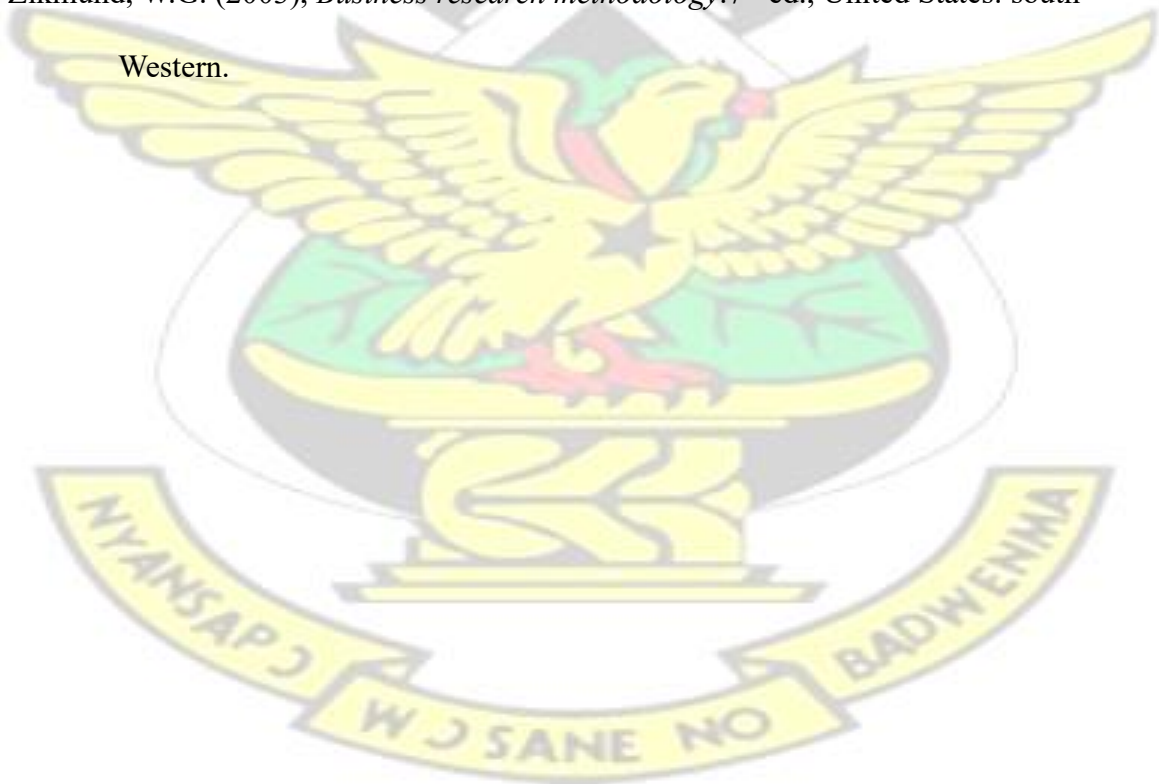
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APPENDICES

Appendix 1: Questionnaire

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF BUILDING TECHNOLOGY

MASTER OF SCIENCE IN PROCUREMENT MANAGEMENT

QUESTIONNAIRE

Dear Respondent,

This questionnaire is designed to assist the researcher to make an objective assessment on *“Procurement practices in the Ghanaian building sector: the implementation challenges to the public procurement Act, 2003 (Act 663)”*. This exercise is essentially academic and as part of the requirements for the award of Master of Science in Procurement Management.

Your response is of utmost importance and as such your answers would be treated with the utmost confidentiality. Please tick (✓) the response applicable to you.

Thank you

SECTION A: DEMOGRAPHIC CHARACTERISTICS

1. Gender : (a) Male [] (b) Female []
2. Age: (a)18-24 [] (b) 25-34 [] (c) 35-44 [] (d) 45 and above []
3. How long have you worked in the capacity of matters relating to procurement in this organization: (a) Below 3 years [] (b) 3-6 [] (c) 7-10 [] (d) 11 years and above []
4. Level of Educational Qualification: (a) Diploma [] (b) Bachelor degree [] (c) Master degree [] (d) Others. Please specify

5. Current Position held in your organization:

(a) Quantity Surveyor [] (b) Contract Manager [] (c) Engineer [] (d)

Procurement Officer [] (e) Contractor [] (f) Others. Please specify

.....



SECTION B: PROCUREMENT PRACTICES

The following statements illustrate respondents’ opinion on public procurement practices in the building sector within the public procurement Act, 2003 (Act 663). Using the scale from 1 to 5 indicate the extent of your agreement by **ticking** the appropriate alternative that best describes your opinion.

1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 = strongly agree

	1	2	3	4	5
1. The procurement department communicates their organizational needs very well					
2. The procurement authority always do due diligence before approval of procurement plan					
3. Specification is designed by professionals					
4. The tender documents are always clear and Unambiguous					
5. The tender evaluators undergo technical or professional training to ensure quality					
6. Bidding documents are thoroughly evaluated before contracts are awarded					
7. Selection of contractors are based on long term relationship					
8. The process of contractor selection is clear, open, fair and equitable					
9. Contract is always awarded to competent contractor without influence from authorities					
10. Contract is always awarded on merit					
11. There is effective monitoring system by procurement entity to ensure that contractors comply with specification					
12. There are appeal and complains procedures to address issues arising from the procurement process					

13. Please rank the following methods of procurement as used by your organization in the order (1, 2, 3, 4, 5) where 5 is the most used?

- Sole sourcing -----
- Competitive tendering -----
- Request for quotation -----
- Restricted tendering -----
- Two stage tendering -----

SECTION C: IMPLEMENTATION CHALLENGES

The following statements illustrate respondents’ opinion on public procurement implementation challenges in the building sector within the public procurement Act, 2003 (Act 663). Using the scale from 1 to 5 indicate the extent of your agreement by **ticking** the appropriate alternative that best describes your opinion.

1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 = strongly agree

IMPLEMENTATION CHALLENGES	1	2	3	4	5
1. Deliberately refusal to comply by some stakeholders					

2. Lack of widespread knowledge of the processes					
3. Political interference					
4. Nonexistence of suitable training of managers on the procurement process					
5. The lack of career development path					
6. Low salaries of procurement personnel					
7. Delays in payment of contractors and suppliers					
8. Inadequate capacity to appreciate the Standard Tender Documents					
9. lack of elementary knowledge of the law					
10. Poor access to tender information					
11. Insufficient technical and managerial skills to be competitive in the tendering process					
12. Scarcity of skilled and experienced personnel					
13. Inadequate financial resources					
14. Compliance issues with some requirements of the law					
15. Poor records keeping by procurement entities					
16. Overpricing of goods, works and services by tenderers					
17. Corruption related issues					

Appendix 2: Test Results

Procurement practices

Test Statistics

	The procurement department communicates their organizational needs very well	The procurement authority always do due diligence before approval of procurement plan	Specification is designed by professionals	The tender documents are always clear and Unambiguous	The tender evaluators undergo technical or professional training to ensure quality	Bidding documents are thoroughly evaluated before contracts are awarded
Chi-Square	36.000 ^a	16.235 ^a	48.235 ^a	43.176 ^b	2.235 ^c	44.353 ^b
Df	3	3	3	4	2	4
Asymp. Sig.	.000	.001	.000	.000	.327	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.6.

c. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 22.7.

Test Statistics

	Selection of contractors are based on long term relationship	The process of contractor selection is clear, open, fair and equitable	Contract is always awarded to competent contractor without influence from authorities	Contract is always awarded on merit	There is effective monitoring system by procurement entity to ensure that contractors comply with specification	There are appeal and complains procedures to address issues arising from the procurement process
Chi-Square	23.176 ^a	38.471 ^a	30.235 ^a	36.000 ^b	37.294 ^a	36.000 ^b
df	4	4	4	3	4	3
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.6.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.0.

Procurement methods

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Method ^a	68	100.0%	0	.0%	68	100.0%

a. Dichotomy group tabulated at value 5.

\$Method Frequencies

	Responses		Percent of Cases
	N	Percent	
Competitive tendering	58	85.3%	85.3%

PMethod ^a	Request for quotation	4	5.9%	5.9%
	Restricted tendering	4	5.9%	5.9%
	Two stage tendering		2.9%	
			100.0%	
Total		2		2.9%
		68		100.0%

a. Dichotomy group tabulated at value 5.

Procurement Implementation Challenges

Test Statistics

	Deliberately refusal to comply by some stakeholders	Lack of widespread knowledge of the processes	Political interference	Nonexistence of suitable training of managers on the procurement process	The lack of career development path	Low salaries of procurement personnel
Chi-Square	39.647 ^a	14.353 ^b	59.059 ^a	21.412 ^b	47.882 ^a	6.353 ^b
Df	4	3	4	3	4	3
Asymp. Sig.	.000	.002	.000	.000	.000	.096

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.6.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.0.

Test Statistics

	Delays in payment of contractors and suppliers	Inadequate capacity to appreciate the Standard Tender Documents	lack of elementary knowledge of the law	Poor access to tender information	Insufficient technical and managerial skills to be competitive in the tendering process	Scarcity of skilled and experienced personnel
Chi-Square	36.471 ^a	26.588 ^a	40.706 ^a	29.647 ^b	41.412 ^b	43.176 ^b
Df	3	3	3	4	4	4

Asymp. Sig.	.000	.000	.000	.000	.000	.000
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a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.6.

KNUST

Test Statistics

	Inadequate financial resources	Compliance issues with some requirements of the law	Poor records keeping by procurement entities	Overpricing of goods, works and services by tenderers	Corruption related issues
Chi-Square	34.353 ^a	28.471 ^b	17.647 ^b	25.647 ^b	7.882 ^c
df	4	3	3	3	2
Asymp. Sig.	.000	.000	.001	.000	.019

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.6.

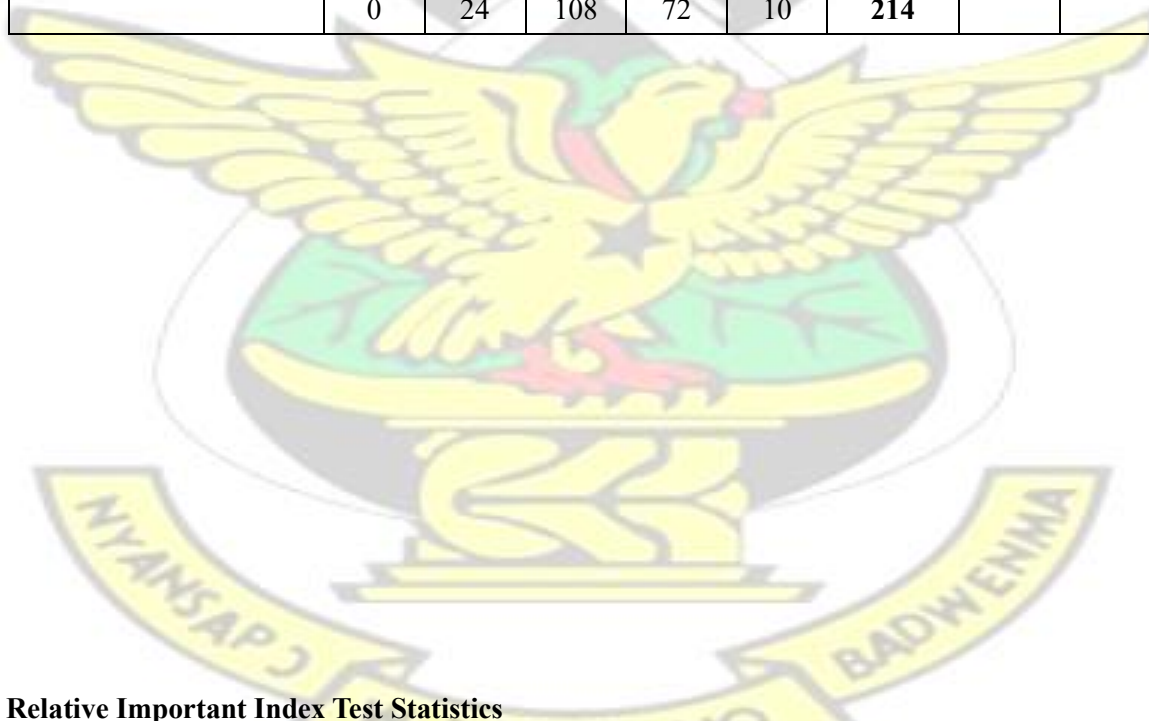
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 17.0.

c. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 22.7.

Relative Important Index Test Statistics

Procurement Practices	1	2	3	4	5	TOTAL	RII	Rank
Q1	0	6	12	38	12	68	0.76	3
	0	12	36	152	60	260		
Q2	0	6	26	24	12	68	0.72	4
	0	12	78	96	60	246		
Q3	0	4	6	40	18	68	0.81	1
	0	8	18	160	90	276		
Q4	4	18	2	32	12	68	0.69	7

	4	36	6	128	60	234		
Q5	0	0	28	22	18	68	0.77	2
	0	0	84	88	90	262		
Q6	4	6	16	34	8	68	0.71	5
	4	12	48	136	40	240		
Q7	4	22	24	10	8	68	0.59	11
	4	44	72	40	40	200		
Q8	4	6	24	28	6	68	0.68	8
	4	12	72	112	30	230		
Q9	4	18	28	14	4	68	0.59	11
	4	36	84	56	20	200		
Q10	2	18	12	36	0	68	0.64	8
	2	36	36	144	0	218		
Q11	2	8	20	30	8	68	0.70	6
	2	16	60	120	40	238		
Q12	0	12	36	18	2	68	0.63	10
	0	24	108	72	10	214		



Relative Important Index Test Statistics

Procurement Implementation Challenges	1	2	3	4	5	TOTAL	RII	Rank
Q1	2	12	30	20	4	68	0.64	9
	2	24	90	80	20	216		
Q2	0	16	18	28	6	68	0.67	7

	0	32	54	112	30	228		
Q3	2	2	10	36	18	68	0.79	2
	2	4	30	144	90	270		
Q4	0	12	28	24	4	68	0.66	8
	0	24	84	96	20	224		
Q5	2	16	12	34	4	68	0.66	8
	2	32	36	136	20	226		
Q6	0	10	22	22	14	68	0.72	4
	0	20	66	88	70	244		
Q7	0	6	10	38	14	68	0.78	3
	0	12	30	152	70	264		
Q8	0	8	32	22	6	68	0.68	6
	0	16	96	88	30	230		
Q9	4	8	18	38	0	68	0.66	8
	4	16	54	152	0	226		
Q10	4	12	24	24	4	68	0.64	9
	4	24	72	96	20	216		
Q11	2	18	30	16	2	68	0.59	10
	2	36	90	64	10	202		
Q12	2	32	12	18	4	68	0.57	11
	2	64	36	72	20	194		
Q13	2	10	24	26	6	68	0.67	7
	2	20	72	104	30	228		
Q14	0	6	28	28	6	68	0.70	5
	0	12	84	112	30	238		
Q15	0	18	14	30	6	68	0.67	7
	0	36	42	120	30	228		
Q16	0	12	16	34	6	68	0.70	5
	0	24	48	136	30	238		
Q17	0	0	12	30	26	68	0.84	1
	0	0	36	120	130	286		