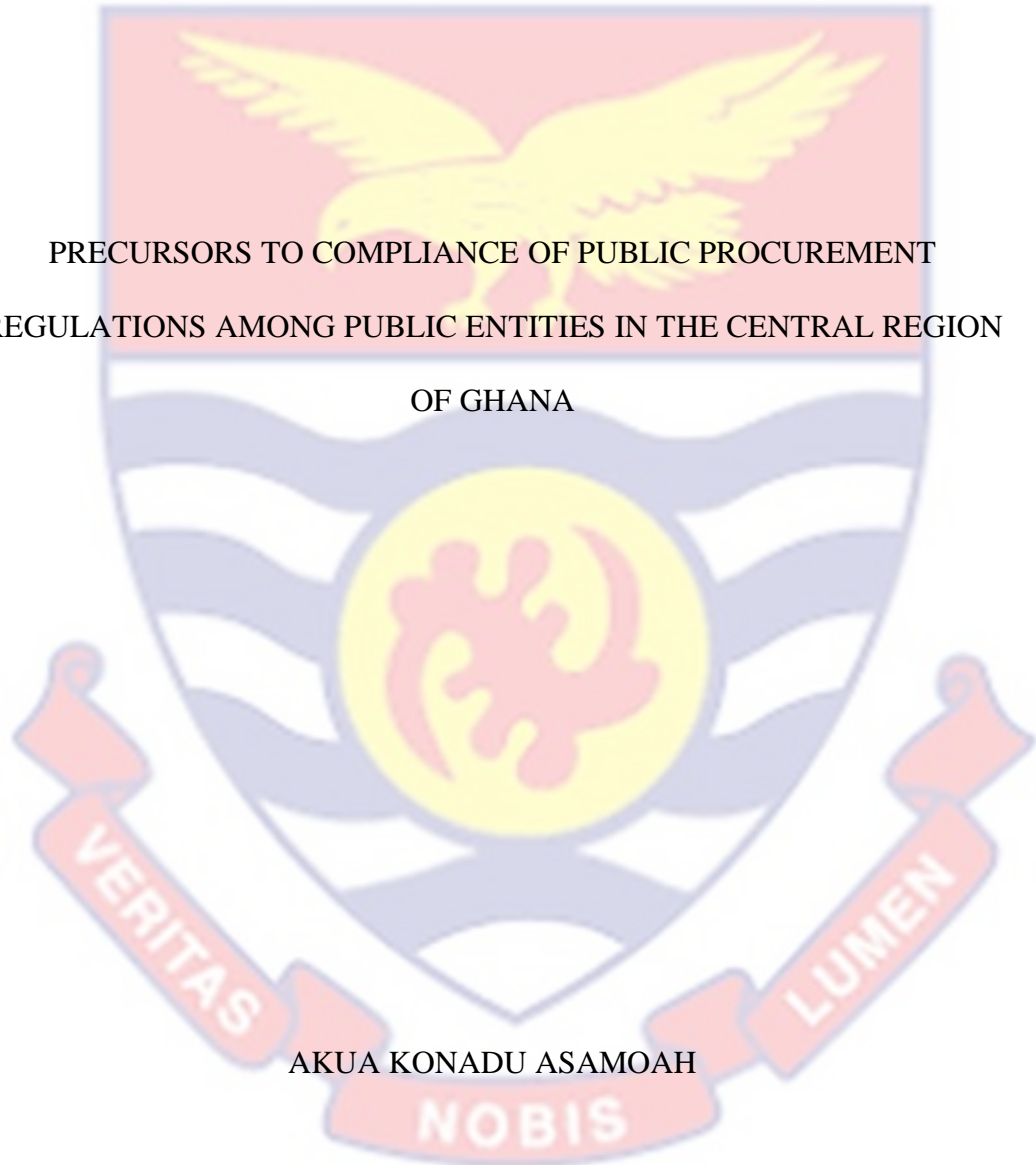


UNIVERSITY OF CAPE COAST

PRECURSORS TO COMPLIANCE OF PUBLIC PROCUREMENT  
REGULATIONS AMONG PUBLIC ENTITIES IN THE CENTRAL REGION  
OF GHANA



AKUA KONADU ASAMOAH

2021

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BY  
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Thesis submitted to the Department of Marketing and Supply Chain of the  
School of Business, College of Humanities and Legal Studies, University of  
Cape Coast, in partial fulfilment of the requirements for the award of Master of  
Commerce in Procurement and Supply Chain Management.

DECEMBER 2021

## DECLARATION

### Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature: ..... Date: .....

Name: Akua Konadu Asamoah

### Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines for supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature..... Date.....

Name: Professor Daniel Agyapong

## ABSTRACT

This study sought to examine the influence of selected precursors (professionalism, familiarity, political interference, monitoring and enforcement) on public procurement regulations among public entities. The study adopted a quantitative approach. A census was used to collect data from 98 procurement practitioners among the public entities in the Central Region of Ghana through self-administered questionnaires. Partial Least Squares (PLS) structural equation modelling was used to analyse the research objectives. The findings revealed that professionalism, familiarity and monitoring had a significant direct positive effect on compliance to public procurement regulations. Political interference and enforcement had no significant influence on compliance to public procurement regulations. The study concludes that these selected precursors (professionalism, familiarity and monitoring) determine compliance to public procurement regulations. The effect can be increased through effective monitoring and professional conduct. The study recommends an in-depth training program that focuses on professional development to ensure procurement professionals' familiarity with public procurement regulation.

## KEYWORDS

Central Region

Familiarity

Monitoring

Precursors

Procurement Compliance

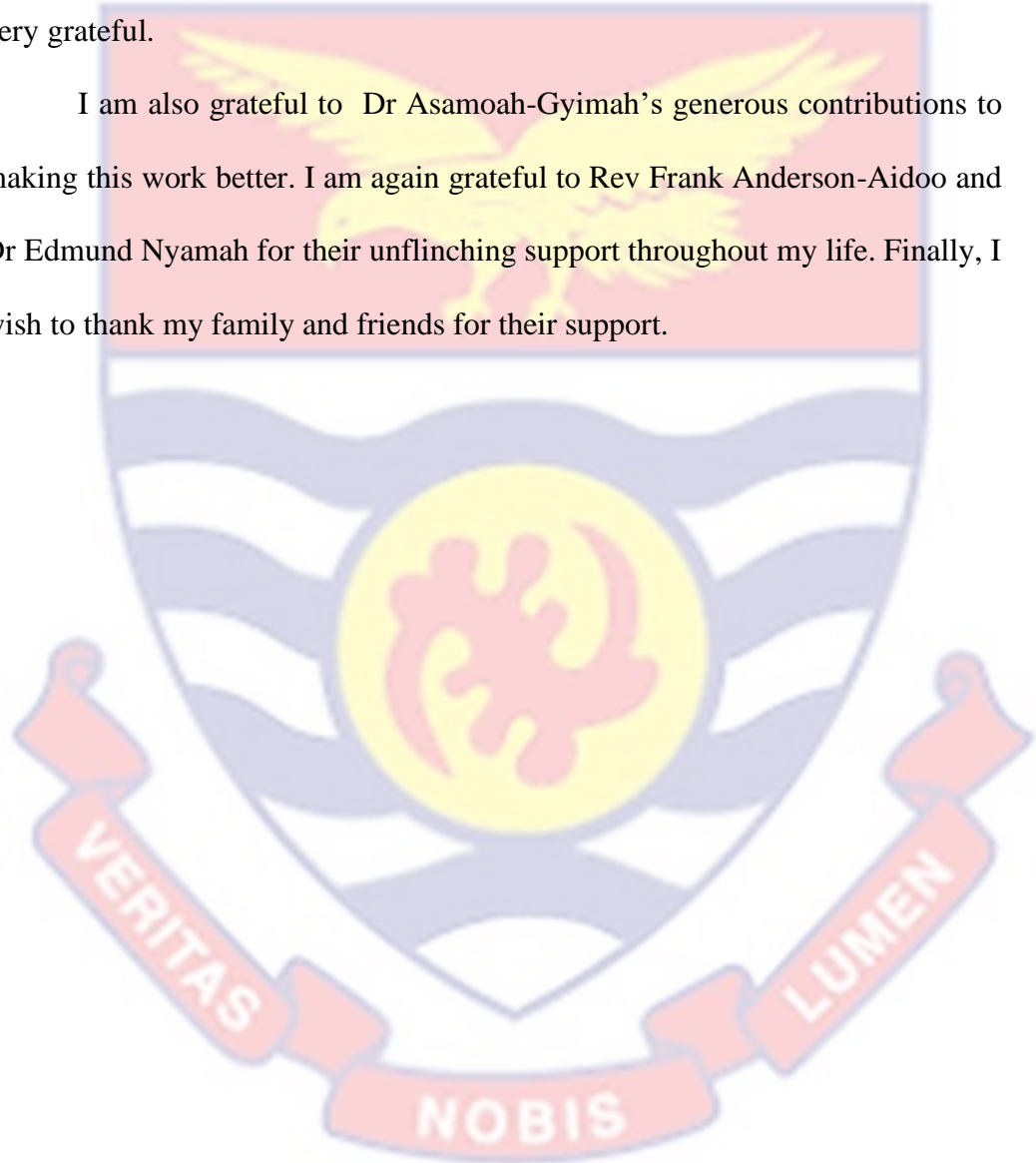
Professionalism



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## DEDICATION

To my parents: Dr and Mrs Asamoah-Gyimah



## TABLE OF CONTENTS

DECLARATION	ii
ABSTRACT	iii
KEYWORDS	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
LIST OF TABLES	xii
LIST OF FIGURES	xiii
LIST OF ACRONYMS	xiv
CHAPTER ONE: INTRODUCTION	1
Background to the Study	1
Statement of the Problem	8
Research Objectives	13
Research Questions	13
Significance of the Study	14
Delimitations	14
Limitations	15
Definition of Terms	16

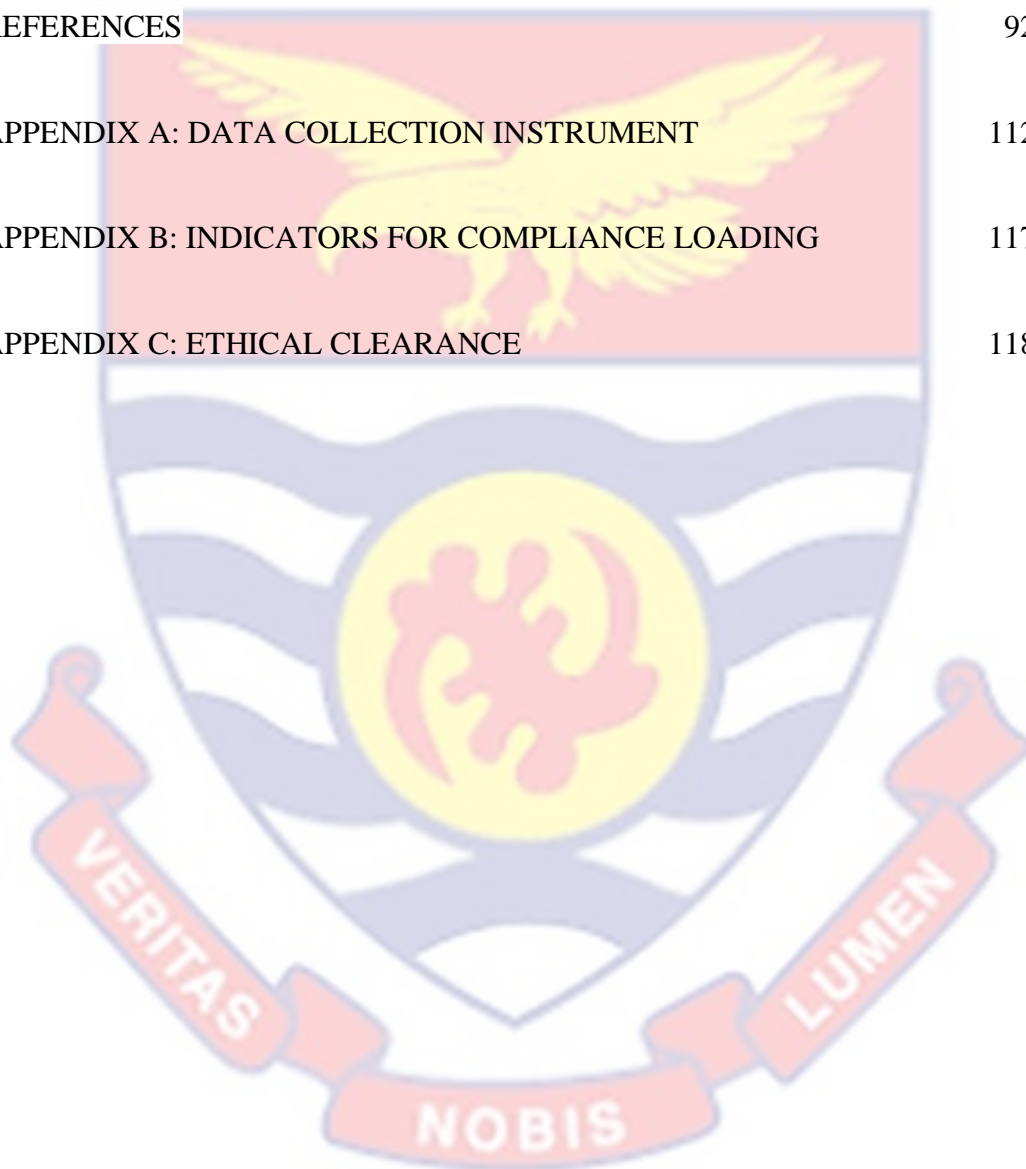


Organisation of the Study	17
CHAPTER TWO: LITERATURE REVIEW	18
Introduction	18
Theoretical Review	18
Agency Theory/Principal-Agent Theory	19
Conceptual Review	21
Public Procurement	22
Definition of Public Procurement	22
Public Entity	24
Compliance	25
Professionalism	27
Political Interference	27
Familiarity	28
Enforcement	28
Monitoring	28
The Legal Reform for Public Procurement in Ghana	30
Empirical Review	32
The Extent of Compliance with Procurement Regulations	32
Professionalism and Compliance with Procurement Regulation	35

Familiarity and Compliance with Procurement Regulation	38
Political Interference and Compliance to Procurement Regulation	40
Enforcement and Compliance to Procurement Regulation	42
Monitoring and Compliance with Procurement Regulation	43
Chapter Summary	47
<b>CHAPTER THREE: RESEARCH METHODS</b>	<b>48</b>
Introduction	48
Research Paradigm	48
Research Approach	49
Research Design	50
Study Area	51
Population	51
Sampling Procedure	52
Data Collection Instrument	52
Data Collection Procedure	54
Data Processing and Analysis	55
Ethical Consideration	58
Chapter Summary	59
<b>CHAPTER FOUR: RESULTS AND DISCUSSION</b>	<b>60</b>

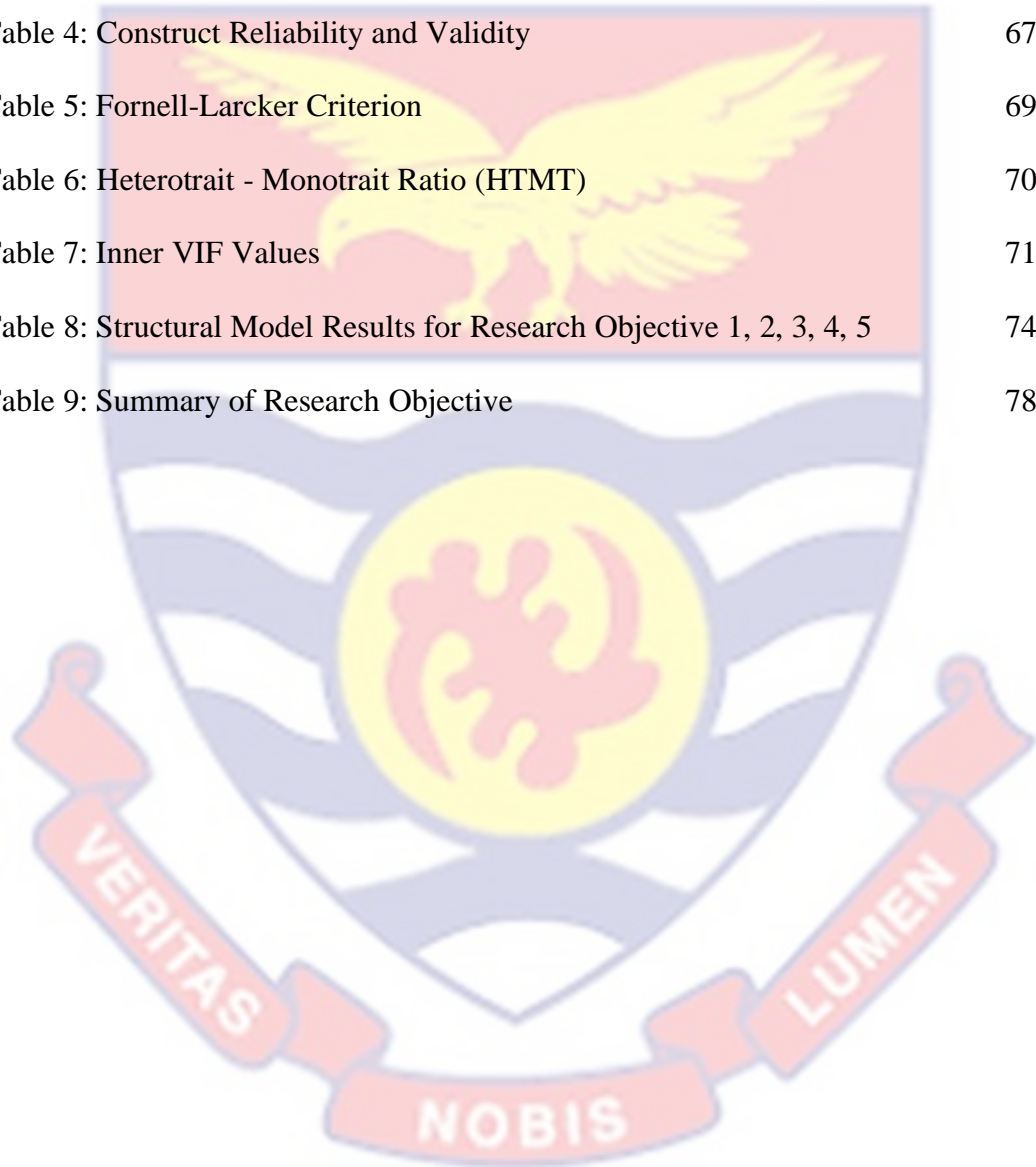
Introduction	60
Demographic Profile of Respondents	60
Assessment of Measurement Models for the Study	63
Assessing Indicator Loadings	64
Assessing Internal Consistency Reliability	67
Assessing Convergent Validity	68
Assessing Discriminant Validity	68
Assessing Coefficient of Determination and Predictive Relevance	71
Effect of Professionalism on Compliance with Public Procurement Regulations	74
Effect of Familiarity on Compliance with Public Procurement Regulations	75
Effects of Political Influence on Compliance with Public Procurement Regulations	76
Monitoring on Compliance with Public Procurement Regulations	77
Enforcement of Sanction on Compliance with Public Procurement Regulations	77
Discussion of Results	78
Chapter Summary	83
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	85

Introduction	85
Summary	85
Suggestion For Further Research	91
REFERENCES	92
APPENDIX A: DATA COLLECTION INSTRUMENT	112
APPENDIX B: INDICATORS FOR COMPLIANCE LOADING	117
APPENDIX C: ETHICAL CLEARANCE	118



## LIST OF TABLES

Table 1: Reliability Results	54
Table 2: Demographic of Respondents	61
Table 3: Outer Loadings	66
Table 4: Construct Reliability and Validity	67
Table 5: Fornell-Larcker Criterion	69
Table 6: Heterotrait - Monotrait Ratio (HTMT)	70
Table 7: Inner VIF Values	71
Table 8: Structural Model Results for Research Objective 1, 2, 3, 4, 5	74
Table 9: Summary of Research Objective	78



## LIST OF FIGURES

Figure 1: Conceptual Framework	46
Figure 2: Model for Second Order Constructs	64
Figure 3: Structural Model	73





## LIST OF ACRONYMS



APS	Australian Public Service
AVE	Average variance extracted
CFA	Confirmatory factor analysis models
CPGs	Commonwealth Procurement Guidelines
CR	Composite reliability
DAs	District Assemblies
DV	Discriminant validity
EU	European Union
GDP	Gross Domestic Product
HTMT	Heterotrait Monotrait
LRN	Laboratory Response Network
MMDAs	Metropolitan, Municipal and District Assemblies
NGOs	Non-Governmental Organisations
OECD-DAC	Organisation for Economic Co-operation Development- Development Co-operation Directorate
PLS-SEM	Partial Least Squares-Structural Equation Modelling
PNDC	Provisional National Defense Council
PPA	Public Procurement Authority
PPOG	Public Procurement Oversight Group
PUFMARP	Public Financial Management Reform Programme
SMCD	Supreme Military Council Decree
SPSS	Statistical Package for Social Sciences

UNDP United Nation Development Program

VIF Variance Inflation Factor



## CHAPTER ONE

### INTRODUCTION

Procurement practices have been identified as the bedrock to achieving value for money within private and public sector organisations. Procurement practices aim to anticipate requirements, source and obtain supplies, move supplies into the organization, and monitor the status of supplies as a current asset. The agency theory underpinned the study, which describes the relationship between two or more parties. One party designated as the principal engages another party designated as an agent to perform some tasks on behalf of the principal. It focuses mainly on how the principal tries to mitigate the control problem by selecting certain types of agents and specific forms to monitor their actions to ensure they comply and work within the authority delegated.

In addition, it is the process of determining the procurement needs and the timing of their acquisition and funding such that the entire operations are met as required by law and in an efficient way. Given this, the study intends to determine how compliance to public procurement regulations is affected by precursors such as professionalism, familiarity, political interference, monitoring and enforcement in the quest to curb corruption and procurement irregularities through strict compliance with the public procurement regulation among public entities in the Central Region, Ghana.

#### **Background to the Study**

Procurement is an important and expensive business activity for organisations because organisations usually spend a large portion (even up to 70%)

of their revenue and operational budget on purchasing goods and services. Procurement practices have been identified as the bedrock to achieving value for money within private and public sector organisations. According to Saunders (1997), procurement practices aim to anticipate requirements, source and obtain supplies, move supplies into the organisation, and monitor the status of supplies as a current asset. It is the process of determining the procurement needs and the timing of their acquisition and funding such that the entire operations are met as required by law and in an efficient way.

Public procurement has become much more complex than ever before, and public procurement officials must deal with a broad range of issues. They have been walking on a tight rope in managing the procurement of goods and services with recourse to the procurement committees of the various Institutions, obtaining the required number of quotations, payment for goods supplied, not splitting procurements into lots and procuring within the entity's threshold, in accordance to the provisions in the Public Procurement Act 2003 (Act 663).

The World Bank (2003) study reported that public procurement currently represents significant money. It is believed to account for about 50-70% of the national budget (after personal emoluments). Low-income countries have the highest share of public procurement in their economics at 14.5% of GDP, followed by upper-middle-income countries at 13.6%. In Public Procurement practices, Government Institutions use public funds to acquire goods, services and works. The nature of public procurement is such that it involves discretionary decision-making on behalf of the government at all levels whiles achieving its overall objective to

provide value for money to the government by ensuring that public funds are spent in a transparent, efficient and fair manner. Value for money is derived from the optimal balance of benefits and costs based on the total cost of ownership. As such, value for money does not necessarily mean that a tender must be awarded to the lowest tenderer (Civil Service College, 2010).

In Ghana, the government has reformed the public procurement system to improve its performance and compliance with all government and other public-funded institutions. Since independence, Ghana has attempted to address weaknesses in its public procurement process via passing several financial and legal instruments. In 1960, the government enacted the Contracts Act 1960 (Act 25) and Ghana Supply Commission Act which was reviewed later in 1990 by PNDC law 245. In 1976, the Supreme Military Council passed the Ghana National Procurement Agency Decree 1976 (SMCD 55). In 1979, another law, the Financial Administration Decree (SMCD 221), was also passed. These laws, decrees and instruments were meant to provide a comprehensive framework of administrative powers to regulate procurement activities within the public sector.

However, successive review of the public procurement regimes in Ghana reveals substantial inefficiencies, corruption and lack of transparency in the procurement processes of governmental agencies as a result of the unclear legal framework, lack of harmonised procedures and regulations and unclear institutional and organisational arrangement required in the management of the public procurement process. It lacked procurement practitioners' capacity development and career path in the Public and Civil Service. This led to the non-achievement of



value for money in government and donor financed procurements. Therefore, it became clear that there was a need to critically examine the processes and procedures of public sector procurement to ensure operational efficiency and institutional capacity to address procurement issues. In light of these challenges, after a significant review of its public expenditure system, in 1993, it decided to establish a comprehensive public financial reform programme designed to strengthen its Public Financial Management System.

This reform programme, known as Public Financial Management Reform Programme (PUFMARP), became operational in 1995. The objective of PUFMARP was to promote efficiency, transparency and accountability in the public financial management system. To achieve this, PUFMARP recommended the review of the Public Procurement system. Consequently, the Ministry of Finance and Economic Planning in 1999 established a steering committee known as the Public Procurement Oversight Group (PPOG) to assist in designing a comprehensive public procurement reform programme. The group completed one of its primary objectives by drafting a Public Procurement Bill in September 2002. Consequently, the Public Procurement Act, 2003 (Act 663) was enacted by the government of Ghana to address the real and perceived weaknesses in the public procurement of goods, works and services.

The Public Procurement Act 2003 (Act 663) is comprehensive legislation designed to eliminate the shortcomings and organisational weaknesses inherent in public procurement in Ghana. It is not difficult to state that the Act looks good on paper, but its compliance or non-compliance is a significant concern because of the



outcomes. Almost eighteen years of the Public Procurement Act 2003, its implementation and operation had prevailed and made gains in some areas, but its adherence is much desired and ensured. According to the Auditor General's Report, stores and procurement irregularities amounted to GH¢ 5,063,172, GH¢ 568,322, GH¢ 91,506,091, GH¢ 6,431,451 and GH¢ 15,121,639 during the period of 2014 to 2018 respectively (Auditor Generals Report, 2014-2018). Also, in the summary of financial irregularities for 2018, procurement irregularities amounted to GH¢6,431,451. The GH¢5,365,962 was from the Ministry of Education, almost 85% of the total financial irregularities and GH¢68,026 was from the Ministry of Health. These irregularities have been attributed to non-compliance with the public procurement process outlined in Act 2003 (Act 663).

The performance assessment system report considers four main areas of compliance, namely, management systems, information and communication, procurement process and contract management (OECD-DAC/World Bank, 2006). The management systems thoroughly look at ethics and compliance with regulatory framework, human resources, leadership, monetary and control system, complaints, appeals and dispute resolution mechanisms (Laboratory Response Network, LRN, 2007). Information and communication looks at procurement entities' capacity to give out information in the right format, and ability to utilise information received (Ayitey, 2012). Procurement process tries to get information on the procurement entities' knowledge of the procurement cycle and how they conduct their activities in each stage of the cycle. This comprises procurement planning, notice on preparation of tender documents, invitation to tender, submission of tenders, tender

opening, tender evaluation and contract award (Lynch, 2013). Contract management assesses how procurement entities monitor and supervise the performance of the contract they award. This comprises planning and mobilisation, implementation, inspection and supervision, inventory control and disposal, and reporting (OECD-DAC/World Bank, 2006).

The major obstacle however, has been inadequate regulatory compliance. Gelderman et al (2006) stipulates that compliance in public procurement is still a major issue. Hui et al (2011) while analyzing procurement issues in Malaysia established that procurement officers were blamed for malpractice and non-compliance to the procurement policies and procedures. Compliance occurs when the target performs a requested action but is apathetic about it, rather than enthusiastic, and puts in only a minimal or average effort.

However, as an organisational outcome, compliance has traditionally been understood as conformity or obedience to regulations and legislation (Interligi, 2010). A body of literature suggests that professionalism, political interference, enforcement, familiarity, and monitoring are the determinants or precursors to compliance with public procurement regulations. Sutinen and Kuperan (1999) hypothesised that compliance with rules and regulations is related to individuals' internal capacity through intellectual development. Considering professionalism is achieved through training and professional development, which serves as mechanisms for adherence to professional and ethical standards (Hunja, 2003; Sandada & Kambarami, 2016). It is arguable that when individuals undergo processes of intellectual development, they can have improvements in the internal

capacity that leads to a high sense of professionalism, then, moral obligation and ultimately, comply with public procurement regulations.

For the second percussor of compliance – familiarity, this can be achieved through on-the-job experience via interactions with experienced colleagues at the workplace or through training on and reading procurement regulations. In the case of familiarity through on-the-job learning, compliance with rules and regulations is related to the influences of the workplace. Enforcement is the third antecedent to compliance; coercive enforcement mechanisms remain essential in the regulatory compliance regime. Even in the presence of a high degree of moral obligation and social influence, enforcement of public procurement regulations will make public procurement officers comply with public procurement regulations. The fourth is political interference. The dictates of the followers to be loyal to authority in compliance decisions depends on the "legitimacy" of the Laws governing procurement.

Drawing from the fact that political office holders predominantly induce public procurement officers from complying with the regulations to award the contract to their cronies (Owara, 2016), to comply here means public procurement officers need to resist political pressures. This implies that even the political office holders, chief executives and other powerful forces within an organisation instruct the violation of the regulations or create pressures towards violating them, procurement officers should evaluate the legitimacy of such instruction and resist any pressure towards violation. Eventually, enhance compliance with the regulations.

Finally, procurement monitoring is an essential part of procurement management and control linked to compliance with Act 663 and performance outcomes such as value for money, professionalism and code of conduct in procurement. This will involve the management of the entity, staff of PPA, private sector, oversight bodies (internal and external audit), civil society (including NGOs), project beneficiaries, and media (PPA Annual Report, 2018). Controlling the performance of the procurement function and ensuring its efficiency and effectiveness is essential to the management of the procurement process. It is vital to evaluate how well the procurement process has gone, identify any weaknesses or problems, and agree to prevent similar problems in the future.

Agency theory is the underpinning theoretical framework used for this study. The theory concerns the arrangement when one person or entity (called the agent) acts on behalf of another (called the principal). In this case, the government of Ghana (Principal) engages public enterprises and Public Procurement Authority (agents) to undertake public procurement and enforce the Public Procurement Act 2003 (Act 663) on its behalf. Agency relationships are enacted in a broader social context to adopt policies about aligning incentives to discourage self-interested behaviour by managers and reduce agency costs.

### **Statement of the Problem**

Public procurement is continuing to evolve both conceptually and organizationally. That evolution accelerated during the 1990s as governments at all levels came under increasing pressures to "do more with less." Indeed, all governmental entities of rich and developing countries struggle in the face of



unrelenting budget constraints, government downsizing, public demand for increased transparency in public procurement, and more significant concerns about efficiency, fairness and equity (Osei-Tutu & Ameyaw, 2011). Additionally, public procurement professionals have faced a constantly changing environment typified by rapidly emerging technologies, increasing product choice, environment concerns, and international and regional trading agreements (Thai & Piga, 2007). Further, policymakers have increasingly used public procurement as a tool to achieve socio-economic goals.

In developing countries, governments often spend between 20% to 70% of their national revenues on the procurement of public goods and services to their citizens (United Nation Development Programme [UNDP], 2006). Failure of governments worldwide to do due diligence in the procurement process leads to inefficiencies and corruption scandals. These irregularities culminate into a loss of value for money and financial loss, which impede national development. To ensure accountability to citizens for the use of state funds, the Australian Public Service (APS) and the Commonwealth Government have developed and promulgated the Commonwealth Procurement Guidelines (CPGs). The CPGs apply to procurement conducted by all officials in agencies or Departments (Ministries) and relevant government bodies (Manu, 2015).

The Government of Ghana in 1996 launched the Public Financial Management Reform Programme (PUFMARP). The purpose of the programme was to improve financial management in Ghana. PUFMARP identified weaknesses in the procurement system. Some of these weaknesses included: lack of

comprehensive public procurement policy, inadequate employed procurement personnel's, lack of a central body with technical expertise, absence of clearly defined roles and responsibilities for procurement entities, absence of comprehensive legal regime to safeguard public procurement, lack of rules and regulations to guide, direct, train and monitor public procurement (Sarfo & Mintah 2013).

This led to the establishment of the Public Procurement Oversight Group in 1999. Subsequently, the Parliament of the Republic of Ghana enacted and promulgated the Public Procurement Act of Ghana, Act 663 (2003) as amended by the Act 914 (2016), with the sole objective of harmonising the processes of public procurement in the public service to secure a judicious, economical and efficient use of state resources in public procurement and ensure that public procurement is carried out in a fair, transparent and non-discriminatory manner (Public Procurement Act, 2003).

In its review in 2006, the Public Procurement Authority identified the weakness in the public institutions that need urgent attention. These are lack of qualified procurement personnel, incorrect interpretation and application of some provisions of the procurement act, slow pace in regularising the draft regulations, lack of clear procedures for emergency procurement, lack of training avenues or institutions, poor record management (scattered files), poor handling of suppliers' complaints, poor procurement planning, mobilization and implementation, poor contract management and high cost of advertisement (PPA, 2007). Furthermore, despite introducing reforms to curb the ongoing violations of the Act's provisions,



there still exists an apparent disregard by corruptible acts leading to the rise in non-compliance behaviour by public procurement officers and government appointees (Transparency International, 2009).

The 2018 Auditor General's Report has corroborated this, irregularities occurring as a result of management procuring Goods and Services without recourse to the procurement committees of the various Institutions, failing to obtain the required number of quotations, payment for goods not supplied, splitting procurements into lots and procuring above entity's threshold, in contravention of the provisions of the Public Procurement Act 2003, (Act 663). These irregularities amounted to GH¢ 5,063,172, GH¢ 568,322, GH¢ 91,506,091, GH¢ 6,431,451 and GH¢ 15,121,639 noted during the period of 2014 to 2018 respectively. Ghana's public procurement law sets out comprehensible rules and procedures for observing procurement entities. However, since its enactment, the law has witnessed alarming rates of non-compliance. Indeed, literature output on the subject matter confirms the incidence of non-compliance to standards and procedures by procurement practitioners. However, few of these studies have focused on the key antecedents that consistently embolden practitioners to flout procurement regulations with impunity.

OECD (2010) stressed that a sound procurement system has to have a competent professional workforce equipped with the required skills and knowledge, who are also familiar with the public procurement regulation, ensure monitoring of procurement processes, insist on the enforcement of the regulation and resist political pressure or interference to violate public procurement

regulations, ensure compliance with public procurement regulation in order to make public procurement efficient and effective. Public procurement is concerned with how public sector organisations spend taxpayers' money on goods and services (Hall, 2009). Procurement and its management must be seen as a core function of public financial management and be treated with seriousness to protect the public purse. An efficient and effective public procurement system significantly can influence the provisions of government services (social amenities and infrastructure).

In 2018, PPA revealed that many public entities in Ghana, particularly those in Central and other regions, which are not in the country's capital, do not entirely conform to the Procurement Act, and this leads to lack of competition, unfairness and inefficiencies (PPA January/February Electronic Bulletin, 2018). Given this, in consultation with its development partners, the Government of Ghana has identified the public procurement system as an area requiring urgent attention because of the widespread perception of corrupt practices, inefficiencies, and irregularities in how public procurement is conducted. Therefore, this study is being conducted to determine how compliance with public procurement regulations is affected by antecedents such as professionalism, familiarity, political interference, monitoring and enforcement, in the quest to curb corruption and procurement irregularities through strict compliance with the public procurement regulation.

### **Purpose of the Study**

The purpose of the study is to determine the influence of selected precursors (professionalism, familiarity, political interference, monitoring and enforcement) on compliance with public procurement regulations among public entities.

### **Research Objectives**

The following research objectives were establish to:

1. Examine the effect of professionalism on compliance with public procurement regulations.
2. Analyse the effect of familiarity with procurement regulations on compliance with public procurement regulations.
3. Examine the effect of political interference on compliance with public procurement regulations.
4. Assess the effect of monitoring on compliance to public procurement regulations.
5. Analyse the impact of enforcement on compliance to public procurement regulations.

### **Research Questions**

The study was guided by the following research questions:

1. What is the effect of professionalism on compliance with public procurement regulations?
2. What is the effect of familiarity with procurement regulations on compliance with public procurement regulations?

3. What is the effect of political interference on compliance with public procurement regulations?
4. What is the effect of monitoring on compliance to public procurement regulations?
5. What is the impact of enforcement on compliance with public procurement regulations?

### **Significance of the Study**

Investigating the precursor to public procurement compliance among public institutions will interest all public procurement stakeholders. It will be of paramount importance to help public institutions review and design an efficient and effective public procurement system to facilitate adherence to procurement regulations. The study will also be vital to the public procurement sector when making informed decisions such as employing personnel, i.e., they will diligently check their qualification to ensure they have the requisite knowledge in public procurement. The study will also contribute to knowledge by identifying some essential procurement practices enumerated in the Public Procurement Act. The study will also reveal that procurement irregularities and non-compliance do not occur in a vacuum and that some antecedents contribute to compliance.

### **Delimitations**

The current study was confined to public institutions in the Central Region, though other regions have public entities. There are one hundred and thirteen public entities in the central region. This is made up of 53 second-cycle institutions, 23 metropolitan, municipal and district assemblies, 19 various hospitals, 11 Tertiary



Institutions and seven other public entities such as Cedecom, Regional Health Directorate, Regional Department of Agric, National Commission on Culture, Community Water and Sanitation Agency, Ghana Education Service and Ghana Highway Authority/Feeder Roads. Second cycle institutions were excluded from this study because they lacked personnel serving as procurement practitioners, i.e., Entity Heads and Procurement Officer. Therefore, the accessible population includes 108 procurement practitioners (i.e. Entity Heads and Procurement Officer).

The restriction of the study to only the central region is not without premise since PPA revealed that the central region is among those who do not entirely comply with the Procurement Act (PPA January/February Electronic Bulletin, 2018). Similar studies were conducted among public institutions in Ashanti Region and Brong Ahafo (Osei-Tutu, Mensdah & Ameya, 2011). Concerning variable measurements, this study relied only on generally accepted sources (Aberé & Muturi, 2015; Chikwere, Simon, Dzandu & Dza, 2019; Hyacinth & Yibis, 2017; Omagbon, 2016; Sandada & Kambarami, 2016).), though there were other equally reliable scales for measurements of the study's constructs.

### **Limitations**

This study uses procurement practitioners, i.e., Entity Heads and Procurement Officers of public entities, as a primary data source because they are the ones who are directly involved in handling procurement for the various public institution they work for. Since the study employed a questionnaire in collecting data and it was cross-sectional, employees did not have the opportunity to indicate



other contextual factors that could influence compliance to procurement regulation. This notwithstanding, studies of the exact nature have been advanced in the literature where some dimensions are investigated and recommendations are made. Due to the use of questionnaires in collecting data, some respondents failed to answer, in which case the study could not capture the response of the entire census; however, this will not affect the study results since it was just a few public entities that did not respond.

### **Definition of Terms**

**Public procurement** is the process by which organisations acquire goods, works and services generally via contract with public funds. The procurement cycle involves planning, beginning with needs assessment through needs preparation, inviting offers, contractor selection, awarding contracts, executing and managing contracts, and final accounting and auditing.

**Compliance** denotes observance or conformity with various legal and regulatory requirements, thus the adherence to the rules and regulations governing the performance of one's mandate.

**Public entities** refer to the public body or unit established and mandated to carry out public functions. The government institutions, local government authorities, agencies, government departments, Regional, District and government parastatal institutions are responsible for carrying out procurement in Ghana per the existing legal and regulatory framework.

**Monitoring** is an intermittent (regular or irregular) series of observations in time, carried out to show the extent of compliance with a formulated standard or degree of deviation from an expected norm.

**Enforcement** of sanctions could pass as any actions taken by regulators to ensure compliance. Enforcement is an action by the regulatory bodies referred to as procurement entities to comply with the required rules fully.

**Professionalism** is defined as competence in skills, special knowledge with experience and membership of a professional body that exhibits an ethical code

**Familiarity** refers to knowing an entire regulatory framework, process, and procedures.

**Political Interference** with procurement process is when politicians think involve themselves in the procurement procedures, leading to a capricious procurement decision

### **Organisation of the Study**

The study is organised into five chapters. Chapter one constitutes the introduction, which focuses mainly on the background, problem statement, and objectives of the study and the organisation. Following the introductory chapter, chapter two present a review of the theoretical and empirical literature about the concerns of the thesis. Chapter three provides information on the methodology used in the research, population, sample, and analysis tools used in the study. In chapter four, the result of the study is presented and discussed. Chapter five also summarises the significant findings, conclusion, implications and suggestions for further studies.

## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

This chapter reviews the theoretical, conceptual and empirical studies on public procurement, professionalism, familiarity, political interference, monitoring, enforcement and compliance to public procurement law in Ghana. The review also shows how these constructs affect compliance with the public procurement law in Ghana. The purpose of the study is to determine the influence of selected precursors (professionalism, familiarity, political interference, monitoring and enforcement) on compliance with public procurement regulations among public entities. This chapter will review the theory underpinning the study before addressing conceptual and empirical issues of professionalism, familiarity, political interference, monitoring and enforcement on compliance with public procurement regulations.

#### Theoretical Review

Defee, Williams, Randall and Thomas (2010) assert that good research should be grounded in theory. A theory is a supposition or system of ideas intended to explain something. Theories attempt to explain facts that rationally explain cause-and-effect relationships among a group of observable phenomena (Mugenda & Mugenda, 2003). Several theories and models explain and describe the way public procurement operates. This study adopted Agency theory which subsequently was used in developing the Conceptual Framework for this study.

### **Agency Theory/Principal-Agent Theory**

Mitnick proposed agency theory in 1973. They introduced agency theory while studying the problems of contract compensations. Agency theory is concerned with agency relationships, which exist when two parties collaborate and form an association in which one party (the primary) delegated decision-making and work to another (the agent) to do on its behalf (Eisenhardt 1989; Rungtusanatham, Rabinovich, Ashenbaum & Wallin, 2007). The essential assumptions underlying agency theory is that; potential goal conflicts exist between principals and agents. Tukamuhabwa (2012) further stated that the principal-agent theory is an agency model developed by economists that deals with situations in which the principal is in a position to authorise the agent, to perform some tasks in the principal's interest, but not necessarily the agent's.

Agency theory is the interaction between principals, such as shareholders and agents or corporate leaders and managers. In this case, shareholders who are the company's owners hire the agents to perform work. Managers, who represent the interests of the shareholders, are delegated the company's day-to-day operation (Clarke, 2004). According to this theory, procurement managers and all public officials involved in public procurement activities must play the agent role for elected representatives. The principal-agent theory was considered very relevant in this study for various reasons. First, most public procurement definitions emphasised processes and procedures based on law and regulations (Lysons & Farrington, 2006). As Van Weele (2010) advocated, an essential characteristic of



public procurement is public accountability, which further explains why public entities are primarily procedure-driven.

This means that the principal has a laid down process and procedure outlined in the Public Procurement Act, which the agent is supposed to comply with and act within the authority given as an agent. Secondly, the difference between public and private procurement is not the objectives but the funding source and procedure. While in the private sector, shareholders choose to invest their own money and accept a degree of risk. On the other hand, the expenditures are financed from public money, i.e., taxpayers' money. Consequently, those undertaking procurement in the public sector is accountable to the public's representatives whose money they are spending (Arrowsmith, 2010).

According to Witting et al. (1999), public procurement is a business process within a political system and has significant consideration of integrity, accountability, and national interest. Thirdly, the Public Procurement Act in Ghana bestows compliance with the public procurement legal framework on the Entity Heads of all public entities in the country. The theory shows how the actions and performance of the procuring entities (as the agent) affect the government (as the principal) and other stakeholders (Muranda, 2006). Donahue and Donahue (1989) explain that procurement managers must play an agent for elected representatives, including all civil servants concerned with public procurement. This theory will help us investigate the role of political interference, professionalism, familiarity, monitoring and enforcement in public procurement compliance as public procurement managers are considered stewards or agents in the public entities.



Procurement managers, including civil servants dealing with public procurement, should follow the agency's best interests, as they usually have better information than their employer. Avoidance with the procurement regulations occurs when there is some disagreement between policymakers and bureaucracy. Reimarová (2011) urges that when there are discrepancies between regulatory policies, such as the public procurement regulation and the formal procedure or public system, there is a likelihood of non-compliance to the regulations or the regulatory policies guiding the system. Bolton and Dewatripont (2005) maintain that the principal-agent theory is considered the contract theory that involves different sets of familiar models used to monitor and evaluate public procurements and the related contract processes to ensure compliance with laid down processes and procedures.

Therefore, the Principal-Agent theory is relevant and valuable in this study because it assisted in explaining the relationship between the government as the principal and the procuring entities as agents in implementing the public procurement regulation. In addition, the theory shows how the actions and performance of the procuring entities (as the agent) affect the government (as the principal) and other stakeholders (Muranda, 2006).

### **Conceptual Review**

According to Kundu, Guha, Chakraborty, Chakraborty and Mukhopadhyay (2009), a conceptual review is a scheme of concepts (or variables) that the research operationalises to achieve set objectives. On the other hand, Mugenda and Mugenda (2008) define a conceptual framework as the main structure that gives the research

its form and shape and holds together all the elements in the logical configuration. Therefore, the following conceptual framework was developed to examine the effect of some precursors on compliance with procurement regulations.

### **Public Procurement**

Procurement is the process by which organisations acquire goods, works and services. The procurement cycle involves planning, beginning with needs assessment through needs preparation, inviting offers, contractor selection, awarding contracts, executing and managing contracts, and final accounting and auditing. Therefore, procurement is a strategic component of supply chain management that satisfies customer or buyer needs (Adusei & Awunyo-Vitor, 2015). However, according to Hunja (2003), procurement has not been viewed as having a strategic impact on managing public resources in many developing countries. It was primarily treated as a process-oriented function often implemented by non-professional staff of the buying agencies. Consequently, little effort was made to ensure that the policies and rules and the institutional framework governing the procurement system were maintained to ensure that public funds were used most efficiently and economically to deliver the best value for money.

### **Definition of Public Procurement**

Public procurement has been identified as the most vulnerable government activity that leads to corruption. Public procurement has become a significant interface between the public and private sectors that provides multiple public and private sectors opportunities to divert public funds for private gain. For example, in the 2005 Executive Opinion Survey of the World Economic Forum, bribery by

international firms in Organization for Economic Cooperation and Development (OECD) countries is more pervasive in public procurement than in utilities, taxation, judiciary and state capture (Beth, 2007). Falvey (2012) stipulated that developing countries are characterised by relatively low levels of competition and have limited or no formal competition policy. While government procurement accounts for a significant portion of public expenditure, the processes for awarding and monitoring contracts lack transparency due to a lack of compliance with the legal framework. Thai (2001) also added that it is vital for developing countries to establish formal competition policies, primarily because of structural changes due to privatisation and deregulation. The main objectives of the public procurement reforms are value for money, efficiency, transparency, probity and accountability (Arrowsmith, 2005).

Public procurement directly impacts the successful delivery of government projects and public services, sound public financial management by achieving value for money in government expenditure, reducing corruption, more competition, budgetary savings, reducing debt levels, and encouraging the private sector. Procurement has gained much attention among crucial stakeholders, including practitioners, researchers, and policymakers (Offei, Kissi & Badu, 2016). Public procurement laws in any jurisdiction provide a regulatory framework for public procurement (Atiga & Azanlerigu, 2017). Public procurement in Ghana directly impacts the successful delivery of government projects and public services, sound public financial management, and private sector growth and investment.

Hence, improving the public sector procurement system can directly impact the overall economy of the nation (Atiga & Azanlerigu, 2017).

McDonald (2008) indicated that government purchasing and contracting rules need to be accountable and transparent. This limits corruption and contributes to a more accountable relationship between government and citizens, essential because of the vast sums involved in public procurement. Furthermore, government procurement accounts for approximately 4.5% of developing countries' "gross domestic product" (GDP), and governments tend to be the largest single consumer of goods and services in most countries. A government's use of purchasing can thus be a potent tool to achieve socio-economic objectives. Therefore, if procurement reform is done accountably, achieving cost-effectiveness and broader development goals can reduce poverty (McDonald, 2008).

### **Public Entity**

Procurement entities refer to the public body or unit established and mandated to carry out public procurement functions. The government institutions, local government authorities, agencies, government departments, Regional, District and government parastatal institutions are responsible for carrying out procurement in Ghana per the existing legal and regulatory framework. About 50-70 per cent of Ghana's annual budget, excluding personnel emoluments, is the procurement of goods and services (Ameyaw, Mensah & Osei-Tutu, 2012). Procurements also constitute 14 and 24 per cent of the nation's GDP and imports, respectively (Ameyaw et al., 2012). Local government agencies in Ghana, known as Metropolitan, Municipal and District Assemblies (MMDAs) or simply District



Assemblies (DAs), are "body corporate (s) with perpetual succession" (Act 462, Government of Ghana, 1993). It follows that since they can sue and be sued, their actions must conform to the legal and regulatory framework governing their operations. Those actions should also be in keeping with best practices.

Therefore, ensuring compliance with procurement regulations in the public entities is paramount to achieving the objective of the country's overarching procurement law, namely the Public Procurement Act 2003, Act 663, as amended by Act 914. It states that the overall objective of the public procurement system is to provide value for money to the government by ensuring that public funds are spent in a transparent, efficient and fair manner.

### **Compliance**

The word compliance has never been defined in the Act or its regulations. However, compliance denotes observance or conformity with various legal and regulatory requirements, thus the adherence to the rules and regulations governing the performance of one's mandate. It is the act or state of conforming to rules, specifications, policy, guidelines, standards or law. It means pursuing government objectives through appropriate regulatory frameworks or complying with laws and regulations which have criminal or civil penalties when not appropriately observed. It could also be the positive response (to rules, directives, and so on) supposed to be elicited from one who agrees to operate in a given environment or enterprise (Schapper, Malta, & Gilbert, 2006)

Contextually, defining compliance as adherence to the laws, rules, directives, or other frameworks and expectations governing any procurement



management regime by Ibrahim, Bawole, Obuobisa-Darko, Abubakar and Kumasey, (2017) fits this study. The principal usually determines the rules for the compliance of the agent. The level of procurement regulation adherence is how state enterprises apply and follow the procurement guidelines stipulated in the Public Procurement Act. Procurement guidelines govern the choice of suppliers, products, and the methods and procedures to communicate with suppliers (George, 2010). There has been a call for a distinction between other forms of compliance and the type that views "scope and degree of compliance as the outcome of a negotiated process between a social actor and an enforcement officer" (Gelderman, Paul, & Brugmanet, 2006). This is especially important in a developing country where there is often a temptation to explain away policy failures by citing the lack of involvement of implementers in policy formulation.

Gelderman et al. (2006) report about 83 per cent inefficient compliance with EU rules, whereas more prevalent cases of non-compliance abound in developing countries. Kauppi and van Raaij (2015) contend that non-compliance hinders organisations attaining set goals. To put it differently, when professionals are trained, the intention is not to provide them with relevant skills in tune with the lessons learnt from procurement practices over time, but rather the objective is to further expose them to ways of imbibing the rules. Studies have shown that greater compliance with public procurement policies could generate better procurement management and improved best practices by governmental organisations (Jaafar, Abd Aziz & Ramli, 2016). Therefore, in this study, compliance means adherence

to the laws, rules, directives, or other frameworks and expectations governing Ghana's public procurement management.

### **Professionalism**

Watson (2002) defines professionalism as competence in skills, special knowledge with experience and membership of a professional body that exhibits an ethical code. Tombesi (2012) adds that professionalism arises from established things. Professionalism in public procurement can be described as a situation in which educated, experienced, and responsible procurement officers make informed decisions regarding procurement operations (Hyacinth & Yibis, 2017). It was also considered a display of a professional approach in conducting procurement practices (Omagbon, 2016). Professionalism is critical in compliance with public procurement regulations (Sandada & Kambarami, 2016).

Consequently, procurement actors focus on professionalism through professional bodies and code of conduct to ensure compliance with the procurement regulation while performing their duties (Berry & McCarthy, 2011; Sohail & Cavill, 2008). Procurement is no longer anybody's job. It is a professional job that must be managed only by personnel who are professionally trained and qualified in procurement management (Mrope, 2017).

### **Political Interference**

Political interference with the procurement process is also a significant challenge to implementing and public procurement reforms. Many politicians think they have the right to intervene in the procurement procedures, leading to a capricious procurement decision (World Bank, 2004).

### **Familiarity**

Familiarity refers to knowing an entire regulatory framework, process, and procedures. For example, Hunja (2003) suggests that procurement officers lack knowledge in interpreting technical sections of public procurement documents despite academic qualifications. In addition, procurement personnel require orientation on emerging issues in public procurement and, on some occasions, would require attitudinal change while discharging their duties as procurement officers (Chi & Nicole Javernick-Will, 2011; Kaluarachchi & Jones, 2007). Accordingly, familiarity with public procurement regulatory frameworks is essential, and action for improvement through industry education and training is required to ensure compliance with the public procurement regulation (DiMaggio & Powell, 2015).

### **Enforcement**

Enforcement could pass as any actions taken by regulators to ensure compliance (Zubic & Sims, 2011). Enforcement is an action by the regulatory bodies referred to as procurement entities to comply with the required rules fully. Prior studies have reported the significant impacts of enforcement as a robust compliance mechanism that improves compliance with regulations in some other economic sectors (Tukamuhabwa, 2012; Zubic & Sims, 2011; Imperato, 2005).

### **Monitoring**

Monitoring is an intermittent (regular or irregular) series of observations in time, carried out to show the extent of compliance with a formulated standard or degree of deviation from an expected norm. Monitoring is a meaningful exercise

only if one defines the desired state of objectives or targets in advance. The monitoring role is to assess whether these objectives (targets) are being met. An ongoing monitoring process ensures that the country's procurement system is implemented correctly, that impediments are recognized and eliminated, and that everyone participating in the system receives input for future development. Information collected through monitoring helps develop policy, determine value-for-money, and draw conclusions concerning compliance with fundamental principles of public procurement and fulfilment of pre-defined objectives and targets.

Additionally, the monitoring findings serve as a foundation for the compilation of periodical reports on the procurement system's operation, particularly for formulating suggestions and proposals for the procurement system's future development. In order to make informed decisions concerning the further development of the public procurement system, the government needs to monitor the system. Requests for establishing monitoring tools and mechanisms may also originate from other bodies, institutions or persons (for instance, the national parliament, civil society organisations, and the business sector). Public procurement offices (agencies/authorities) usually monitor the main level. One of their standard functions is to monitor the compliance of contracting authorities (entities) with public procurement law. They check in particular whether specific procurement procedures satisfy legal requirements. They thus perform the monitoring of compliance, as defined above.



## The Legal Reform for Public Procurement in Ghana

In this study, public procurement law is used as a concept regarding the legal framework that provides for the guidelines, procedures, principles, standards, and mechanisms of performing public procurement. In Ghana, the framework for public procurement has evolved, usually drawing from scattered pieces of legal enactment or instruments and regulations. According to Osei-Afoakwa (2013), Ghana has made several attempts to address the weaknesses in its public procurement system by passing several financial and legal instruments. These attempts were constitutional, legislative instruments, administrative instructions and financial circulars.

Considering Ghana's legal evolution on procurement, the government, in 1960, enacted the Ghana Supply Commission Act which was reviewed later in 1990 by PNDC law 245. The Contracts Act, Act 25 of 1960, was enacted in 1960. The Supreme Military Council issued Decree SMCD 55 in 1976. Finally, 1979 saw the passage of the Financial Administration Decree SMCD 221. All these laws, decrees and instruments were meant to provide a comprehensive framework of administrative powers to regulate procurement activities within the public sector (Adjei, 2005). However, Ghana Supply Commission and National Procurement Agency were involved directly in frontline procurement and therefore did not perform the oversight responsibility to oversee the successful implementation of these laws. Since there was no legal body to perform the oversight responsibility, the procurement system was characterised by an unclear legal framework, lack of



harmonised procedures and regulations and unclear institutional and organisational arrangements required to manage the public procurement.

In addition, there was the absence of clearly defined roles and responsibilities of individual procurement entities; and no independent appeals process with the power to address a complaint from aggrieved bidders and provide corrective solutions. Also, there was no authority to dispose of public assets and no independent audit function to ensure efficient accountability. Therefore, it became evident that there was a need to critically examine the processes and procedures of public sector procurement to ensure operational efficiency and institutional capacity to address the various shortcomings.

In 1996, the Government of Ghana launched the Public Financial Management Reform Programme (PUFMARP) to improve overall public financial management in Ghana. In 1999, the Government of Ghana established the Public Procurement Oversight Group to steer the development of a comprehensive public procurement reform programme. The Public Procurement Bill was drafted in 2002 and passed into law on 31st December 2003 as the Public Procurement Act (PPA) of 2003, Act 663. The PPA Act 663 requires that various government institutions set up procurement departments within their organisations that will be directly responsible for all their procurement activities. Act 663 is to harmonise procurement processes that entail the use of public funds and ensure that there is value for money in public financial management (Ameyaw et al., 2012).

## **Empirical Review**

This section reviewed the relevant literature on the variables under study to establish the research gaps and therefore provide a guideline for this study. However, the empirical literature review was done in line with the specific research questions and the hypothesized variables for this study. Therefore, our review focuses on the methodologies adopted variables used to assess the performance, significant findings, recommendations made and implications or validity of the respective studies. As Mugenda (2008) suggested, such detailed knowledge of what has been done by other researchers has helped us avoid unnecessary and unintentional duplication and, more importantly, helped us form a framework that interprets the findings.

## **The Extent of Compliance with Procurement Regulations**

Procurement performance has attracted significant attention from practitioners, academicians and researchers due to poor performance resulting from non-compliance to proper public procurement processes and procedures. Compliance compares the conduct of the regulators to the equivalent legal obligation that the regulators should adhere to (Gelderman et al., 2006; Lange 1999). Therefore, political and social regulators consider compliance with public procurement regulation as a prescribed process of eliminating or avoiding the risk associated with public procurement systems.

The performance assessment report considered four primary public procurement compliance areas: management systems, information and communication, procurement process, and contract management (OECD-

DAC/World Bank, 2006). The management system thoroughly looks at ethics and compliance with regulatory framework, human resources, leadership, monetary and control system, complaints, appeals and dispute resolution mechanisms (Montoya, CHS & Kimball, 2007). Information and communication look at procurement entities' capacity to give out information in a suitable format and utilise information received (Ayitey, 2012). The procurement process tries to get information on the procurement entities' knowledge of the procurement cycle and how they conduct their activities in each cycle stage. This comprises procurement planning, notice on preparing tender documents, an invitation to tender, submission of tenders, tender opening, tender evaluation and contract award (Lynch, 2013). Finally, contract management assesses how procurement entities monitor and supervise the performance of the contract they award.

This comprises planning and mobilisation, implementation, inspection and supervision, inventory control and disposal, and reporting (OECD-DAC/World Bank, 2006). Larbi, Baiden and Agyekum (2019) found that the average percentage level of compliance with the transparency provisions in Act 663 was 77.4% in their study, a finding which compares favourably with compliance levels in respect of the information and communication sectors in Ghana. Contract management recorded a deficient compliance level. It was observed that most entities take contract management for granted and thus are not enthusiastic at the contract management stage compared to the award stage. There is a complete lack of information on ongoing contracts. Reports expected from procurement managers like project implementation and supervision reports, project monitoring reports,

delivery reports, keeping of records of items disposed of, and appropriate stock control record system were generally not adequate in most institutions surveyed (Osei-Tutu et al., 2011).

Obuobisa-Darko, Abubakar and Kumasey (2016) employed a qualitative case study approach involving three local government agencies in Ghana and found that the presence of a legal and regulatory framework does not ipso facto guarantee compliance. Based on the four main compliance areas (information system, management system, contract management and procurement process) adopted by Osei-Tutu et al. (2011), the overall compliance levels in the Ashanti and Brong Ahafo Regions lay at 19.58% and 17.8%, respectively. The study confirmed a low level of compliance, as indicated in earlier reports by the World Bank and the Public Procurement Authority. In the pursuit to improve compliance with the Public Procurement Act, they recommended that public entities recruit professional procurement personnel and organise intensive and regular procurement training for the personnel handling public procurement, especially in procurement processes.

At all levels of administration, management support for value for money programs should be promoted. Additionally, in conjunction with public organizations, procurement regulatory agencies must ensure compliance by rigorously monitoring and evaluating procurement policies to ensure value for money and reduce procurement anomalies (Nsiah-Asare & Prempeh, 2016). Further, Ameyaw et al. (2012), in their study on the implementation challenges to the Public Procurement Law 2003 (Act 663), identified low capacity of procurement professionals, low interaction between procurement entities and



Public Procurement Authority (PPA) and non-compliance with provisions of the law as the significant challenges militating against the implementation of the Public Procurement Law.

Foreign investors would be unlikely to invest in Ghana if they dealt with public procurement institutions whose procurement procedures deviated from norms, standards, and practices. Therefore, PPA must sanitise the procurement process by training procurement officers to understand the procurement processes and apply the law to the letter. Punitive measures should also be put in place to deter officers who deliberately abuse the procurement process.

### **Professionalism and Compliance with Procurement Regulation**

Professionalism in public procurement relates to the educational attainment of procurement staff and the professional manner they discharge their duties (Raymond, 2008). Thus, If the levels of education, qualifications, and professional approach in the procurement activities of the workforce are not adequate, there will be severe consequences in procurement matters, including breaches and non-compliance to procurement regulations. Breaches in procurement are a result of a lack of professionalism which ultimately impedes compliance. These issues include a lack of technical expertise and competencies, resulting in non-conformance to due process and misapplication of procurement laws and regulations (World Bank, 1995, 2000, 2003).

The lack of a high degree of professionalism in public procurement leads to corruption which ultimately hinders compliance. It can, therefore, be inferred that the state would save much money if procurement entities and the respective



procurement officers were trained to enable them to appreciate the importance of embracing competitive procurement methods in all procurements as long as it is practicable (Ameyaw et al., 2012). Procurement staff have two significant tasks: making sure that their organisation comply with rules and regulations guiding procurement practices and participating in procurement activities of their agencies according to the approved budgets (Obanda, 2017). As cited by Lysons and Farrington (2016), procurement expertise is a necessary requisite in procurement. It influences making the right and strategic purchasing decision with confidence and quickly. Procurement expertise and procurement regulatory compliance level are necessary because they are positively and significantly related. Procurement expertise is satisfactory in contributing as a precursor to procurement regulatory compliance level.

Procurement expertise prompts consistency and influence, making the right and strategic purchasing decision (Ndung'u, Were & Mwangangi, 2020). Basheka and Mugabira (2008) stated that the level of professionalism in public procurement in Nigeria is low or relatively non-existent. Therefore, non-compliance in public procurement in Nigeria is attributable to a lack of purchasing/procurement professionals in the public sector since professionalism increases public procurement compliance. Gelderman et al. (2006) maintained that professionalism plays an integral role in ensuring compliance within public procurement. Likewise, Sandada and Kambarami (2016) found a significant relationship between professionalism and compliance with public procurement in Kaduna Polytechnic, Nigeria. The study of Jaafar et al. (2016) also found a strong influence of

professionalism and compliance with public procurements in Malaysia. This is also consistent with the findings of Mrope (2017) among Tanzanian public institutions, as well as Kenya (Franklin, Sabel, Jones, Mai, Baumgartner, Banta-Green, & Tauben, 2015) and Uganda (Mwelu, Davis, Ke & Watundu, 2018). However, an earlier study by Eyaa and Oluka (2011) reported insignificant effects of professionalism on compliance with public procurement.

Accordingly, Public Procurement Authority (2016) suggests training and instilling ethical standards among procurement stakeholders to promote professionalism in public road construction projects and boost professionalism through academic qualifications, skills and networking (DiMaggio & Powell, 2015). Further, more pertinent examples showed that lack of professionalism among public procurement officers affected compliance (de Boer & Telgen, 1998). Similarly, in China's construction industry, a lack of professionalism affected compliance with regulatory frameworks (Deng, Qiu, Liu & Xiao, 2014). In Malaysia, reports showed a lack of professionalism affected compliance to public procurement regulation. In this example, public officers revealed Government prices to preferred contractors whilst selecting quotations in open tendering (Hui et al., 2011). Such an attitude of accepting bribes and sharing fraudulent gains hampered confidentiality (Hui et al., 2011).

Literature reveals that some procurement officers demanded contractors' adherence to contract specifications by upholding professional integrity and ethical codes. The act promoted compliance with their respective public procurement regulatory framework. Mesa (2018) also found that lack of professionalism is a

significant cause of non-compliance to procurement laws and that compliance hinges on the competency and qualifications of the procurement staff. The study also concludes that employees should be regularly trained on procurement procedures because practical procurement activities depend on skills and the employees' experience. Similarly, training employees enhance their competency in procurement. Thus, procurement professionalism increases public procurement compliance.

### **Familiarity and Compliance with Procurement Regulation**

It has been opined that lack of procurement knowledge remains a significant weakness in procurement efficiency achievement (Sandada & Kambarami, 2016). For instance, in Nigeria, public procurement is guided by the Procurement Act, 2007. Thus, a deep understanding of this law and its provision will enable better compliance. Eyaa and Oluka (2011) noted a limited understanding of roles by many corporate members in state-owned enterprises in Africa, such that their behaviour and decisions tend to be discretionary. The management and other stakeholders tend to manipulate those responsible for procurement due to the latter's weaker knowledge of procurement regulations.

For this reason, it was argued that the awareness of procurement regulation in state-owned enterprises is low (Sandada & Kambarami, 2016). Through a conceptual model, Zadawa, Hussin and Osmadi (2015) highlighted the possible significant influence of familiarity with procurement guidelines on compliance with public procurement regulations, as earlier stated by Eyaa and Oluka (2011).

However, Jaafar et al. (2016) and Hyacinth and Yibis (2017) found insignificant direct effects of familiarity on public procurement regulations.

According to Gelderman et al. (2006), the purchaser's familiarity has a positive, statistically significant impact on compliance. They also maintained that public purchasers would comply with the rules if they perceived them as evidence. Therefore, the simple fact that the management of a public agency is familiar with the essence of the EU rules could function as an organisational incentive to comply. The managerial implication would be that educating and training public purchasers will be an effective tool for increasing compliance with the regulations as they will be familiar with the regulations. Sandada and Kambarami (2016) stated that public entities in Zimbabwe operate in a very volatile environment characterised by public procurement systems open to abuse even though it is one of the first countries in Africa to have a Procurement Act. Hence, they conducted a study on the determinants of compliance to public procurement policy requirements among public enterprises in Zimbabwe and concluded that familiarity with procurement regulations (including enforcement and political interference) was a statistically significant predictor of compliance.

Familiarity with organisational structures and governance mechanisms has caused capacity problems (Hunja, 2003). In the case of Bangladesh, it has eventuated in the country's failure to meet public procurement goals through compliance with the regulation (Mahmood, 2010). Mwelu et al. (2018) reviewed that misconceptions and a lack of familiarity with procurement policies significantly affected Nigeria's public construction sector compliance. Zadawa et



al. (2015) also report that a lack of familiarity with the regulatory framework significantly affected compliance with the Procurement Act in Kenya's public secondary schools' sector (Migosi & Muola,2013). Thus, familiarity with the procurement regulation increases public procurement compliance.

### **Political Interference and Compliance to Procurement Regulation**

According to Bolton (2006), public procurement Officers take on the role of an agent instead of their principal or elected representatives. Senior officials and political leaders use their public office for private gain, which has weakened the motivation to remain honest. The literature considers public procurement inherently politically sensitive (Omagbon, 2016). Several studies reported the influence of political interference on compliance with procurement regulations. For instance, Raymond (2008) opined that ministers and political parties receive concealed payments in government procurement. This ultimately interferes with the procurement process and constrains compliance. This is also re-echoed by Lodhia and Burritt (2004), who recognises that social and political influences have a significant bearing on public sector reform.

One of the significant obstacles to the procurement system in developing countries is ministerial interference with the tender process, where ministers intervene and influence tender awards. In many cases, the threat of being suspended or fired has intimidated public officers into obeying illegal ministerial directives leading to non-compliance (Akech, 2005). In support of this, Hui et al. (2011) asserted that interference from the local politicians, businesspersons, members of parliament and very influential top management individuals has interrupted the

procurement processes and deterred transparency. Lodhia and Burritt (2004) further stated that political influence in public sector management limits information, transparency and favour is extended without management being held to account. Coviello and Gagliarducci (2010) also revealed that politicians influence public procurement through non-compliance acts such as collusion. It, therefore, implies that political interference hurts public procurement compliance. Most of the empirical evidence concerning the influence of political interference on compliance reported a negative relationship (Sandada & Kambarami, 2016; Omagbon, 2016).

Equal to these findings, Jones, Joel and Ronald (2015) deployed an alternative approach in which political interference was examined on non-compliance. The results revealed a positive relationship, implying that higher political interference leads to higher non-compliance. Chikwere et al. (2019) found that political interference was the most significant variable influencing non-compliance with public procurement regulations. The implication of this is a reversal of compliance to non-compliance, which results in a positive relationship. It reflects the strategic model of public procurement compliance proposed here; the political interference was reversed to resistance to political pressure.

Thus, it is expected to have a positive relationship with compliance. In a nutshell, earlier studies that examined the relationship between political interference and compliance reported a negative relationship (Sandada & Kambarami, 2016; Omagbon, 2016), and the reversal of measurement of compliance to non-compliance revealed a positive relationship with political interference (Jones et al., 2015; Chikwere et al., 2019). In this study, the

measurement of political interference will be reversed and expected to reveal a positive relationship with compliance, or Political interference hurts public procurement compliance.

### **Enforcement and Compliance to Procurement Regulation**

Enforcement has been defined as actions taken by regulators to ensure compliance (Zubicic & Sims, 2011). However, there are mixed opinions regarding the effect of enforcement on compliance. Kiama (2014) summarised the views of earlier researchers on the impact of enforcement on compliance. He reported that some scholars, including Sparrow (1994), are hesitant about enforcement's direct effect on compliance. Suggesting that strict enforcement may make the procurement practitioners more sophisticated in devising means to conceal detection by authorities, while others still maintain the view that enforcement prevents non-compliance. Empirically, the literature reveals that enforcement strongly affects compliance with procurement regulations (Gunningham, Thornton & Kagan, 2005; Kiama, 2014; Zubicic & Sims, 2007; Sandada & Kambarami, 2016). Similar findings were made by Sandada and Kambarami (2016).

Enforcement action and increased penalties lead to greater levels of compliance with laws. Corruption among government procurement officials in developing countries such as Bangladesh, India, Sri Lanka, Nigeria and Venezuela has been linked to weak enforcement of the rule of law (Raymond, 2008). A study on corporate governance in Africa revealed that Nigeria and Ghana suffer from weak law enforcement mechanisms (Okeahalam, 2004). Firms might not comply with regulations if legal violations may be profitable in cases where the legal system

under-enforces, either because penalties are set too low or because detection is imperfect or ineffective. Gunningham and Kagan (2005) argue that the threat of legal sanctions is essential to regulatory compliance.

Enforcement action has a cumulative effect on the consciousness of regulated companies. It reminds companies and individuals that violators will be punished and check their compliance programs. Again, the outcome of sustained enforcement action instilled a culture of compliance and directly impacted corporate compliant behaviour (Sutinen & Kuperan, 1999).

### **Monitoring and Compliance with Procurement Regulation**

Monitoring activities are an organisational governance mechanism that ensures staff meet goals. Monitoring of public procurement comprises each. Any systematic observation of the public procurement system is conducted coherently to assess how this system functions and develops over time and to establish whether the desired (targeted) state defined by policymakers has been achieved (Isaac & Navon, 2014). Forsythe (2015) observed that continuous monitoring of procurement activities improves productivity by taking corrective actions that promote compliance in procurement systems (Basheka, Oluka & Mugurusi, 2012). Considering an agency theory perspective, monitoring a project is equally essential in enforcing compliance and meeting Government goals (Van Slyke, 2007). This is inevitable for public procurement because constant staff monitoring compels them to discount unethical interests to pursue organisational goals (DiMaggio & Powell, 2012).



Despite such positive suggestions, Rutherford, Buchholtz and Brown (2007) revealed that monitoring alone does not influence agent behaviour that affects compliance with a regulatory framework (Peprah, 2015). Interestingly, Kauppi and van Raaij (2015) discovered that monitoring does not influence agent actions in meeting the principal's goals and is insignificant in implementing public construction projects (Tabish & Jha, 2015). Convincingly, reports show that strict monitoring ensured compliance in the construction and rehabilitation of nursing schools funded by the European Union (Kakitahi, Landin & Alinaitwe, 2013).

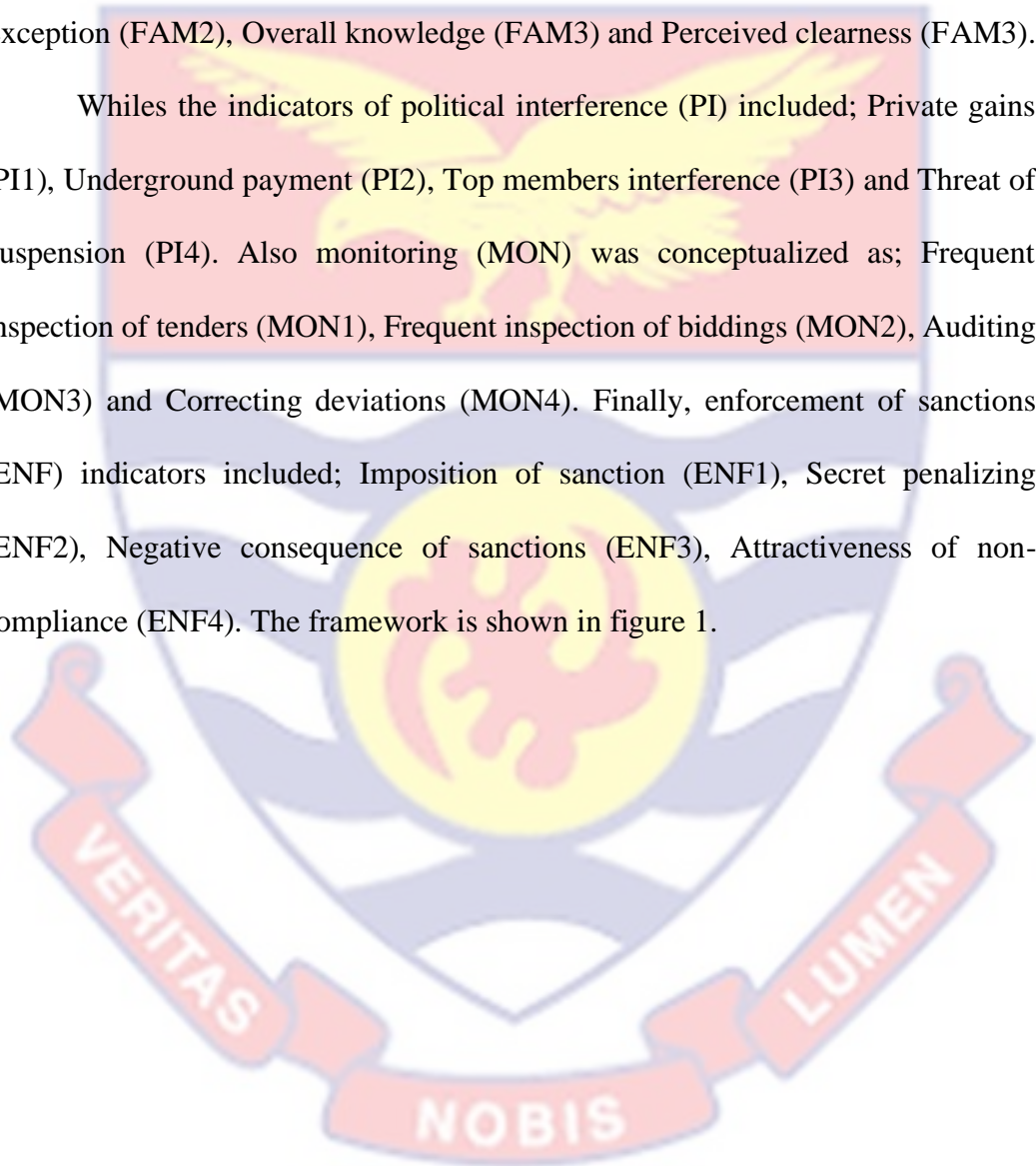
However, the same article attributes rework in Uganda's public construction projects to inadequate supervision that required monitoring to improve contract performance (Oluka & Basheka, 2014). This suggests that on-site project monitoring by different stakeholders is essential to enhance compliance (Deng et al., 2014) and requires compliance with procurement regulatory frameworks (Sweis, Sweis, Bisharat & Bisharat, 2014). Therefore monitoring the public procurement process positively affects compliance with public procurement regulations.

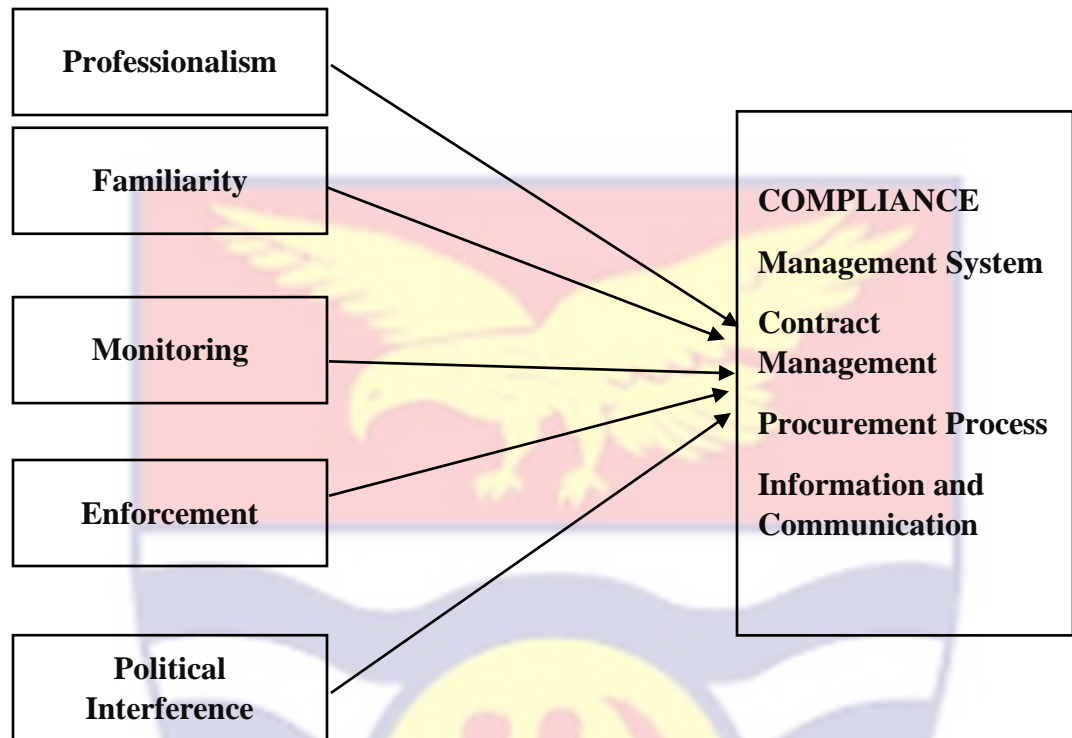
### **Conceptual Framework**

The conceptual framework of this study is partly based on the work of Sandada and Kambarami (2016) on compliance to procurement regulation. The study examines the influence of selected precursors (professionalism, familiarity, political interference, monitoring and enforcement) on compliance with public procurement regulations among public entities. The indicators for precursors to compliance include; professionalism, familiarity, political interference, monitoring

and enforcement of sanctions. Professionalism (PRO) was operationalised in terms of; Theoretical knowledge (PRO1), Competence by passing the professional test (PRO2), Exercising confidentiality (PRO3) and Declaring conflict of interest (PRO4). Indicators of familiarity (FAM) also included; Applicability (FAM1), Exception (FAM2), Overall knowledge (FAM3) and Perceived clearness (FAM3).

Whiles the indicators of political interference (PI) included; Private gains (PI1), Underground payment (PI2), Top members interference (PI3) and Threat of Suspension (PI4). Also monitoring (MON) was conceptualized as; Frequent Inspection of tenders (MON1), Frequent inspection of biddings (MON2), Auditing (MON3) and Correcting deviations (MON4). Finally, enforcement of sanctions (ENF) indicators included; Imposition of sanction (ENF1), Secret penalizing (ENF2), Negative consequence of sanctions (ENF3), Attractiveness of non-compliance (ENF4). The framework is shown in figure 1.





**Figure 1:** Conceptual Framework

Source: Field Survey, Asamoah (2021)

The conceptualisation of Compliance to procurement regulations was based on the management systems, contract management, information and communication and procurement process. Agency Theory describes the relationship between two or more parties in which one party designated as the principal engages another party designated as agent to perform some tasks on behalf of the principal. The social context within which agency exists that is relevant to this study is employer-employee relationship. It is expected that the employee will perform his responsibility within the authority and instructions given by the employer (Kivisto,2017).

This means that the principal which in the case is the Government of Ghana has a laid down process and procedure outlined in the Public Procurement Act, which the agent i.e., procurement practitioners are supposed to comply with and act within the authority given as an agent. The study proposes that the selected precursors to compliance i.e., professionalism, familiarity, political interference, monitoring and enforcement of sanctions have direct positive influence on compliance to procurement regulations on the assertion of scholars (Aberé & Muturi, 2015; Chikwere, Simon, Dzandu & Dza, 2019; Hyacinth & Yibis, 2017; Omagbon, 2016; Sandada & Kambarami, 2016).

### **Chapter Summary**

The chapter reviewed the literature on theoretical, conceptual and empirical issues relating to precursors that affect compliance with procurement regulations. The chapter included defined concepts relevant to the study and the legal framework within which it is studied. It further considered the extent to which compliance to procurement regulations is affected by monitoring, familiarity, professionalism, political interference and enforcement of sanctions. Finally the chapter proposed a framework to operationalize the study objectives in relation to the theory. The review will further prove beneficial in the methodology, analyses, presentation of findings, discussions, conclusions and recommendations. The next chapter presents the methodology used to carry out this study.



## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

This chapter presents the methodology used for this study. The research method articulates the procedures used to conduct the study, including the research design, study design, population, sampling procedure, data collection instruments, collection procedure, and data processing and analysis. The rationale is to systematically determine how professionalism, familiarity, monitoring, political interference and enforcement of sanctions affects compliance to procurement regulations.

#### Research Paradigm

Researchers are guided through a research procedure based on certain beliefs, values and a view of the world (Adjei, 2019). According to Guba (1990), this happens before a study and is mainly called paradigms or philosophical assumptions. Saunders, Lewis and Thornhill (2015) add that research philosophy is a system of beliefs and assumptions about knowledge development. The types of beliefs held by individual researchers based on these factors will often lead to embracing a qualitative solid, quantitative, or mixed-methods approach in their research (Creswell, 2016). Saunders et al. (2015) identified five major philosophies that have shaped social science research over the years: positivism, critical realism, interpretivism, postmodernism and pragmatism. This study adopts the positivist approach.

According to Saunders et al. (2015), positivism relates to the philosophical system that embraces issues that can be scientifically verified and provides a basis for generalisation. This means that positivists focus on procedures that lead to facts not influenced by human interpretation. It is based on using an existing theory to develop hypotheses. These hypotheses would be tested and confirmed, in whole or part, or refuted, leading to further development of theory, which may be tested by further research (Creswell, 2009; Saunders et al., 2015). According to Saunders et al. (2015) and Sekaran and Bougie (2016), positivism gives room for objective reality and aims for a universal truth that deals with human practices in management sciences. It was appropriate for this study because hypotheses was tested and relationships established based on the theory, i.e., agency theory.

### **Research Approach**

Saunders et al. (2015) provide three significant differences between quantitative and qualitative research methods. The first difference advanced by the authors is that the quantitative research method permits the researcher to isolate and define variables and link them together to frame research hypotheses. However, this is not the case for the qualitative research method. The next difference asserted by the authors is that the quantitative research method allows for objectivity concerning the processes involved in the data collection and analysis.

On the contrary, subjectivity is often introduced during data collection procedures and analysis in the qualitative research method. Finally, while the quantitative research method allows for the use of larger samples and the generalisation of the sample results to the entire population, the purpose of the

qualitative research method is not to generalise the sample results to the entire population. Creswell (2014) asserted that the quantitative approach explains phenomena by collecting numerical data analysed using mathematically based methods (particularly statistics). Furthermore, the quantitative research method would grant the researcher an opportunity to generalise the sample results to the population from which the sample was collected. This study, therefore, employed the quantitative research approach based on the nature of the study purpose under consideration, specific research objectives, questions, hypotheses and the nature of the primary data to be collected and analysed.

### **Research Design**

According to Creswell and Creswell (2018), there are three significant forms of design for quantitative studies; experimental (scientific experiments), non-experimental (such as surveys) and longitudinal designs. The nature of this study is non-experimental since it allows for the comparison of relationships between variables. One of the significant shortcomings in experimental research strategy is manipulating the variables (Creswell, 2014; Sekaran & Bougie, 2016). As part of the non-experimental procedure, the study adopted the explanatory design of the quantitative approach. Zikmund, Babin, Carr and Griffin (2013) indicated that causal or explanatory research is carried out to identify the level and nature of cause and effect relationships. Explanatory research is usually carried out to assess the importance of specific changes on existing norms and many others since the study described the characteristics of the population being studied and reported causes

and effects of relation between precursors and their impact on compliance to procurement practices.

### **Study Area**

The study was carried out in the Central Region, Ghana. The Central Region was chosen because the Auditor General Report consistently revealed malfeasance perpetrated by procurement entities in the Central Region. (Auditor-General Report, 2018; 2019; 2020). Again, in 2018, the Public Procurement Authority revealed that many public entities in Ghana, particularly those located outside the capital, do not fully comply with the Procurement Act, resulting in a lack of competition, unfairness, and inefficiency (PPA January/February Electronic Bulletin, 2018).

According to the Public Procurement Authority, there are 113 procurement entities in the Central Region. This is made up of 53 second-cycle institutions, 23 metropolitan, municipal and district assemblies, 19 various hospitals, 11 Tertiary Institutions and seven other public institutions such as Cedecom, Regional Health Directorate, Regional Department of Agric, National Commission on Culture, Community Water and Sanitation Agency, Ghana Education Service and Ghana Highway Authority/Feeder Roads.

### **Population**

In choosing a population for study, Banerjee and Chaudhury (2010) asserts that researchers should be guided by the purpose of the study or the research questions before defining the population to be studied. The population for this study consists of procurement practitioners i.e. Entity heads and procurement officers in



the 54 (excluded second cycle institutions) procurements entities in the Central Region. Two members (i.e. entity head and one procurement officer) served as a proxy for each of the 54 public entities. This brings the accessible population to 108 procurement practitioners of which 98 procurement practitioners i.e. Entity heads and procurement officers responded. It included 61 males and 39 females. 89 of the respondents were degree holders and 9 are non degree holders. Again 62 of the procurement practitioners specialized in procurement while 36 of them were not procurement professionals.

### **Sampling Procedure**

This study adopted the census where every unit in a population is selected, known as a census. Seman, Zakuan, Rashid, Nasuredin and Ahmad (2018) opined that the Census method gives more reliable, accurate and unbiased results through extensive information. In addition, the census provides an accurate measure of the population with no sampling error. Again, it also provides reliable and accurate results (Zikmund, Babin, Carr & Griffin, 2010; Hilman & Kaliappen, 2014; Gorondutsea & Gawuna, 2017). This technique was selected because it grants unbiasedness because all of the study unit was selected, i.e. the procurement practitioners.

### **Data Collection Instrument**

A self-administered questionnaire was the instrument used in collecting data for this study. Sekaran and Bougie (2016) postulated that more excellent uniformity, consistency and objectivity are guaranteed when a questionnaire is used for data collection. In addition, the privacy and convenience of respondents can be

accomplished during questionnaire completion, thereby ensuring greater anonymity (Neelankavil, 2015). Close-ended questions were used to elicit responses needed to answer the research questions and achieve the objectives set for this study. The close-ended questions require the respondent to choose from among a given set of responses and require the respondent to examine each possible response independent of the other choice. Therefore, a self-administered questionnaire is justified since they could best respond non-supervised based on their dynamic nature.

The proposed questionnaire for the study comprised three (3) sections – A, B and C containing 50 items. Section A was used to collect demographic information of the respondents, as such variables were measured categorically. Sections B and C were used to capture precursors to compliance and compliance to procurement. All sections B and C items were measured on a five-point Likert-like scale. The number 1 indicated the least level of agreement with the statements, and the number five indicated the highest agreement levels. The Likert scale facilitates measuring respondents' opinions by combining scores of those respondents on different items into a single index (Likert, 1932). Likert scales are generally used to measure people's attitudes, opinions, and beliefs (Yates, 2004).

In order to ensure content validity of the instrument, the study ensured proper definition measuring items, scale scrutiny by experts and scale pre-testing. These were in line with the principles of McDaniel and Gates (1996). Reliability and validity are two key components to be considered when evaluating a particular instrument. The level of the reliability of an instrument is measured by Cronbach's

Alpha value (Saunders & Lewis, 2012). As posited by Pallant (2016), Cronbach’s alpha coefficient for variables are generated to validate the reliability of the instrument. Pallant (ibid) also indicates that scales with a Cronbach’s alpha coefficient of 0.70 and above are considered reliable. However, studies such as Boohene, Agyapong and Asomaning (2012) and Mahmoud (2010) support coefficient of 0.5. Based on the criteria of Pallant (2016) and Boohene et al (2012), The results in Table 1 showed a high level of reliability.

**Table 1: Reliability Results**

<b>Constructs</b>	<b>No. of items</b>	<b>Cronbach’s alpha</b>
Complainece	4	0.705
Enforcement	4	0.749
Familiarity	4	0.861
Monitoring	4	0.900
Political Interference	4	0.898
Professionalism	4	0.570

Source: Field Survey, Asamoah (2021)

### **Data Collection Procedure**

For this study, the hand delivery and collection of the questionnaire method was employed. This method was employed because of the difficulty of getting most respondents to respond to a questionnaire through the internet or post for this type of study. Furthermore, the method chosen allowed the researcher to visit almost all the public entities in the Central Region to hand over the questionnaire to the respondents. Also, the handover and collection technique of data collection helped

the researcher inquire from the respondents the time they were to complete the questionnaire and the convenient time for the researcher to collect the questionnaire.

Furthermore, the data was collected from 1<sup>st</sup> December, 2021 to 20<sup>th</sup> December, 2021. The premises of the respondents were visited during working hours. Introductory letters were submitted to the management of each public entity. Upon approval of the letters, the procurement officers administered the questionnaires. Even though self-administered surveys have some disadvantages, they were minimised where possible. They did not outweigh the benefits provided by high response rates quickly.

### **Data Processing and Analysis**

The statistical tools employed for this study were Statistical Package for Services Solution (SPSS) version 24 and Smart PLS version 3. SPSS was employed for descriptive analysis, and the Smart PLS was employed for structural equation modelling based on the hypotheses of this study. Descriptive statistics (frequencies and percentages) were employed to determine the demographic characteristics of the respondents. Each of the research objectives were analysed using Structural Equation Model. Structural equation modelling (SEM) is a second-generation statistical technique that "enables researchers to incorporate unobservable variables measured indirectly by indicator variables.

They also facilitate accounting for measurement error in observed variables" (Chin, 1998 as cited in Hair, Jr., Hult, Ringle & Sarstedt, 2014). Partial Least Squares-Structural Equation Modelling (PLS-SEM) uses available data to



estimate the nexuses of the path in the model to minimise the residual variance of the endogenous constructs. SEM comprises two key elements; measurement equations (by confirmatory factor analysis) and structural equations (by path analysis). Whereas confirmatory factor analysis models (CFA) are used for construct validation and scale refinement, path analysis displays the relationships between study constructs.

PLS-SEM estimates path model nexuses that maximise the  $R^2$  values of the endogenous constructs (Hair et al., 2014). It is also useful when dealing with complex models and small sample sizes (Hair et al., 2014; Rezaei & Ghodsi, 2014; Rezaei, 2015; Shahijan, Rezaei, Preece & Ismail, 2014). PLS-SEM is also more appropriate for less developed theory (Ravand & Baghaei, 2016; Rönkkö & Evermann, 2013). According to Hair et al. (2014), there are two measurement scales in structural equation modelling: Formative and Reflective. Whereas an formative measurement scale is the indicators that cause the constructs of the study, in a reflective measurement scale, it is the constructs that cause indicators of the study. The current study employed a reflective measurement scale because the constructs caused all the indicators.

Furthermore, Keith (2019) has itemised several benefits SEM has over other models, such as regression. These benefits are: Firstly, SEM uses "latent variables", which allows multiple indicators to capture constructs validly and reliably. Secondly, SEM makes the causal equation model between latent variables more evident than regression. Thirdly, SEM allows one or more independent variables to be regressed on one dependent variable. Fourthly, the researcher can show the

direct, indirect, and total effects because several exogenous and endogenous variables can be estimated simultaneously. Finally, PLS is robust concerning inadequacies like skewness, multicollinearity of indicators and misspecification of the structural model (Cassel, Hackl & Westlund, 1999). In SEM, confirmatory factor analysis, correlation analysis, and regression analysis can be conducted at one time in a model. This study relied on PLS-SEM to test the various hypotheses in line with the benefits above associated with SEM.

The data collected was coded for statistical analysis using the Statistical Package for Social Sciences (SPSS, Version 24). After this, data entry was made to obtain the complete data file for the data analysis regarding the research objectives. The few missing data observed in the study were treated using the mean value replacement (Hair et al., 2017). Additionally, a visual examination of the responses and an analysis of descriptive data for each respondent was conducted to detect unusual response patterns. The findings reveal significant observations but no outliers.

This study used SPSS version 24 and Smart PLS 3. SPSS was used for descriptive analysis and Smart PLS for structural equation modelling analysis based on the study objectives. The demographic characteristics of respondents were described using descriptive statistics and percentages. Each study objective was examined in the following manner:

1. The effect of professionalism on compliance with public procurement regulations was analyzed using structural equation modelling (Mesa, 2018).

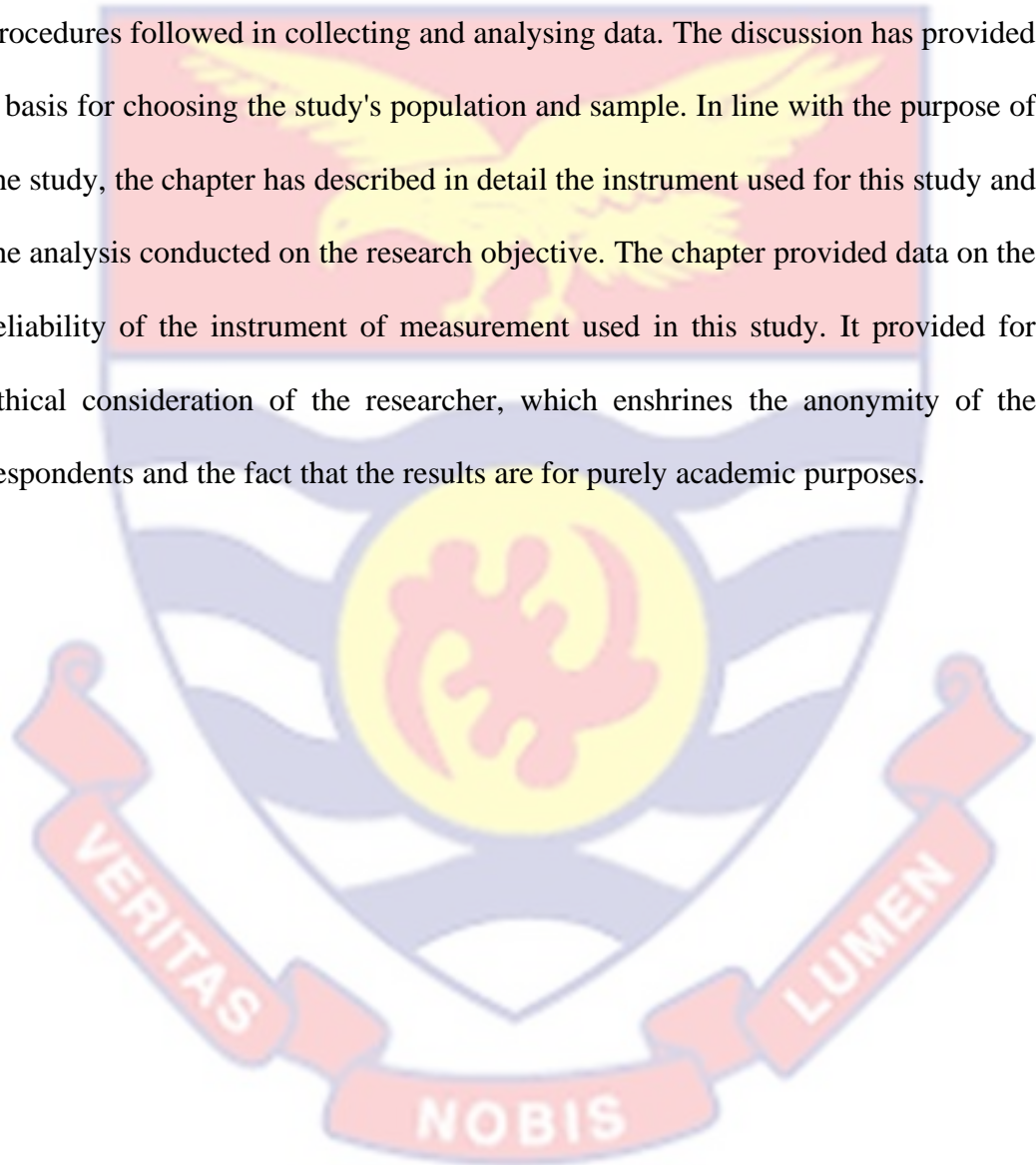
2. Effect of familiarity with procurement regulations on compliance with public procurement regulations was analyzed using structural equation modelling (Sandada and Kambarami, 2016).
3. To examine the effect of political interference on compliance with public procurement regulations, structural equation modelling was used for the analysis (Chikwere et al.,2019).
4. The effect of monitoring on compliance with public procurement regulations was analyzed using structural equation modelling (Sandada and Kambarami, 2016).
5. The impact of enforcement on compliance to public procurement regulations was analyzed using structural equation modelling (Raymond, 2008).

### **Ethical Consideration**

Saunders, Lewis and Thornhill (2007) indicated that any social researcher should seek permission from the respondents stating clearly their intentions and being guided by research ethics. The respondents were therefore informed of anonymity and confidentiality. The researcher assured the respondents that their names would not be disclosed. All information received from them (respondents) would be treated with the highest degree of confidentiality. In addition to this, the researcher also informed the respondents that they were free to cease to give any response if they so wished. Finally, the researcher did not withhold any information about the study's possible risks, discomfort or benefits or deliberately deceive study subjects on these matters.

## Chapter Summary

This chapter discussed in detail and systematically the methodology used for the study, including the research paradigm, research design, study population, sampling and sampling procedures adopted for the study, the instruments used, and procedures followed in collecting and analysing data. The discussion has provided a basis for choosing the study's population and sample. In line with the purpose of the study, the chapter has described in detail the instrument used for this study and the analysis conducted on the research objective. The chapter provided data on the reliability of the instrument of measurement used in this study. It provided for ethical consideration of the researcher, which enshrines the anonymity of the respondents and the fact that the results are for purely academic purposes.





## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

This chapter presents the research findings from the study. This study sought to determine the influence of selected precursors (professionalism, familiarity, political interference, monitoring and enforcement) on public procurement regulations among public entities in the Central Region of Ghana. In line with the purpose of the study, the chapter is divided into two main parts. The first part presents and discusses the profile of the respondents used for the study. The second part assesses the measurement and structural models for the study and tests hypotheses. Specifically, issues about indicator loadings, CR (Composite reliability), AVE (Average variance extracted) and DV (Discriminant validity) were considered for the measurement models. In addition, the direct effect and the indirect effect were also tested.

#### Demographic Profile of Respondents

This section provides information on the background characteristics of respondents, which are summarised in Table 2; these include sex, age, educational level, area of specialization, place of work and position/title.

As presented in Table 2, the procurement practitioners, i.e., procurement officers and the Entity head of the Central Region's procurement entities, are male-dominated. The majority of the respondents, 61 (62.2%), were males, with 37 (37.8%) females.

**Table 2: Demographic of Respondents**

	Frequency	Percent
<b>Gender</b>		
Male	61	62.2
Female	37	37.8
Total	98	100
<b>Age of Respondents</b>		
Below 40 years	42	42.9
Above 40 years	56	57.1
Total	98	100
<b>Educational Level</b>		
Degree	89	90.8
Non-Degree	9	9.2
Total	98	100
<b>Area of Specialization</b>		
Others	36	36.7
Procurement	62	63.3
<b>Place of Work</b>		
Education	31	31.6
Health	13	13.3
MMDAs	40	40.8
Others	14	14.3
Total	98	100

Source: Field Survey, Asamoah (2021)

Concerning age, it can be observed that procurement practitioners, i.e., procurement officers and Entity heads below 40 years, form 42.9% of the overall respondents and those above 40 years are 57.1%. This indicates that most of the procurement practitioners in the entities in the central region are either nearing their retirement years or have passed their young age. This posed much threat to compliance based on the Game theory. According to the game theory (Neumann, 1940), shirking and malfeasance are familiar to employees in the period just prior to their retirement.

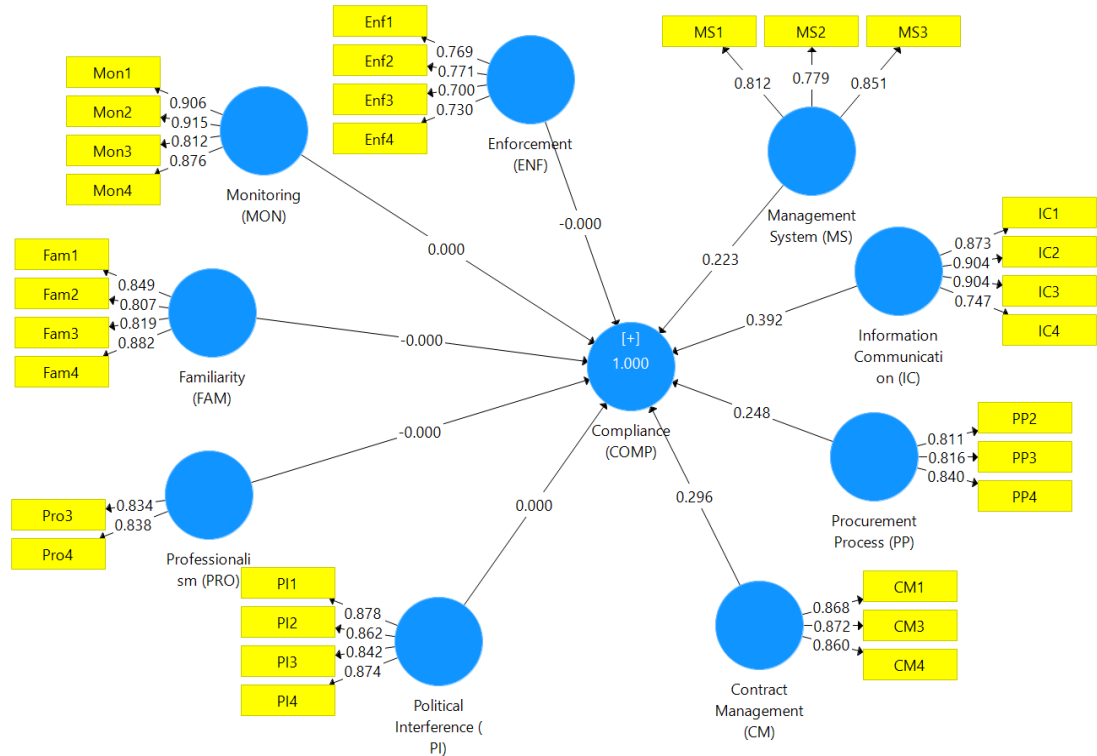
Under this section, another issue concerns the educational level of the respondents. Of the 98 respondents, 89 representing 90.8% of all respondents are degree holders, and nine respondents representing 9.2% are non-degree holders. Therefore, all the respondents have a level of education that qualifies them to practice procurement at various public entities. As indicated in Table 1, the area of specialization of the respondent is either in procurement or any other. Out of the 98 respondents, 63.3 per cent had specialized in procurement while the rest, 36.7 per cent, had not. This can be partly because the Entity Heads are not necessarily procurement experts, yet they participate in the procurement procedure and are also the final assents to procurement documents. The results of the study also revealed that the majority of the respondents (40.8%) works at MMDA's, followed by the educational sector (31.6%), the health sector, which was (13.3%) and 14.3% representing the others places of work in the public entities in the central region.

### Assessment of Measurement Models for the Study

This section focuses on the measurement models for the study. The measurement model assessments include indicator loadings, Internal consistency reliability (Composite reliability), Convergent validity (AVE-Average variance extracted) and Discriminant validity (Fornell-Lacker and HTMT). In addition, a consistent PLS algorithm was assessed to generate indicators for the assessment of the measurement model. The results are presented in the following tables.

Compliance to procurement was conceptualized as higher (second) order constructs consisting of other sub-constructs. Compliance has management system, Contract management, information system, procurement process as sub-constructs. Each of these constructs have their manifest items. Consequently, the two-stage approach proposed by Ringle et al, (2012) was applied. This approach combines repeated indicator to generate latent variable scores which were subsequently used as manifest variables for the second order constructs. The model below (Figure 2) depicts the conceptualization of compliance as higher ( second) order. (*See Appendix B for Loadings*)





**Figure 2: Model for Second Order Constructs**

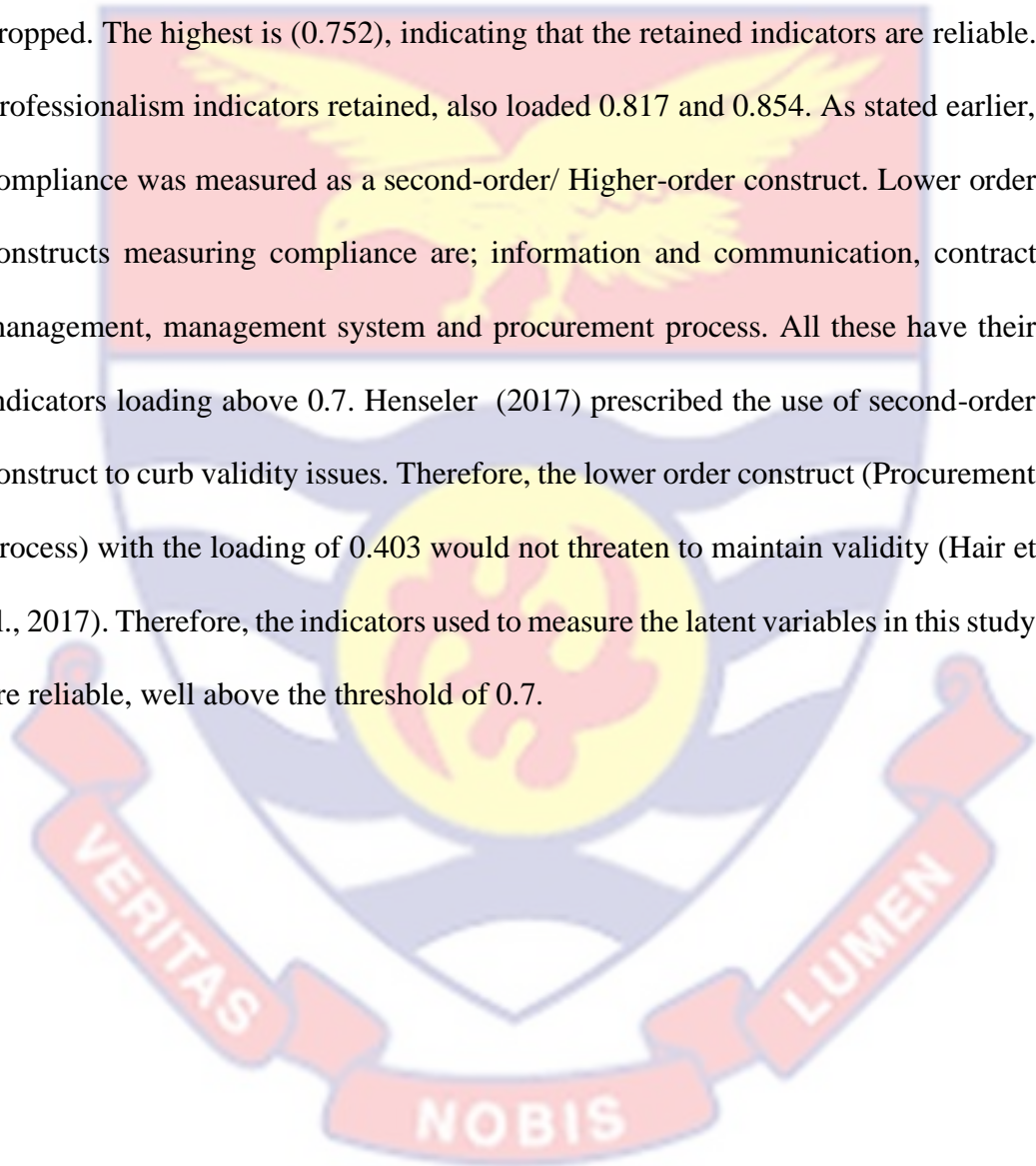
Source: Field Survey, Asamoah (2021)

**Assessing Indicator Loadings**

Table 3 shows that some indicators have been dropped compared to Figure 2. All indicators that loaded below the threshold of 0.7, as recommended by Hair et al. (2016), were dropped to improve the reliability of the overall model. Out of 24 indicators measuring the various latent variables, two were dropped for failure to meet the indicator reliability criteria. Interestingly all the scales of familiarity, monitoring, enforcement and political interference were maintained, with 2 out of the four indicators of professionalism retained. The indicator loadings of the retained items are shown in Table 2.

From Table 3, all four indicators of familiarity, monitoring, political interference and enforcement loaded 0.7 and above. The minor indicator for

familiarity is (0.811) and the highest (.875), monitoring also had its most minor indicator being (0.805) with its highest being (0.917), political interference loaded a minimum of (0.838) and (0.900) as its highest and enforcement indicators loaded a least of (0.700) which is the minimum threshold below which it would have been dropped. The highest is (0.752), indicating that the retained indicators are reliable. Professionalism indicators retained, also loaded 0.817 and 0.854. As stated earlier, compliance was measured as a second-order/ Higher-order construct. Lower order constructs measuring compliance are; information and communication, contract management, management system and procurement process. All these have their indicators loading above 0.7. Henseler (2017) prescribed the use of second-order construct to curb validity issues. Therefore, the lower order construct (Procurement Process) with the loading of 0.403 would not threaten to maintain validity (Hair et al., 2017). Therefore, the indicators used to measure the latent variables in this study are reliable, well above the threshold of 0.7.



**Table 3: Outer Loadings**

	COMP	ENF	FAM	MON	PI	PRO
Enf1		0.742				
Enf2		0.752				
Enf3		0.742				
Enf4		0.700				
Fam1			0.850			
Fam2			0.811			
Fam3			0.822			
Fam4			0.875			
IC	0.870					
MS	0.814					
Mon1				0.906		
Mon2				0.917		
Mon3				0.805		
Mon4				0.881		
PI	0.403					
PI1					0.838	
PI2					0.900	
PI3					0.879	
PI4					0.874	
PP	0.814					
Pro3						0.817
Pro4						0.854

Source: Field Survey, Asamoah (2021)

*Note: ENF: Enforcement, Mon: Monitoring, PI: Political Interference, Pro: Professionalism, Fam: Familiarity, COMP: Compliance*

### Assessing Internal Consistency Reliability

In this study, the internal consistency reliability of the constructs was measured using composite reliability. The composite reliability is a more appropriate measure of internal consistency than the Cronbach's alpha (Rossiter, 2002). The results in Table 4 indicate that all latent variables in this study are reliable, as they all loaded about the 0.7 thresholds by (Bagozzi & Yi, 1988). Monitoring had the highest score of composite reliability (0.931). This was followed by Political Interference (0.928), familiarity (0.905), Professionalism (0.823) and Enforcement (0.788). Thus, the results indicate that the model has internal consistency reliability. Table 4 also includes results on convergence validity.

**Table 4: Construct Reliability and Validity**

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
COMP	0.705	0.751	0.828	0.561
ENF	0.749	0.782	0.824	0.539
FAM	0.861	0.873	0.905	0.706
MON	0.900	0.906	0.931	0.771
PI	0.898	0.915	0.928	0.763
PRO	0.570	0.574	0.823	0.699

Source: Field Survey, Asamoah (2021)



### **Assessing Convergent Validity**

The Average Variance Extracted (AVE) was used in assessing convergent validity. Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2017). An AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more variance remains in the error of the items than in the variance explained by the construct. The results from Table 4 indicate that all constructs have an AVE of more than 0.5. The highest is Monitoring (0.771), and minor is Enforcement (0.539). This means that the constructs in this model can account for more than half of the variance in their indicators. As part of assessing the measurement model, discriminant validity was also assessed.

### **Assessing Discriminant Validity**

Establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model (MacKinnon, 2008). The Fornell-Lacker criterion and the HTMT were used to establish discriminant validity in this study. The Fornell-Larcker criterion compares the square root of the AVE values with the latent variable correlations (Fornell & Larcker, 1981). Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct (Hair et al., 2013). The results from Table 5 indicate that each variable's square root is well above their correlations with other constructs in the study. This means that each construct is unique, and no two constructs capture the same phenomenon.

**Table 5: Fornell-Larcker Criterion**

	COMP	ENF	FAM	MON	PI	PRO
COMP	0.749					
ENF	0.433	0.734				
FAM	0.659	0.256	0.840			
MON	0.660	0.353	0.462	0.878		
PI	0.393	0.332	0.151	0.108	0.873	
PRO	0.617	0.355	0.481	0.477	0.199	0.836

Source: Field Survey, Asamoah (2021)

*Note: ENF: Enforcement, Mon: Monitoring, PI: Political Interference, Pro: Professionalism, Fam: Familiarity, COMP: Compliance,*

The Fornell-Larcker criterion performs very poorly, significantly when indicator loadings of the constructs under consideration differ only slightly (e.g., all indicator loadings vary between 0.60 and 0.80). When indicator loadings vary more strongly, the Fornell-Larcker criterion's performance in detecting discriminant validity improves, but it is still relatively poor in assessing overall discriminant validity (Voorhees, Brady, Calantone, & Ramirez, 2016). As a remedy, Henseler, Ringle and Sarstedt (2015) propose assessing the correlations' Heterotrait Monotrait ratio (HTMT). According to Henseler et al. (ibid), a latent construct has discriminant validity when its HTMT ratio is below 0.850. The results presented in Table 6 show HTMT values well below 0.850.

**Table 6: Heterotrait - Monotrait Ratio (HTMT)**

	COMP	ENF	FAM	MON	PI	PRO
COMP						
ENF	0.520					
FAM	0.810	0.269				
MON	0.817	0.364	0.508			
PI	0.579	0.339	0.164	0.157		
PRO	0.764	0.415	0.670	0.667	0.259	

Source: Field Survey, Asamoah (2021)

*Note: ENF: Enforcement, Mon: Monitoring, PI: Political Interference, Pro: Professionalism, Fam: Familiarity, COMP: Compliance,*

**Assessing the Structural Model**

This section provides an assessment of the objectives of this study. Assessment of the structural model entails assessing collinearity among constructs, coefficient of determination, predictive relevance, effect size, path coefficient and its significance. In this study, the direct model was run together based on the recommendation of Nitzl (2016).

Table 7 shows the result for assessing multicollinearity among the indicators for this study. In the context of PLS-SEM, a tolerance value of 0.20 or lower and a VIF value of 5 and higher, respectively, indicate a potential collinearity problem (Hair et al., 2011). More specifically, an indicator's VIF level of 5 indicates that 80% of its variance is accounted for by the remaining formative indicators associated with the same construct. Concerning the endogenous variable

(Compliance to procurement regulations), Table 7 shows a minimum VIF of 1.140 and the highest of 1.529.

**Table 7: Inner VIF Values**

	Compliance
ENF	1.315
FAM	1.437
MON	1.491
PI	1.140
PRO	1.529

Source: Field Survey, Asamoah (2021)

*Note: ENF: Enforcement, Mon: Monitoring, PI: Political Interference, Pro: Professionalism, Fam: Familiarity, COMP: Compliance, VIF: Variance Inflation Factor*

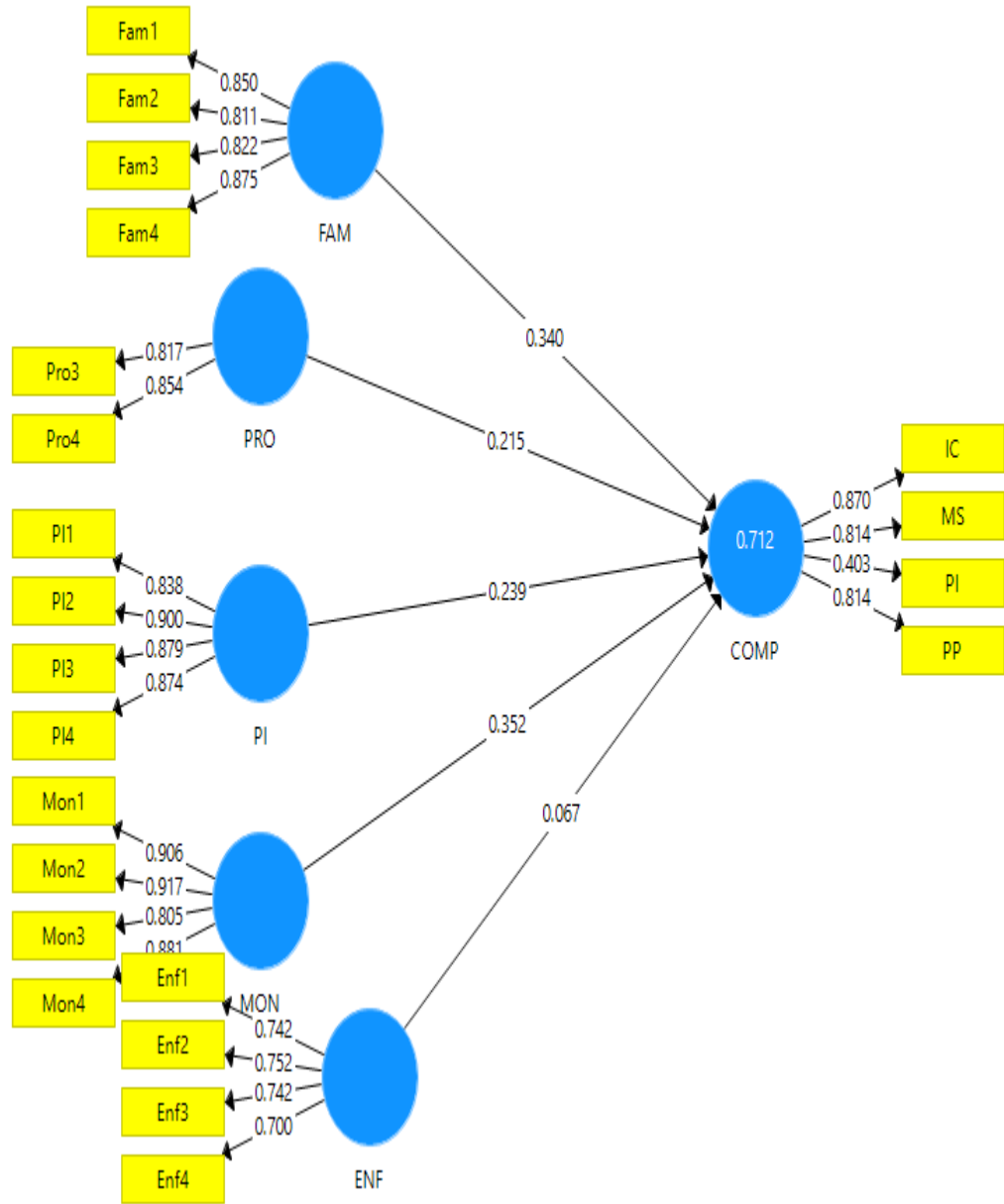
The VIF results in Table 7 confirm the absence of common method bias. Based on the criteria proposed by Kock and Lynn (2012), the occurrence of a VIF value greater than 3.3 is proposed as an indication of pathological collinearity and also as an indication that a common method bias may contaminate a model. Therefore, if all VIFs resulting from a full collinearity test are equal to or lower than 3.3, the model can be considered free from the problem of vertical or lateral collinearity and common method bias (Kock & Lynn, 2012).

#### **Assessing Coefficient of Determination and Predictive Relevance**

The R<sup>2</sup> is a measure of the model's predictive accuracy. Another way to view R<sup>2</sup> is to represent the exogenous variable's combined effect on the endogenous



variable(s). Hair et al. (2014) advanced that a coefficient of determination ( $R^2$ ) of 0.25, 0.5 and 0.75 are considered weak, moderate and substantial, respectively, for structural models. The author further asserted that a predictive relevance ( $Q^2$ ) of "0.02, 0.15 and 0.35" and effect size ( $f^2$ ) of "0.02, 0.15 and 0.35" are seen as "small, medium and large" respectively for structural models. Referring from Table 7, it can be concluded that compliance to procurement regulations has a high (0.712) coefficient of determination on precursors to public procurement practices, accounting for 71.2 per cent of the variation precursor (professionalism, familiarity, political interference, monitoring and enforcement) on compliance to procurement regulations among the public entities. The results show a high predictive relevance of the model on the endogenous variable (0.365). This shows that the exogenous variables do highly predict the endogenous variable. The effect size results show that three variables (familiarity, professionalism, and monitoring) moderate the endogenous variable. In comparison, the other two variables (enforcement of sanction and political interference) have a weak effect on the endogenous variable.



**Figure 3: Structural Model**

Source: Field Survey, Asamoah (2021)

**Table 8: Structural Model Results for Research Objective 1, 2, 3, 4, 5**

	Path	R <sup>2</sup>	Adjusted R <sup>2</sup>	F2	Q <sup>2</sup>	T Statistics	P Values
FAM	0.340	0.712	0.692	0.279	0.365	5.024	0.000
PRO	0.215			0.105		3.177	0.001
PI	0.239			0.173		1.821	0.069
MON	0.352			0.288		9.395	0.000
ENF	0.067			0.012		0.909	0.363

Source: Field Survey, Asamoah (2021)

*Note: ENF: Enforcement, Mon: Monitoring, PI: Political Interference, Pro: Professionalism, Fam: Familiarity, COMP: Compliance, R<sup>2</sup>: Coefficient of determination Adjusted R: Adjusted Coefficient of determination f<sup>2</sup> : Effect Size, Q<sup>2</sup>: Predictive Value,*

### **Effect of Professionalism on Compliance with Public Procurement Regulations**

The first objective was formulated to examine the effect of professionalism on compliance with public procurement regulations. Based on the path estimation, the results of the PLS-SEM showed that professionalism had a significant positive effect on compliance to procurement ( $\beta = 0.215$ ,  $p < 0.05$ ; Figure 3 and Table 8). The path coefficient was in the same direction as asserted; hence the assertion that professionalism was related to compliance with public procurement regulations is supported. The findings conclude that procurement regulations are well complied with when the procurement practitioners, i.e., the Procurement officer and Entity

Heads are professional. This conclusion aligns with Sandada and Kambarami's (2016) study, that professionalism is critical in compliance with public procurement regulations. It was also reported by Jones et al. (2015), Omagbon (2016), Jaafar et al. (2016) and Mrope (2017) that professionalism in public procurement leads to compliance with public procurement law. However, an earlier study by Eyaa and Oluka (2011) reported insignificant effects of professionalism on compliance with public procurement.

### **Effect of Familiarity on Compliance with Public Procurement Regulations**

The second objective sought to establish the effect of familiarity with procurement regulations on compliance with public procurement regulations. The objective was tested as part of the entire model, representing the direct path from procurement officers' familiarity with procurement regulations to compliance.

Based on the path estimation, the results of the PLS-SEM showed that familiarity had a significant positive effect on compliance to public procurement regulations ( $\beta = 0.340$ ,  $p < 0.05$ ; Table 8, Figure 3). Thus, the results show that procurement practitioners, i.e., Procurement officer and Entity Head's familiarity with procurement regulations within the public sector is crucial to compliance with the procurement regulation. Comparatively, familiarity with procurement regulations (0.340) is the second-largest effect on compliance among all the five precursors of compliance to procurement regulations. The results also show that familiarity has a moderate effect size (0.279) on compliance to procurement regulations, based on Hair et al. (2014) criteria. Therefore, based on the direction and significance of the path between familiarity and compliance to procurement



regulations, the study supports the assertion that familiarity positively affects compliance. Because the p-value is  $<0.05$  i.e., 0.000. This study is in line with the findings of DiMaggio & Powell (2015), who concluded that there was a positive effect of familiarity on compliance to procurement processes. Contrary to the findings above, Jaafar et al. (2016) and Hyacinth and Yibis (2017) found insignificant direct effects of familiarity on public procurement regulations. It is evident here that the influence of familiarity on compliance with public procurement regulations has displayed relatively consistent results in most instances and has been extensively examined in the literature (Eyaa & Oluka, 2011; Gelderman et al., 2006; Sandada & Kambarami, 2016; Mwelu et al., 2018).

### **Effects of Political Influence on Compliance with Public Procurement Regulations**

The third objective of this study sought to test the effect of Political Interference on Compliance with Public Procurement Regulations. Based on the path estimation, the results of the PLS-SEM showed that political interference has no significant effect on compliance with public procurement regulations. ( $\beta = 0.239$ ,  $p > 0.05$ ; Figure 3 and Table 8). The result fails to support the claim that political interference significantly affects compliance with public procurement regulations. The result is inversely related to what was asserted that political interference has a positive effect on compliance.. Most of the empirical evidence about the influence of political interference on compliance reported a negative relationship (Sandada & Kambarami, 2016; Omagbon, 2016). Equal to these findings, Jones et al. (2015) deployed an alternative approach in which political

interference was examined on non-compliance. The results revealed a positive relationship, implying that higher political interference leads to higher non-compliance. Chikwere et al. (2019) found that political interference was the most significant variable influencing non-compliance with public procurement regulations.

### **Monitoring on Compliance with Public Procurement Regulations**

This fourth objective assessed the effect of Monitoring on Compliance to Public Procurement Regulations. First, the study estimated the path between Monitoring and Compliance to Procurement Regulations in the Public Sector. As shown in Figure 3 and Table 8, the results indicated a path coefficient of 0.352 and a p-value of 0.000. Thus, the path coefficient was in the same direction as asserted; hence the assertion that monitoring was positively related to compliance is supported. This finding is consistent with Osei-Tutu et al. (2011) and Thai (2005). Thai (2005) believed that regular checks on procurement entities are necessary to ensure compliance of procurement officials.

### **Enforcement of Sanction on Compliance with Public Procurement Regulations**

Objective five established the impact of enforcement on compliance to public procurement regulations. Based on the path estimation, the results of the PLS-SEM showed that Enforcement of Sanctions had no significant effect on compliance to procurement regulations ( $\beta = 0.067$ ,  $p > 0.05$ ; Figure 3 and Table 8). Therefore, Enforcement of Sanctions positively affects compliance with procurement regulations. This study, therefore, does not support the fifth

assumption. This implies that compliance with procurement regulations is not affected by enforcement sanctions on procurement practitioners, i.e., the Procurement officer and Entity Head in the public institution.

**Table 9: Summary of Research Objective**

Obj.	Relationship	B	t- statistics	P Values	Result
1	Professionalism >Compliance	- 0.215	3.177	0.001	Significant
2	Familiarity Compliance	-> 0.340	5.024	0.000	Significant
3	Political interference Compliance	-> 0.239	1.821	0.069	Not Significant
4	Monitoring	-> 0.352	9.395	0.000	Significant
5	Compliance Enforcement- >Compliance	0.067	0.909	0.363	Not Significant

Source: Field survey (2021)

### Discussion of Results

Generally, the study findings are consistent with Sandada and Kambarami (2016). This study suggests that the path between professionalism and compliance to procurement regulation is significant. Professionalism has a statistically significant coefficient as indicated by a P-value of 0.0001, which is statistically significant at 5%. It has also been reported by Sandada and Kambarami (2016),

Omagbon (2016), Tukamuhabwa (2012) and Gelderman et al. (2006) that professionalism in public procurement leads to compliance with public procurement law. Nevertheless, an earlier study by Eyaa and Oluka (2011) reported insignificant effects of professionalism on compliance with public procurement.

The conclusion that professionalism is significant is critical for compliance with public procurement regulations (Sandada & Kambarami 2016). Tukamuhabwa (2012) indicated that non-compliance is partly due to the significant number of procurement practitioners in the public sector who are not appropriately competent to handle the procurement process; hence professionalism in procurement is well attained with current higher procurement qualifications offered by tertiary institutions and empowerment of professional bodies enforcing respective professional codes. The findings revealed that most of the staff are qualified procurement experts with the requisite skills and knowledge to ensure compliance with procurement regulations. Procurement is no longer anybody's job. It is a professional job that must be managed only by professionally trained personnel and qualified procurement management to ensure compliance with procurement regulations in public entites.

Familiarity is the second most statistically significant determinant of compliance with procurement regulations (Tables 8 and 9). The study is in line with the findings of Eyaa and Oluka (2011), Gelderman et al. (2006), DiMaggio & Powell (2015), Sandada and Kambarami (2016) and Mwelu et al. (2018). They found that familiarity had a beneficial influence on compliance with procurement requirements. The only findings that are not statistically significant are from Jaafar



et al. (2016) and Hyacinth and Yibis (2017). The favourable correlation between knowledge with procurement laws and compliance demonstrates the critical relevance of compliance. If procurement officers are familiar with the procurement rules and regulations that should be followed when carrying out transactions, they become more compliant. Fisher (2004) also reiterates the same sentiments that familiarity positively affects compliance, and opines that compliance arises from a dynamic equilibrium between various state powers, i.e., public entities, and understanding their roles.

This, therefore, indicates that familiarity of procurement regulations to ensure compliance should not be for procurement officials only but for politicians and Entity heads who are also known to exercise their political muscle to influence decision making. Further, familiarity with public procurement regulatory frameworks is essential and action for improvement through education and training to ensure clarity and ultimately compliance with the public procurement regulation.

Thirdly, most of the empirical evidence about the influence of political interference on compliance reported a negative relationship (Sandada & Kambarami, 2016; Omagbon, 2016). Equal to these findings, Jones et al. (2015) deployed an alternative approach in which political interference was examined on non-compliance. The results revealed a positive relationship, implying that higher political interference leads to higher non-compliance. Chikwere et al. (2019) found that political interference was the most significant variable influencing non-compliance with public procurement regulations. The implication of this is a reversal of compliance to non-compliance, which results in a positive relationship.

It reflects the strategic model of public procurement compliance proposed here; the political interference was reversed to resistance to political pressure.

Thus, it is expected to have a positive relationship with compliance and vice-versa, negatively reflecting this result. Political interference being not significant to compliance means that politicians should have no control over procurement processes for public entities to comply with public procurement regulations. Corruption caused by political interference is a big issue in procurement processes in public institutions due to the enormous sums of money involved and their inability to get value for monies spent. Because of this, the procurement process should not be vulnerable to political manipulations that will hamper compliance with procurement regulations. Again, procurement sectors are not independent in making decisions because they are less effective in executing their duties. Political interference in public institutions' procurement processes could be due to their weakness in resisting political pressure, leading to non-compliance.

Monitoring is an essential precursor of compliance to procurement regulation in public entities in the Central Region of Ghana. The impact of monitoring on compliance to procurement regulation proved to be the most statistically significant in the perception of the procurement practitioners. This finding is consistent with Thai (2005), who believed that regular checks on procurement entities are necessary to ensure compliance of procurement officials. Osei-Tutu et al. (2011) also mentioned that if regular monitoring mechanisms and evaluation of procurement activities are implemented, procurement entities will

comply with laid-down rules and regulations governing procurement operations. According to the findings of this study, monitoring activities are an effective organizational governance mechanism for ensuring that employees achieve their objectives (Forsythe, 2015); thus, continuous monitoring of procurement processes in public entites improves productivity by identifying and correcting violations of procurement regulations.

Figure 3 appropriately monitored, compliance will continue to be other of the day, i.e., the positive relationship between monitoring and compliance with procurement regulation in the public entites in the Central Region of Ghana. On the other hand, monitoring is inevitable for public entites if only compliance with regulation is the goal. This is because constant monitoring of the procurement process compels discounting unethical interests to pursue compliance with procurement regulation. However, monitoring alone does not influence procurement practitioners behaviour that affects compliance but strict and uncompromising monitoring and evaluation. Therefore, considering the agency theory, monitoring a project is equally essential in enforcing procurement regulations to attain compliance.

Enforcement was found to be one of the antecedents that have an insignificant negative impact on compliance to procurement regulation in the public institutions in the Central Region of Ghana. This implies that compliance with procurement regulations is not affected by the enforcement of sanctions on procurement officers in the public institutions in the central region. However, empirically, the literature revealed that enforcement strongly affects compliance

with procurement regulations (Gunningham & Kagan, 2005; Imperato, 2005; Kiama, 2014; Zubcic & Sims, 2007; Sandada & Kambarami, 2016). Regarding enforcement's impact on compliance, Kiama (2014) reported that some scholars doubt the direct effect of enforcement on compliance, claiming that solid enforcement may make violators more sophisticated in devising means to conceal detection. Thus, enforcement is inversely related to compliance with procurement regulation.

This implies that government need not come up with highly stringent measures to ensure compliance with procurement regulations. Furthermore, because regulations are not rigorously enforced, there is a belief that the procurement legislation does not entirely support assuring punishment. Therefore, compliance is not necessarily achieved by imposing penalties.

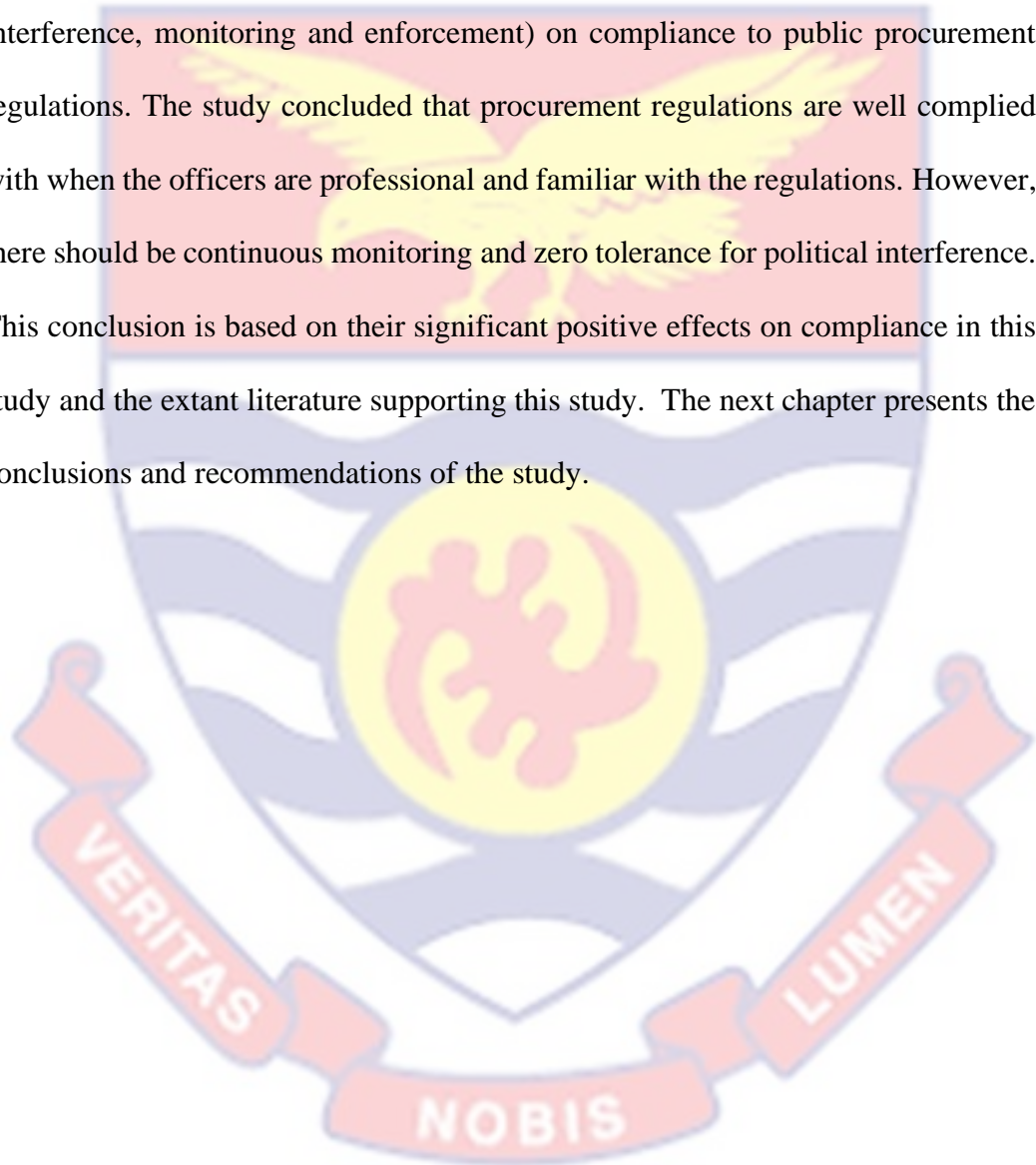
### **Chapter Summary**

This chapter began with a description of the respondents to the study. The study's main objective was to determine the influence of selected precursors (professionalism, familiarity, political interference, monitoring and enforcement) on compliance to public procurement regulations among public entites. Hence it included an assessment of the research objectives: determining the effect of professionalism on the compliance to public procurement regulations, establishing the effect of familiarity with procurement regulations on the compliance to public procurement regulations, determining the effect of political interference on compliance to public procurement regulations, assess the effect of monitoring on



compliance to public procurement regulations and establish the impact of enforcement on the compliance to public procurement regulations.

Structural equation modelling–Smart-PLS was employed to investigate the relationships among the selected antecedents (professionalism, familiarity, political interference, monitoring and enforcement) on compliance to public procurement regulations. The study concluded that procurement regulations are well complied with when the officers are professional and familiar with the regulations. However, there should be continuous monitoring and zero tolerance for political interference. This conclusion is based on their significant positive effects on compliance in this study and the extant literature supporting this study. The next chapter presents the conclusions and recommendations of the study.



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

The current chapter is the final chapter for this study. As a concluding chapter, it captured information about a summary of the study, conclusions on the significant findings of the study, recommendations to the findings, limitations of the study and suggestions for future research. The presentations of the conclusions and the recommendations are in line with the five specific objectives being the effects of professionalism, familiarity, political interference, monitoring and enforcement on compliance to public procurement regulations among public entites.

#### Summary

This study's main aim was to determine the influence of selected precursors (professionalism, familiarity, political interference, monitoring and enforcement) on public procurement regulations among public entites. Specifically, the study sought to; determine the effect of professionalism on the compliance to public procurement regulations, establish the effect of familiarity with procurement regulations on the compliance to public procurement regulations, determine the effect of political interference on compliance to public procurement regulations, assess the effect of monitoring on compliance to public procurement regulations and establish the impact of enforcement on the compliance to public procurement regulations.

To help achieve these objectives, five supporting research questions were formulated and analysed accordingly. The study employed partial least squares structural equation modelling as the primary statistical technique for analysing the research objectives. From a population of about 54 Public entites in the Central Region of Ghana, one procurement officer and an entity head were selected as respondents from each public entites in the Central Region of Ghana; hence a census of 108 was used as respondents for the study. In total, 98 valid responses were obtained from the public entites. The study began with developing a questionnaire based on reliable and extensive literature scales.

The questionnaire was then pre-tested using 30 public procurement staff in the Ashanti Region. Following the success of the pretesting, the final edition of the questionnaire was self-administered to the respondents (Procurement practitioners, i.e., procurement officers and Entity heads). This was done to avoid common method bias. The instrument centred on the characteristics of the respondents and the variables considered in this study. The demographic information on respondents was analyzed using descriptive statistics (Frequencies and percentages).

Five major research questions were developed for the five objectives. The five main objectives of this study were analyzed using partial least squares structural equation modelling techniques with the aid of the SMART PLS version 3.0, while the descriptive were processed with the SPSS Version 24. An alpha level of 0.05 was used for all tests of significance. The results showed that professionalism, familiarity and monitoring significantly affect compliance while political interference and enforcement of sanctions was not significant to

compliance. The significant findings related to the specific objectives and the research questions of the study have been summarized below.

### **Major Findings**

Concerning the first objective, this study sought to examine the effect of professionalism on compliance with public procurement regulations. The results showed that professionalism had a significant favourable influence on compliance with procurement regulations in public institutions.

Comparatively, the results showed that familiarity with procurement regulations has the second most significant effect on compliance among the five precursors of compliance. Thus, the second objective of this study established a positive significant effect of familiarity on compliance with public procurement regulations.

The third objective analysed the effect of political interference on compliance with public procurement regulations. It was found that political interference had no significant effect on compliance with procurement regulations in public entities.

The results indicated a significant influence of monitoring on compliance to procurement regulations in public entities. In addition, the results showed that monitoring had the most significant effect size on compliance among all the five precursors of compliance to procurement regulations.

The final objective sought to establish the impact of enforcement on compliance with public procurement regulations. The findings showed that



enforcement of sanctions had an inverse relationship with compliance with procurement regulations in public entites.

### **Conclusions**

The conclusions are drawn based on the findings of the study;

Concerning the first objective, this study concludes that professionalism strongly influences procurement regulations among public entites in the central region. Therefore, procurement professionals must possess adequate skills based on theoretical knowledge, training, education and passing a professional test. This should be the basis for hiring, retaining and promoting an employee as a procurement officer in a public entites to ensure compliance with procurement regulation.

This study adds that procurement officers' familiarity with procurement regulation is essential among entites in the central region to attain compliance. Therefore, procurement officers should be knowledgeable in procurement rules and regulations. Also, the rules and regulations should be unambiguous. This implies that educating and training procurement officers will be an effective tool for increasing compliance with procurement regulations. A simple fact is that compliance is on the rise when procurement regulations are perceived to be precise. At the same time, lack of clarity increases the possibility for deliberate non-compliance, and it is also the major weakness to attaining compliance to procurement regulations.

A key conclusion drawn from this study is the inverse relationship between political interference and compliance with procurement regulations. Political

interference with procurement process constraint compliance. It becomes a big challenge for the procurement officers to implement procurement processes and regulations where there is political interference, and this causes procurement irregularities and total corruption with public institutions. Drawing from the findings of this study, compliance with procurement regulation can only be ensured when political officers refrain from inducing procurement officers from behaving unethically in an attempt to award contracts to their allies or associates.

Concerning the fourth objective, it is concluded that monitoring and supervising procurement officers in public entites is the most important antecedent to compliance with procurement regulation. Encouraging and ensuring monitoring is key to compliance and eventually reducing procurement irregularities. Thus, if regular checks or monitoring mechanisms are put in place, procurement entities would comply with laid down rules and regulations governing procurement operations, poor monitoring should be entertained in the place of procurement.

### **Recommendation**

Based on the findings of the study, the following recommendations were made in order to ensure that procurement practitioners, i.e., procurement officers and Entity heads in these public institutions, adhere to all procurement regulations:

Beginning with professionalism, this study recommends that qualified procurement professionals should be employed as procurement practitioners i.e. both Entity Heads and procurement officers to carry out procurement activities in public entites. Also, public entites in collaboration with PPA should organize training and professional development programmes to develop the internal capacity

of procurement officers in public entites. This will lead to a high sense of professionalism, integrity and obligation to ultimately comply with public procurement regulations. It should be noted that being a procurement professional does not only relate to the level of education and qualification of the officer but also their ability to subject themselves to training and development and professional approach in conducting procurement activities.

In addition, platforms for interaction with fellow procurement officers and experienced colleagues should be created through seminars and conferences. Through this interaction, experience colleagues who have better knowledge and understanding of the procurement process impact knowledge to their junior colleagues to increase clarity and awareness of procurement regulations, eventually leading to compliance. There is also the need to simplify procurement regulations to understand the law for practical application. This will positively impact public procurement in particular and the economy of Ghana in general.

Also, senior officials, political leaders and Entity heads should not use their public office for private gains by weakening the procurement process through procurement officers. Again, political leaders should not interfere with tender processing to favour their associates, especially in the MMDA's. The employment process of procurement officials should not be influenced nor perverted by politics because this will lead to manipulation of these officials in the long run. Fairness and transparency at all levels of the procurement process should be rightly insisted to ensure compliance. The most important way to improve compliance with the

Public Procurement Act, 2003 is to insulate routine procurement decisions from political interference or reduce them to a minimum.

Furthermore, public entities and PPA need to strengthen monitoring and evaluation of procurement procedures. This study also advocates for an independent regulator to monitor compliance to procurement regulations rather than having government stewards whose behaviour is at the discretion of their political associates. Again, information technology infrastructure and resources should be made available for electronic monitoring and evaluation to improve compliance with procurement regulations. In addition, the period of monitoring should be regular to ensure that lapses do not occur.

Last but certainly not the least, PPA should institute an award scheme for deserving professionals who would distinguish themselves. This could be in the form of citations, recognitions, cash etc.

#### **Suggestion For Further Research**

The study analyzed the direct effect of precursors on procurement compliance without considering any indirect effect. Future studies may incorporate the role of demographic characteristics of procurement practitioner, i.e., Entity heads and procurement officers, on compliance to procurement regulations.



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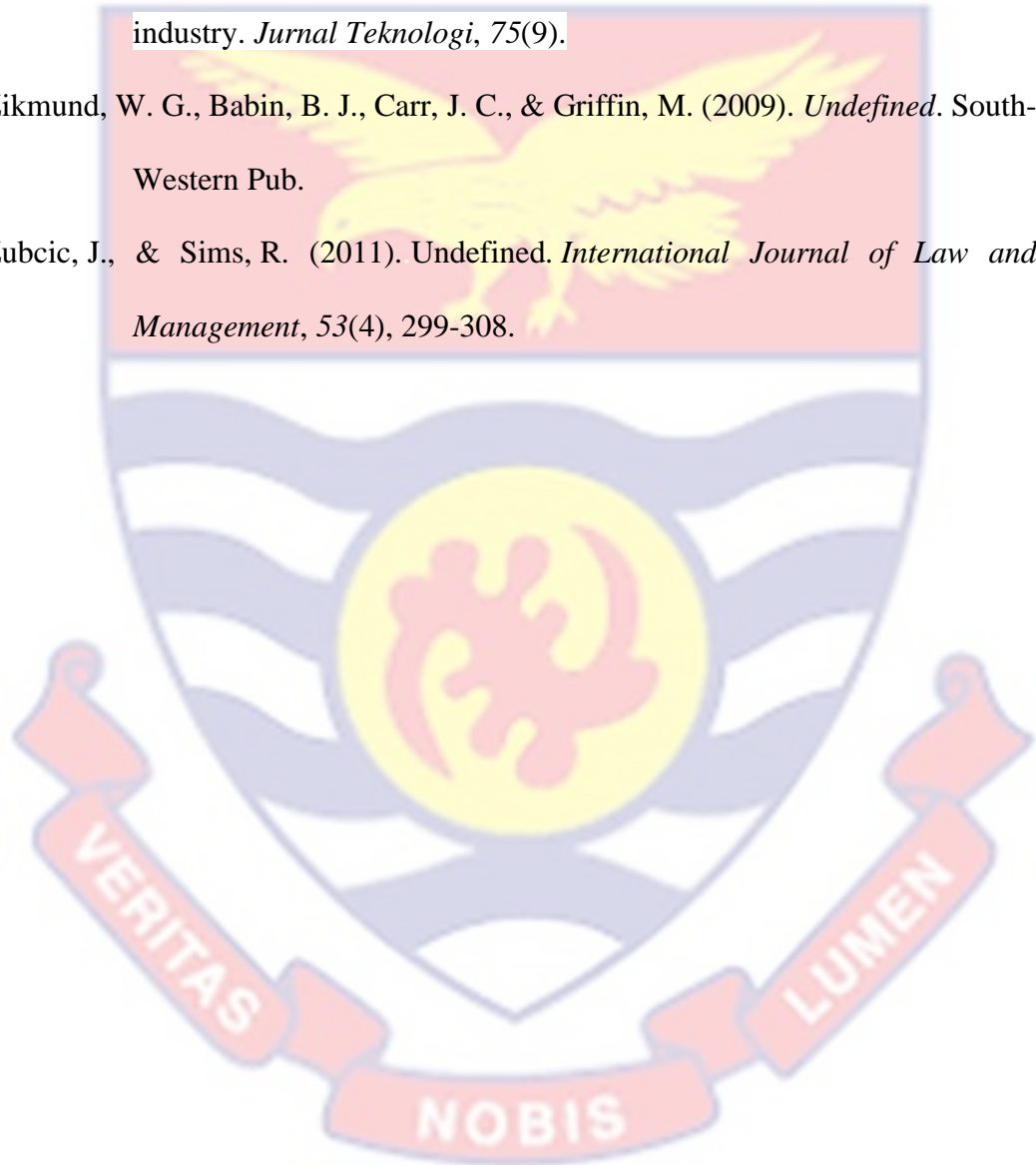
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**APPENDIX A: DATA COLLECTION INSTRUMENT**

**UNIVERSITY OF CAPE COAST**

**SCHOOL OF BUSINESS**

**DEPARTMENT OF MARKETING AND SUPPLY CHAIN**

**MANAGEMENT**

**RESEARCH QUESTIONNAIRE**

This study seeks to obtain information on precursors to compliance of public procurement regulations among public entities in the central region of Ghana.

It a study that aims at collecting data to be used solely for academic purposes, also, confidentiality and anonymity of respondent is highly guaranteed.

(PeaseTick where appropriate).

**SECTION A: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT**

- 1) Sex of Respondent: Male [ ] Female [ ]
- 2) Age of Respondent.....
- 3) Educational level of Respondent: Degree [ ] Non Degree [ ]
- 4) Area of specialization .....
- 5) Place of work .....
- 6) Position/ Title: Entity Head [ ] Procurement Officer [ ]

**SECTION B: PRECURSOR TO PUBLIC PROCUREMENT**

**COMPLIANCE TO PUBLIC PROCURMENT REGULATIONS**

On the scale of 1-5, where 1= least agree and 5=strongly agree, please indicate (√) how you agree to the following statements concerning precursor/antecedents to compliance to public procurement regulations

No.	Statements	1	2	3	4	5
<b>Familiarity/Knowledge with the rules</b>						
1	Familiarity with applicability					
2	Familiarity with exceptions					
3	Overall knowledge of the rules					
4	Perceived clearness of the rules					
<b>Professionalism</b>						
1	Possess adequate theoretical knowledge					
2	Demonstrate competence by passing a test as a procurement professional					
3	Exercise confidentiality in the discharge of duty					
4	Declaration when there is conflict of interest					
<b>Political interference</b>						
1	Senior officials and political leaders use public office for private gain					
2	Ministers and political parties receive underground payments in government procurement.					
3	Political/ Top members interference with the tender process					
4	The threat of being suspended for resisting political inference					

<b>Monitoring</b>						
1	Frequent inspections/checking on tender documents					
2	Frequent inspection of bidding process					
3	Auditing of procurement processes					
4	Taking corrective measures against deviation					
<b>Enforcement of Sanctions</b>						
1	Sanctions/Penalties are imposed on those found guilty of non-compliance					
2	Sanctions/Penalties are imposed in secret					
3	Sanctions with negative consequence are imposed					
4	Non-compliance/legal violations are profitable and attractive					

**SECTION C: EXTENT OF COMPLIANCE WITH PUBLIC PROCUREMENT REGULATIONS**

On the scale of 1-5, where 1= least agree and 5=strongly agree, please indicate (√ ) how you agree to the following statements concerning Compliance in your Organisation

No.	Statement	1	2	3	4	5
<b>Management Systems</b>						

1	Putting internal auditors in place and giving them procurement training					
2	Appropriate use of procurement plans and contract documents					
3	Carrying out internal procurement auditing					
4	Frequent training programs in place					
<b>Information and Communication</b>						
1	Awareness of procurement websites, procurement internal notice boards and newspaper					
2	Use procurement dissemination system					
3	Existence of proficient procurement personnel					
4	Having knowledge of and interacting with the market place					
<b>Procurement Process</b>						
1	Use Standard Tender Document (STD)					
2	Advertise tender invitations					
3	All bid documents contain same evaluation criteria					
4	Post procurement plan on the internet					
<b>Contract Management</b>						
1	Preparation of handing over certificates					
2	Keep records of item disposed					



3	Comparing and analyzing planned projects against actual					
4	Preparation of project monitoring reports					



**APPENDIX B: INDICATORS FOR COMPLIANCE LOADING**

Indicators for Compliance Loading

	Contract Management (CM)	Information Communication (IC)	Management System (MS)	Procurement Process (PP)
CM1	0.868			
CM3	0.872			
CM4	0.860			
IC1		0.873		
IC2		0.904		
IC3		0.904		
IC4		0.747		
MS1			0.812	
MS2			0.779	
MS3			0.851	
PP2				0.811
PP3				0.816
PP4				0.840

## APPENDIX C: ETHICAL CLEARANCE

### UNIVERSITY OF CAPE COAST

#### INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0508878309  
E-MAIL: [irb@ucc.edu.gh](mailto:irb@ucc.edu.gh)  
OUR REF: UCC/IRB/A/2016/1184  
YOUR REF:  
OMB NO: 0990-0279  
**IORG #: IORG0009096**



7<sup>TH</sup> DECEMBER 2021

Ms. Akua Konadu Asamoah  
Department of Marketing and Supply Chain Management  
University of Cape Coast

Dear Ms. Asamoah,

#### ETHICAL CLEARANCE – ID (UCCIRB/CHLS/2021/49)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research titled *Precursors to Public Procurement Compliance among Public Entities in the Central Region, Ghana*. This approval is valid from 7<sup>th</sup> December, 2021 to 6<sup>th</sup> December, 2022. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Samuel Aseidu Owusu'.

Samuel Aseidu Owusu, PhD  
UCCIRB Administrator

ADMINISTRATOR  
INSTITUTIONAL REVIEW BOARD  
UNIVERSITY OF CAPE COAST