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**Public Procurement Reforms in Ghana : an evaluation of
the implemented changes**

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Master Thesis



Public Procurement Reforms in Ghana: An Evaluation of the Implemented Changes

By

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Master in Logistics

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DEDICATION

This work/study is dedicated to the memory of Madam Mansah Dzade

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‘To God be the glory for great things hast he done’

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I wish to state that apart from references and quotations cited I am responsible for all the shortcomings and errors in this thesis (**Richard Glavee-Geo; Molde, May 2008**).

ABBREVIATIONS

PUFMARP	Public Financial Management Reform Program
MDAs	Ministries, Departments and Agencies
DAs	District Assemblies
FIDIC	International Federation of Consulting Engineers
GDP	Gross Domestic Product
OLS	Ordinary Least Squares
ANOVA	Analysis Of Variance
SMCD	Supreme Military Council Decree
PNDC	Peoples National Defense Council
IBRD	International Bank for Reconstruction and Development

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ABSTRACT

Purpose- The purpose of this study is to make a contribution to the literature on compliance with respect to public procurement reforms in developing countries with particular reference to Ghana. The research also report on a survey to study factors leading to compliance with the Public Procurement Law and how these factors: organizational goal achievement; familiarity with procurement rules and monitoring of procurement practitioner's behavior influence compliance with the new Public Procurement Law (Act 663) during the implementation of the public procurement reforms program in Ghana.

Design/methods/approach- A review of the various literature and theory (Principal-agent theory) resulted in a conceptual model and the formulation of hypotheses to test the proposals that there is association between each of the factors: organizational goal achievement; familiarity with procurement rules and monitoring of procurement practitioner's behavior with compliance. The research used data from a survey of 58 responding public procurement practitioners/governmental purchasers from procurement entities within the public sector of Ghana.

Findings- The empirical findings indicate that both organizational goal achievement and familiarity of rules by public procurement practitioners have a positive, statistically significant impact on compliance. The monitoring of procurement practitioners behavior though having a positive association with compliance was found not to be of much significance while a fourth factor (used as a controlled variable): intra-organizational pressure (denoting the impact that decisions and actions of other staff in the organization have on the efforts of procurement practitioners to adhere to the established procurement rules) was found to have a significant but negative association with compliance.

Research limitation- The study is limited in its setting: measuring perceptions of public procurement practitioners/governmental purchasing professionals within the public sector of Ghana most of whom are located in the southern part of Ghana and are more likely to comply than those that may be located in the remotest parts of the country.

Practical/managerial implications- Education and training of procurement practitioners to be knowledgeable and familiar with procurement rules, regulations, processes and procedures will be an effective tool for increasing compliance. Another implication too is that every effort should be made to promote goal congruence at the organizational level (probably at the personal level too) so as to avoid goal conflict while pressure brought to bear on procurement practitioners by other staff within the organization with respect to their actions and decisions which may lead to non-compliance should be avoided as much as possible.

Keywords- Public procurement, Principal-agent, Compliance, Procurement reforms, Monitoring, Familiarity of rule, goal achievement, Ghana

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Public procurement is the process by which large amounts of public funds are utilized by public entities to purchase goods and services from the private sector (Hunja, 2003). It therefore involves the acquisition of goods and/or services at the best possible total cost of ownership, in the right quantity, quality, time and place for use by government and public organizations via contracts. Since procurement is the means by which public resources are spent, improvements within the procurement system by means of reforms have developmental impact within the economies of developing countries within which such reforms are undertaken. But laudable as these reforms may be, complying with the rules and regulations that these reforms seek to achieve becomes a problem. It is for this reason that this study intends to find out whether organizational goal achievement, familiarity with procurement rules and monitoring of procurement practitioners influence compliance with the new public procurement Act, Act 663 during the implementation of the public procurement reforms program in Ghana.

The need for an efficient, non corrupt and transparent public purchasing system is one of the main drives behind most reforms. So much money¹ is spent by developing nations in the procurement of goods and services and the need for transparency and efficiency in government purchasing has led to the transformation of the purchasing process through public procurement reforms. Many developing countries have also realized that a well-organized procurement system contributes to good governance by increasing confidence that public funds are well spent (Hunja, 2003) whilst an equally important reason is that they may be a condition for access to foreign markets and therefore incumbent upon the

¹ Nicol (2003) reported that the total expenditure of developing countries with respect to governmental purchasing was estimated at 15% of GDP.

country seeking access to the foreign market to undertake such reforms (Evenett and Hoekman, 2003). Influence from the donor community has also been a factor in urging and providing the necessary resources to support reforms as for example the World Bank has been an active supporter of procurement reform efforts of almost all of the countries where it lends (Hunja, 2003). Public Procurement reforms has taken center stage in many developing nations and Ghana is no exception to this new trend as most governments are putting much effort into reducing budget deficits and combating corruption (Barden, 2006).

1.2 Background

‘Ghana has attempted to address weaknesses in its public procurement process by the passage of several financial and legal instruments. These have come in the form of constitutional, legislative instruments, administrative instructions and financial circulars. In 1960, the Government enacted the Ghana Supply Commission Act which was reviewed later in 1990 by PNDC law 245. In the same year, Contracts Act, Act 25 of 1960 was also passed. In 1976, the National Procurement Agency Decree SMCD 55 was passed by the Supreme Military Council. In 1979, another law, the Financial Administration Decree SMCD 221 was also passed. All these laws, decrees and instruments were meant to provide a comprehensive framework of administrative powers to regulate the activities of procurement within the public sector. Unfortunately, none of these legal frameworks included the establishment of an effective oversight body to oversee the successful implementation of these laws’ (Adjei, 2006)². The Public Procurement Board of Ghana now the Public Procurement Authority³ was established to oversee and enforce the Public Procurement Act 2003 (Act 663)⁴ following the

² As delivered in a message by the Chief Executive Officer of the Public Procurement Board, June 2006(<http://www.ppbghana.org/story>, accessed 27.04.08).

³ The Public Procurement Board’s name was changed to Public Procurement Authority with effect from April 2007 following the publication of Executive Instrument, 2007 (E13) on the Revised Edition of the laws of Ghana.

⁴ The public procurement Act of Ghana (Act 663) was given a Presidential assent on 31st December 2003 and become law from henceforth but the actual implementation of the Act 663 started in August 2004 according to survey results obtained from the field trip to Ghana in the latter part of February 2008 to the early part of April 2008.

government's reformation of the public procurement system in 1996 as an integral part of a wider Public Financial Management Reform Program-PUFMARP (Adjei, 2006).

Some short comings that the Public Financial Management reform identified were as follows:

- Absence of a comprehensive public procurement policy;
- Lack of legal regime to safeguard the integrity of the public procurement system;
- Absence of a central body with the requisite capability and expertise to develop a coherent public procurement policy;
- Absence of clearly defined roles, responsibilities and authority of procurement entities;
- No rules and regulations to guide, direct, train and monitor public procurement;
- No independent appeals process to address complaints from tenderers;
- No authority to dispose of public assets;
- No independent procurement auditing function.

In view of the above mentioned shortcomings the Public Procurement Act 2003 (Act 663) was promulgated to act as a new regulatory framework to regulate all government and public purchases within the Ghanaian economy.

1.3 Profile of the Public Procurement Authority

The Act 663 establishes the Public Procurement Authority as the regulatory body for public procurement in Ghana. The Public Procurement Authority's objective is to secure a judicious, economic, and efficient use of public funds in a fair, transparent and non-discriminatory manner while promoting a competitive Local Industry.

It's vision is "to have a world class, efficient, transparent, accountable and professionally managed public sector procurement system in Ghana which enjoys high level of business confidence and ensures consistent attainment of best value for money in the procurement of goods, works and services in support of national development and fiscal policies" as delivered in a speech by the Chief Executive Officer in a media encounter with the press (Adjei, 2006). The composition of the governing board appointed by the President of the

Republic of Ghana as stipulated in Act 663 consist of the chairperson, vice chairperson, four persons from the public sector, three persons from the private sector and the Chief Executive with a board secretary appointed by the board. The board is supported by a secretariat of staff to aid in the implementation of its functions. The Public Procurement Authority is itself not involved in the conduct of procurement except that it has the authority to approve requests from public procurement entities seeking approval to use single source procurement and restricted tendering. The various functions that the Public Procurement Authority undertakes are enumerated below (Public Procurement Board⁵, 2007):

- **Policy-** It is responsible for formulating policy options to help in the regulation and development of public procurement in Ghana.
- **Monitoring-** It is involved in the monitoring of the various procurement entities⁶ as to whether they are complying with the provisions of the Act 663. It is also involved in the recommendation of corrective actions that are required and referring breaches of the rules and regulations to the relevant oversight and law enforcement bodies where appropriate.
- **Regulation and Standards-** It is involve in the recommendation of regulatory changes, the issue of standard tender documents and the suspension of suppliers who are found flouting the rules and regulations of the procurement Act. It is also involved in the management of complaints and appeals.
- **Capacity building and professional development-**The Public Procurement Authority is also engaged in the professional development of procurement professionals and staff and setting the necessary professional standards and ethics of the procurement profession.
- **Information management and dissemination-** The Public Procurement Authority is also involved in the collection and analysis of statistics on public procurement, the maintenance of database of potential suppliers and the use of

⁵ Public Procurement Board and Public Procurement Authority are used interchangeably

⁶ The term 'procurement entity' is defined to include all government agencies, ministries, subverted organizations and parastatal bodies and includes all local authorities, state owned enterprises, public universities, schools and colleges and the Bank of Ghana and other financial institutions in which the government of Ghana has a majority of controlling interest.

it's website for the publication of tender notices and other related procurement information.

1.4 Justification of the study

Public procurement reforms is an interesting issue that requires a careful study and research as not much research have been done in that field especially in the context of developing countries. Thai (2001) has this to say: 'although public procurement is perceived as a major function of government, and although governmental entities, policy makers and public procurement professionals have paid a great deal of attention to procurement improvements or reforms, public procurement has been a neglected area of academic education and research'. It is therefore not only important for more research efforts into such reforms to see how efficient they have been in meeting the various objectives and goals envisaged in their implementation but also to establish the relationships between key factors that impinge on compliance in such reform programs since public procurement involves the use of public funds.

1.5 Research problem

The main research question is 'how does organizational goal achievement, familiarity with procurement rules and monitoring of procurement practitioners influence compliance with the new public procurement Act, Act 663 during the implementation of the public procurement reforms program in Ghana'?

Specific questions under study are therefore enumerated as follows:-

- To examine the association between organizational goal achievement and compliance with public procurement rules?
- To examine the association between familiarity with procurement rules and compliance with public procurement rules?

- To examine the association between monitoring of practitioners behavior and compliance with public procurement rules?

1.6 Organization of the study

The study is organized into eight chapters. Chapter one covers the introduction and includes the background to the study; profile of the Public Procurement Authority; justification of the study; research problem and organization of the study. Chapter two is made up of the theory review, while chapters three and four are made up of the literature on the key concepts in public procurement reforms and an exposition on public procurement in Ghana respectively. Chapter five is made up of the research method while chapter six consists of the research framework and hypotheses of the study. Chapter seven is on empirical tests and results while chapter eight is the concluding chapter consisting of the discussion; conclusion and suggestions for further research.

CHAPTER TWO

THEORY REVIEW

2.1 Introduction

This chapter presents the main theoretical framework underpinning this study. The key theory used to establish the framework for this study is the principal-agent theory. Various writers and authors such as Ross (1973); Jensen and Meckling (1976); Fama (1980) and Jensen (1983) have at various times contributed to the literature on principal-agent theory. Others include: Reuschlein and Gregory (1979); Eisenhardt (1988, 1989); Bergen et al., (1992); Holmstrom (1979); Arrow (1985) and Rokkan and Buvik (2003) just to mention a few. The various contributions of these writers on principal-agent theory have one main theme which has to do with the relationship between a principal and agent. This chapter therefore looks at the contribution of these various writers and other authors to the literature on principal-agent theory and its relevance and application to the study at hand.

2.2 Principal-agent theory

Principal-agent theory deals with the relationship between two actors: a Principal and the Agent who makes decisions or takes actions on behalf of the principal (Jensen and Meckling, 1976; Eisenhardt, 1988, 1989; Bergen et al., 1992). Reuschlein and Gregory (1979) defined an agent as a fiduciary third party who acts in the interest of a single principal or constituent group⁷. Principal-agent relationships exist within firms (intraorganizational)⁸ and between firms (interorganizational)⁹. It is concerned with how

⁷ It can be argued that in some situations an agent could be having more than one principal, for example a public procurement practitioner in a decentralized procurement system in a local area could be having the local authority boss (in Ghana's political system could be a district chief executive) and a regional minister who also is also acting on behalf of the central government.

⁸ An example of an intraorganizational principal-agent relationship that exist in firms is the manager and subordinate relationship and this can be likened to the relationship that exist between say a procurement tender committee chairman and a procurement officer.

⁹ An example of an interorganizational principal-agent relationship that exist between firms could be that of a buyer and a supplier according to Heide (2003) and this can also be likened to a procurement practitioner (buyer) and a supplier of goods, works or services in a buyer-supplier relationship.

the principal should design the reward structure for the agent for the principal to fulfill his objectives. Jensen and Meckling (1976), defined agency relationship as ‘a contract under which one or more persons (the principal(s)) engage another person (agent) to perform some service on their behalf which involves delegating some decision making authority to the agent’ They argued that if both parties (principal and agent) to the relationship are utility maximizers, there is good reason to believe that the agent will not always act in the best interest of the principal. Jensen and Meckling (1976) suggested that the principal can limit divergences from his/her interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit the aberrant activities of the agent.

Most literature on principal-agent theory focuses exclusively on the normative aspects of the agency relationship that is how to structure the contractual relation (including compensation incentives) between the principal and the agent to make choices which will maximize the principal’s welfare, given that uncertainty and imperfect monitoring exist (Jensen and Meckling, 1976). In applying this theory to the study of public procurement in Ghana, the principal can be considered as the government of Ghana while the agents are the procurement practitioners. Agency theory has three key elements: agent opportunism; information asymmetry and risk aversion. It is also concerned with solving two key problems with respect to risk aversion and agency problem (Eisenhardt, 1989). Risk-sharing problem results from the fact that different risk preferences in the principal and agent may lead to preferences for different actions (Ouyang, 2006). Agency problem, which is the major focus of the agency theory, has three sources: conflicting goals or incentives between the principal and the agent, information asymmetry between the principal and the agent and the difficulty in measuring and verifying the agent’s behavior and the outcome of the agent’s work (Kiewiet and McCubins, 1991; Ouyang, 2006). Literature on principal-agent theory shows that agents have the tendency to pursue their own interest at the expense of the principal (Baker et al., 1988; Wood, 1988).

The government of Ghana being the principal, delegates procurement job functions and decisions to the agents who are the procurement practitioners at the various government

entities (the Ministries, decentralized departments and agencies). The interest of the principal and agent at times may not be the same leading to the agents taking decisions not in the best interest of the principal and may lead to opportunism (transaction cost analysis¹⁰) on the part of the agent. In public procurement contracts, this gives the leeway for corrupt practices, wasteful spending, in-transparent procurement deals and non compliance with the procurement rules and regulations. It is therefore the reason why the principal need to design appropriate incentives to induce the agent to behave and take decisions that will deliver optimum outcomes to fulfill the objectives of the principal. Some of these incentive packages could be wages, bonuses, decision making rights, promotions, punishments etc (Halepota, 2005). With respect to monitoring, the principal-agent theory also assumes that tighter monitoring by the principal should motivate agent to increase their effort while the ‘crowding-out’ literature suggests that the opposite may occur (Dickinson and Villeval, 2008). Results show that many principal principals engage in costly monitoring and that most agents react to the disciplining effect of monitoring by increasing effort and complying.

In Principal-Agent relations, the principal is face with two distinct kinds of problems according to Jensen and Meckling (1976), one being the fact that the principal engages the agent under the condition of incomplete information while on the other hand the agent too may have some information that the principal may not have access to in order for the principal to be in the position to take appropriate decision during the engagement of the services of the agent. Theses problems come about as a result of information asymmetries existing between the principal and the agent as the agent do not want to share certain information with the principal leading to what is termed hidden information¹¹ (Douma and Schreuder, 2002). This phenomenon arises because one party has private information that is relevant to a potential transaction but is unobservable to the other party. It is therefore the unobservability of this private information that constitutes the essence of the information problem and introduces risk to the other party (Douma and Schreuder, 1998;

¹⁰ Transaction cost economies by Williamson (1975, 1985, 2005) was based on an earlier work done by Coase (1937) in his famous paper ‘the nature of the firm’. The theory is based on the assumption that human beings are boundedly rational and sometimes display opportunistic behavior.

¹¹ Hidden information also termed adverse selection can be explained as when the agent’s characteristics is not visible or known to the principal as at the time principal wants to engage the services of the agent.

2002). Hence the problem of information asymmetry is one of the important reasons for agent opportunism. Agents have better knowledge about their own skill and capabilities with respect to what they can do; and not do; how best they can do it and how much effort they can put into a task which the principal may not have full knowledge of when engaging/hiring an agent. The problem of information asymmetry may therefore lead to misrepresentation of the ability of the agent resulting in adverse selection problem. Agents know how much effort they can put into a particular task and their work in general and how effective they have been than the principal may know also leading to the problem of moral hazard. The most intriguing part of it all is that the behavior of agents is hard to observe, monitor and measure and therefore though the principal wishes to address the information problem, they are faced with the problem of monitoring and metering cost (Williamson, 1985). To help solve some of these information problems, (Kisser, 1999), suggested: identifying right agents, this is important during the recruitment and selection of procurement professional, government purchasers and buyers; using various forms of monitoring and adopting negative and positive actions with respect to sanctions and incentives respectively.

To sum up, hidden information is usually an ex-ante information problem compared to hidden action¹² which is an ex-post phenomenon. Hence the main issue is how the principal would evaluate and reward the agent's performance so as to motivate the agent to behave in a manner consistent with the principal's goals and objectives and the type of information strategy that should be employed to make such evaluations (Douma and Schreuder, 1998; 2002) and this is where the use of contracting is important to reduce the possibility of the agent becoming opportunistic but rather help exhibit an optimal behavioral output. Eisenhardt (1989) therefore emphasized that the focus of the principal-agent literature is on determining the optimal contract and behavior versus outcome, between the principal and the agent. In linking this to the study at hand it is expected according to theory that familiarity or how knowledgeable procurement practitioners are of the rules and regulations of the procurement Act coupled with the adoption of the

¹² Hidden action also termed moral hazard refers to actions that parties in a transaction may take after they have agreed to execute a transaction.

necessary monitoring mechanism stipulated by the procurement Act will help influence the way practitioners behave in terms of compliance with the provisions of the procurement Act not forgetting the regulatory role of the Public procurement Authority in ensuring that practitioners comply with the Act. In summarizing this chapter of the write-up it is important to note that the principal-agent theory deals with the relationship between a principal and an agent and how the principal will design an appropriate and efficient contract to govern the relationship and help persuade the agent to act in the best interest of the principal for optimum output. The application of this theory to the study at hand looks at the principal (government of Ghana) and the agent (a public procurement practitioner and/or entity committee) within the new regulatory frame work of public procurement reforms in Ghana. The next chapter makes a review of the literature on the key concepts in public procurement reforms that underpin this study: compliance; monitoring; familiarity and goal achievement and how these concepts are linked to the principal-agent theory which has been reviewed in this chapter.

CHAPTER THREE

KEY CONCEPTS IN PUBLIC PROCUREMENT REFORMS

3.1 Introduction

This chapter makes a review of some key concepts in public procurement reforms that underpins the study and looks specifically at issues with respect to compliance, monitoring, organizational goal achievement and familiarity with procurement rule within the framework of this study. One can hardly talk about procurement reforms without its linkage with these key words/concepts. This is because with any reform program that require some form of compliance to bring about the desired change, the important questions that comes up has to do with whether the new law is being complied with or not? If yes, then to what extent or degree and if no, why? Monitoring is also one other important concept since for any reform program, there is the need for monitoring to see if the new procurement law is being complied with? What about familiarity? Are those expected to comply with the new law familiar with its rules and regulations? Are they knowledgeable enough of the processes, systems and procedures? What about goals and objectives? Is it difficult to achieve one's goals (at the organizational level) while complying with the provisions of the new procurement regulatory system? It is for these reasons that these key concepts: compliance, goal, monitoring and familiarity need to be better understood within the context of public procurement.

Popular search engines such as Google Scholar, Proquest, and Sciencedirect just to mention a few were made use of to get a general idea of the literature at hand, after which specific articles and literature in Journals and other scholarly publications were scrutinized for use in the study. This review also discusses the linkages and the relationships that the key concepts such as compliance, monitoring, organizational goal

achievement and familiarity with procurement rule have with the key theory, Principal-agent theory within the framework of public procurement and reform programs.

3.2 Compliance issues in public procurement

Payan and McFarland (2005, p72), defined compliance as referring to ‘acting in accordance with an influence attempt from source’ as reported by Gelderman et al., (2006). The concept of compliance looks at the conduct of the regulated actor in comparison to the corresponding obligation that the actor is supposed to obey. Compliance is usually assumed to have a negative connotation since it is usually associated with enforced behavior. This negative connotation of compliance is given further emphasis by its definition in the marketing literature as ‘giving in to the wishes of a more powerful channel member’ (Hunt et al., 1987, Gelderman et al., 2006). Gelderman et al., (2006) equally reported that ‘....an individual accepts influence...not because he believes in its content but because he expects to gain specific rewards or approval and avoid specific punishments or disapproval by conforming’ (Kelman, 1958). In relating this to principal-agent theory, an agent acting on behalf of a principal may be forced to comply with the laid down rules since the actor assumes that he/she may be sanctioned for non-compliance or rewarded for compliance.

A public procurement practitioner therefore acting on behalf of the government of Ghana (principal) is enforced to comply with the regulatory regime of the new public procurement Act, Act 663 since the inability to comply may result in the agent being sanctioned as mandated by the law. This was evidenced in the assessment report¹³ of the Public Procurement where for ethics and compliance with the regulatory framework, Ghana achieved a score of 52.88% which was considered quite satisfactory in view of the relatively short time that the reform process was implemented. It has also been found that academic research in public procurement has been very inadequate (Thai, 2001) not to mention research with respect to compliance (Gelderman et al., 2006). Most compliance research in developing countries are ‘more or less fact finding missions’ with

¹³ Public Procurement Board, (2007), ‘Re: Submission of documentary evidence for assessment of MDBS PAF 2006-2008’ April, 2007. Unpublished assessment report.

sponsorship from bilateral or multilateral donors to benchmark performance of the procurement system for which funds were sourced for their implementation and the World Bank¹⁴ is no exception as it has initiated and sponsored a large majority of such schemes in the developing countries. Non-compliance is considered a major hindrance when it come to compliance issues since it shows that the directives, rules and regulations are not being followed and therefore would be difficult to achieve the objectives of such reform programs. The significance of the compliant process can not be overstated in that it helps determine if the procurement of goods, services and works are done efficiently and economically. It also helps to assess if the procurement process is being undertaken in accordance with the rules and regulations as pertaining to the regulatory framework within which the reform takes place. The compliance process also helps in identifying weaknesses within the procurement system and how to take corrective measures so as to correct deficiencies within the system. The enforcement of the rules and regulations, the reward of incentives and the sanctioning of practitioners is deemed to influence compliance rates or the degree to which public procurement practitioners/governmental purchasers comply with the rules.

3.3 Monitoring, familiarity and goal achievement in public procurement

A useful definition of monitoring is provided by Hellowel (1991) with some modifications as: ‘an intermittent (regular/irregular) series of observations in time, carried out to show the extent of compliance with formulated standard or degree of deviation from an expected norm’. Hellowel (1991) further stated that ‘important in the rationale for monitoring is the recognition that a change has occurred, and that monitoring is a means of detecting that change; of establishing its deviation and measuring its extent, intensity or degree’. Monitoring can therefore be said to be based on surveillance and is the systematic collection of data or information over time in order to ascertain the extent of compliance with a pre-determined standard or position.

¹⁴ The World Bank regularly carries out assessment of procurement systems in the countries in which it lends aimed at identifying strength and weaknesses of the entire public procurement sector (Thai, 2001).

Monitoring is an essential part of procurement management and control and is linked with compliance, performance and behavior. With respect to behavior, the monitoring of public procurement practitioners' behavior is expected to influence the degree of compliance due to the fear that non-compliance would lead to imposition of sanction. The verification of behavior of the agent by the principal when the principal has sufficient information is expected that the agent will more likely behave in the best interest of the principal (Eisenhardt, 1989) and therefore the need for a governance mechanism that limits the agents self-serving behavior in the form of monitoring is important (Jensen, 1983). The sanctioning of agents (public procurement practitioners) who do not comply and the reward of those who comply in terms of incentives is expected to increase the intensity or degree of compliance (Gelderman et al., 2006). Blau and Scott (1962) and Murray and Heide (1998) also argued that in addition to the incentive effect of monitoring, monitoring arrangements can also increase member compliance because the monitoring process in itself may place uncomfortable social pressure on the agent. Ghana for example scored 57.64% for monitoring and control considered very satisfactory during the assessment¹⁵ of its procurement systems.

Familiarity of rules can best be described as having the knowledge with respect to the rules, processes and procedures in carrying out a procurement function. Hunja (2003) argued that knowledge is a key ingredient of a well functioning, modern legal and institutional public procurement framework and that the lack of it brings about capacity problems. How knowledgeable a public procurement practitioner is, is an agent's characteristics that the principal may not have complete information about at the time of engagement of the agent by the principal according to the principal-agent theory (Douma and Schreuder, 2002). Hence, though the principal may have some information about the agent in terms of the agent's characteristics and capabilities, the principal's knowledge about the agent is limited and incomplete and this is term hidden information or adverse selection. It is possible to therefore argue that the human resource base of a reform program in public procurement is indispensable for a successful reform and for achieving

¹⁵ Public Procurement Board, (2007), 'Re: Submission of documentary evidence for assessment of MDBS PAF 2006-2008' April, 2007.Unpublished assessment report.

a high degree of compliance since the lack of knowledge or familiarity with the procurement rules can lead to non-compliance. Ghana achieved a score of 40.39% with respect to human resource¹⁶ base of the reform program which may not be considered very satisfactory and shows the lack of capacity and knowledge that need to be addressed with the necessary training and development. It is important to note that practitioners need to be very clear about the various rules and regulations governing public procurement, since the lack of clarity can lead to non-compliance. The lack of clarity is believed to increase the possibilities of (un)deliberate non-compliance (Gelderman, 2002).

A goal or objective can be defined as: ‘a projected state of affairs which a person, or a system plans or intends to achieve or bring about, could be a personal or organizational desired end-point’. Organizations set goals and objectives that need to be achieved to realize the purpose for which such organizations were established. For example organizations in the private sector have profit making as the main goal and in the attaining these goal, they put in place the type of business strategy that will help realize those goals. In the pursuit to achieve organizational goals and objectives, there could be goal conflict especially in the principal-agent scenario where the principal and the agent may have divergent goals or objectives either ex post or ex ante when the principal contractually engages the agent. Rokkan and Buvik, 2003 proposed that the lower the level of goal conflict the less likely it is that the agent will behave in opposition to the interests of the principal. For example, the goals and objectives of the procurement entity could be in conflict with what the reform program seeks to achieve or the other way, the goals and objectives of the public sector organization could be in conflict with that of the procurement reforms thereby making it difficult for the organization to achieve its goal while adhering to the rules and regulation of the public procurement law, and thereby making compliance with the rules a problem. It is therefore important for goal

¹⁶ Public Procurement Board, (2007), ‘Re: Submission of documentary evidence for assessment of MDBS PAF 2006-2008’ April, 2007.Unpublished assessment report.

congruence between the principal and the agent¹⁷ in order for both to achieve their goals and objectives so that the public organization or entity could still achieve its goals while complying with the provisions of the laid down procurement rules and regulation. The next chapter looks at the procurement reform program in Ghana in detail. It discusses an overview of public procurement in general and then goes on to look at how procurement functions were carried before the new reform program. It then goes on to discuss the legal and regulatory framework of the new procurement system and some procurement processes, procedures and principles.

¹⁷ Goal congruence: where the procurement entity or organization has goals that do not conflict with that of the principal- the government of Ghana.

CHAPTER FOUR

AN EXPOSITION ON PUBLIC PROCUREMENT IN GHANA

4.1 Introduction

This chapter reviews the literature on public procurement in general and then goes on specifically with an exposition on public procurement in Ghana which has to do with: 'how procurement functions were organized before the Public Procurement Reforms in Ghana'; 'the legal framework of Public Procurement Reforms in Ghana'; 'the Procurement Cycle'; 'procurement principles and ethics' and 'sanctions for non-compliance and enforcement of rules in public procurement reforms'.

4.2 Overview of public procurement

Public procurement has a long history as reported by Thai (2001). He traced this history where the earliest procurement order dates from between 2400 and 2800 B.C with a procurement order written in red clay tablet found in Syria. The order was for '50 jars of fragrant smooth oil for 600 small weights in grain' (Coe, 1987), while other evidence of historical procurement includes the development of the silk trade between China and a Greek colony in 800B.C. The importance of public procurement can not be overstated in view of the huge financial outlays that are usually involved: Pegnato (2003) estimated United States federal procurement figure at around US\$200 billion per annum while Cogburn (2003) put the combined level of state and local government's at more than US\$1trillion. Thai and Grimm (2000) estimated government's collective purchasing at around 20% of GDP while for developing countries, Nicol (2003) put the figure at 15% of GDP. Public procurement is therefore an important function of government as the huge outlays has a great impact on the economy and needs to be well managed (Thai,2001) and secondly, as an important tool for achieving economic, social and other objectives

(Arrowsmith, 1998). In view of the importance that public procurement play in both economic and social development, the World Bank's Procurement under IBRD Loans and IBRD Credits specifies four major concerns or objectives of public procurement for projects funded by its loans as reported by Thai (2001):

- ensuring that the loan is used to buy only those goods and services needed for the project;
- ensuring fair competition for all qualified bidders from the World Bank's eligible countries;
- promoting transparency or integrity, and
- encouraging development of indigenous contractors and manufacturers by allowing local buyers to build in a margin of preference for local contractors and manufacturers (Tucker, 1998).

In the promotion of transparency or integrity, Barden (2006) posited that transparency was important to assure the trust and confidence in the procurement system and that it is important to assure vendors that the opportunity to supply goods and services are offered on a level playing field while avoiding corruptive influences. Barden (2006) suggested that transparency can be achieved by government agencies through the following strategies: use of effective advertising; public bid opening procedures; effective bid evaluation criteria; independent evaluation methods consistent with the stipulations of the bidding documents and the awarding of contracts to qualified vendors having submitted the lowest evaluated bid without negotiations. Other strategies included: the publication of award results; fair and speedy protest and dispute resolution handling processes and the disclosure of signed contracts and prices. Schapper et al., (2006) made a strong case for the potential of technology to enhance transparency as noted by other authors such as Shadrach and Ekeanyanwu (2003). They suggested that e-commerce helps in the enhancement of transparency through effective audit for the great volume of simple low value transactions while for high value complex procurement processes, the key transparency features included: public access to up-to-date policies; information on bidding programs; standardized documentation and lodgment of bids; progress of tender evaluation and announcement of outcomes. Schapper et al (2006) and Shadrach and

Ekeanyanwu (2003) therefore concluded that for high value procurement processes, transparency is strengthened through direct public disclosure of all stages of the procurement process while low value procurement is strengthened primarily through improved audit capabilities. But unfortunately, public procurement reforms programs in developing countries do not incorporate the reformation and incorporation of technology with respect to e-commerce but mostly the reformation of the regulatory and management processes of the procurement systems for efficiency, value for money and compliance. This is affirmed by Schapper et al., (2006): ‘...enhanced transparency from the application of technology to procurement systems delivers directly what volumes of regulations seek to do indirectly and often tenuously’.

4.3 How procurement functions were organized before the public procurement reforms in Ghana

The Ghana Supply Commission¹⁸ and the Ghana National Procurement Agency were hitherto the main governmental procurement agencies that were engaged in the procurement of all public goods on behalf of government but due to some inefficiencies as a result of the lack of qualified personnel, lack of planning for the required goods and long delivery times some sector ministries such as the Ministry of Health decided to conduct their own procurement functions which lead to some individual procurement development programs in these ministries with some input from the Ministry of Finance and some donor agencies (Verhage et al, 2002). It is very important to note that prior to the enactment of the Public Procurement Act, 2003 (Act 663) there was no comprehensive guidance on the scope and procedures for the procurement of goods, works and services in Ghana (Anvuur and Kumaraswamy, 2006). For instance the procurement of construction works and services had been regulated mainly through circulars from the Ministry of Finance. This complemented a set of procedures evolved by convention in connection with the control of procurement exercised by the Ministry. Central, Regional and District Tender Boards supervised the tendering processes and award of contracts within thresholds defined by the Ministry of Finance as reported by

¹⁸ The Ghana Supply Commission is now Ghana Supply Company Limited since January 2000.

Anvuur and Kumaraswamy (2006). World Bank projects used the World Bank Procurement Guidelines (World Bank, 1985) and the World Bank Guidelines (World Bank 1997) for the Selection of Consultants. These arrangements notwithstanding, the Ministries, Departments and Agencies (MDAs) and District Assemblies (DAs) maintained separate lists for the pre-qualification of contractors and use different standard conditions of contract for works procurement (Adjei, 2006). World Bank administered projects used the International Federation of Consulting Engineers (FIDIC) conditions of contract for works contracts and shortlists for the selection of consultants.

The classification of Contractors by the Ministry of Water Resources, Works and Housing were observed to be too general and obsolete and the registration criteria, lists of contractors and monetary thresholds were not regularly updated according to the World Bank (1996) and (Eyiah and Cook, 2003). Except for major or complex assignments, most government-financed architectural consultancy services and project supervision had been assigned to the Architectural and Engineering Services Limited on sole source basis (World bank, 1996). The shortlists used on World Bank-administered projects for the selection of consultants were observed to be repetitive, with the same firms selected for civil engineering and building works supervision. Many instances of a single contractor buying and pricing all the bidding documents, and of the award of a number of contracts (or lots) to the same contractor/supplier, under different contracting names were also observe (Crown Agents, 1998; Westring, 1997). Studies have shown that public procurement represents about 24% of total imports of this country and apart from personnel emoluments, it represents between 50-70% of the national budget (Adjei, 2006) and thereby contributing about 14% to Ghana's Gross Domestic Product (GDP). This no doubt explains why management of public procurement has assumed a significant role in national development.

4.4 The legal framework of public procurement reforms in Ghana

The Government of Ghana launched the Public Financial Management Reform Program (PUFMARP) in 1996 with the aim of improving the overall public financial management in Ghana. In 1999, the Government of Ghana established the Public Procurement Oversight Group to manage the development of a comprehensive public procurement

reform program. The Public Procurement Bill was drafted in 2002 and this was passed into law on 31st December 2003 as the Public Procurement Act of 2003, Act 663 (Adjei, 2006).

4.4.1 The objectives and scope of the Public Procurement Act 663

The main objectives of Act 663 are to harmonize public procurement processes in the public service; secure judicious, economic and efficient use of state resources and to ensure that public procurement functions undertaken within the public sector are fair, transparent and non discriminatory. The Act applies to procurement financed wholly or partly from public funds; procurement of goods, works, services and contract administration; disposal of public stores and equipment, not forgetting procurement financed by funds or loans taken by the government of Ghana, including foreign aid funds. The Act 663 however have some exceptions and does not apply to some situations such as: where the Minister¹⁹ decides that alternative procedures are in the national interest; where a loan or funding agreement specifies alternative procedures²⁰ and excludes stores management and/or distribution.

4.4.2 Functions of the Public Procurement Act 663

The Public procurement Act establishes the Public Procurement Board, entity tender committees and tender review boards; it specifies rules for procurement methods, procedures, appeals by tenderers and disposal of stores; defines offences and applicable penalties and also specifies the thresholds in schedules to the Act 663. It also authorizes the issues of regulations, which are enforceable under the Act. The Act 663 applies to various institutions such as the central management agencies; ministries, departments and agencies (MDAs); subverted agencies and governance institutions. Others includes state own enterprises; public universities, schools, colleges and hospitals; the Bank of Ghana and financial institutions owned or majority owned by government and institutions established by Government for the general welfare of the public.

¹⁹ Minister here refers to the Government of Ghana appointed political figure in charge of a government ministry for example the Minister in Charge of Finance.

²⁰ An example of an alternative procedure could be some aid agreements.

4.4.3 Structure of the legal and regulatory framework for public procurement in Ghana

The basic structure of the legal and regulatory framework of public procurement in Ghana consists of the Public Procurement Act 663 of 2003; Public Procurement regulations, Public Procurement manual; Standard tender documents and Guidelines to assist public procurement practitioners. Figure 1; below illustrate the structure of the legal framework of the public procurement in Ghana. Under the Act663, regulations are issued by the Minister of Finance in consultation with the Public Procurement Authority under section 97 of the Act. They contain detailed rules and procedures for all aspects of the procurement system; the operations of the Public Procurement Authority and the procurement entities and the conduct of procurement activities (Public Procurement Board, 2007)²¹. As part of the legal framework of the Act 663, the Public Procurement Board is authorized to issue guidelines and to provide supplementary guidance on specific topic²² that are needed to help streamline the conduct of public sector procurement in Ghana. The legal framework also covers the issue of standard tender documents and manual for the conduct of procurement by the Public Procurement Board. The standard documents are issued by the Procurement Board and are listed in Schedule 4 of the Act 663. The standard tender documents comprises of standard invitation and contract documents for procurement of all values and includes standard tender documents for goods, works and services. While the manuals issued by the Public Procurement Board provides practical guidance and step by step procedures for undertaking of procurement functions in accordance with the Act 663 and with standard forms to assist in procurement record keeping (Public Procurement Board, 2007).

²¹ Public Procurement Board: 'Role of procurement and legal framework', short term training manual on the Public Procurement Act, 2003(Act 663) Module 1, September, 2007.

²² Some specific topics have to do with guidelines on the disposal of public assets, single source procurement or margins of preference.

Figure 1: Structure of the legal and regulatory framework for Public Procurement in Ghana²³

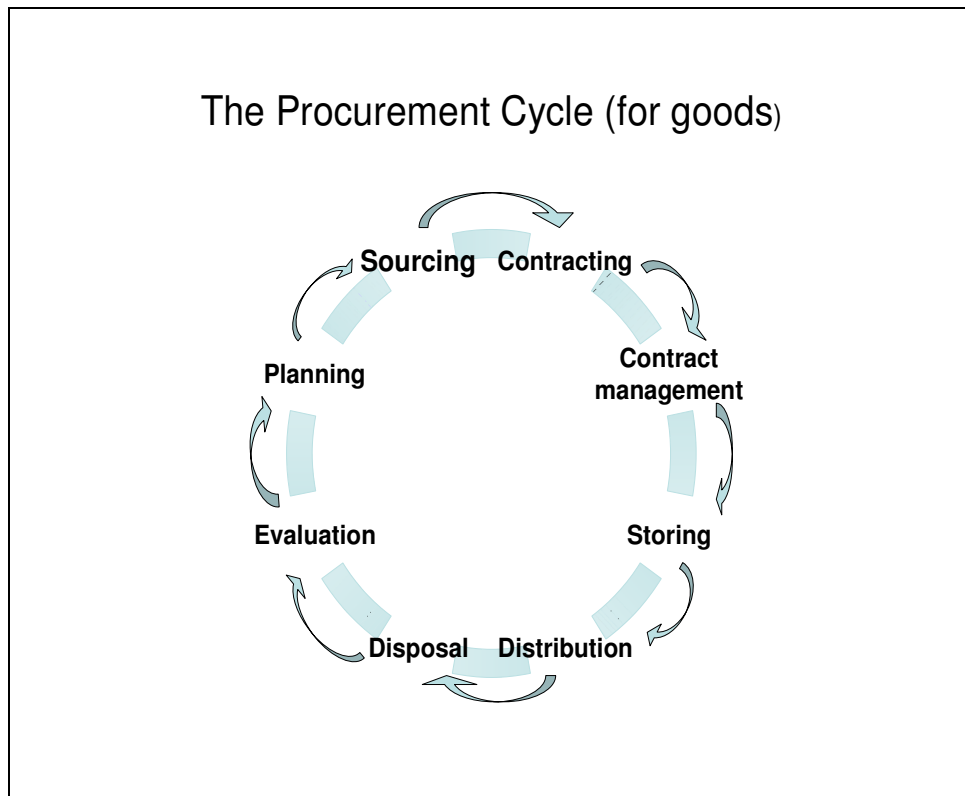
<p>Public Procurement Act, 2003 (Act 663)</p>	<p><u>Passed</u> by Parliament.</p> <p><u>Establishes</u> the Public Procurement Board as a regulatory body and specifies functions of tender committees.</p> <p><u>Specifies</u> outline rules for procurement methods, procedures, appeals by tenderers and disposal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

²³ Public Procurement Board, 2007: 'Role of procurement and legal framework', short term training manual on the Public Procurement Act, 2003(Act 663) Module 1, September, 2007.

4.5 The Procurement Cycle

The procurement cycle is more or less a road map of the activities within a procurement function. It establishes key activities required at every stage of the procurement process while at the same time providing a benchmark for the monitoring and evaluation of the process by procurement monitors and evaluators. The procurement cycle model emphasizes activities occurring within the entire supply chain and not just procurement as shown in Figure 2; though the Public Procurement Act 663 did not stress on the storage and distribution functions of the supply chain, the law's emphasis on the disposal of stores, plant and equipment makes it imperative to include all activities of the supply chain. These activities consist of the following: Planning; Sourcing; Contracting; Contract management; Storing; Distribution; Disposal and Evaluation.

Figure 2: Procurement cycle for goods



4.5.1 Procurement planning

The Public Procurement Act 663 of 2003 provides for the activity of planning under Part 3 section 21 which stipulates as follows:

‘(1) A procurement entity shall prepare a procurement plan to support its approved program and the plan shall indicate:

- (a) contract packages,
- (b) estimated cost of each package,
- (c) the procurement method
- (d) processing steps and time

(2) A procurement entity shall submit to its tender committee not later than one month to the end of the financial year the procurement plan for the following year for approval.

(3) After budget approval and at quarterly intervals after that, each procurement entity shall submit an update of the procurement plan to the tender committee.

(4) The procurement entity shall send to the Tender Review Board, procurement notices for contracts and procurement plans above the threshold stipulated in Schedule 3 for publication in the Public Procurement Bulletin.

(5) A procurement entity shall not divide a procurement order into parts or lower the value of a procurement order to avoid the application of the procedures for public procurement in this Act.

It’s therefore very important to note that procurement entities need to plan their procurement for the coming year by 30th of November of the preceding year, reviewed and approved by their entity tender committees and updated every quarter (Public

Procurement Board, 2007)²⁴. It is equally important to note that the procurement opportunities are to be published in the Public Procurement Bulletin and there should be no room for splitting of contracts so as to avoid the application of the procedures stipulated in the Act (Public Procurement Act, 663). Hence, during the first phase of the procurement cycle, procurement requirements are specified by the user; the strategy to be used is decided including ‘make or buy’ decisions; funding decisions are taken; the applicable rules and methods²⁵ to use are considered and then a time table for procurement process prepared.

4.5.2 Sourcing, contracting and contract management

The sourcing phase in the procurement cycle follows from the selected method of procurement. Activities within this phase include pre-qualification of potential suppliers; preparation and issue of tender documents; requests for quotations or requests for proposals; evaluation of responses and the selection of the successful tenderer not forgetting the fact that negotiations may be required at this stage. A contract then follows where a formal contract document²⁶ is drawn up using the agreed terms and conditions and signed by both parties. Simpler requirements may use a purchase order or where framework contracts exist, contracting may consist of a call-off order under the existing contract. The awarded contract must be managed to ensure that both the buyer and the supplier perform their contractual obligations. Activities here may include expediting delivery; establishing letters of credit; making arrangements for receipt and installation of goods; verifying documentation and making payments. Works contracts on the other hand may require technical supervision by an engineer while contracts for consultancy services often require the direct participation of the buyer or client organization as is in the case of training, technical advice or feasibility studies (Public Procurement Board, 2007)²⁶.

²⁴ Public Procurement Board: ‘Procurement planning’, short term training manual on the Public Procurement Act, 2003(Act 663) Module 9, September, 2007.

²⁵ Procurement methods that can be considered are restricted tendering; request for quotations or proposals, single source etc.

²⁶ Public Procurement Board: ‘Procurement cycle’, short term training manual on the Public Procurement Act, 2003(Act 663) Module 5, September, 2007.

4.5.3 Storage, distribution and disposal

Storage comes in when goods procured are not being used immediately and therefore the need to store them to ensure that no damage or loss occurs. The timely availability of goods can be very crucial to an organization's operations²⁷. Goods may require specialized storage facilities or may have very limited shelf life so the effective storage, handling and management of stock levels are important. Goods in storage need to be delivered to their final destination for usage according the requirements of the customer or end-user. Distribution may involve complex in-country supply chains with delivery to multiple regional stores facilities or end-user sites. There may also be the need to respond to varying user demands and to transport goods through difficult environments and terrain with very poor infrastructure (Public Procurement Board, 2007). With respect to disposal, unserviceable, obsolete or surplus stocks may have to be disposed of and depending on the nature of the goods and their condition may be sold by public tender or auction, transferred to another public organization or destroyed. It is important to make appropriate adjustments to accounts to reflect the value of the goods disposed off and any income that may have been generated during the disposal.

4.5.4 Evaluation of the procurement function and auditing

It is important for procurement practitioners to evaluate the procurement process to see how efficient and effective the procurement processes have been. There is the need to identify weaknesses and problems for corrective measures and evaluation may include a formal procurement audit. A formal procurement audit is done to give assurance to management; to see if objectives are being achieved; it highlights deficiencies²⁸ ; ensures compliance with the Public Procurement Act 663; ensures if the regulations are being followed to the latter and helps in the discovery of irregularities, fraud, and corruption. A formal audit also helps in performance monitoring and improvement and in the enforcement of the rules and regulations and subsequent prosecution of those who are

²⁷ Timely availability of goods is very crucial for example in the case of the procurement of essential hospital supplies in hospital logistics.

²⁸This has to do with the capacity of the people in terms of the skills and knowledge of the people in charge of the procurement functions.

found culpable of non-compliance with the Act. A formal auditing of a procurement process has the following actors: auditors²⁹; the Public Procurement Board; Ministry of Finance; stores personnel or donor staff or consultants where donor financing is involved (Public Procurement Board, 2007)³⁰. Clause 91 of the Public Procurement Act 663 states as follows:

‘(1) The Auditor-General shall conduct annual audits of the procurement activities of entities and shall furnish copies of reports on the audits to the Board upon request from the board.

‘(2) The Auditor-General shall also carry out specific audits into the procurement activities of entities and compliance by contractors, suppliers and consultants with the procurement requirements in the Act and regulations made under the Act at the request of the Board.

‘(3) The statutory audit of procurement activities may be relied upon by the Board to institute measures to improve the procurement system.

The types of audits that can be undertaken are: compliance with policies and procedures; value for money; fraud/irregularities which may include forensic auditing and performance monitoring. Audits can be carried out pre-contract, post-contract or on a continuous basis (Public Procurement Board, 2007)³¹.

²⁹ This could be internal or external auditors such as an internal auditing department, the Auditor-General or specialized independent professional consulting/ auditing firms.

³⁰ Public Procurement Board: ‘Introduction to procurement audit’, short term training manual on the Public Procurement Act, 2003(Act 663) Module 24, September, 2007.

³¹ Public Procurement Board: ‘Introduction to procurement audit’, short term training manual on the Public Procurement Act, 2003(Act 663) Module 24, September, 2007.

4.6 Procurement principles and ethics

The basic objectives of good procurement are to procure the right quality of goods, works or services from a reliable supplier in the right quantity ensuring cost effectiveness; delivered at the right time; to the right place; in the right quantity and at the right price whilst achieving the lowest total cost. In the achievement of the objectives of a good procurement system the following factors are of utmost importance: Professionalism; Transparency; Value for money; Competitiveness and Accountability. Other factors include Fairness; Efficiency and ethical approach to the conduct of procurement functions.

4.6.1 Professionalism and transparency in public procurement

Professionalism is the discipline whereby educated, experienced and responsible procurement officers make informed decisions regarding procurement functions and therefore can be argued that the role that procurement professionals play in the procurement system of the Ghanaian economy is critical to the economic development of the country (Public Procurement Board, 2007)³². It is therefore in recognition of this fact that one important object of the Public Procurement Board is stated as follows: ‘the professional development, promotion and support for individuals engaged in public procurement and to ensure adherence to ethical standards by trained persons’(Adjei, 2006)³³. Transparency on the other hand means the application of the same rules to all suppliers of goods, works and services and that these rules are publicized as the basis of procurement decisions prior to their use. Transparency enables the creation of open, fair and transparent procurement procedures. Transparency helps in the growth of in-country investments and competitiveness as the public sector is seen as a responsible business partner. Transparency is considered one of the best deterrents to corruption and allows access to information by the public.

³² Public Procurement Board: ‘Procurement principles and ethics’, short term training manual on the Public Procurement Act, 2003(Act 663) Module 3, September, 2007.

³³Adjei AB, 2006,

4.6.2 Value for money and competitiveness in public procurement

Value for money refers to the optimum combination of ‘whole life cost’ and ‘quality’ to meet the customer or the end-users requirement of the procured goods or service under consideration and usually reflected in the price of the item procured. The object of the Public Procurement Board is ‘to harmonize the processes of public procurement in the public service to secure a judicious, economic and efficient use of state resources in public procurement’ attest to the value for money principle of the procurement system (Public Procurement Act, 663). Competitiveness on the other hand refers to the active participation of the private sector and or suppliers in the procurement process through the making of procurement information accessible to all; through advertising of tenders; sourcing reviews; prequalification and the adoption of transparent procedures in the procurement systems. The benefits of competitiveness can not be over emphasized and includes potential savings for the economy; increases in the supplier base; and the development of the local industries within the economy and thereby eventually leading to economic development and poverty reduction.

4.6.3 Accountability, fairness and efficiency in public procurement

Accountability, fairness and efficiency are three cardinal pillars that procurement reforms seek to achieve in that a very fair and accountable procurement system helps in the efficient utilization of the state resources judiciously. Procurement practitioners need to be very fair in their day-to-day dealings with their suppliers and potential bidders and the public at large in order to earn the trust of the various actors within the procurement system. Accountability refers to the process of holding an individual or an organization fully responsible for actions and functions they are engaged in over which they have authority to exercise those functions. The benefits of accountability and fairness are as follows: the strengthening of the perception of transparency and fairness; the reduction of the incidence of corruption; the development of mutual trust and the fact that procedures are adhered to for example in all stages of the tendering process. An efficient public procurement system has the benefit of being operated in a very timely manner with little or no bureaucracy and thereby helping to instill and underpin the trust worthiness of the procurement system.

4.6.4 Ethical standards in public procurement

Ethics has to do with upholding moral principles and values which influences our beliefs, actions and decisions and involves leading an unquestionable lifestyle especially within the professional domain. In the procurement system, ethical standards and considerations are very important for the following reasons: procurement staffs are representatives of their organizations in dealing with suppliers as likened to principal-agent theory; excellent ethical conduct in dealing with suppliers is essential to the creation of a good buyer-supplier relationship and the fact that procurement staff are more exposed to the temptation of acting unethically than most other employees.

Section 86 of the Public Procurement Act, 2003, requires the compilation and publication of code of conduct by the Public Procurement Board and is found in the regulations with respect to the following: confidential information; supplier relationship; gifts and entertainment and the fact that officials and their immediate families must not sell goods and services to their own agency. Officials are not to disclose to any third party confidential or proprietary information; officials are to avoid conflict between their personal financial interests and their official duties and officials are not to accept directly or indirectly any gift³⁴ from any person or entity which has or seeks to obtain a contract with their own agency, department or ministry. Section 32 of the Public Procurement Act 2003 states as follows: ‘ A procurement entity shall reject a tender, proposal, offer or quotation if the supplier, contractor or consultant that submitted it offers, gives, or agrees to give, directly or indirectly to any current or former officer or employee of the procurement entity or governmental authority, a gratuity of any form; an offer of employment; or any other thing of service or value as an inducement with respect to anything connected with a procurement entity and procurement proceedings (Public Procurement Act, 2003). While regulations 32(2) states that, ‘a procurement entity shall record any such attempt in its record of proceedings and immediately notify the Public Procurement Board of any attempt to influence an award of contract or performance of a contract.

³⁴ Including any gratuity favor, entertainment, loan or other consideration

The private sector is not exempted from responsibility to act ethically and transparently in procurement proceedings with the Government of Ghana as this illustrated by the fact that tenderers are required to sign a formal declaration before being allowed to participate in any procurement process: *'I hereby certify that I and all officers of the company which I represent will uphold the highest ethical standards in doing business with the government of Ghana. We will not attempt to bribe government officials with money or other goods or services; we will not request favorable treatment and we will not seek information about competitors or other information regarding the procurement process. I understand that if I or other officers of the company which I represent are found to have breached this commitment that sanctions will be made against the company, including being debarred from doing business with the Government of Ghana for a period of five (5) years'* (Public Procurement Board, 2007)³⁵.

4.7 Sanctions for non-compliance and enforcement of rules in public procurement reforms

The adherence to the provisions of the Act and Regulations by public officials is obligatory and therefore failure to do so is considered an offence which is subject to sanctions. Officials suspected of non-adherence to the rules and regulations and found guilty following investigations would be suspended and his or her benefits including salary withheld while officials found misappropriating government funds regardless of the value were to be summarily dismissed. Hence section 92 of the Public Procurement Act 2003, establishes that contravention of any provision of the Act is an offence and stipulates the penalties to be applied while section 93 of the Act defines corrupt practices in terms of article 284 of the Ghanaian constitution, and the Criminal Code, 1960 (Act 29). The Act also stipulates that any tenderer, supplier, contractor or consultant who attempts to influence a procurement process, or the administration of a contract by any unfair method, will be subject to sanctions which may include debarment of the company from Government of Ghana contracts. Hunja (2003), in reporting on the assessment of

³⁵ Public Procurement Board: 'Procurement principles and ethics ', short term training manual on the Public Procurement Act, 2003(Act 663) Module 3, September, 2007.

procurement systems in developing countries found out that the abuse of procurement systems arises largely due to weak or inconsistent enforcement of the prevailing rules and regulations. He said that the weak enforcement of the rules was clearly reflected by the dissonance between prevailing (formal) rules and what actually takes place in practice during the procurement process. Hunja (2003) further argued that public entities usually go the extra length to create a semblance of formal compliance with procedural and other requirements while seriously compromising the intent and spirit of such rules. Ambiguities and gaps in the rules also lead to different interpretations requiring revisions and reviews. The lack of enforcement therefore could be traced to weaknesses in the rules and therefore Hunja (2003) suggested a multi-faceted approach like for instance strengthening the right of bidders to obtain redress when public entities breach the rules; forcing greater transparency into the decision making process³⁶ coupled with other institutional oversight mechanisms such as procurement audits. Hunja (2003) concluded that the challenge when it comes to the enforcement of the rules and regulations lies in achieving a proper balance so that mechanisms of enforcement do not become a barrier so as to make the system inefficient, bureaucratic and costly. The non-compliance to procurement rules and regulations do not help in the achievement of the objectives by which procurement reform programs are implemented and this is therefore considered a major hindrance to the effective implementation of such programs. The next chapter describes the methodology that was used in the study.

³⁶ Including public notification of contracts through advertisements and use of public procurement bulletin

CHAPTER FIVE

RESEARCH METHOD

5.1 Introduction

The previous chapter discussed public procurement in general followed by a detailed exposition of public procurement specifically in Ghana detailing the legal and regulatory framework; the processes, systems, principles and procedures of public procurement in Ghana. The preceding chapter is followed by the research method that was adopted in this study. This chapter therefore explains the methodology that was employed in the study of the problem at hand: 'how organizational goal achievement, familiarity with procurement rules and monitoring of procurement practitioners influence compliance with the new public procurement Act, Act 663 during the implementation of the public procurement reforms program in Ghana'. The chapter includes the following: geographical area of study; research setting; sampling and data collection; scope of the study; measurement construct; and discriminant validity of independent variables.

5.2 Geographical area of study

Ghana is located in the West of Africa, formed from the merger of the British colony of then Gold Coast and the Togo land trust territory, Ghana in 1957 became the first sub-Saharan country in colonial Africa to gain its independence. Its location is on geographic coordinates: 8 00 N, 2 00 W with total land area of 239, 460 sq km comprising of 230, 940 sq km of land and 239, 460 sq km of water. Ghana is bordered on the east by Togo; West by Cote d'Ivoire; North by Burkina Faso and on the south by the Atlantic ocean, the Gulf of Guinea. The climate is tropical which is warm and comparatively dry along the coast; hot and humid in the southwest and hot and dry in the north. Its terrain is mostly low plains with some scattered plateau in the south-central area. Ghana's population stands at 23, 382,848 as at July 2008 estimates with population growth estimated at

1.93% (www.cia.gov/library/publications accessed 25.04.08). Figure 3, below shows the geographical map of Ghana. The country has ten administrative divisions/regions namely: Ashanti; Brong Ahafo; Central; Eastern; Greater Accra; Northern; Upper East; Upper West and Western. It has Accra as the seat of government and the capital. Ghana's legal system is based on English Common Law and Customary law while its government type is constitutional democracy with the Executive branch headed by the President who is the head of government, assisted by his Vice and Ministers of State; the Legislative branch currently consist of 230 parliamentarians elected by direct popular vote to serve four year term and with the Judiciary headed by the Chief Justice.

Figure 3: Map of Ghana³⁷



³⁷ Source: (www.cia.gov/library/publications accessed 25.04.08).

5.3 Research setting

An explorative study was conducted among purchasing professionals and practitioners in the public sector³⁸ of the Ghanaian economy using structured questionnaires³⁹ to survey factors leading to compliance with the Public Procurement Law in the collection of primary data for this study. Use was also made of unstructured questionnaire to solicit information from the Public Procurement Board which is the regulatory body of the public procurement reforms in Ghana as mandated by Act 663 of the Public Procurement Law. Secondary data was collected from the Public Procurement Board in the form of assessment reports and manuals on public procurement reforms in Ghana. 'Empirical data can use quantitative analysis, qualitative analysis, or a mixture of both. Quantitative results are expressed in numerical, quantifiable terms. Qualitative results are frequently expressed verbally, often to create an understanding of relationships or complex interactions, alternatively both methods may be combined', (Hendrick and Ellram, 1993). It can therefore be argued that a mixed method of research design was adopted in this study by making use of both qualitative and quantitative methods of research.

5.4 Sampling and data collection

The sampling was done by randomly selecting a sample⁴⁰ of sixty-five from a pre-selected group of two hundred procurement entities recommended from the Public Procurement Board to form the basis of the quantitative study. To avoid selecting a biased group of entities that may be termed good or bad⁴¹ procurement entities since

³⁸ For the purposes of this study the Public sector consist of procurement entities within the government ministries; central government agencies; subverted agencies; state owned enterprises; public universities, schools, colleges and hospitals.

³⁹ The structured questionnaire was adapted with some changes to the one formulated by Frederick Mwakibinga for the study of Public Procurement Reforms in Tanzania for his Doctor of Philosophy(PhD) degree.

⁴⁰ A list of public procurement entities forming the sample size of 65 is presented in appendix A.

⁴¹ The Public Procurement Board had previously done assessment of 100 procurement entities in it's first ever procurement reform assessment and subsequently did another assessment cumulating in the assessment of 200 entities covering the period January 1st 2006 to December 31st 2006 using an assessment framework termed the Public Procurement Monitoring and Evaluation Tool (PPME Tool). With this assessment the Public Procurement Board had a fair idea of entities that have well developed procurement systems and capacity and those that needed to improve upon their procurement functions

many of these had previously been assessed by the Public Procurement Board, a list of 'good entities' and 'bad entities' was formed and these two groups were randomly selected to form the sampling size of sixty-five for the study at hand. The sample of sixty-five procurement entities consisted of entities from the various ministries; government subverted organizations, and some state owned enterprises; public universities, colleges, polytechnics, secondary schools⁴²; polyclinics and hospitals. The questionnaires were administered mostly in the southern and central part of Ghana covering four of the ten administrative regions/divisions of Ghana. But it is important to not that due to limitation of time and logistical complexities in covering all these four regions adequately the bulk⁴³ of the sample size actually comes from the Greater Accra Region where it was easier moving from one entity to the other during the data collection exercise.

The data collection was done by visiting individual procurement entities with a questionnaire, introducing one self to the organization and being directed to the appropriate department in charge of procurement. Some organizations had full-fledged procurement departments while others use the administration or the finance office for procurement functions. Questionnaires are left with the appropriate departments and personnel in charge of procurement for the necessary responses to be entered into them and completed questionnaires subsequently collected latter upon appointed time of collection. Some organizations also grant face to face interview where the various questions are asked while the procurement practitioner make the necessary responses which are instantly entered onto the questionnaire. In such instances some qualitative data was also collected from such face to face interview sections. Sixty-five (65) structured questionnaires were therefore dispersed to sixty-five public procurement entities and fifty-eight (58) completed questionnaires were retrieved representing 89.2% responses. The high percentage of responses was achieved as a result of frequent and

forming the basis of the pre-selection of entities before the final sample size of sixty-five was randomly selected.

⁴² Now termed senior high school, as at the time of undertaking this study.

⁴³ Out of the sixty-five entities, fifty of the entities visited were in Accra, and five each in Takoradi, CapeCoast and Kumasi. See appendix A.

persistent visit to the various recipient entities to ensure that the questionnaires were filled in, completed and retrieved by a team made up of the writer and an assistant covering as many entities as possible on each appointed day.

5.5 Scope of the study

The scope of this study is limited to compliance, and has to do specifically with the extent to which factors such as goal achievement by governmental or public sector organizations; monitoring of procurement practitioners and familiarity of rules by procurement practitioners influence compliance with the new public procurement Act, Act 663 during the implementation of the public procurement reforms in Ghana.

5.6 Measurement construct

Likert-type items on a 1-7 scale with end points ‘Strongly disagree’ and ‘Strongly agree’ were used as the response anchor in this study. The items are described in Table 1 with the corresponding reliability measures (Cronbach alpha coefficient).

5.6.1 Goal achievement (Goal)

This describes organizational objectives/goal by the various governmental organizations/procurement entities which they seek to achieve. Goal achievement was measured by a scale of three items capturing the degree to which organizational goal is achieved. The scale shows satisfactory reliability with $\alpha=0.74$.

5.6.2 Monitoring (Monit)

Monitoring was measured by a scale of three items capturing the degree to which the procurement practitioners (or the procurement entity) were monitored by their superiors or the various oversight bodies such as the tender committee, the procurement Board and/or internal or external monitors and evaluators. The scale shows satisfactory reliability with $\alpha=0.74$.

Table1: Items representing different scales and reliability estimates.

scale	Description of items
Goal, 3 items, $\alpha=0.74$	<p>Goal1: The available procurement rules facilitate the achievement of our organization objectives.</p> <p>Goal2: Our organization rules match with the applied procurement regulations.</p> <p>Goal3: It is easy to achieve organization objectives while adhering to the available procurement rules.</p>
Monit, 3 items, $\alpha=0.74$	<p>Monit1: We are frequently inspected to see if we adhere to the established procurement rules as stipulated by Act 663.</p> <p>Monit2: Our supervisors show much interest to see if we are complying strictly with the established rules and regulations.</p> <p>Monit3: Our supervisors ensure that we follow and comply with the established rules in our day-to-day procurement functions.</p>
Fami, 3 items, $\alpha=0.59$	<p>Fam1: Only those familiar with procurement rules in this office are allowed to carry out procurement tasks.</p> <p>Fam2: Procurement work functions in this office are done only by practitioners with academic or professional qualifications.</p> <p>Fam3: The procurement knowledge base of other players (suppliers, other buyers etc) of the rules and regulations of Act 663 has an impact on procurement functions organized in this office.</p>
Comp, 3 items*, $\alpha=0.59$	<p>Comp1: Goods and services are purchased through the use of imprests.</p> <p>Comp2: Goods and services purchased are not delivered on time.</p> <p>Comp3: Purchased goods and services are not recorded on time (late recording of deliveries).</p>

* Likert-type scale from 1-5 with endpoints ‘not at all’ and ‘most frequently’

5.6.3 Familiarity (Fami)

Familiarity was measured by a scale of three items capturing the extent to which procurement practitioners were familiar and knowledgeable with the provisions of the procurement rules and regulations. The scale shows satisfactory reliability with $\alpha=0.59$.

5.6.4 Compliance (Comp)

Compliance was measured by a scale of three items capturing the extent to which the procurement practitioners and/or procurement entities comply with the procurement rules and regulations. The scale shows satisfactory reliability with $\alpha=0.59$.

5.6.5 Controlled variable: (Intraop)

A controlled variable, intraorganizational pressure which is one of the items referring to ‘the decisions and actions of other staff in our organization have impact on our effort to adhere to the established procurement rules’ was added for purposes of analysis of the data set.

5.7 Discriminant validity of independent variables

Discriminant validity was assessed by factor analyzing all the nine items composing the goal achievement by organizations, monitoring of public procurement practitioner’s behavior and familiarity to public procurement rules. Three factors were identified: Factor 1 appears to represent goal achievement, factor 2 reflects monitoring, and factor 3 represents familiarity with procurement rules. The varimax rotated factor-loading matrix is presented in Table 2.

Table2. Factor analysis. Three-factor principal axis solution with varimax rotation for goal achievement (Goal), monitoring (Monit), and familiarity to procurement rules (Fami). The corresponding definitions of the items are given in Table 1.

Items	Factor 1	Factor 2	Factor 3
Monit 3	0.838	0.216	0.203
Monit 2	0.874	0.223	0.239
Monit 1	0.741	0.078	-0.029
Goal 3	0.189	0.847	-0.035
Goal 2	0.113	0.843	0.122
Goal 1	0.429	0.549	0.279
Fami 1	0.144	0.085	0.774
Fami 2	0.220	-0.115	0.742
Fami 3	-0.032	0.258	0.677

In summary, this chapter discussed the methodology adopted in the study of the problem at hand: ‘how organizational goal achievement, familiarity with procurement rules and monitoring of procurement practitioners influence compliance with the new public procurement Act, Act 663 during the implementation of the public procurement reforms program in Ghana’. The next chapter goes further to explain the research framework used by developing a conceptual model to help in the formulation of the hypotheses for this study.

CHAPTER SIX

RESEARCH FRAMEWORK AND HYPOTHESES

6.1 Introduction

This chapter was preceded by the methodology that was used in the study and now looks at the research framework that underpins the study at hand by developing a conceptual model to help in modeling the research question and the development of appropriate hypothesis to be tested. The key theory that forms the basis of the research framework is the Principal-agent theory. The Principal-agent theory deals with the relationship between two actors: a Principal and the Agent who makes decisions or takes actions on behalf of the principal (Jensen and Meckling, 1976; Eisenhardt, 1988, 1989; Bergen et al., 1992). An agent acting on behalf of a principal may be forced to comply with the laid down rules since the actor assumes that he/she may be sanctioned for non-compliance or rewarded for compliance.

A public procurement practitioner therefore acting on behalf of the government of Ghana (principal) is enforced to comply with the regulatory regime of the new public procurement Act, Act 663 since the inability to comply may result in the agent being sanctioned as mandated by the law. However according to Jensen and Meckling (1976) the agent will not always act in the best interest of the principal as each of them is a utility maximizer. In conceptualizing this into the study at hand it is expected that monitoring the behavior of the agent will lead to the agent conforming and thereby helping in the realization of the objectives of the principal. This poses the question as to whether the monitoring of a public procurement practitioner's behavior will lead to him/her being in compliance with the procurement rule or not? The achievement of the agent's objective and/or goal and that of the principal need to be in congruence so that in the achievement of the goals of the agent there will not be goal conflict. This also poses

the question as to whether an agent (here the public organization/procurement entity) can be compliant and still be able to achieve its organizational goal? In relating the above to the study at hand it is expected according to theory (Gelderman et al., 2006) that familiarity or how knowledgeable procurement practitioners are of the rules and regulations of the procurement Act coupled with the adoption of the necessary monitoring mechanism stipulated by the procurement Act will help influence the way practitioners behave in terms of compliance with the provisions of the Public procurement Act, Act 663.

6.2 Conceptual Model

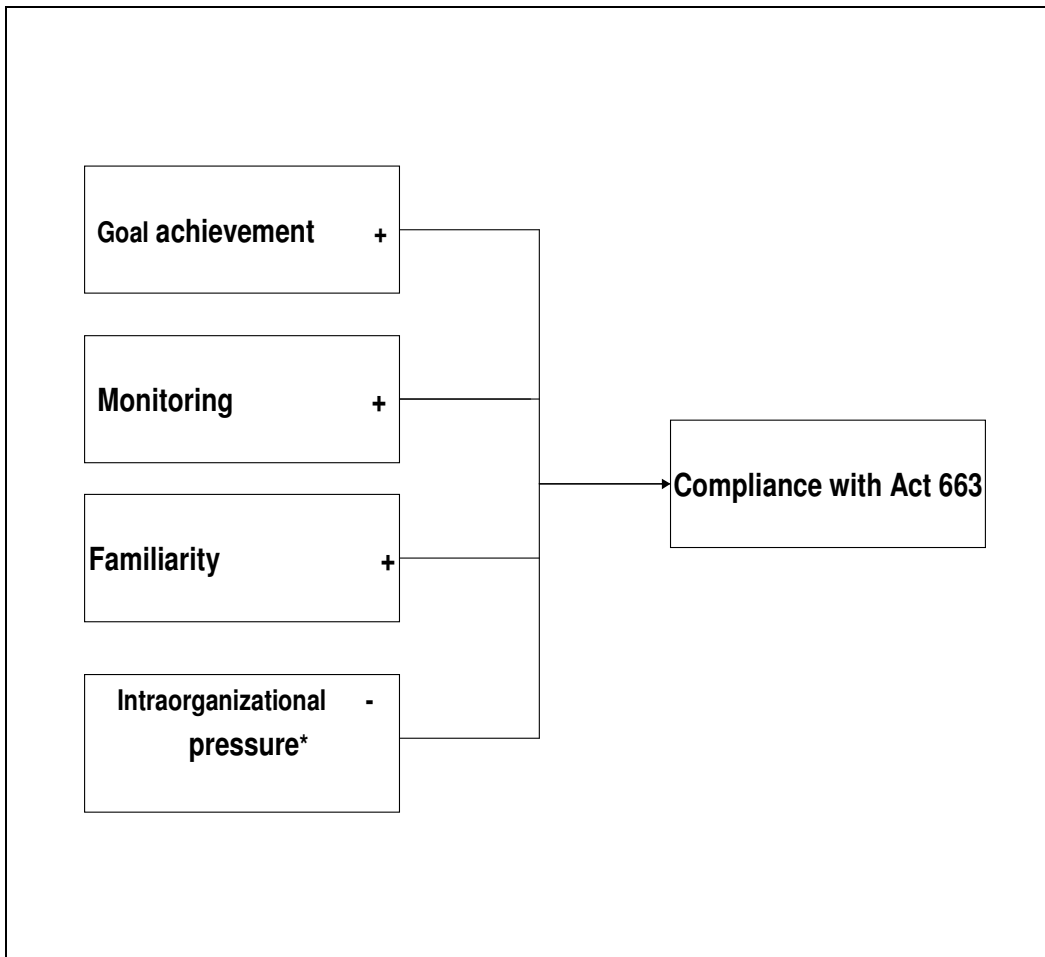
A conceptual model to help in the illustration and explanation of compliance with the public procurement Act, Act 663 is shown in figure 4. It shows how the hypothesized variables impact on the compliance with the public procurement Act, Act 663.

The framework posits that goal achievement by governmental/public sector organizations contributes positively to compliance. In other words, there is a positive relationship between goal achievement and compliance. The model also predicts that individuals/entities comply more with the rules when monitoring mechanisms are instituted. Monitoring therefore has a positive relationship with compliance. The model also predicts that intra-organizational pressure which has to do with the decisions and action of other staff within the organization is expected to have a negative impact on the effort of procurement practitioners to comply with the Procurement Act.

6.3 Hypotheses

In the formulation of the hypotheses for this study, the key theoretical framework that was used is the Principal-agent theory. The Principal-agent theory models the relationship between a principal who delegates work to an agent who performs that work (Jensen and Meckling, 1976; Eisenhardt, 1988, 1989, Bergen et al., 1992).

Figure 4: Conceptual model⁴⁴ for the explanation of compliance with the public procurement Act, Act 663, (Adapted from Gelderman et al., 2006).



***Intra-organizational pressure is used as a controlled variable referring to the item: ‘the decisions and actions of other staff in our organization have impact on our efforts to adhere to the established procurement rules.**

⁴⁴ Adapted from Gelderman et al., 2006.

6.3.1 Assessing the relationship between organizational goal achievement and compliance

In public procurement, the procurement practitioner is the agent and acts on behalf of the principal, who is the government of the Ghana. The public procurement entity of any public sector organization therefore acts on behalf of the central government in realizing the goals and objectives of that organization. The goals and objectives of the procurement entity could be in conflict with what the reform program seeks to achieve or the other way, the goals and objectives of the public sector organization could be in conflict with that of the procurement reforms thereby making it difficult for the organization to achieve its goal while adhering to the rules and regulations of the public procurement law, and thereby making compliance with the rules a problem. It is therefore important to find out if in trying to achieve organizational goals a public sector organization may or may not comply with the tenets of the rules of the public procurement Act, Act 663 of the reform program. Based on this reasoning the following hypothesis is proposed:

- H₁: There is a positive correlation between organizational goal achievement and compliance with public procurement rules.

6.3.2 Assessing the relationship between familiarity and compliance

Jensen and Meckling (1976) argued that both the principal and agent are motivated by their own self-interest when entering into contractual relationship. Douma and Schreuder (2002) argued that most economic models are centered on 'self-interest' which has to do with goal conflict, meaning that each party wants to maximize profits or utility for themselves only. However, Mitnick (1976) argued that principal-agent relationships need not always be commercial profit maximization but could also be for social goals where a principal would seek support from an agent to improve a social community. In relating this to public procurement functions, the principal being the central government can be said to be mandating its agent here the procurement practitioner to act on its behalf by influencing the community in which the public sector organization is situated through the

adoption of socially responsible governmental purchasing, value for money and efficient procurement practices. But there is the assumption that the principal employs the services of the agent under the condition of incomplete information. Though the principal may have some information about the agent in terms of the agent's characteristics and capabilities, the principal's knowledge about the agent is limited and incomplete. Douma and Schreuder (2002) termed this hidden information or adverse selection. For example, the agent may claim to possess certain skills and/or abilities where the principal cannot verify completely. In relating this to the study, the public procurement practitioner may not be knowledgeable or familiar with the public procurement rules, regulations and procedures in order to perform his/her duties as mandated by the principal. It's assumed that the lack of knowledge or familiarity with the procurement rules could negatively affect the agents ability to comply with the laid down procurement rules and regulations. Based on this reasoning, the following hypothesis is proposed:

- H₃: There is a positive correlation between familiarity with procurement rules and compliance with public procurement rules.

6.3.3 Assessing the relationship between monitoring and compliance

It is assumed that when the principal has sufficient information to verify the behavior of the agent, the agent is more likely to behave in the interest of the principal (Eisenhardt, 1989; Rokkan and Buvik, 2003). Eisenhardt (1989) therefore argued that there is the need for a governance mechanism that limits the agent's self-serving behavior while Jensen (1983) had earlier described this governance mechanism as a monitoring device. Rokkan and Buvik (2003) in their study of monitoring and free riding behavior in voluntary retail chain, stated that 'the central chain office (the principal) can potentially curb free riding behavior (opportunism) by investing in monitoring arrangements that enable it to verify the behavior of members (agents) and with information about members behavior can ultimately sanction members that free ride and/or reward members that comply with their obligations'. In relating this to the study at hand, it can be assumed that the public procurement practitioners who are agents of the central government (principal) when

monitored will comply more with the various provisions of the public procurement Act, Act 663 than if not monitored. The sanctioning of practitioners who do not comply and rewarding of those who comply with the rules help increase compliance rates. Blau and Scott (1962) and Murray and Heide (1998) also argued that in addition to the incentive effect of monitoring, monitoring arrangements can also increase member compliance because the monitoring process in itself may place uncomfortable social pressure on the agent. Based on this reasoning, the following hypothesis is proposed:

- H₂: There is positive correlation between monitoring of practitioners behavior and compliance with public procurement rules.

In summary, this chapter synthesized the available literature and theory from the preceding chapters to develop a conceptual model of the problem at hand which subsequently helped in the formulation of the hypotheses to be tested in the next chapter.

CHAPTER SEVEN

EMPIRICAL TESTS AND RESULTS

7.1 Introduction

The previous chapter made use of the literature and theory in the preceding chapters to develop a conceptual model which subsequently helped in the formulation of the hypotheses for this study. This chapter therefore goes further to estimate the model, test the hypotheses formulated and presents the results and findings of the study. It consists of: model estimation; empirical results from the multiple regression analysis; and a brief interpretation of the results based on the various quantitative analyses of the data collected for the study of the problem at hand.

7.2 Model estimation

The following Ordinary Least Squares (OLS) multiple regression model was specified to test the research hypotheses:

$$\text{Comp} = \beta_0 + \beta_1 \text{Goal} + \beta_2 \text{Monit} + \beta_3 \text{Fami} + \epsilon$$

Where Comp which is the dependent variable is compliance with procurement rules; and the independent variables are: Goal, for organizational goal achievement, Monit, for monitoring of public procurement practitioners' behavior, Fami, for familiarity of public procurement rules and ϵ is the error term. The error term represents the failure to include all the factors related to the dependent variable in the model.

7.3 Empirical results

Table 3 Results of multiple regression analysis
(Dependent variable: Compliance (Comp))

Independent variables	Unstandardized coefficients	Standardized coefficients	T-value
Constant (β_0)	2.780*		4.60
Goal (β_1)	0.218*	0.330	2.43
Monit (β_2)	0.063	0.090	0.64
Fami (β_3)	0.075**	0.164	1.29
Intraop (β_4)	-0.103*	-0.229	-1.90

$$R^2 = 0.25 \quad (R^2_{adj} = 0.196), \quad F(4, 53) = 4.483^*$$

* Significant at $p < 0.05$ (two-tailed)

** Significant at $p < 0.10$ (one-tailed)

To test the hypotheses an OLS-regression model was estimated incorporating the effect of Goal achievement, Monitoring of public procurement practitioners, and Familiarity of

procurement rules on compliance with the public procurement Act, Act 663. Intra-organizational pressure defined by the item: ‘the decisions and actions of other staff in our organization have impact on our effort to adhere to the established procurement rules’ was included in the model as a controlled variable. Appendix B illustrates the correlation matrix of the study. It shows the various variables with their corresponding Cronbach alpha, mean and standard deviation. Goal achievement and monitoring of public procurement practitioners behavior shows satisfactory reliability each with $\alpha=0.74$ while familiarity with procurement rules and compliance shows an alpha (α) value of 0.59 (approximately 0.6) each. Table 3 gives the estimated parameters of the model. The overall goodness of fit of the model was assessed using the F-value and was found to be statistically significant at $p<0.05$ ($F(4, 53) = 4.48, p<0.05, R^2 = 0.25, R^2_{adj} = 0.196$)⁴⁵. The goodness of fit of the model is very important because with multiple regressions, it is mandatory that all the predictors (independent variables) be taken onto account simultaneously to establish the statistical significance of the overall model (Churchill and Brown, 2004, pg. 601). The model is tested via F-statistic found in the ANOVA (appendix D) and in this study was found to be significant. The $R^2_{adj} = 0.196$ which is interpreted to mean that only 19.6% of the variance in the compliance-construct can be explained with the model and that other not-included variables have an additional impact on compliance. While $R^2 = 0.25$, R^2 is referred to as coefficient of multiple determination⁴⁶ can also be interpreted as follows: it means that 25% of the variation in the dependent variable, Compliance is associated with variation in independent variables, Goal, Monit and Fami (though the results of the study shows that monitoring adds very little to improving the fit of the regression line). From Table 3, it can be inferred that there is association between the independent variables, Goal, Monit, Fami, Intrap and compliance:

⁴⁵ The R^2 of 25 is within range reported in the extant literature (Rokkan and Buvik, 2003). The R^2 of this study is at or above the levels reported by, e.g., Provan and Skinner, 1989: 16% and Brown et al., 2000: 14% although some studies have reported higher levels of explained variance (Rokkan and Buvik, 2003:29% and others e.g., Gundlach, 1999).

⁴⁶ Coefficient of multiple determination: in multiple regression analysis, the proportion of the variation in the dependent variable that is explained or accounted for by the covariation in the independent variables (Churchil and Brown, 2004, pg. 604).

- A strong positive relationship between goal achievement and compliance at 0.05 significance level (two-tailed)
- A positive relationship between monitoring of public procurement practitioners' behavior and compliance but not significant.
- A strong positive relationship between familiarity of procurement rules and compliance at 0.10 significance level (one-tailed)
- A strong negative relationship between intra-organizational pressure and compliance at 0.05 significance level (two-tailed)

From the above analysis, the effect of goal achievement on compliance is therefore significant and positive ($\beta_1=0.22$, $p<0.05$) in accordance with H_1 . There is also a positive and significant association between familiarity of rule and compliance as predicted by H_3 ($\beta_3=0.08$, $p<0.10$). However, monitoring though having a positive association with compliance ($\beta_2=0.03$) as predicted by H_2 is not significant while intra-organizational pressure as expected has negative effect on compliance ($\beta_4=-0.01$, $p<0.05$). The resulting regression model is as follows:

$$\text{Comp} = 2.78 + 0.22\text{Goal} + 0.06\text{Monit} + 0.08\text{Fami} - 0.10\text{Intraop} + \epsilon$$

In interpreting the regression model above, the individual β coefficients corresponding to the predictor variables (independent variables) in the regression model can be interpreted as the average change in the appropriate predictor variable while holding the other predictor variables constant or unchanged. The following interpretations of the individual β coefficient are summarized below:

- $\beta_1 = 0.22$ indicates that on the average, an increase of 0.22 in Compliance (Comp) can be expected with a unit increase in goal achievement (Goal) if monitoring (Monit), familiarity of rule (Fami) and intra-organizational pressure are kept unchanged (i.e. constant)
- $\beta_2 = 0.06$ indicates that on the average, an increase of only 0.06 in Compliance (Comp) can be expected with a unit increase in monitoring (Monit) if goal

- achievement (Goal), familiarity of rule (Fami) and intra-organizational pressure (Intraop) are kept unchanged (i.e. constant)
- $\beta_3 = 0.08$ indicates that on the average, an increase of 0.08 in Compliance (Comp) can be expected with a unit increase in familiarity of rule (Fami) if goal achievement (Goal), monitoring (Monit) and intra-organizational pressure (Intraop) are kept unchanged (i.e. constant)
 - $\beta_4 = -0.10$ indicates that on the average, a decrease of 0.10 in Compliance (Comp) can be expected with a unit increase in intra-organizational pressure (Intraop) when goal achievement (Goal), monitoring (Monit), and familiarity of rule (Fami) are kept unchanged (i.e. constant).

In summary, this chapter made use of the Ordinary Least squares (OLS) multiple regression model to test the research hypotheses that was formulated based on the conceptual model developed from theory from preceding chapters. It presented the results from the various quantitative analyses and briefly interpreted the results and findings that were found in the study. The next chapter is the concluding chapter of this study and discusses the managerial implications of the findings, the limitations of the study and suggestions for further research. The concluding chapter also consists of a summary of the study that was undertaken.

CHAPTER EIGHT

DISCUSSION, CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH

8.1 Introduction

This chapter is the concluding part of this study consisting of the discussion and managerial implications; a summary of the study at hand; limitations of the study and suggestions for further research. The discussion is a follow-up to the previous chapters after looking at the problem of the study, collecting the data and testing the hypotheses. The outcome of the various analyses is therefore discussed including its managerial implication. The summary is a synopsis of the study and embodies what the study sought to find (the research problem); the key theory that was employed in the study; the key findings of the study and its practical/managerial implications; the chapter concludes finally by looking at the limitations of the study and suggestions for further research.

8.2 Discussion and managerial implications

In the extant literature on public procurement most of the literature has been devoted to regulatory issues; procurement processes and systems; corruption and transparency issues with very little on academic research with respect to compliance. Even the few literature on compliance issues have to do with government; donor assisted; bilateral or multilateral funding agencies' assessment of public procurement reform programs in developing countries. Such assessments may not be academic in their scope and may be more qualitative lacking most often theoretical underpinnings because of their terms of reference and the uses those reports are put to. This study deviates from this main stream and contributes to the literature on compliance issues in public procurement in developing countries by addressing some of the key factors that influence compliance

such as: organizational goal achievement; monitoring of public procurement practitioner's behavior, and familiarity of procurement rule and how these influence the extent of compliance. The study made use of the principal-agent theory as its basis in the formulation of the hypothesis and in the development of a conceptual model and found support for the hypothesis (H₁, H₂, and H₃). Though all three variables were positive, the following two appeared to have a significant and positive influence on compliance:

- organizational goal achievement
- familiarity of rules by public procurement practitioners

While a fourth variable that was included as a control variable was found to have a significant and negative association with compliance:

- intra-organizational pressure

The second variable, though having a positive association with compliance was not of much significance:

- monitoring of public procurement practitioners' behavior

The monitoring of public procurement practitioners' behavior though having a positive association with compliance with public procurement Act, Act 663 was found not to be having a strong influence. This could be explained from the principal-agent theory perspective where in some instances, monitoring actually have a negative influence on the behavior of agents (though in this study this influence was not negative) as documented by Rokkan and Buvik (2003)⁴⁷. This is because agents may see the purpose and function of monitoring mechanisms as a signal of distrust causing the agent to devalue the agent-principal relationship (Rokkan and Buvik, 2003) and thereby influencing their output and performance and in this study their behavior towards compliance issues which could be one that may lack much enthusiasm. The argument

⁴⁷ Rokkan and Buvik (2003) in their study of 'Inter-firm cooperation and the problem of free riding behavior: an empirical study of voluntary retail chains' proposed a negative association between the extent of monitoring and free riding behavior while an alternative proposition argued for a positive association based on Murrey and Heide (1998) and other researchers. The former proposition was found to be supported contrary to Murrey and Heide (1998), that monitoring decreases free riding behavior (Rokkan and Buvik, 1998).

therefore may be that though monitoring influences compliance, the thought, function and process of monitoring may not necessarily lead to a change in behavior of procurement practitioners to any significant level but rather because they are obliged to comply and the laws are being enforced with the necessary sanctions to be applied due to non-compliance, they have no choice than just to comply. This was evident from qualitative data in the form of interviews that was undertaken during the survey. On the contrary, though monitoring within the public service especially with respect to auditing is a regular feature mandated by the laws regulating public sector organizations' performance, the thought of one being 'monitored' or 'audited' though could be 'distasteful' or 'distrustful' as its usually a constitutional requirement may not necessarily influence behavior in the public service most especially when in practical terms the laws seems not to be enforced; sanctions are not accordingly applied; when there is so much bureaucracy, in-transparent dealings and corruption coupled with weak judicial systems which do not promptly settle court cases, the thought, the purpose and function of monitoring may not change behavior to any significant level. The practical implication is that monitoring systems though good to be put in place since it helps determine deviations from the norm; measure performance; determine the extent of compliance and useful as a control measure it should be done in such a way as not to be perceived as 'distasteful' and 'distrustful' since such perceptions do not help in any way in making practitioners comply with the procurement rules. Monitoring should also be seen as an opportunity for practitioners to learn corrective ways of doing things so as to improve on their efficiency and effectiveness in the conduct of their procurement functions.

The two important variables that have a positive and significant influence on compliance are: organizational goal achievement and familiarity with procurement rules. Goal achievement for instance is expected to influence compliance to a very high extent and positively associated with compliance. The results undoubtedly confirm the H₁ hypothesis and the degree or extent it could influence compliance: an increase of 0.22 in compliance with a unit increase in goal achievement provided other factors are constant or remain unchanged. This implies that for public organizations in their effort to achieve their goals and objectives they can still be in the position to achieve a very high level of

compliance without undermining their own organizational goals and objectives. It means according to the principal-agent theory that the interest of both the principal and the agent can be served without the other (particularly the agent) serving only its interest at the expense of the principal. Jensen and Meckling (1976) argued that both principal and agent are motivated by their own self-interest when entering into contractual relationship. Douma and Schreuder (2002) argued that most economic model are centered on 'self – interest' which has to do with goal conflict, meaning that each party wants to maximize profits or utility for themselves only. However, Mitnick (1976) argued that principal-agent relationships need not always be commercial profit maximization but could also be for social goals where a principal would seek support from an agent to improve a social community. This will imply that both the agent and principal should have goals or objectives that are in common to their interests and that there is no goal conflict. It is therefore important that the agent and the principal should have goal congruence in order for both of them to be able to serve their interest. Rokkan and Buvik (2003) proposed that the lower the level of goal conflict (i.e. the higher the level of goal congruence) the less likely it is that the agent will behave in opposition to the interest of the principal.

In the public sector, the government delegates the public sector organizations to act on its behalf. Programs, plans, policies and other developmental agendas are implemented on behalf of the government by these organizations and in such situations the goals and objectives of the government are not in anyway different from that of these public organizations and institutions. For example, government provides its citizens with formal education by delegating the provision of such a service to public educational institutions (schools, universities and colleges) and both the government (principal) and the educational institutions (agents) have a common goal or objective of providing education to the citizenry. In such an instance, there is goal congruence and it is expected that the agent (i.e. the educational institutions) will act in the best interest of their principal (i.e. the government) in the performance of their delegated functions. In such situations therefore it is understandable that the agents will not have problems in complying with the procurement laws so long as there is goal congruence and the public organizations and entities could still achieve their goals without having to compromise on complying

with the procurement laws and regulations. The above argument therefore explains the positive and significant influence of organizational goal on compliance with the public procurement law in this study.

The familiarity with public procurement rules had a positive and a strong association with compliance as proposed by H₂. This shows that the need for knowledge and clarity of procurement rules is a very important factor in the extent or degree to which compliance can be achieved when public procurement reforms are being implemented. The success or failure of public procurement reforms in developing countries such as Ghana depends to some extent on the knowledge ability of the public procurement practitioners with respect to how familiar they are with the procurement rules and regulations. Knowledge of the procurement process, procedures, rules and regulations will in no doubt help in achieving compliance in public procurement reform programs. Gelderman et al, (2006) proved this assertion that: ‘familiarity with rules had a significant and positive influence to compliance’ confirming their earlier proposition. This imply that there is therefore the need to provide adequate training program to help equip procurement practitioners with the necessary knowledge of procurement processes, methods, rules and regulations so as to be able to efficiently carry out their procurement duties. This it is expected will help the practitioners to be able to comply with the provisions of the new public procurement Act, Act 663 since there is a strong and positive association between familiarity of rule and compliance. On the other hand, pressure brought to bear on procurement practitioners by other staff in the organization has been found to have a negative effect on compliance. This is captured as intra-organizational pressure which denotes the extent to which decisions and actions of other staff in the organization have impact on the efforts of procurement practitioners to adhere to the established procurement rules.

The conceptual model proposed that intra-organizational pressure had a negative influence on compliance with the procurement rules and this assertion was confirmed by the results obtained in this study by the strong and negative association that intra-organizational pressure had with compliance. The implication here is that as much as possible other staff in the organization/ procurement entity should do well not to let their

actions and decisions affect the procurement process in their organizations and that the procurement practitioners should be given the 'free hand' to take decisions and actions to allow the procurement system to function properly without any 'duress'.

8.3 Summary of the study

This study sought to find out whether organizational goal achievement, familiarity with procurement rules and monitoring of procurement practitioners' behavior influence compliance with the new public procurement Act, Act 663 during the implementation of the public procurement reforms program in Ghana. Most studies conducted on public procurement have been devoted to regulatory issues; procurement processes and systems; corruption and transparency issues with very little on academic research with respect to compliance. Even the few literature on compliance issues have to do with government; donor assisted; bilateral or multilateral funding agencies' assessment of public procurement reform programs in developing countries. Such assessments may not be academic in their scope and are usually more qualitative lacking most often theoretical underpinnings because of their terms of reference and the uses those reports are put to. This study aims to fill some of this gap by identifying factors and variables for which a quantitative impact on compliance with the new Public Procurement Act, Act 663 can be measured. This was done coupled with the use of some qualitative insights to help fully assess, evaluate, explain, and describe the context of public procurement reforms in general and in Ghana in particular; review applicable theory, the Principal-agent theory; and the extant literature. This study therefore deviates from the main stream and contributes to the literature on compliance issues in public procurement in developing countries by looking not only at the qualitative aspect but also at the quantitative impact assessment of the procurement reform program in Ghana. The study made use of the principal-agent theory as its key basis in the formulation of the applicable hypotheses. The Principal-agent theory deals with the relationship between two actors: a Principal and the Agent who makes decisions or takes actions on behalf of the principal (Jensen and Meckling, 1976; Eisenhardt, 1988, 1989; Bergen et al., 1992). The principal-agent relationship looks at the contractual relationship where one or more persons (the

principal(s)) engages another person(s) the agent to perform some service on their behalf involving the delegation of some decision making authority to the agent (Jensen and Meckling,1976). The principal-agent theory is very useful as a framework in the study of public procurement systems since it involves the delegation of procurement functions, tasks and decisions by the government (principal) to an agent (procurement practitioners and governmental purchasers).

Public procurement is defined as the process by which large amounts of public funds are utilized by public entities to purchase goods and services from the private sector (Hunja, 2003). It involves the acquisition of goods and/or services at the best possible total cost of ownership, in the right quantity, quality, time and place for use by government and public organizations via contracts. In trying to address weaknesses in its public procurement process, various governments in Ghana have passed several financial and legal instruments in the form of constitutional, legislative instruments, administrative instructions and financial circulars. It was until recently that it undertook to ‘overhaul’ its procurement systems and to embark on a new regulatory framework that seeks to regulate the procurement processes and functions in the public sector. This led to the enactment of the Public Procurement Act, Act 663 and the establishment of an ‘oversight’ body: the Public Procurement Board with the responsibility and authority to oversee all public procurement issues in the Ghanaian economy. Based on the available literature and theory and a factor analysis of a survey among fifty-eight, 58 (89.2% response rate) purchasing professionals and practitioners in the public sector of the Ghanaian economy using structured questionnaires to survey factors leading to compliance with the new Public Procurement Law, Act 663. Three dimensions were found: organizational goal achievement; familiarity with procurement rule; monitoring of public procurement practitioner’s behavior and an additional factor which served as a controlled variable, inter-organizational pressure denoting the item ‘the decisions and actions of other staff in our organization have impart on our effort to adhere to the established procurement rules’.

The empirical findings indicate that both organizational goal achievement and familiarity with procurement rules have a positive, statistically significant impact on compliance. The managerial implication of this finding would be that educating and training public procurement practitioners will be an effective tool for increasing the compliance with the new Public Procurement Act, Act 663 within the public sector of the Ghanaian economy. Perhaps, even more impact can be expected by reconciling the effort that is made towards organizational goal achievement by avoiding organizational goal conflict. No significant impact could be established by monitoring mechanisms since monitoring is usually seen to be 'distasteful' and a sign of 'distrust' and that to be able to improve compliance (since it at least had a positive association with compliance) it is important to involve the procurement practitioners in the monitoring process and also by educating them on the purpose and usefulness of monitoring. This is to help them perceive monitoring not as a sign of 'distrust and a distasteful process' but as a useful mechanism to become more efficient and effective in the performance of one's procurement functions, processes and duties.

Inter-organizational pressure was also found to be negatively correlated with compliance and the implication is that procurement practitioners should be given the 'free hand' to take decisions and actions concerning their procurement functions and to as much as possible avoid other staff within the organizational from unnecessarily influencing their activities either through the decisions or actions of the other staff which negatively impact on their work. There is also the need for education for the various staffs of an organization to know the various roles that each has to play in helping achieve the goals and objectives of the organization and to be informed of how certain actions or decisions that they take negatively impact on the work of the procurement practitioners which may lead to non-compliance.

8.4 Limitations of the study

The current study is limited in its setting. The questionnaires were administered to procurement professionals mostly in the government ministries; public universities, colleges; hospitals and polyclinics; and some government owned companies which are

mostly located in the southern part of Ghana, which are more likely to comply than other governmental agencies in very remote parts of the country. Due also to time constraints and logistical complexities not all the over two hundred⁴⁸ procurement entities in the Ghanaian public procurement system was fully covered and therefore a sample size of sixty-five (65) public procurement entities was made use of. Another limitation of this study is that it relies on the perception of respondents and not on an objective measurable data on compliance issues. Compliance based studies relying on the perceptions of respondents and not making use of an objective measurable data is expected to be limited in scope (Gelderman et al., 2006).

8.5 Suggestions for further research

This study relies on perception of respondents and it is worth noting that future research could combine perceptual data and objective measurable data on compliance issues such as: the percentage of open bidding procedures publicly advertised; percentage of contracts awarded; average number of days between invitation to bid and bid opening; percentage of responsive bids and the percentage of contracts awards publicly disclosed. This is because these metrics are very important indicators of: advertisement of bid opportunities; publication of awards; time for preparation of bids; bid acceptance, method of procurement which are all objective measurable indicators of compliance respectively. It could also include a sample of other kinds of respondents such as suppliers; civil society organizations concerned with corruption and transparency in government businesses; bilateral and multilateral donors. The explanatory variables and items of the underlying construct in this study were derived from publications on compliance (with some changes and adaptations to the questionnaires) with public procurement reform in Tanzania. Being a developing country like Ghana, some commonalities were therefore expected to be harnessed to form some basis of this research though some changes were done to the underlying construct to reflect the Ghanaian situation. In future studies a totally different approach could be adopted by making use of a variety of different

⁴⁸ The Public Procurement Board undertook an assessment of 213 procurement entities between August 2006 and January 2007 but currently 1000 public sector organizations (ministries, departments and agencies) have been declared public procurement entities according to survey results obtained during the field trip to Ghana in the latter part of February 2008 to the early part of April 2008.

perspectives since compliance and non-compliance can be explained by a variety of perspectives (Van Snellenberg and Van de Peppel, 2002; Gelderman et al, 2006) some of which have been mentioned above. The explanatory variables used here such as: organizational goal achievement; familiarity of rule and monitoring could be supplemented with others such as sanctions; goal conflict; training; perceived inefficiency; rewards structures and supplier review just to mention a few. Future research therefore opens more opportunities for more in-depth study; uses of variables that are used to study compliance issues in other fields/disciplines⁴⁹ and further contribution to the literature on compliance in public procurement especially in developing countries where not much research has been done in this field.

⁴⁹ Gelderman et al, (2006) proposes compliance research using compliance variables from other fields such as economic perspective on compliance which posited that individuals are likely to comply if the expected utility from non compliance exceeds the utility from engaging in legitimate activity (Becker, 1968); in psychology it is generally agreed that individual's personal values influence their compliance behavior- individuals tend to comply with the law to the extent that they perceive the law as appropriate and consistent with their internalized norms, criminal theorist contend individuals and firms weigh the risks involved in non-compliance before deciding to engage in such behaviors in terms of the severity of sanctions(Sutinen and Kuperan, 1999); psychology and sociology stresses the importance of socialization processes in affecting behavior as well as peer pressure and opinion; public choice theory argues that the perceived legitimacy and the fairness of procedures are critical determinants of compliance (Tyler, 1990).

APPENDIX A: List of public procurement entities forming the sample size of the study.

No.	Public Procurement Entity	Location
1	Graphic Communication Group	Accra
2	Accra Metropolitan Authority	Accra
3	Cocoa Processing Company	Accra
4	Bank of Ghana	Accra
5	Ghana National Theatre	Accra
6	Social Security and National Insurance Trust	Accra
7	Environmental Protection Agency	Accra
8	Ministry of Local Government and Development	Accra
9	Ministry of Women and Children	Accra
10	Ministry of Communication	Accra
11	Ministry of Water Resources, works and Housing	Accra
12	Ministry of Education	Accra
13	Ghana Education Service	Accra
14	Presbyterian Boys Secondary School	Accra
15	Internal Revenue Service	Accra
16	Accra Training College	Accra
17	Achimota School	Accra
18	Achimota Hospital	Accra
19	Ghana Institute of Management & Public Administration	Accra
20	University of Ghana	Accra
21	Adabraka Polyclinic	Accra
22	Ghana Health Service	Accra
23	Ridge Hospital	Accra
24	Public Utility Regulatory Commission	Accra
25	Electoral Commission	Accra
26	Accra Psychiatric Hospital	Accra
27	Ministry of Forestry	Accra
28	Ghana Cocoa Board	Accra
29	Holy Trinity Cathedral Secondary School	Accra
30	Ghana Supply Company Limited	Accra
31	Public Works Department	Accra
32	Ministry of Trade & Industry	Accra
34	Ministry of Finance	Accra
35	Ghana Water Company Limited	Accra

36	Public Services Commission	Accra
37	Kaneshie Polyclinic	Accra
38	Ghana Highways Authority	Accra
39	Accra Girls Secondary School	Accra
40	Bureau of Ghanaian Languages	Accra

No.	Public Procurement Entity	Location
41	National Disaster Management Organization	Accra
42	Ghana Atomic Energy Commission	Accra
43	Institute of Professional Studies	Accra
44	Korle-Bu Hospital	Accra
45	Ministry of Roads and Transport	Accra
46	Department of Urban Roads	Accra
47	Accra Polytechnic	Accra
48	Tema Municipal Authority	Accra
49	Customs Excise and Preventive Service	Accra
50	Takoradi Polytechnic	Takoradi
51	Effia Nkwanta Hospital	Takoradi
52	Shama-Ahanta East Metropolitan Assembly	Sekondi Takoradi
53	Takoradi Secondary School	Takoradi
54	Bompeh Secondary School	Takoradi
55	Sekondi College	Sekondi
56	University of Cape Coast	Cape Coast
55	Cape Coast Polyclinic	Cape Coast
56	Cape Coast Municipal Assembly	Cape Coast
57	Cape Coast Regional Hospital	Cape Coast
58	Ghana National College	Cape Coast
59	Kwame Nkrumah University of Science & Technology	Kumasi
60	Kumasi Metropolitan Authority	Kumasi
61	Komfo Anokye Teaching Hospital	Kumasi
62	Kumasi Polytechnic	Kumasi
63	Kumasi Academy	Kumasi
64	Internal Audit Service	Accra
65	Ministry of Justice	Accra

APPENDIX B: Correlation matrix.

Variables	Mean	Standard deviation	Comp	Goal	Monit	Fami
Comp	4.229	0.596	1.0			
Goal	5.776	0.916	0.406**	1.0		
Monit	5.862	0.854	0.266*	0.470**	1.0	
Fami	5.189	1.310	0.288*	0.265*	0.327*	1.0
N	-----	-----	58	58	58	58
α	-----	-----	0.59	0.74	0.74	0.59

** Correlation is significant at the 0.01 level (two-tailed)

p<0.01

* Correlation is significant at the 0.05 level (two-tailed)

p<0.05

APPENDIX C: Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.503 ^a	.253	.196	.53455

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.253	4.483	4	53	.003

- a. Predictors: (Constant), The decisions and actions of other staff in our organization have impacts on our efforts to adhere to the established procurement rules, Fami, Goal, Monit

APPENDIX D: ANOVA^b.

Model		Sum Squares	of df	Mean Square	F	Sig.
1	Regression	5.124	4	1.281	4.483	.003 ^a
	Residual	15.145	53	.286		
	Total	20.268	57			

- a. Predictors: (Constant), The decisions and actions of other staff in our organization have impacts on our efforts to adhere to the established procurement rules, Fami, Goal, Monit
- b. Dependent Variable: COMP

APPENDIX E: Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.780	.604		4.602	.000
Goal	.215	.088	.330	2.431	.018
Monit	.063	.098	.090	.644	.522
Fami	.075	.058	.164	1.288	.203
Intraop	-.103	.054	-.229	-1.905	.062

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)	.765	1.308
	Monit	.717	1.395
	Fami	.872	1.147
	Intraop	.973	1.028

a. Dependent Variable: COMP

APPENDIX F: Structured questionnaire for procurement entities

**RESEARCH PROJECT ON PUBLIC PROCUREMENT
REFORMS IN GHANA**

**SURVEY ON FACTORS LEADING TO COMPLIANCE WITH THE
PUBLIC PROCUREMENT LAW**

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Dear respondent,

I am conducting this survey for my Msc thesis on Public Procurement Reforms in Ghana and your response is very much important.

It will take a few minutes to complete the questionnaires by circling or ticking the appropriate response that best describes your views and be assured that this survey will not be used for any other purpose than what it is intended-Msc thesis research.

Therefore, information provided will be very confidential and no individual respondent will be identified. Answers to the questionnaires will be combined with others and used for statistical analysis and discussion within the Msc thesis research work.

I will be very grateful for a timely response to the questionnaires as these are very important to this research project.

Thanks.

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**A. Please circle the number that represents your views regarding the following statements.
Circle once for each statement.**

**1=strongly disagree
3=partly disagree
5=partly agree
7=strongly agree**

**2=disagree
4=don't know
6=agree**

1.Familiarity with procurement rules and regulations is a basic requirement for the work function in this office	1	2	3	4	5	6	7
2.Only those familiar with procurement rules in this office are allowed to carry out procurement tasks	1	2	3	4	5	6	7
3.I have basic knowledge about the objectives of the established procurement rules as stipulated by the new procurement law-ACT 663	1	2	3	4	5	6	7
4.Procurement work functions in this office is done only by practitioners with academic or professional qualifications							
5.Applicable procurement rules are clearly stated and easily understood	1	2	3	4	5	6	7
6.Training programs are frequently organized for the staff of this office on procurement related courses	1	2	3	4	5	6	7
7.Staff of this office frequently participate in procurement training programs to increase our knowledge of the rules and regulations of procurement as stipulated by ACT 663	1	2	3	4	5	6	7
8.The procurement knowledge base of other players(suppliers, other buyers, etc) of the rules and regulations of ACT 663 has an impact on procurement functions organized in this office	1	2	3	4	5	6	7

<p>B</p>	<p>1=strongly disagree 3=partly disagree 5=partly agree 7=strongly agree</p>	<p>2=disagree 4=don't know 6=agree</p>
<p>1. We provide extensive information regarding our procurement practice to our supervisors</p>	<p>1 2 3 4 5 6 7</p>	
<p>2. We focus our reports along established rules and regulations as stipulated by ACT 663</p>	<p>1 2 3 4 5 6 7</p>	
<p>3. We are frequently asked to report our procurement performance</p>		
<p>4. We frequently receive directives as to how to carry out our procurement duties</p>	<p>1 2 3 4 5 6 7</p>	
<p>5. We are frequently inspected to see if we adhere to the established procurement rules as stipulated by ACT 663</p>	<p>1 2 3 4 5 6 7</p>	
<p>6. Our supervisors show much interest to see if we are complying strictly with the established rules and regulations</p>	<p>1 2 3 4 5 6 7</p>	
<p>7. Our supervisors ensure that we follow and comply with the established rules in our day-to-day procurement functions</p>	<p>1 2 3 4 5 6 7</p>	
<p>8. We are assessed based on the reported procurement performance</p>		
<p>9. Performance reports are verified through physical check ups</p>	<p>1 2 3 4 5 6 7</p>	
<p>We undergo very frequent inspection to check if:-</p>		
<p>10. Proforma invoice is used to make purchases</p>	<p>1 2 3 4 5 6 7</p>	
<p>11. Purchases are made only after being approved by the relevant authorities</p>	<p>1 2 3 4 5 6 7</p>	
<p>12. We ensure timely delivery of procured goods and services</p>		
<p>13. We keep record of goods and services received without delay</p>	<p>1 2 3 4 5 6 7</p>	
<p>14. We apply proper storage methods to prevent damage and pilfering</p>	<p>1 2 3 4 5 6 7</p>	
<p>15. We have a feeling that we are constantly being observed by our supervisors</p>	<p>1 2 3 4 5 6 7</p>	

C

- 1. workers in our organization are usually sanctioned for not complying with procurement rules
- 2. Sanctions are usually effected immediately after the violation of the rules are detected
- 3. Sanctions are usually effected in privacy
- 4. The reasons why employees are sanctioned upon violation of the laid down rules are made known to them
- 5. The stipulated sanctions are known by the employees
- 6. Penalties stipulated in the procurement law leads to fear of the violation of the procurement rules and regulations
- 7. Practitioners weighs the benefits against the negative outcomes of not complying with the procurement rules

	1=strongly disagree	2=disagree	3=partly disagree	4=don't know	5=partly agree	6=agree	7=strongly agree
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	

D

- 1. Adherence to organization specific directives entails the breach of procurement
- 2. The available procurement rules facilitate the achievement of our organization objectives
- 3. Our organization has been given conflicting objectives
- 4. Our organization rules match with the applied procurement regulations
- 5. It is easy to achieve organization objectives while adhering to the available procurement rules

	1=strongly disagree	2=disagree	3=partly disagree	4=don't know	5=partly agree	6=agree	7=strongly agree
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	
1	2	3	4	5	6	7	

E

1=strongly disagree **2=disagree**
3=partly disagree **4=don't know**
5=partly agree **6=agree**
7=strongly agree

1.Our organization can accurately predict the procurement performance of other actors and players within the organization for the coming fiscal year

1 **2** **3** **4** **5** **6** **7**

2.We are also aware that other procurement actors are able to adapt easily to changes of procurement rules and regulations

1 **2** **3** **4** **5** **6** **7**

3. The decisions and actions of other staff in our organization have impacts on our efforts to adhere to the established procurement rules.

1 **2** **3** **4** **5** **6** **7**

F

1=strongly disagree **2=disagree**
3=partly disagree **4=don't know**
5=partly agree **6=agree**
7=strongly agree

1.The achievement of organizational goal influence our procurement practice

1 **2** **3** **4** **5** **6** **7**

2.The achievement of organization's goal is assigned the highest priority

1 **2** **3** **4** **5** **6** **7**

3.It is difficult to achieve organization's goal without undermining others

4.Pressure from other interested parties influence our compliance behavior with the laid down rules

1 **2** **3** **4** **5** **6** **7**

1 **2** **3** **4** **5** **6** **7**

5.Procurement transactions made outside our department create compliance challenges with the implemented rules

1 **2** **3** **4** **5** **6** **7**

6.Organizational goals are clearly defined

1 **2** **3** **4** **5** **6** **7**

7.Achieving organizational objectives is given much emphasis compared to achieving or complying with the procurement rules

1 **2** **3** **4** **5** **6** **7**


G From the mentioned procurement situations, please indicate the extent of occurrence (according to your perception) of each anomaly by circling the appropriate number.

1= most frequently
 3= I don't know
 5= not all
 2= frequently
 4=less frequently

- | | | | | | |
|---|---|---|---|---|---|
| 1. Goods and services are purchased without proper authority | 1 | 2 | 3 | 4 | 5 |
| 2. Goods and services are purchased through proforma invoices | 1 | 2 | 3 | 4 | 5 |
| 3. Goods and services are purchased through the use of imprests | 1 | 2 | 3 | 4 | 5 |
| 4. Goods and services purchased are not delivered on time | 1 | 2 | 3 | 4 | 5 |
| 5. Damaged or lost of goods | 1 | 2 | 3 | 4 | 5 |
| 6. Purchased goods/services not recorded on time (late recording of deliveries) | 1 | 2 | 3 | 4 | 5 |

H Please complete the following statements by ticking (or filling) the appropriate (or blank) box in each and also the corresponding blanks

- | | | |
|--|-----------------|----------------|
| 1. Please indicate your gender | Female _____ | Male _____ |
| 2. Tick the appropriate age range that represent you | Below 30 _____, | 31-40 _____, |
| | 41-50 _____, | above 50 _____ |
| 3. How long have you been working in the current position? | _____ (Years) | |
| 4. How long have been working in this organization? | _____ (Years) | |
| 5. How many employees work for this organization? | | |
| 6. Are you a registered member of any organization? | Yes _____ | No _____ |
| 7. If yes, name the professional body to which you are a registered member and the category of your membership | _____ | |



APPENDIX G: Unstructured questionnaire for the Public Procurement Board

1. Briefly explain how procurement functions were conducted prior to the coming into force of the Public Procurement Act 2003(Act 663).

2. The Public Procurement Act 2003 (Act 663) was a bill given Presidential assent on 31st December 2003. When exactly did it become a law and what was its effective date of implementation?

3. How many Public procurement entities are there within the Ghanaian economy?

**4. Could you please make a list of some of these entities according to the following?
(Separate sheet to be provided for response)**

A. Central management agencies/ministries

B. Subverted organizations

c. State owned enterprises

d. Public universities/polytechnic

e. Public schools (senior secondary schools and teacher training colleges)

f. Public hospitals/Polyclinics

5. The law stipulates that each procurement entity should have a tender committee. In your inspection and monitoring activities by the PPA would you say this provision is being complied with?

6. In your opinion do you think the thought of inspection by the practitioners of the various entities by the PPA has any influence on their behavior to comply with the rules and regulations?

7. Explain in your opinion the thought of inspection by the practitioners of the various entities by the PPA as having any influence on their behavior with respect to opportunism?

8. according to the Act 663, a procurement entity shall promptly publish notice of procurement contract awards to the public. How often in your opinion do the various entities comply with this provision of the law?

9. according to Act 663, the Auditor-General shall conduct annual audits of the procurement activities of the entities and shall furnish copies of reports on the audits to the PPA upon request from the PPA. How often has such request been made by the PPA?

10. How would you rate the enforcement of the rules and regulations of Act 663?

11. Would you say the laws are enforced to the latter with respect to complying with the provisions of the law?

12. What would you say in your opinion should be done to make compliance of the law by the various entities a must?

13. In your opinion what do you think are the reasons for the high compliance rate with respect to some entities?

14. In your opinion what do you think are some of the reasons for the low compliance rate with respect to some entities?

15. In your opinion how knowledgeable are the procurement practitioners with respect to the procurement rules and regulations

16. in your opinion how knowledgeable are the suppliers, contractors and consultants with respect to the procurement rules and regulations?

17. How do you think the knowledge gap among the various practitioners should be closed?

18. In your opinion do you think the knowledge gap about the provisions of the law has an influence on the rate of compliance by the various entities? If so, in what ways do you think they influence compliance

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