

**COLLUSIVE TENDERING IN PUBLIC PROCUREMENT IN
TAMALE METROPOLITAN ASSEMBLY**

MUSTAPHA ADAM

UNIVERSITY FOR DEVELOPMENT STUDIES



**COLLUSIVE TENDERING IN PUBLIC PROCUREMENT IN
TAMALE METROPOLITAN ASSEMBLY**

BY

MUSTAPHA ADAM

UDS/MCM/0004/13

**THIS THESIS IS SUBMITTED TO THE SCHOOL OF BUSINESS AND
LAW, UNIVERSITY FOR DEVELOPMENT STUDIES, IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A
MASTER OF COMMERCE DEGREE IN PROCUREMENT AND
SUPPLY CHAIN MANAGEMENT**



I hereby declare that this submission is the result of my own original work towards the MCOM in Procurement and Supply Chain Management Degree, and that, it contains no material previously published by another person or material which has been accepted for the award of any other degree in this University or elsewhere, except where due acknowledgement has been made in the text.

Candidate: Mustapha Adam

Signature:..... Date:

Supervisor: Kannyiri Thadious Banyen

Signature: Date:



www.udsspace.uds.edu.gh
DEDICATION

This piece of work is dedicated to my loving late father and the rest of my family.

UNIVERSITY FOR DEVELOPMENT STUDIES



A number of individuals have contributed tremendously towards the successful completion of this research project for which I wish to acknowledge my appreciation.

First of all, I will like to express my profound gratitude to my supervisor, Mr. Kannyiri Thadious Banyen, for inspiring me to continue the study when in the mist of time and other constraints. Your supervision, guidance, constructive criticism, suggestions and advices have made it possible to produce this final piece of work.

I will also like to thank my lovely wife, Safarawu Ibrahim and children; Su-aad Mustapha, Muhammad Baqir Mustapha and Adam Suhuyini Mustapha for the sacrifices they had to make to help me complete this study. Thanks for your support and understanding.

Last but not the least, my heartfelt gratitude goes to the management and staff of the Tamale Metropolitan Assembly, for their co-operation and support in providing the data needed for the empirical analysis of the study. The study could not have been completed without your timely response to the data instruments and the provision of other forms of information needed for the discussion.



ABSTRACT

The study investigates collusive tendering in public procurement in Ghana's local government system, using primary data from the Tamale Metropolitan Assembly in the Northern Region of Ghana. The study used a mixed method approach in gathering and analysing the data to help strengthened reliability and validity of the study findings. The study finds evidence of collusive tendering in Tamale Metropolitan Assembly. Also, most respondents lacked the needed knowledge to identify signs of collusive tendering. Further, majority of them agree there was greed or perceived value of possible benefits in most procurement contracts generation. The study found bribery and corruption to be high in the tendering process for most lucrative contracts in the Metropolis. This encourages collusive tendering behaviour in the assembly. These and many other factors result in major financial leakages in the procurement processes of the public sector of Ghana. The process therefore, leads to slow and poor development in the region. It is recommended that, the level of remuneration in public enterprises for public officials is improved; so that, the minimum grounds for corruption motives are reduced. Also, all public officials undergo training in the dimension of corruption and negative impact of systemic corruption on the well-being of the public. If officers are trained or equipped with knowledge on how corruption can be reduced, public enterprise performance and integrity can be improved.



DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENTS.....	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF TABLES.....	vi
LIST OF FIGURES	ix
ABBREVIATIONS AND ACRONYMS.....	xii
CHAPTER ONE.....	1
INTRODUCTION	1
1.1 Background.....	1
1.2 Problem Statement.....	7
1.3 Research Questions:.....	10
1.4 Research Objective:.....	11
1.5 Significance of the Study.....	11
1.6 Scope of the Study	12
1.7 Limitations of the Study	13
1.8 Organization of the Study	13
CHAPTER TWO.....	Error! Bookmark not defined.
LITERATURE REVIEW	Error! Bookmark not defined.
2.1 Introduction.....	Error! Bookmark not defined.
2.2 Overview of the Public Procurement in Ghana: Legal and Institutional Framework.....	14
2.2.1 The Public Procurement Law of Ghana.....	15
2.2.2 Profile of the Public Procurement Authority of Ghana.....	16
2.2.3 Challenges of Public Procurement Act	18
2.2.4 Challenges in Procurement Process	18
2.2.5 The Procurement Cycle	21
2.3 Definitions and Concepts of Collusive Tendering.....	25
2.3.1 Types of Collusive Tendering.....	26
2.3.2 Detecting Collusive Bidding in the Public Procurement Market.....	29
CHAPTER THREE	47
METHODOLOGY	47
CHAPTER FOUR	54
RESULTS AND DISCUSSION.....	54



CHAPTER FIVE99

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....99

7.1 Introduction.....99

7.2 Summary99

7.3 Conclusions.....102

7.4 Recommendations.....105



Table 4. 1: Sex of Respondents.....	55
Table 4. 2: Level of Education of Respondent.....	57
Table 4. 3: Designation of the Staff of Tamale Metropolitan Assembly	57
Table 4. 4: Lack of Knowledge about both the Procurement Ordinary Market regarding Input Price Changes by Procurement Staff.....	62
Table 4. 5: Restrictive Entry Barriers	62
Table 4. 6: Respondents Understanding of Collusive Tendering in Public Procurement.....	65
Table 4. 7: How Tenders and contract awards are done in secrecy, devoid of Competitive Bidding system in the Metropolis	67
Table 4. 8: Nepotism in the award of Contract in Tamale Metropolitan Assembly	69
Table 4. 9: Falsifying Documentation to justify Direct Contracting Awards in the Tamale Metropolitan Assembly.....	72
Table 4. 10: Allowing Competitor to buy a Whole lot of a Bid through the Tamale Metropolitan Assembly.....	75
Table 4. 11: Other Anti-Competitive Practices that exist in the Tamale Metropolis.....	75
Table 4. 12: Threaten the Moral Integrity of Public Officers and Ethical Business Standards	81
Table 4. 13: Challenges Encounter in Addressing Collusive Tendering Behaviours in the Tamale Metropolitan Assembly.....	84
Table 4. 14: Low Risk of Sanctions and Fines by Management of Tamale Metropolitan Assembly.....	86
Table 4. 15: Low degree of Professional Integrity by Staff of the Procurement and Tendering Unit of the Tamale Metropolitan Assembly	87



Table 4. 16: Avoidance of Entry Barriers and Ensure Widest Publicity of Procurement Opportunities and the Disclosure of Rules to be Followed 93

Table 4. 17: Other ways Assembly Ensure Transparent, Fair and Open Bidding System ... 98



Figure 2. 1: The Mechanism of Bid Rigging Behaviour.....	28
Figure 4. 1: Age of Respondents.....	55
Figure 4. 2: Length of Service in Tamale Metropolitan Assembly.....	56
Figure 4. 3: Greed or the Perceived Value of Possible Benefits.....	58
Figure 4. 4: Lack of Knowledge of Warning signs of Collusive Tendering.....	59
Figure 4. 5: Low Incentives and Salaries of Public Officers	60
Figure 4. 6: Absence of a Complain Mechanism for Suppliers to convey Competition Issues	61
Figure 4. 7: Lack of Awareness of Procurement Staff about the Most Common Signs of Bid Rigging.....	63
Figure 4. 8: Incidents of Collusive Tendering in the Metropolis.....	66
Figure 4. 9: Bribery to win Lucrative Contracts	68
Figure 4. 10: Disclosure / Leaking of Vital Information to Selected bidders of Contracts in Tamale Metropolitan Assembly.....	70
Figure 4. 11: Limited Publication of a Request for Bids of contracts in the Tamale Metropolitan Assembly.....	71
Figure 4. 12: Failure to Maintain Procurement Records by Officials in Tamale Metropolitan Assembly.....	73
Figure 4. 13: Splitting up Purchases in order to stay Below the Thresh hole of Awarding of Contract by the Tamale Metropolitan Assembly	74
Figure 4. 14: It Undermines/Deprives Consumers of the Benefits of Competition (fair trade) in the Market.....	77
Figure 4. 15: Cost of Doing Business in the Metropolis, Enabling to Earn Higher Profits for Less Effort.....	78



Figure 4. 16: Create Unnecessary Economic Pressure on the Government, the Tax Payer and Development Partners 79

Figure 4. 17: Inhibits Investment and Economic Development in Tamale Metropolis 80

Figure 4. 18: Poor Quality of Goods and Services are received as Tendering Parties have Less Incentive to be Efficient and Innovative 82

Figure 4. 19: High Possibility of Shoddy Works leading to Collapse and Loss of Human Lives and Property 83

Figure 4. 20: Unwillingness by Firms and Public Officials to Volunteer Information Making it Difficult to Detect Irregularities 85

Figure 4. 21: Insufficient Accountability and Control Mechanisms 88

Figure 4. 22: Ignorance of Some Procurement Officers and Competing Firms about the Dangers of Collusion 89

Figure 4. 23: Weakness in Execution, Compliance, Monitoring and Enforcement of Existing Regulation 90

Figure 4. 24: Sanction Against Corrupt and Fraudulent Suppliers and Ensure Adequate Time for Submission of Offers 91

Figure 4. 25: Establishment of an Independent Procurement Unit staffed with Professionals to Ensure Compliance 92

Figure 4. 26: Strengthening Firm Integrity Guidelines and Effective Internal Control Systems and Audits 94

Figure 4. 27: The Preference of Open Tendering as far as Possible and Agreements on Government Procurement Procedure 95

Figure 4. 28: Open Bids in Presence of Bidders and Bids Submitted after Deadlines need not be Evaluated 96



Figure 4. 29: Evaluation of Bids as per Notified Criteria and by a Committee with the Relevant Technical and Economic Experience 97



ABBREVIATIONS AND ACRONYMS

ACCU	-	Anti- Corruption Coalition Uganda
BNE	-	Bayesian Nash Equilibrium
CFT	-	Call For Tender
CPI	-	Competition Policy International
DAs	-	District Assemblies
DACF	-	District Assemblies Common Fund
DSI	-	Department for Special Investigation
EDI	-	Electronic Data Interchange
GDP	-	Gross Domestic Product
GNA	-	Ghana News Agency
GSS	-	Ghana Statistical Service
HCC	-	Hellenic Competition Commission
HIV/AIDS	-	Human Immuno Virus / Acquired Immune Deficiency Syndrome
IT	-	Information Technology
KPMG	-	Klynveld Peat Marwick and Goerdeler
MDAs	-	Ministries, Department, Agencies
MoFEP	-	Ministry of Finance and Economic Planning
NACC	-	National Anti-Corruption Commission
OECD	-	Organization for Economic Cooperation and Development
OFT	-	Office of Fair Trade
PNDCL	-	Provisional National Defense Council Law
PPA	-	Public Procurement Authority
PPP	-	Public Procurement Process
SMCD	-	Supreme Military Council Decree
TI	-	Transparency International
TMA	-	Tamale Metropolitan Assembly



INTRODUCTION

1.1 Background

Procurement is an area that has long been recognized as being particularly vulnerable to fraud and corruption (Kalubanga et al., 2013). This is true in the private sector, where the typical problem is kickbacks to the contract officer. It is also true in public sector procurement where the fraud can be initiated by either the public contracting official or the private supplier (Nikos, 2007). The World Bank has estimated that roughly \$1.5 trillion in public contract awards are influenced by corruption. Procurement fraud is often associated with cartels (Nikos, 2007). The process is illegal but is carried on with impunity. Procurement fraud is a serious concern in advanced and developing nations. The Organization for Economic Co-operation and Development (OECD) estimated that public procurement accounts, on average, for 15% of Gross Domestic Product (GDP) in OECD countries, but the share are higher in non OECD countries (OECD, 2010). Through the value of public procurement, the public sector can affect a market structure and create incentives to firms to compete or collude in the long run.

The objective of public procurement is to ensure cost effectiveness and efficiency, promote fairness, transparency, and to ensure that public procurement is non-discriminatory (Agyekum, 2014). In the bidding procedure a government seeks and receives bidding quotes from many firms for a procurement project; it will be efficient when competitors make their bids honestly and independently. Therefore, real competition among suppliers will support the public sector to achieve the best value for tax money. Effective public procurement should avoid mismanagement and waste of public expenditure. Thus, it is necessary that the





public procurement should not be influenced by collusion among bidders or corruption of government officials.

Presently, corruption in public procurement is widespread in almost every country. Transparency International Organization stated that the economic impact of corruption in public procurement has burdened government with operational maintenance, and debt service liability for investments, and a decrease in capital levels due to corruption costs and threats to sustainable development. In addition, corruption may lead to bias behaviours and distort decisions of stakeholders. For example, several bidders may collude to rig bids or intervene in technical specifications in the government auction. Likewise, many government officials who are responsible for awarding contracts can conspire with some bidders to restrict competition, such as the official may set technical specifications that can eliminate some bidders, using legal loopholes to assist some suppliers, or disqualify some bidders through ambiguous rules in exchange for bribes.

Therefore, the critical problem of public procurement consists of both corruption and collusion among bidders. The corruption in public procurement involves a relationship between one or more bidders and several procurement officials. OECD (2010) clarified that the procurement officials have influence to use discretion or design the procurement process in order to help a particular firm in exchange for bribes or other rewards. In the thesis the terms collusive tendering and bid rigging are used interchangeably to mean the same thing. However, collusion in the public procurement market is a relationship among bidders which restricts competition and harms the public procurement. In fact, the main form of collusion is bid rigging behaviour (OECD, 2008). Bid rigging is firstly a competition law violation in which bidders illegally agree or conspire on a price for goods and services or agree not to

www.udsspace.uds.edu.gh

bid in a tender. Through the bid rigging behaviour, the government will pay artificially high prices for goods or services. It affects not only the national level, but also the international level (Chowdhury, 2008).

The impact of collusive bidding at the international level involves domestic cartels attempting to preserve a narrow domestic procurement market by obstructing foreign firms from participating in bidding in the domestic market. For example, during 1990s the construction cartel in Japan known as Dango obstructed construction firms from the US to compete in the tendering of a new international airport project in Japan. Finally, the US government pressured the Japanese government to eliminate the Dango behaviour in order to encourage fair competition (Woodall, 1996). Likewise, Maci (2011) described the context of collusive bidding occurring in EU procurement markets. This restrictive practice contradicts the goal of EU public procurement policy which is aimed at integrating these markets in order to allow public procurers to obtain the benefits of the common market.

Antitrust Act of 1890. Section 1 of Sherman Antitrust Act forbids agreements in restraint of trade such as price fixing, bid rigging, customer or territorial allocation, or output restriction. Thus, the Sherman Act makes the bid rigging behaviour illegal, a felony punishable by fines, imprisonment or both. Similarly, bid rigging is a criminal offence under the Canada Competition Act of 1985. It appears in Section 47 of this act which gives the definition of bid rigging. Firms and individuals convicted of bid-rigging face fines at the discretion of the court or imprisonment for up to five years. In the United Kingdom, colluding firms can be prosecuted criminally under the Competition Act of 1998. In 2009, under this act the Office of Fair Trade of United Kingdom (OFT) issued a decision to fine 103 construction companies that had been involved in bid rigging. The Decision was made



www.udsspace.uds.edu.gh

following an OFT investigation, following a review of tenders between 2000 to 2006, which concluded that many construction firms had engaged in bid-rigging activities contrary to the Competition Act 1998. The main bid rigging activity was complementary bidding whereby competitors would submit artificially high prices leaving the lowest priced bidder facing no real competition, and in some instances this was coupled with the successful bidder making compensation payments to its higher priced competitors.

In Japan, bid rigging is regulated by Antimonopoly Act of 1947. In article 2.6 of this law, it defined bid rigging behaviour as the restriction of business activities through mutual cooperation between companies and substantial restraint of competition in certain business areas against public interests. Additionally, the Japanese Penal Code of 1941 set bid rigging behaviour as another crime. It stated that there were criminal penalties for participation in collusion at any individual bidding aimed at undermining the fair price or making illegal profits. Participants in the illegal bid rigging will be sentenced to a maximum of two years' prison term or fined a maximum 2.5 million yen (Okatani, 1995: 252-257). The National Anti-Corruption Commission (NACC) of Thailand in 1999 formally began the enforcement of the Act on Offences Relating to Submission of Bids to State Agencies B.E. 2542, known as the "Anti-Collusion Law" in order to prevent and punish bid rigging behaviour. In addition, bid rigging cases are considered special, criminal cases under the scope of authority of the Department of Special Investigation in Thailand (DSI).

In Ghana, public procurement represents about 24% of total imports and apart from personal emoluments, public procurement represents 50 -70% of the national budget and 14% of Gross Domestic Product (GDP) (Adjei, 2005). Studies have shown that, the annual value of public procurement for goods, works, and consultancy services were about US\$600

million (World Bank, 2003) www.udsspace.uds.edu.gh which represented about 14 per cent of Ghana's Gross Domestic Product (GDP). The bulk of the expenditure were programmes run by Ministries, Departments, Agencies (MDAs) and District Assemblies (DAs) as well as Public Hospitals, Universities, Schools and Colleges which involve procurement of works, goods, technical and consultancy services. Improving the public procurement system will impact substantially on the economy of Ghana which will result in budgetary savings and efficiency in government expenditures, thereby creating wealth and reducing poverty.

Subsequently, Ghana has attempted to address weaknesses in its public procurement process by the passage of 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 Ghana National Procurement Agency Decree, 1976 (SMCD 55) was passed by the Supreme Military Council. In 1979, another law, the Financial Administration Decree (SMCD 221) was also passed. All these laws, decrees and instruments were meant to provide a comprehensive framework of administrative powers to regulate the activities of procurement within the public sector.

Value for money is the core principle underpinning public procurement, and incorporating ethical behaviour in the use of resources. The application of the highest ethical standards will help ensure the best achievable procurement outcome. It entails more than just getting the best price – ethics are important when considering value for money. Ethical behaviour and good procurement practices enhance the procuring entities reputation in the marketplace. This increases business confidence in procurement processes, and is likely to maximize the number of suitable responses for future tenders. Equally important ethical behaviour on the part of the institution or consultants increases their chances of completing the assignment successfully and therefore the possibility of good tenders in the future.



www.udsspace.uds.edu.gh

Public procurement accounted for 50 per cent to 70 per cent of total Government expenditure, representing 14% of Gross Domestic Product (GDP) and accounting for about 24% of imports, (Hardcastle, 2007). An improvement in no doubt therefore creates wealth and reduces poverty. In the past, there were no strict rules and procedures governing the spending of public funds. People took advantage of this situation to spend public funds anyhow.

In keeping with government commitment to financial discipline, accountability, transparency and ethical conduct, calls for effective management of public procurement to obtain value for state spending. This was one of the reasons for the introduction of the Public Procurement Act, 2003 (Act 663) in Ghana to regulate public spending. The Act became effective and operational on 27th August, 2004 which made Public Procurement in Ghana to be subjected to the Act and its Implementing Regulations and Administrative Instructions. This provides the general rules governing Public Procurement and serves as a benchmark to assist procurement entities to undertake public procurement in accordance with the Act. The Act provides for public procurement, establishes the Public Procurement Board; makes administrative and institutional arrangements for procurement; stipulates tendering procedures and provides for purposes connected with these.



However, successive review of the public procurement regimes in Ghana reveal substantial inefficiencies, corruption and lack of transparency in the procurement processes of governmental agencies as a results of unclear legal framework which lead bid rigging, lack of harmonized procedures and regulations and unclear institutional and organizational arrangement required in the management of the public procurement process in order to avoid collusive tendering.

www.udsspace.uds.edu.gh

Bid rigging occurs in all types of industries and circumstances, and in all parts of the world. When bid rigging impacts public procurement, it has the potential to cause great harm. While bid rigging can emerge in both procurement and “ordinary” markets, it is critical that procurement regulations do not unwittingly facilitate collusive arrangements (Antonio and Hilary, 2011). The risks for competition in public procurement can be reduced by careful consideration of the various auction features and their impact on the likelihood of collusion. Designing auctions and procurement tenders to minimize collusion may contribute significantly to the fight against anti-competitive behaviour. A well-thought-through tender can reduce or even eliminate the ability of bidders to reach a collusive agreement (Antonio and Hilary, 2011).

Collusion can be thought of as any conduct adopted by a group of firms that aims at reproducing or approximating the market outcome induced by a single, dominant firm. Generally understood, collusive bidding covers corrupt practices as well as other facets of bid rigging (Antonio and Hilary, 2011). In most countries, all bid rigging agreements are illegal, and in some countries it is a criminal offence. Thus the fight against bid rigging is crucial for the economic development of any country (Antonio and Hilary, 2011).



1.2 Problem Statement

The fundamental objective of public procurement laws and policies is to promote efficiency in the public procurement process, especially by ensuring that suppliers offer the lowest prices for a given and acceptable level of quality for goods and services through a competitive bidding process (Sutthi, 2012). However, collusive behaviour between officials of the public procurement authority, metropolitan officials, and suppliers often poses a challenge to this goal and continues to affect efficient procurement process and the general



development of the society (www.udsspace.uds.edu.gh, Sutthi, 2012). Bid rigging is a worldwide problem and deprives the state of the benefits of competition, makes competitive tendering process ineffective and expose all markets at risk. It also significantly increases prices of goods and services and hence, fighting cartels and bid rigging activities should be a top priority of most government.

Bid rigging which is the commonest form of collusive behaviour in public procurement continues to plague government procurement processes around the world and cost taxpayers billions of dollars annually to the private benefit of a few. It is estimated that bid rigging can increase the cost of goods and services by an average of 20 percent and up to between 35-55 percent in developing countries. Usually, the victims of bid rigging are the customers and in public procurement where the customers are government agencies, the harm extends to the whole economy. The impact is particularly serious when it involves the provision of essential goods, works and services that affects the lives and well-being of citizens.

In January 2011, the National Fraud Authority (NFA)-UK published an indicative estimate of £2.4 billion of losses to procurement fraud in the public sector within the United Kingdom. This estimate is made up of losses of £1.5 billion to central government and £88.5 million to local government. While it is a useful starting point, extrapolating an estimate from undetected fraud losses remains unreliable. As with other types of fraud, procurement fraud goes undetected and therefore unmeasured for most countries, with a key challenge being the ability to accurately estimate the extent of losses suffered by the economy and the means of arresting this socio-economic canker. Also, Transparency International (TI) (2010), projected that damages from corruption within public procurement represents an average of 10 to 25 percent and in the worst cases as much as 50

percent of a contract's value. www.udsspace.uds.edu.gh And several country-level surveys reveal similar trends. For instance, in Morocco, despite positive reforms to the procurement system, recent calculations by industry experts suggest that corruption still costs the country about 5 percent of the value of each contracted purchase. Similar empirical evidence has been found in the Philippines among other countries.

In Ghana, procurement fraud as well as collusive behaviour in the procurement processes has been a major challenge for successive governments over the years, especially in the public sector, where contract sums are overly inflated and through collusive tendering, public funds get leaked into private pockets to the detriment of development. A recent case in point is the alleged fraud case involving a private businessman and three government officials, who are alleged to have defrauded the state of about GH¢51.2 million, through collusive behaviour and a bribe of about GH¢400,000 to aid the process (GNA, 2015).

Over the years, Ghana has taken steps to reduce bid rigging and procurement fraud as well as all forms of collusive tendering behaviour using several strategies including; the passing of appropriate legislation and the institution of major punishments to culprits. That notwithstanding, this problem is still a major source of leakage. This study therefore used data from the Tamale Metropolis to investigate this problem with a view to finding lasting solutions, through the identification of the root causes of the problem and the proposition of pragmatic solutions to reduce and eventually eradicate collusive tendering in the metropolis.

The test site for the study is selected because, I have had the privilege to read the Auditor-Generals Report on the Management and Utilization of District Assemblies' Common Fund (DACF) and other Statutory Funds for the year ended 31st December, 2013. In fact, Page 5 of Part 2 of the report titled "Summary of Key Findings and Recommendations" shows:



Contract Management Irregularities in the Assemblies audited during the 2013 financial year amounted to GHC6.63million; while Procurement and Store Irregularities was valued at GHC2.07million respectively. Moreover, contract overpayments, anomalies in connection with contract processes and procedures, relaxed existing rules and regulations and non-compliance with procurement and store rules and regulations were some of the reasons cited by the report as a major source of financial leakage at the Local Government level.

As a concerned citizen, and coming from the Metropolis that is equally a beneficiary of DACF. I decided to open-up a research study in this direction, using TMA as a case study to investigate Collusive practices in the public procurement process. The success of this could form the basis for broader strategies to deal with the problem in the country as a whole and beyond.

1.3 Main Research Question:

What constitutes collusive tendering in public procurement in Ghana's Local Government System?

Specific Questions:

Specifically, the study seeks to find answers to the following pertinent questions;

1. Is there collusive tendering in public procurement in the Tamale Metropolis?
2. What are the causes of collusive tendering in public procurement?
3. What are the effects of collusive tendering on procurement of goods, works and services in the Metropolis?
4. What are the challenges to tackling collusive tendering activities in public procurement in the Tamale Metropolis?



5. How can Tamale Metropolitan Assembly ensure transparent and effective bidding system in the Metropolis?

1.4 Main Research Objective:

The broad objective of this study is to examine the causes, incidence, and effects of collusive tendering in public procurement in the Tamale Metropolis in the Northern Region of Ghana with a view of providing guidance that will help mitigate its effects and help ensure cost efficiency in the public procurement process.

Specific Objectives:

Specifically, the study seeks;

1. To find out the level of collusive tendering behaviour in public procurement processes of the Tamale Metropolitan Assembly.
2. To identify the major causes of collusive tendering in public procurement in Tamale Metropolis.
3. To ascertain its effects on procurement of goods, works and services in the Metropolis.
4. To find out the challenges to tackling collusive tendering in Tamale Metropolis.
5. To find out how Tamale Metropolitan Assembly ensure transparent and competitive bidding system.



1.4 Significance of the Study

The output of this study would contribute to knowledge and literature on the subject under investigation. It would be immensely useful as a source of reference to researchers, academics, students, policy makers, procurement professionals and other stakeholders.

www.udsspace.uds.edu.gh

To the management of Tamale Metropolitan Assembly, the findings and results in this study provides a more reliable scientific measure and perspective for describing and investigating collusive tendering in public procurement. It also serves as a source of information that brings to the fore the switching intentions of their current and potential contract bidders; therefore, providing the empirical support for management strategic decisions in several critical areas of their operations; and, above all, provide a justifiably valid and reliable guide to designing workable guidelines in delivery of improvement strategies for creating and delivering value for money in achieving free contract without collusion. The studies will also build long-term mutually beneficial relationship with management and suppliers to achieve sustainable free contract without any hindrance that will enhance business growth in Tamale Metropolis in the Northern Region of Ghana.

To policy makers like government agencies such as the Ministry of Local Government and Rural Development and the Auditor General Department, the findings of this study provides insights and a more reliable guide to monitoring the impact of the operations of Tamale metropolis. It also serves as a yardstick for measuring partly their respective policy goals and objectives of the Assembly. It serves as assistance to the Auditor General Department among other things, to facilitate the availability of quality free contract bidding within ministries departments and agencies, and to ensure that local level development through the Assemblies achieve highest level of efficiency in the procurement process in Ghana.

1.5 Scope of the Study

The study was conducted within the framework of investigating collusive tendering in public procurement process. The study was carried out at the Tamale Metropolitan Assembly, specifically located at Tamale central. It is a case study approach of one

www.udsspace.uds.edu.gh

particular metropolitan assembly and does not cover other metropolis to reflect the entire industry. Hence, the result would not be generalized but its findings will be placed in the relevant context of the individual metropolis studied.

1.6 Limitations of the Study

The main limitation of this study is constraints of resources, access, and time. The finance and material resource needed for a sample size for this study is inadequate. There are constraints of financial resources and unavailability of data as well as materials which will not make it possible to undertake a nationwide study. Furthermore, it is very difficult to access certain information that may be useful for the research. In addition, the researcher has to combine academic work with his regular profession.

1.7 Organization of the Study

The study is organized into five Chapters. Chapter one shall be the introductory Chapter which will give the background of the study, the problem statement, the research objectives and questions, the significance of the study and the limitations of the study. Chapter two consists of review of relevant literature. Chapter three discusses the methodology of the research. Chapter four covers presentation and discussion of results whiles Chapter five comprises the summary, conclusions and recommendations of the study.



LITERATURE REVIEW

2.1 Introduction

This chapter of the study gives an overview of public procurement in Ghana, procurement law in Ghana, challenges of the procurement law, concepts and definition of collusive tendering, empirical evidence from other studies relevant to the current study.

2.1 Overview of the Public Procurement in Ghana: Legal and Institutional Framework

The process of acquisition of goods or services required as raw material for operational purposes in most institutions today through the purchasing of quality and quantity commodities is indispensable. According to Cole (2007), the purchase of merchandise or services at the optimum possible total cost in the correct amount and quality through some processes is termed procurement. These goods and services are also purchased at the correct time and location for the express gain or use by government, company, business or individuals by signing a contract. Usually, suppliers are listed and pre-determined by the procuring company. This makes the process smoother, promoting a good business relationship between the buyer and the supplier. The synonyms for procurement, which are gain, purchase, buy, and acquire, can throw light on the meaning of procurement. The process of procurement may differ from company to company, and a government institution may have a slightly different procurement process compared to a private company (Cole, 2007). Public procurement accounted for 50 per cent to 70 per cent of total Government expenditure, representing 14% of Gross Domestic Product (GDP) and accounting for about 24% of imports, (Hardcastle, 2007). In the past, there were no strict rules and procedures governing the spending of public funds. People took advantage of this situation and began to spend public funds anyhow. In keeping with government commitment to financial



www.udsspace.uds.edu.gh

discipline, accountability, transparency and ethical conduct calls for effective management of public procurement to obtain value for state spending. This was one of the reasons for the introduction of the Public Procurement Act, 2003 (Act 663) in Ghana to regulate public spending. The Act became effective and operational on 27th August, 2004 and Public Procurement in Ghana therefore is subjected to the Act and its Implementing Regulations and Administrative Instructions. This provides the general rules governing Public Procurement and serves as a benchmark to assist procurement entities to undertake public procurement in accordance with the Act. The Act provides for public procurement, establishes the Public Procurement Board; makes administrative and institutional arrangements for procurement; stipulates tendering procedures and provides for purposes connected with these.

2.1.1 The Public Procurement Law of Ghana

The Public Procurement Act, 2003 (Act 663) of Ghana assented on 31st December, 2003, to provide for public procurement, establish the Public Procurement Board; make administrative and institutional arrangements for procurement; stipulate tendering procedures and provide for purposes connected with these. The reform exercise identified shortcomings and organizational weaknesses inherent in the country's procurement system. These include the absence of a comprehensive public and well-articulated procurement policy and the lack of a comprehensive legal regime to safeguard the integrity of public procurement system, absence of a central body with the requisite capability, technical expertise and competence to develop a coherent public procurement policy, rules to guide, direct, ensure, trained manpower, as well as adequately monitor public procurement processes. The new structure would promote the use of public procurement as a tool for national development. It was also to harmonize the application of procurement related rules



www.udsspace.uds.edu.gh

with international conventions and treaties and promote the integrity of the public procurement system and confidence in procurement process (World Bank, 2003 PPA). It was expected that the new structure would foster fairness, competition, efficiency, transparency and accountability in the public procurement process. The Public Procurement Act, 2003 (Act 663) establishes the Public Procurement Board (PPB) as the central authority for policy formulation on procurement with oversight responsibility for the process. The key functions of the PPB are in the areas of policy and regulatory machinery, training and capacity building, providing the database, advisory role, oversight and monitoring, among other activities. Each entity is to have a tender committee to ensure compliance with the Act. Tender Review Boards have been established to provide concurrent approvals for recommendations for contract award made by tender committees. Tendering procedures, procurement methods, qualification of tenderers or suppliers and all relevant rules and regulations to guide entities in the procurement of public goods, works and services with state funds including disposal of stores and equipment are clearly provided by the Act. Finally, the Act revokes the district tender board regulations, 1995 (L.I 1606), repeals the Ghana National Procurement Agency Decree, 1976 (S.M.C.D 55) and the Ghana Supply Commission Law, 1990, (PNDCL 245), to pave way for the PPA, 2003 (Act 663).



2.1.2 Profile of the Public Procurement Authority of Ghana

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

www.udsspace.uds.edu.gh

procurement system in Ghana which enjoys high level of business confidence and ensures consistent attainment of best value for money in the procurement of goods, works and services in support of national development and fiscal policies (Adjei, 2006). The composition of the governing board appointed by the President of the Republic of Ghana as stipulated in Act 663 which consist of the chairperson, vice chairperson, four persons from the public sector, three persons from the private sector and the Chief Executive with a board secretary appointed by the board (Public Procurement Board, 2007). The board is supported by a secretariat of staff to aid in the implementation of its functions. The Public Procurement Authority is itself not involved in the conduct of procurement except that it has the authority to approve requests from public procurement entities seeking approval to use single source procurement and restricted tendering. The various functions that the Public Procurement Authority undertakes are enumerated below (Public Procurement Board, 2007):

- **Policy-** It is responsible for formulating policy options to help in the regulation and development of public procurement in Ghana.
- **Monitoring-** It is involved in the monitoring of the various procurement entities as to whether they are complying with the provisions of the Act 663. It is also involved in the recommendation of corrective actions that are required and referring breaches of the rules and regulations to the relevant oversight and law enforcement bodies where appropriate.
- **Regulation and Standards-** It is involve in the recommendation of regulatory changes, the issue of standard tender documents and the suspension of suppliers who are found flouting the rules and regulations of the procurement Act. It is also involved in the management of complaints and appeals.
- **Capacity building and professional development-**The Public Procurement



www.udsspace.uds.edu.gh

Authority is also engaged in the professional development of procurement professionals and staff and setting the necessary professional standards and ethics of the procurement profession.

• **Information management and dissemination**- The Public Procurement Authority is also involved in the collection and analysis of statistics on public procurement, the maintenance of database of potential suppliers and the use of its website for the publication of tender notices and other related procurement information.

2.1.3 Challenges of Public Procurement Act

The PPA established the five pillars of public procurement [World Bank, 2003] as follows;

- Comprehensive, transparent, legal and institutional framework;
- Clear and standardized procurement procedures and standard tender documents.
- Independent control system;
- Proficient procurement staff; and
- Anti- corruption measures

The reforms taking place in the public sector have placed procurement responsibility on many public entities, many of which were not prepared for the role. As happens in any change in management initiative, the implementation of Act 663 and the execution of the mandate have faced a number of challenges most of which can be termed as teething difficulties. The following are some of the major challenges of the public procurement law and its implementation:

2.1.4 Challenges in Procurement Process

It is preferred that traditional procurement process has limitation and these limitations are as follows:



Inaccurate Planning / Purchasing: The decision made while planning for the purchase and delivery is very important, particularly these may affect the overall schedule and total cost of the operations. Inaccurate planning may result in material shortages or surpluses, cash flow problem and unnecessary delays. Planning/purchasing which includes operation and arrangement depends on the skill level of the procurement staff and specialist (Heng Li et al., 2004). Heng et al (2006) have extensively studied the use of prototype planning models in facilitating pre tender and procurement processes and have found out that accurate planning is very important for successful and expeditious procurement process.

Mistake in Selection of Suppliers: Selecting the right suppliers has an immediate and long-term effect on the organizations ability to serve its customers. Selection of suppliers is very important for the success of the overall procurement activities. An organizations inability to reach a variety of suppliers, have formal selection and evaluation process can affect procurement process. A “wrong” supplier may supplies poor goods or sub-standard materials which will then lead to the production of poor goods and services or may result in delays and may require extensive corrective work, which may eventually, affect the product or service cost (Heng Li et al., 2004).

Excessive documentation: For a new buy, a minimum of seven different document (requisition, enquiry, quotation, order acknowledgment, advice note, goods receive note as well as invoice) are involved and in some cases, some of documents have to be copied and given to the other departments which in effect slows procurement process. Hunja (2001) and Azeem (2007) have noted that excessive documentation in public procurement is a disturbing problem that slows down the procurement process and leads to delays and boredom.

Substituted Materials: Before buying the needed materials, the procurement staff may tend to substitute them with others which have the same quality and same technical requirement



www.udsspace.uds.edu.gh

with the view of having financial benefit such as being cheaper, more readily available, easier to handle and transport, and so on. This is may be positive benefit however not all substituted material may fit the intended use. In this case, there may be cost implication for replacement or new order (Al-Khalil et al., 2004).

Ineffective Negotiation: Most procurement officers put their personal interest on financial benefits that they would get during negotiation. Negotiating for material prices is very important as far as supplier selection is concerned. Successful negotiation is based on comprehensive grasp on product marketing and suppliers situation. Poor negotiation may lower the profit margin of the organizations operation.

Miscommunication between Departments in material requisition: Every change in the material to be used must be well circulated and disseminated to the procurement departments. Since all the departments rely on the procurement department for materials needed, there must be a good communication link among them. Procurement Department must collaborate with other departments such as the finance department, regarding issues of payment; pharmacy department, stores, kitchen on material and equipment; and estate department in relation to practical happenings on the organization premises. Problems, if any, can be immediately handled through effective sharing of information using a collaboration system (Kong et al., 2004).

E-procurement: Traditionally, procurement has involved a number of communication mediums to facilitate procurement processes between the various parties. These have included the use of mail, phone, fax, EDI, and, more recently, email and the Internet. E-procurement has evolved into the use of electronic technologies to streamline and enable the procurement activities of an organization (Hawking et al., 2004). E-procurement is defined as a comprehensive process in which organizations use IT systems to establish agreements for the acquisition of products or services (contracting) or purchase products or services in



exchange for payment (purchasing). E-procurement employs various elements, including electronic ordering, Internet bidding, purchasing cards, reverse auctions, and integrated automatic procurement systems (Moon, 2005).

Adoption of e-procurement: The purchasing function has undergone a transformation from being more of a clerical function to a managerial function, which has a strategic focus on improving the organizational competitive position of companies. IT has been a key enabler in purchasing evolution into a more strategic business function, by reducing the time taken to complete mundane tasks and allowing purchasing agents to focus on more value-added activities (Rajkumar, 2001). MacManus (2002) examined the slow implementation rate of public e-procurement systems. Reddick (2004) demonstrates an e-government growth model as a way of modelling the development of e-procurement. Knudsen (2003) presents a framework for assessing alignment between corporate strategy, procurement strategy, and purchasing tools. The framework is used for assessing the strategic enabled by the maturation of information technology.

2.1.5 The Procurement Cycle

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



www.udsspace.uds.edu.gh

activities consist of the following: Planning; Sourcing; Contracting; Contract management; Storing; Distribution; Disposal and Evaluation.

2.1.5.1 *Procurement planning*

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

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

- (a) Contract packages,
- (b) Estimated cost of each package,
- (c) The procurement method
- (d) Processing steps and time

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

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

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

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

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



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

2.1.5.2 Sourcing, contracting and contract management

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



2.1.5.3 Storage, Distribution and Disposal

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

2.1.5.4 Evaluation of the Procurement Function and Auditing

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



performance monitoring and www.udsspace.uds.edu.gh improvement and in the enforcement of the rules and regulations and subsequent prosecution of those who are found culpable of non-compliance with the Act. A formal auditing of a procurement process has the following actors: auditors; the Public Procurement Board; Ministry of Finance; stores personnel or donor staff or consultants where donor financing is involved (Public Procurement Board, 2007)30Clause 91 of the Public Procurement Act 663 states as follows:

- (1) The Auditor-General shall conduct annual audits of the procurement activities of entities and shall furnish copies of reports on the audits to the Board upon request from the board.
- (2) The Auditor-General shall also carry out specific audits into the procurement activities of entities and compliance by contractors, suppliers and consultants with the procurement requirements in the Act and regulations made under the Act at the request of the Board.
- (3) The statutory audit of procurement activities may be relied upon by the Board to institute measures to improve the procurement system.

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



2.2 Definitions and Concepts of Collusive Tendering

This section clarifies more details about collusive tendering. In fact, a tender is an offer to propose price to do an entire job, to organize goods or to supply services. Collusion is a relationship between bidders which restricts competition, increases prices artificially and harms the public purchaser (Frederic Jenny, 2013, p.18). Collusive tendering, basically refers to conspiracy, is defined as any cooperation between a business person and another in order to determine or control the relevant market for the participatory business person's

www.udsspace.uds.edu.gh

interest. Alternatively, it is an anti-competitive agreement in which firms seek to set up the outcome of the tendering process by agreeing among bidders. Normally, firms will organize as a bidding ring and designate the winner before the tendering, or enter into relationship with public officials in order to influence the outcome of the bidding process.

Sometimes, the bidding ring determines that each member must pay a bidding fee before participating in the group. The bidding fee will facilitate the collusion among bidders, government officials and politicians. For this reason, the bidding ring attempts to preserve its benefits and obstructs the entrance of new bidders. This behaviour could eliminate competition in the procurement process. However, with the purpose of preserving their benefits, the bidding firms have executed several forms of collusion as follows:

2.2.1 Types of Collusive Tendering

According to CPI (2014), collusive tendering generally takes four forms which may appear in isolation or in combination: A) Bid-rigging (including cover-bidding, bid-suppression, bid-rotation, and subcontract bidding); B) Market/customer allocation; C) Price-fixing; and D) Restrictions on quantities.

A. Bid- Rigging: Bid- rigging takes place when some or all the participants in a tender agree beforehand who shall win the tender and thus eliminate competition between them. Normally, firms will organize as a bidding ring and designate the winner before the tendering. The main methods of bid- rigging are:

1) Bid suppression or non- submission or withdrawal of bidding: By this method, certain competitors agree not to submit a bid, or to withdraw their bid, in order to ensure that the tender will be awarded to the undertaking determined by the competitors as a group. However, if newcomers try to enter to participate in this tender, the bidding ring might



propose an agreement that newcomers refrain from bid submission or withdraw already submitted bids.

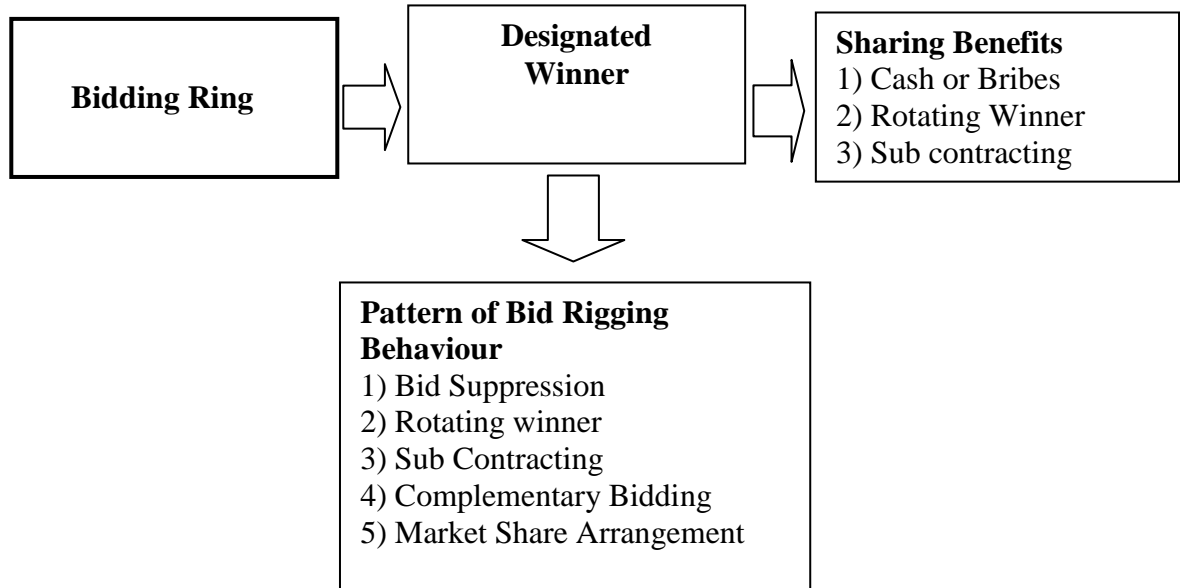
2) Complementary/Cover bidding or formal bid submission: This collusive scheme seems to follow competitive bidding because all bidders pretend to bid competitively when in fact, they are colluding. By this method, the competitors agree to submit: (a) higher bids than that of the agreed winner, (b) bids which contain terms unacceptable to the contracting authority, or (c) bids lacking the necessary formalities prescribed by the call for tender (“CFT”) in order to ensure that the tender will not be declared void.

3) Bid Rotation: By this method, the competitors agree to win tenders by rotation. Initially, the bidding ring may allocate benefits for all members according to either the volume of the supplied goods, or the contract value, either equally or in proportion to the competitors’ market share. Sometimes, the benefit might depend also on the negotiated power of each member. For example, the leader of the ring might be the most efficient firm which could bid the lowest price; however, it might require more benefits from collusion than the competition. Thus, the lowest cost firm might have the negotiating power to allocate the benefits of the ring. The allocation of benefits may set in the form of bid rotation or rotating the winner. The agreement of the bidding ring might be such that they allocate projects for each member under the negotiating power of each firm. The small firms might get the little projects for job experience, while larger firms might obtain benefits from the large projects.

4) Subcontract bidding: As mentioned in the last part, subcontracting is common behaviour in the construction market. The agreement of the bidding ring might be to propose that the designated winner must subcontract to other ring members.



Figure 2. 1: The Mechanism of Bid Rigging Behaviour



Source: Author's Construct

Figure 2.1 shows the mechanisms of bid rigging behaviour which may be explained in four parts. First, all collusive bidders decide to gather as a bidding ring. Second, the bidding ring must determine the winner before the tendering. Third, once the winner is determined, firms then plan and decide on how they could design the bid rigging behaviour in one of the five patterns. Finally however, the designated winner has to share its benefits to other members of the ring in terms of side payments and/or rotating the winner in future tendering or sub- contracting.

B. Market/Customer Allocation: In market agreements, competing firms may agree to allocate certain markets or customers or a group of buyers, usually according to customer categories or geographical areas. For example, the bidding ring will share the market for each member from certain government agencies or regional area. Sometimes, the agreement for market share might be strict in forbidding other members across the border from competing with a local firm. In order to do so, competitors configure their bids in such a



www.udsspace.uds.edu.gh

way to ensure that the contract will be awarded to the undertaking to which the products and/or the customers and/or the area have been allocated beforehand.

C. Price- Fixing: This is the practice where competitors agree on a certain and/or a price increase or otherwise affect the price of a product or service. Price- fixing may take the form of (a) setting minimum prices, (b) abolishing or restricting rebates, (c) applying price calculation methods, (d) increasing prices, or (e) maintaining prices at a certain level.

D. Restrictions on Quantities: ROQ is the practice of competitors agreeing to reduce or restrict the offered quantities of a product or service, in order to restrict their availability and thus increase the contract price of the tender.

Theoretically, collusive tendering can be classified into two categories of conspiracy, namely; Horizontal and Vertical collusive tendering (Rizkiyana and Iswanto, 2008).

Horizontal Collusive Tendering is conspiracy engaged by and between participants (bidders). In this collusion, tender participants altogether arrange the tender winner that injures the owner of work, goods or services. The examples of horizontal collusive tendering type are bid rotation, complementary bidding etc.

Vertical Collusive Tendering on the other hand, is a conspiracy committed by and between bidders and tender committee (public officials). For example, the bidder(s) altogether with the committee arrange the tender requirement or procedure of the tender so that it can benefit particular business person.

2.2.2 Detecting Collusive Bidding in the Public Procurement Market

In fact, several signs of bid rigging may appear when firms collude in order to determine the result of the tendering process. The detection of collusion in public procurement focuses on



www.udsspace.uds.edu.gh

some strange patterns of bidding in the market and warning signs that might be found in documents, pricing, statements or correspondence and behaviour.

2.2.2.1 Detecting when bids are submitted

In concentrated markets it seems to be easy for the firm which could organize the ring to be the winner. For example, the same bidders may always win bids of a certain type or size; meanwhile another bidder never wins but still keeps bidding. Likewise, the bid pattern may show one firm that consistently wins bids but always subcontracts to smaller firms refrains unexpectedly for no reason.

2.2.2.2 Detecting from documents submitted

Initially, the documentation may also be a clear indicator of collusion among firms. For example, firms may employ the same personnel to create the bidding document. This creates visible errors in the documents where they may use the same type of paper, the same misspelling, handwriting, wording, calculations. In order to use this detecting method, officials must scrutinize all documentation thoroughly.

2.2.2.3 Detecting from pricing or pricing related signals

It is important to look for price increases that cannot be explained by cost increases. We might be aware of the market trends with respect to input cost, such as changes in raw material costs or variances in oil prices which will push the final prices of the bidder.

Though cost might not affect the bidding price, the bidding ring might set up that the losing firm's bids are much higher than the designated winner in complementary bidding. In addition, another warning sign of bid rigging is that the bidding price might be higher than the engineering cost estimates, or higher than prior bids for similar tenders may also indicate collusion.



2.4 Market Conditions Which Facilitate Collusion

Undoubtedly, collusion can in principle appear in any market. According to CPI (2014), some market conditions that generally facilitate collusion include:

1. A limited number of market players; since this makes communication and coordination between competitors easier.
2. Uniqueness of the products tendered, or the particular specifications thereof, since this reduces interchangeability.
3. Standardized character of the products tendered, since this facilitates price agreements.
4. Familiarization of competitors with tender procedures, since when tenders of the same products or of similar value are repeated, competitors become accustomed both to each other and the procedure, while the prospect of similar contracts in the future constitutes a motive for cooperation.
5. Familiarity between competitors due to social relationships and/or legal business cooperation and/or participation in a professional association, and/or a trade union, since this can facilitate collusion.



2.5 Theories

2.6 Auction Theory

Auction theory falls under a branch of game theory commonly referred to as "mechanism design" (Adams, 2007). Mechanism design involves games of private information in which the participants are directed to choose from. Such games are ultimately solved by motivating the agents to disclose their private information and reach a collective decision in what is known as an Incentive-Compatible Mechanism (Chung & Ely, 2002). According to

www.udsspace.uds.edu.gh

Tabarrok (2007), the goal of mechanism design is to create institutions that produce a desirable outcome while respecting the fact that agents have private information and are self-interested. However, constructing such efficient institutions is difficult to achieve in practice due to the adverse selection problems associated with information asymmetry.

The study of frameworks which provide ample incentives for truthful revelation of information has particular usefulness in the design of auctions. Auctions are considered to be well-treated by such game theoretic techniques because the behaviour and expectations of each bidder depends on the strategic environment in which he operates, including the behaviour and expectations of the other bidders as well as the rules of bidding set forth by the seller (Alexandrova, 2009). In these games of incomplete and imperfect information, rational players attempt to bid in a way that maximizes their expected utility given their own set of beliefs about their competitor's strategies, which ultimately results in Bayesian Nash Equilibrium (BNE) outcome.

2.7 Empirical Evidence

With the growing number of companies using suppliers based in low cost regions, and increased financial pressure brought about by the current volatile economic environment, the instances of fraud and corruption in the procurement cycle are increasing (Deloitte June 2012). Worldwide organizations, whether big or small, are prone to the risk of fraud and corruption in their procurement cycle. Additionally, in concluded research and practice procurement is an area that has long been recognized as being particularly vulnerable to bid rigging, fraud and corruption. Although this has been true in the private sector where the typical problem is 'kickbacks' to the contract officers, it is also true in the public sector procurement where bid rigging, fraud can be initiated by either the public contracting official or the private supplier.





Bid rigging and corruption are a widespread problem in procurement all over the world. To a very big extent the impact of procurement fraud and corruption to public procurement performance can be substantiated. The World Bank had estimated that roughly \$1.5 trillion in public contract awards are influenced by corruption, and that the volume of bribes exchanging hands for public sector procurement alone, estimate to about US\$ 200 billion per year (Kaufmann, 2005). In Ghana about 70 percent of corrupt practices are affected through the purchasing and supply of basic items for some ministries, departments and government agencies (Andoh-Kwofie, 2001 cited by Hannover ge, 2001). In the United States, overall organizations lose nearly 7 percent of their annual revenues to fraud each year (KPMG International, 2010). The National Public Procurement Integrity Baseline Survey (2006) also estimated an 18-20 billion dollars budgeted loss due to procurement related fraud at local government level. According to Savuth (2012), fraud and corruption pose serious threats to the ability of the organization to achieve its operational objectives. They can hamper the implementation of programmes and projects. Procurement related corruption tends to be a serious problem in developing countries rather than in developed countries (Raymond, 2008). As stated by Hui et al (2011), public procurement corruption could threaten legitimacy and as such, the policies and procedures should be created to curb any possible corruption activities and enhance transparency, accountability and integrity. Public Procurement is one of the sectors most affected by corruption in Uganda. According to the 2007 African Peer Review Mechanism Report, Uganda loses USD 258.6 million (about Uganda Shillings 517.2 billion) annually through corruption and procurement malfeasance; from Ushs 200 billion annually (ACCU, 2005). In the Assessment of the country's Auditor General, procurement accounts for 70 percent of public spending of which an estimated 20 percent is lost via corruption. Consequently, efficiency in public and

www.udsspace.uds.edu.gh

local government procurement performance is not only doubted but endangered with absolute deteriorations. At district level, fraud and corruption in public procurement impacts directly on the quality of social services that are intended to benefit the poor people (Muguzi, 2005). Additionally, “corruption has led to significant losses of public funds through mishandled procurements and outright embezzlement”.

Despite the gravity of the possible danger associated with fraudulent and corrupt procurement practices, it is regrettable that; research on procurement fraud and its effects has had limited representation in world of academia. According to Tukamuhabwa (2012), Most of the studies on the subject have tended to focus on the antecedents of organizational misbehaviours and non-compliances to public procurement procedures. Wu (2003) affirms that, academic research on corruption and its effects are relatively new when compared to other disciplines like finance and economics. A more critical review of these studies shows an inclination towards studying corruption as disjoint from fraud and taking more of a political angle, and more in developed economies; with very limited consideration of its association with public procurement especially, within the context of a developing economy.



2.7.1 Empirical Evidence on Collusive Bidding

Empirical evidence on collusive bidding behaviour in the public procurement market mainly focused on the methods of detection. Likewise, several studies explained the determinants or factors associated with a firm’s decision to bid.

However, some studies attempted to show the role of government officials or politicians in public tendering. Their roles might be the facilitating factor behind collusive behaviour in the public procurement market. For example, government officials might obstruct new

www.udsspace.uds.edu.gh

bidders from entering in the procurement market by using their biased judgment or unfair discretion. Likewise, local politicians as well as cartels form among bidders may impede outsider firms from participating in bidding in their area. These behaviours are forms of corruption in public procurement which this study seek to emphasize. Bidding ring consists of a conspiracy of members who decide to collude in order to seek benefits from collusive bidding. Hence, in bid rigging analysis, some studies describe how the bidding ring allocates bids and transfers benefits to its member. For example, some bids are much higher than published price lists, previous bids by the same firms, or engineering cost estimates, have fewer than the normal number of competitors submitting bids, or bid prices drop whenever a newcomer submits a bid (Parker and Maher, n.d.: 4-7). However, it could be analyze by the unusual bidding patterns by requiring additional information on cost factors and underlying costs, and other characteristics of procurement market that may influence bidding behaviour. For this reason, bid rigging analysis requires information of both project characteristics or properties of firms.

Haider and Hunter (2010: 2-6) noted that, some collusive bidding tests might develop and be applied by economists and proposed for possible use as a screening in a variety of markets. These are based on the economic intuition that bids should suitably reflect costs in a competitive market. Likewise, bids should be independent. In other words, two bidders should submit bids individually. Under economic intuition, bids submitted by competing firms are supposed to be independent from other firms. Asker (2009: 2-3) describes bidding rings in which bidders in an auction collude in order to decrease the competition among them and earn greater surplus from tendering. Therefore, the result of the cartel is often referred to as a bidding ring. The act of colluding in an auction is called bid rigging. Theoretically, McAfee and McMillan (1992: 579-599) explored bidding rings and give



www.udsspace.uds.edu.gh

details on how weak and strong cartels function and maintain their collusive behaviour. They explain that cartels use mechanisms such as a phase of the moon to designate the winner in the tendering. In other words, a phase of the moon means that the ring chooses a bid rotation scheme in which each ring member is allocated as a phase of the moon. At the time of the auction a phase of the moon is set during which certain ring members have the right to bid without competition (Asker, 2009: 2-3). Likewise, the bidding ring could enforce collusive behaviour if any members cheat. McAfee and McMillan found that all members of weak cartels submit the same bid, but members of strong cartels can organize side payments for each member as well as obstruct newcomers from the market.

Additionally, the theoretical literature on bidding rings attempt to explain how the ring can allocate bids and share benefits among its members .The bidding ring might allocate bids by distributing information to bidders before tendering, which means that each member of the ring will know the other bidding prices early.

Likewise, the bidding ring may allocate surplus benefits from collusion; for example, the bidding ring might pay obvious side payments to each member, or the designated winner must subcontract to other members in the ring. For example, the study of Pesendorfer (2000: 381-411) examined bidding rings in the bid auctions for contracts to supply school milk in Florida and Texas by using data collected during the prosecution of the rings. It found that the bidding rings in Florida allocated the collusive benefit in terms of market division while the bidding ring in Texas used the system of obvious side payments.

However, Asker (2009: 2-3) noted that empirical work on bidding rings seems to be limited by the difficulty in achieving quality data, especially the secret data of bidding rings. Hence, the popular empirical studies on bidding rings and bid rigging focuses on the statistical



www.udsspace.uds.edu.gh

detection or screening of bidding patterns which might coincide with cartel behaviour. In fact, the statistical detection of bidding rings relies on the model of the suspected ring and compares the observed bidding patterns with competitive bidding.

Traditionally, the reliable indicators of bid rigging behaviour might include the presence of stable market shares, bids not correlated with project costs, also the sudden rise or fall in prices that are not correlated with the changes in cost. However, these signals might not necessarily prove collusive behaviour. For this reason, it seems difficult to obtain solid evidence of collusion. Thus, it might support the detection of bid rigging as one based on determining whether the bid submission is inconsistent with competitive behaviour.

For the empirical studies in detecting collusive bidding, Feinstein et al. (1985 quoted in Porter and Zona, 1993:520) analyzed how cartels colluded in procurement markets. This study focused on cartels in highway construction, of which the results showed that cartels sought the engineer's cost estimate through misinformation. They explained that contractors made decisions based on expectations of the current and future periods during which they could substitute demand among periods because projects were substituted for one other.

Roughly speaking, contractors made decisions to bid based on the expectation of how they would bid on future projects compared to the prices for current projects. The government could utilize bids to gain information because the government agency considered the results of past bidding and expected future low bids. Under the assumption of this study, contractor costs fluctuate at all times so the bids will also fluctuate. However, when contractors recognized this gathering information, they will form a cartel and provide misinformation to the government with the aim of changing the price expectations of the government. Hence, the cartels could use the advantage of cost fluctuations to show that they will bid up



gradually through time. For this reason, the government will start to adjust its expectations that low bids should increase.

Finally, Feinstein et al. found that benefits from collusive firms led to inefficiencies in the highway procurement market. The cartel of contractors attempted to manipulate the government through distribution of asymmetric information. Normally, contractors have information about costs for materials, labour, and time for project completion. However, this information is not always available to the government which is procuring the project from the contractor. If firms conspire together, they could control their bids to change the expectations of the government on what constitutes a reasonable bid in the future.

The study of Feinstein et al. (1985 quoted in Barrus, 2011: 34) focused on the theoretical and empirical models about asymmetric information. They pointed out that the construction cartel could manipulate the government by raising the bidding prices. They tested the empirical data of highway procurement of North Carolina during 1977-1979; however, the government agencies did not detect collusive behaviour in highway tendering. Hence, this study analysed data on both collusive and non- collusive bidding.



To compare competitive and collusive behaviour in the procurement market, Hendricks and Porter (1989) suggested the proper way is to adapt with empirical work for special cases and to identify the differences between observable implications of collusive and competitive behaviour. They found that the mean of submitted bids is higher in cartel bids; also the cartel firms appear to bid less aggressively than non- cartel firms. Similarly, the variance of cartel bids is less than that of non-cartel bids.

www.udsspace.uds.edu.gh

The final finding showed that the frequency with which bidders together join in a project was greater for cartel bids than non-cartel bids. However, in the study of Porter and Zona (1993) the agency knew that collusive bidding existed. This study developed an econometric test to detect bid rigging in the highway procurement market. Porter and Zona attempted to compare bidding behaviour between the known collusive bids and the competitive bids of construction firms in New York. They employed the data bidding of pavement contracts of Nassau and Suffolk counties in New York during 1979-1985. The explanatory variables include bidding information, capacity constraints as job backlog data, a variable indicating whether or not the firm was a non-cartel firm that had never won a project, as well as a variable indicating whether or not the firm was located on Long Island. These variables were proxies of costs of both competitive and cartel firms. Interestingly, Porter and Zona found that all cartel firms were on Long Island.

For the dependent variable, they used the logarithm of the bid that a firm submitted for a particular job. They attempted to explain phantom bidding or complementary bidding which is a bid that looks competitive because cartel members seem to bid competitively; in fact they were colluding. Porter and Zona (1993) explained that if collusive behaviour existed, the market share would be more stable and the distribution of bids would have less variation. This study tested the probability of winning by using multinomial logit analysis. They ran three regressions with a combined group, a competitive group, and a cartel group. The results showed that there were statistical differences between competitive firms and collusive firms. These results support the hypothesis that phantom bidding exists and the higher bids were made by collusive behaviour.



www.udsspace.uds.edu.gh

Finally, Porter and Zona concluded that cartel bids did not coincide with costs. The study of Porter and Zona (1999: 263-288) focused on the institutional details of school milk procurement, bidding data, statements of dairy executives and supply characteristics. They employed data of the Ohio school milk market during 1980s. They compared the bidding behaviour of a group of firms to a control group as a competitive group. The results showed that the behaviour of each of the firms differed from that of the control group. Hence, they implied that the behaviour of these firms was consistent with collusion. Finally, they estimated the average effect of collusion on market prices was about 6.5 percent.

For estimating damage in bid rigging, Howard and Kaserman (1989 quoted in Porter and Zona, 1993: 520) proposed a regression based method for estimating damages in bid rigging cases of the sewer construction industry. Under the estimating damages on three statistical approaches, they found that damage ratios amounted to 32% in bid rigging cases of the sewer construction industry. Later, McMillan (1991: 201-218) estimated the cost of the collusive scheme in Japanese construction known as Dango that excessive profits from collusion were common in Japan's public works contracts and typically amounted to 16 to 33 percent of the price. Likewise, the study of Lee and Hahn (2002: 82-85) attempted to gauge the possible effects of bid rigging on auction prices in South Korea. They estimated the potential damage of structural bid rigging in public works and found that the overcharge ratio based on a forecasting approach was 15.5% of the total government expenditure from 1995-1998.

Although the designated winners will get the project under collusive strategy, they might encounter the winner's curse which means that the winner will tend to overpay in the auction. In fact, winner's curse could reflect that the winner may still obtain the net benefit

www.udsspace.uds.edu.gh

but will be worse off than anticipated. However, Hong and Shum (2002 quoted in Barrus, 2011: 36) investigated the winners' curse by using data of public works in New Jersey, i.e. highway, bridge construction and maintenance, and road paving. They are interested in common value components of projects and how these impact whether firms bid or not. Initially, they found that the average cost of non-paving and bridge repairs increased as competition increased. These types of projects have common cost uncertainty where a firm is not always clear how much a bridge project will cost and different firms may have different expectations of these costs. In contrast, in private value projects such as asphalt paving, a firm has no uncertainty costs for completing the project. Hong and Shum explained that firms that have extremely positive views about the value of these common value projects and win the bid may finish up with negative expected profits. Thus, rational firms will not bid as aggressively if there are more competitors because they may be concerned about winner's curse effect. Additionally, Hong and Shum described that the increase in competitors tends to lower the bids. This is known as the competitive effect. Thus, if the winner's curse effect is larger than the competitive effect, then bid levels might increase as more firms enter the market.



Another interesting study about detecting collusive bidding is the study of Bajari and Ye (2003). This study developed econometric tools for detecting collusive behaviour in the procurement market. However, this study included industry opinions and cost asymmetries among bidders into detecting models. Bajari and Ye explained that these cost asymmetries occur due to firm location, capacity constraints, or knowledge of local regulations. They analyzed data of seal coating contracts from 1994-1998 in Minnesota, North Dakota, and South Dakota. Initially, they set two conditions for testing collusive bidding. The first is conditional independence which explains bidders should bid independently, while the

www.udsspace.uds.edu.gh

second is exchangeability to see if costs are actually driving bid levels and not just due to the presence of competitors.

In the Bajari and Ye model, it focused on a procurement auction model with private value costs which means that firms know the costs needed to compete for a project. Bajari and Ye set a bid function as created for all firms. The dependent variable of the bid function was the ratio of the bid divided by the engineer's estimate. For the explanatory variables, they included variables for distance, capacity utilization level and market concentration. For capacity utilization, they defined that firms' total winning bids to the time of the bid divided by a firm's total of winning in the entire time. Furthermore, competitor variables consisted of maximum free capacity among competitors and minimal distance among competitors.

Bajari and Ye (2003) tested the conditional independence by dividing the market into 2 segments, that is, the top 11 firms and others. They employed the Fisher test to test this condition and found that one set of firms who regularly bid against each other violated conditional independence. In other words, they found that some firms might bid depend on other firms. Meanwhile, the test for exchangeability means that the capacities and distance should enter in a symmetric way, and they found that another pair of firms might violate the exchangeability condition.



Subsequently, the concept of conditional independence of Bajari and Ye was implemented in the study of Jakobsson and Ekloff (2003) which focused on the bid rigging behaviour in the Swedish asphalt paving sector. Jakobsson and Ekloff explained that a group of firms in a public procurement market with collusive behaviour as indicating the existence of collusion. They employed the testing of conditional independence of Bajari and Ye (2003) which states if firms act competitively they should submit independent bids. This concept



explained that the difference www.udsspace.uds.edu.gh between observed and predicted bids correlating between firms. If a negative correlation is observed, it might be possible to detect bid rigging. They found that the negative correlation appeared in this testing. In other words, it might show collusive bidding in the Swedish asphalt paving market.

Under one method of detecting bid rigging, Harrington (2005: 4-22) proposed the screening method for cartels in public procurement auctions. He noted that we could observe collusive indicators by using bids pattern as follows. First, the competitive model predicts bids are independent. Harrington (2005) mentioned the study of Bajari and Ye (2003) as the example of this case. Second, the lowest bid performs differently from the non- lowest bids. Third, bidders' bids respond to cost and demand factors in a manner contrary to the competitive model and finally, bids are better explained by a model with fewer bidders than actually participated.

In fact, we could detect bid rigging or collusive behaviour from firms' capacity or firm characteristics such as distance between location of the firm and construction sites. These factors could reflect costs of firms in procurement market. For example, the study of Jofre-Bonet and Pesendorfer (2003: 1443-1489) analyzed the repeated auctions and considered how capacity constraints and firm efficiencies impact bidding behaviour in California. They found that capacity constraints might increase costs for firms. On the other hand, De Silva et al. (2003: 295-316) found that the distance between the location of a firm and the construction site might not be related to bidding behaviour.

As mentioned on the facilitating factors of collusion, few studies explored the political factors, especially the intervention of politicians in the bidding process. For instance, the

www.udsspace.uds.edu.gh

study of Coviello and Gagaliarducci (2009: 21-26) investigated the relationship between the time politician remained in power and the functioning of public procurement auctions. This study employed a dataset on Italian municipal governments and all the public procurement auctions during 2000-2005. However, the assumption of this study set that if a mayor takes time to make friends, one would expect long lasting mayors to collude more with local bidders as far as political longevity increases. Interestingly, the results showed that the relationship between the political longevity of mayors and local bidders might increase the chances of collusion at the local level. Similarly, the study of Hyytinen, Sofia and Otto; 2007 studied the effect of politics on public procurement in Swedish municipalities. This study used the data on the procurement market for cleaning services. They found that political factors might influence the process so that some favourite bidders continually win the cleaning service contracts.

The next study of De Silva et al. (2005: quoted in Barrus, 2011: 35-37) attempted to analyze bidding patterns of new entrants and current firms in the procurement market. First of all, they found that newcomers tend to bid more aggressively than old bidders. They also found that past winning and capacity constraints might affect firms' bidding behaviour. Likewise, the study of Ishii (2007) which found that the entering of potential bidders outside the bidding ring might make for irregular bidding wars with members of the bidding ring.

However, the study of Li and Zheng (2009: 1397-1429) which estimated distribution of entry costs and bidder costs in the highway mowing procurement market in Texas. This study employed a structural model and a semi parametric Bayesian method for estimation. Li and Zheng (2009) found that increasing potential the study of Jofre-Bonet and Pesendorfer (2003: 1443-1489) analyzed the repeated auctions and considered how capacity



www.udsspace.uds.edu.gh

constraints and firm efficiencies impact bidding behaviour in California. They found that capacity constraints might increase costs for firms. On the other hand, De Silva et al. (2003: 295-316) found that the distance between the location of a firm and the construction site might not be related to bidding behaviour.

2.8 Fighting Collusive Tendering in the Public Procurement Process

The HCC guide (December, 2014), indicates some methods by which collusion could be deterred, relating both to the drafting of the CFT and the tender procedure per se:

A. The Call for Tender

The HCC proposes that the CFT is drafted in such a way to ensure:

- A differentiation of the contract value and the object of the tender, since predictability facilitates market allocation. Also, contracts of lower value may attract small companies that are not members of a cartel, while contracts of higher value may achieve better prices and deter bid rotation.
- A large number of candidates, since collusion is impeded when new participants constantly appear. For this purpose, the CFT should have simple and rational participation agreements, avoid unnecessary restrictions, and refrain from continuous time extensions or automatic renewals of tender contracts; and
- The secrecy of the candidates' identity, since this will impede communication and coordination among competitors.
- It is also imperative that CFT clearly states that any suspicion of collusion will be investigated, and guilty candidates reported to the appropriate authority for sanction. Further, the CFT should require the bidders to submit a written statement affirming the independent drafting of their bids and lack of communication with their competitors; and include a statement that they will notify the contracting authority of



any anticompetitive [behaviour that comes to their attention during the tender process.](http://www.udsspace.uds.edu.gh)

B. The Tender Procedure

Finally, the HCC guide indicates that the contracting authorities should:

- Analyze the bids in previous tenders to detect any suspicious patterns, since this may disclose certain patterns over time that are not evident in the short term;
- Ensure that its personnel has received relevant training, to facilitate the detection of suspicious indications and the appropriate treatment thereof;
- Have a good understanding of the relevant market and the value of the items tendered (e.g. information about the products, suppliers, market conditions, prices and costs in the national and international market, information from previous tenderers etc.), since this will impede overpricing and price- fixing attempts;
- Have performed an independent evaluation of the procurement items before the publication of the CFT, since this will facilitate the detection of overpricing.



METHODOLOGY

3.1 Introduction

This Chapter focuses on the methods that were used to collect and analyze data. It greatly concerns the research design, the population that was studied, the sample selection procedures and sampling techniques used, data collection, methods of verifying reliability and validity of data, matters regarding ethics and the limitations of the methodology used as well as the conclusions drawn from the methodologies used.

3.2 Research Approach and Design

The research design used for the study was mixed method. According to Creswell and Plano Clark (2011), the mixed methods research is defined as those studies that include at least one quantitative strand and one qualitative strand. A strand is a component of a study that encompasses the basic process of conducting quantitative or qualitative research: Posing a research questions, collecting and analysing data, and interpreting the results. The central premise of the definition is that the combination of quantitative and qualitative approaches provides a better understanding of research problems than either approach alone. Also, Teddlie and Tashakkori (2003) stated that, mixed methods provides the opportunity for presenting a greater diversity of divergent views. However, despite its value, conducting mixed methods research takes time and resources and requires the appropriate skills to collect and analyze both quantitative and qualitative data. Notwithstanding, mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research. Again, it provides a more comprehensive evidence for studying a research problem than either quantitative or qualitative research alone. Mixed methods also give



www.udsspace.uds.edu.gh

permission to use all of the tools of data collection available rather than being restricted to the types of data collection typically associated with quantitative or qualitative research. Roselyn Cameron (2014) intimated that, mixed methods research helps answer questions that cannot be answered by quantitative or qualitative approaches alone.

3.3 Study Setting/Area

Tamale Metropolitan Assembly

The Tamale Metropolitan Assembly is located at the centre of the Northern Region. It shares common boundaries with Savelugu/Nanton District to the north, Sagnarigu District to the West, Central Gonja District to the south-west, East Gonja District to the south and Yendi District to the east. The Tamale Metro occupies approximately 750 sq km, which is 13 percent of the total area of the Northern Region.

The 2010 population Census put the population of Tamale at a total of 371,351 comprising 185,995 representing (50.1%) males and 185,356 representing (49.9%) females. The population of Tamale is characterized by a large proportion of children (less than 15 years) estimated to be about 49.2 percent and a sizeable proportion of elderly persons (above 64 years) estimated at 9.4 percent. The economically active group (between 15 to 64 years) stands at 41.4 percent estimated.

With an urban population of 67.1 percent, the Metropolis is the only district in the region which is predominantly urban. The population density of 318.6 persons per square kilometre for the Metropolis is about 12 times higher than the Regional average density of 25.9 persons per square kilometre. There exists vast difference between the densities of the



urban and rural areas. This is an indication of influx of people to urban Tamale, and gives credence to the assertion that facilities and opportunities for modern employment are concentrated in few central places.

The structure of the population of the metropolis indicates a broad base that gradually tapers off with increasing age due to death. The youthfulness of the population implies that the metropolis has an important human resource potential and that this tremendous potential will determine the strength and resilience of the metropolis in pursuing social, economic and political development goals.

On the other hand, the proportion of people aged sixty years and above is about 4.1 percent lower than the regional and national averages of 4.5 percent and 5.3 percent respectively. An indication of a comparably low life expectancy (GSS, 2000). Islam is the predominant religion in the Metropolis with 84 percent of the population affiliated to it. Christians follow with a proportion of 13.7 percent while the traditionalists constitute 1.6 percent of the population. All other religious denominations constitute 0.7 percent of the population in the metropolis.



There are 240 nurseries, 274 primaries, 89 Junior High, and 11 Senior High schools in the Tamale metropolis. In addition to these, there are two vocational and Technical schools, one Polytechnic and one campus of the University for Development Studies. The total primary school enrolment in 2005/2006 was 53,889 comprising 29,303 males and 24,586 females. The pupil- teacher ratio was 1:33 for the primary and 1:21 for the Junior High schools.

www.udsspace.uds.edu.gh

The Tamale Teaching Hospital, Tamale Central Hospital and the West End Hospitals are the main health institutions in the Tamale metropolis. But there are several health centres and clinics in the metropolis.

The high level of illiteracy and poverty as well as limited access to safe drinking water and poor sanitation have combined to expose many people to health hazards which accounts for the low standard of living of the people .

Malaria and diarrhoea are among the top five diseases in the metropolis and these have severe effect on the lives of the people. Malaria alone contributes about 25 percent of total deaths in the metropolis. The Tamale Metropolis is as vulnerable to the HIV/AIDS pandemic as other districts in the country. High poverty rate which compels people especially women to engage in unsafe sex practices is a predisposing factor to the spread of the disease in the metropolis. Also, the long dry season when traditional farming is at its lowest ebb also encourages a greater proportion of the youth, particularly young women, to move down south in search of non- existing jobs. Most of the young women who come to the cities become head porters or “kayaye”, which is another predisposing factor to the spread of the pandemic.



Tamale Metropolis is one of the metropolises with high revenue base in Ghana which calls for higher expectation of development and accountability to the people. Auditing is one of the means of safeguarding the spending and management of the revenue base of the metropolis, this study will therefore assist the Internal Audit practices to improve on areas where there are lop holes in their daily activities in running the metropolis.

3.4 The population of the Study

The population of the research comprises of engineers, finance officers, internal auditors, development officers, procurement officers, supplies, other officers of Tamale Metropolitan Assembly.

3.5 Sample size and Sampling techniques

The sample was drawn from the Tamale Metropolitan Assembly under the study. The sample size for the research was seventy (70). This was made up of Thirteen (13) Engineers, Fourteen (14) Finance and Accounts officers, Sixteen(16) Internal auditors, Eight(8) Procurement staffs and officers, Twelve (12) Supplies and Seven (7) unit heads.

A combination of simple random sampling method and purposive sampling techniques were used in selecting the respondents. The purposive sampling technique was used to select procurement officers, finance officers, administrators, and internal auditors. Purposive sampling is where the Researcher consciously decides who to include in the sample. It was used simply because the study was targeting basically custodians of the procurement department. It also ensured that only people with relevant information are sampled. While simple random sampling technique was used in cases where two or more officers within a unit qualifies to respond to the sample questionnaire. For instance in the case of the procurement offices the researcher meet all the eight officers at the same time in their unit during the period of data collection. In such instance the lottery method was applied where Yes or No is written on pieces of papers for respondents to choice. If a respondent does choice the one with Yes he/she then qualifies to respond to the questionnaires.



3.6 Instruments for Data Collection

The researcher used structured questionnaire which contained definite items. The items in the structured questionnaire were either close or open-ended. The closed items gave a series of alternative responses, whereas the open items gave no guidance on answering. It was administered to procurement officers, finance officers, administrators, Internal Auditors, and supplies.

3.7 Data Collection

Primary data were collected with the used of questionnaires administered to the staff of the Assembly. Copies of the questionnaire were personally delivered to the respondents, who were given three days to respond. The questionnaire was distributed to the respondent who were qualified and also willing to administer the questions at the time of the data collection. The researcher distributed 85 questionnaires to the respondents due to the anticipation of difficulties in retrieving the questionnaires. In all, 75 completed questionnaires were retrieved from the respondents. Meaning, additional 5 questionnaires added to the sample size of which the first 70 questionnaires was used for the analysis. The respond rate for the retrieval of the questionnaire was 88 percent. Prior to the administration of the questionnaire, an introductory letter had been collected from the Dean; University for Development Studies (UDS) and delivered to the Coordinating Director (Administrative Head) of TMA. Afterwards, the letter was referred to the registry for filling, and who then granted permission for the exercise to be carried out. Also, secondary data were included in the study through the literature review. This comprises the theoretical work of experts, which consists of citations and quotations relevant to the subject under review, newspapers, references to authoritative books, journals and web pages.



3.8 Data analysis

Data collected were statistically analyzed using the Statistical Package for Social Science (SPSS) and Excel software. Also, representations like tables and figures were used to ensure easy and quick interpretation. Data from the completed questionnaire were checked for consistency. The open-ended items were grouped based on the responses given by the respondents. The items were coded using the SPSS. Descriptive Statistics indicating frequencies and percentages were used to present the findings. The table or percentage approach to the data analysis is used because it is simple, convenient, reliable and user-friendly, as well as economically easy to deal with by the researcher. It also ensures that finding or results can be quickly captured and evaluated by the reader.

3.9 Research Reliability

The study used several methods and sources of data to enhance the work. Structured questionnaires were used to eliminate biases, each member in the group trained to collect the data worked hard to ensure that the data were reliable.

3.10 Ethical Consideration

The privacy of respondents must always be upheld (Saunders *et al.*, 2007). The researcher asked permission from management of the Tamale Metropolitan Assembly to do the research work, the researcher informed the respondents to seek consent to participate in this work process. They were assured that their responses were for purely academic purposes and nothing else.



RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study in four sections. Section one present respondents characteristics such as sex, age, and educational status, Section two, looked at whether there is collusive tendering in public procurement in the Tamale Metropolis, Section three identify the causes of collusive tendering in public procurement, Section four, ascertain its effects on procurement of goods, works and services in the Metropolis, Section five find out the challenges to tackling collusive tendering in Tamale Metropolis, and Section six looked at how Tamale Metropolitan Assembly ensure transparent and competitive bidding system.

4.2 Respondents Socio-Demographic Characteristics

This section presents demographic characteristics of respondents who participated in the research work, their age and other relevant socio-cultural data pertinent to the study were looked at. This information is very important for the interpretation of the results emanating from the analysis made in respect to investigating collusive tendering in public procurement in the Tamale Metropolis in the Northern Region of Ghana.

4.2.1 Gender of Respondents

Table 4.1 shows gender category of respondents of the study area. The study covered 70 respondents. Of these, 85.7 percent are males and 14.3 percent are females representing a 71.4 percent sex differential. This means that Tamale Metropolitan Assembly female staff are less as compared to their male counterparts, therefore Tamale Metropolitan Assembly should consider a policy of employing more females staff or professionals into the staff so



as to improve on the male to female ratio, and for gender base decision making that will be well represent the interest of all stake holders in the Tamale Metropolitan Assembly and also to serve as role model for other young female students to emulate in their future career (See table 4.1 below).

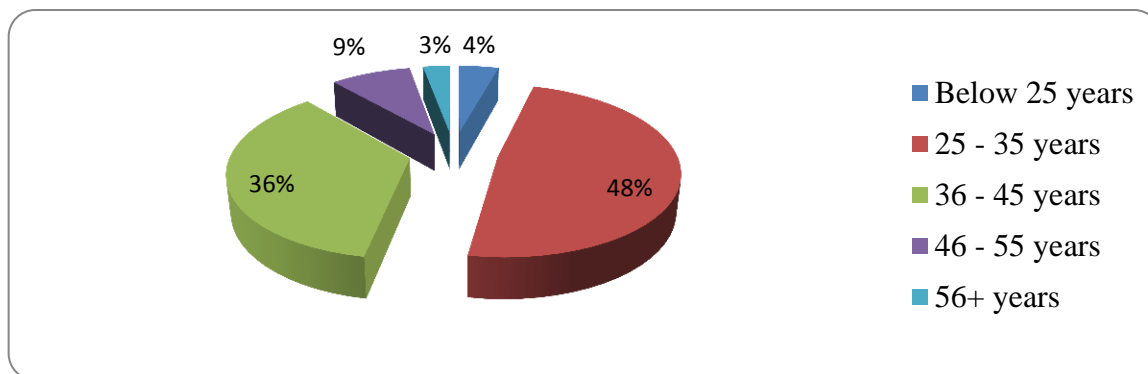
Table 4. 1: Sex of Respondents

Gender	Frequency	Percentage
Male	60	85.7
Female	10	14.3
Total	70	100.0

Source: Field Survey, 2016

On the issue of age, 48.6 percent of the respondents were between 25-35 years of age, 35.7 were between the ages of 36-45 years, 8.6 percent were between 46-55 years, 4.3 percent were below 25 years and 2.9 percent were 56 years and above. In effect, over 95 percent of the respondents are above 24 years of age (See figure 4.1 below). This means that majority of the staff are still young within the ages limits 25 – 45 years who still are strong and can actively do their job without any challenges. This age group needs motivation, more knowledge and experience. Therefore, management needs to handle this age group well in other to retain for many years of their operation.

Figure 4. 1: Age of Respondents

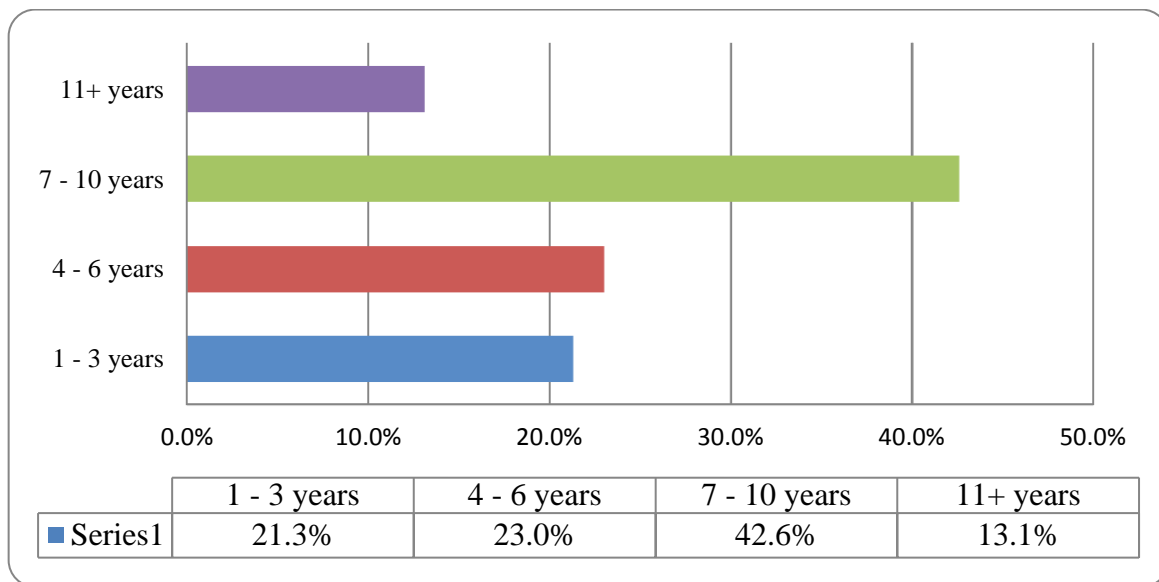


Source: Field Survey, 2016



The figure below represents the number of years a person served in the Tamale Metropolitan Assembly in the Northern Region of Ghana. From this, 42.6 percent of the workers served between 7-10 years, 23 percent served between 4-6 years, 21.3 served between 1-3 years, and 13.1 percent served 11 years and above. This shows that majority of the workers served between 7-10 years (See figure 4. 2 below). This means that majority of the staff have more working experience which is an advantage to the operation of the assembly. This will help them in terms of administrative management of the day to day business of the Tamale Metropolis.

Figure 4. 2: Length of Service in Tamale Metropolitan Assembly



Source: Field Survey, 2016



Education play a vital role in the management of every institution and Tamale Metropolis is not an exception. It's the basic requirement of all employees to be employed to work in the Tamale Metropolis. In the table below, 61.3 percent obtained first degree, 6.5 percent obtained masters, 4.8 obtained Certificates and 27.4 percent obtained HND/Diploma (See table 4.2 below). This shows that almost all the staff has some form of formal education, with majority of them holding first degree. This means that more is needed to be done by

the management of the assembly by way of their level to the master's level to help in the prudent management of the local resources.

Table 4. 2: Level of Education of Respondent

Level of Education	Frequency	Valid Percent
Masters	4	6.5
First Degree	38	61.3
Certificate	3	4.8
HND/Diploma	17	27.4
Total	62	100.0

Source: Field Survey, 2016

From the table below, 27.1 percent of the workers are designated as engineers, planner or administrators, 22.9 percent were designated as suppliers, 18.6 percent were designated as finance or accounts officers, 14.3 as internal auditors, another 14.3 as procurement staff, and 2.9 percent as units' heads.

Table 4. 3: Designation of the Staff of Tamale Metropolitan Assembly

Designation	Frequency	Valid Percent
Engineer/planner/administrator	19	27.1
Finance/ accounts officer	13	18.6
Internal Auditor	10	14.3
Procurement staff	10	14.3
Supplies	16	22.9
Unit heads	2	2.9
Total	70	100.0

Source: Field Survey, 2016

4.3 Collusive tendering in public procurement in the Tamale Metropolis

This section looked at Collusive tendering in public procurement in the Tamale Metropolis.

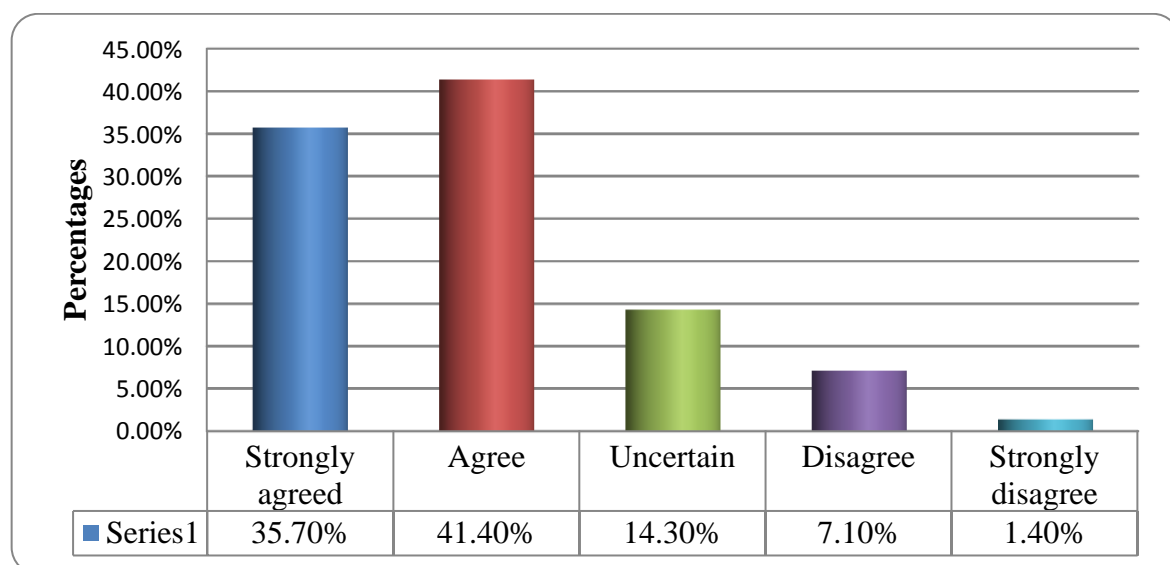
The study examined the various variables which addresses the objective. As part of the investigation the study looked at greed or the perceived value of possible benefits as





www.udsspace.uds.edu.gh examined by the study. Data from the study revealed that, 41.4 percent of the respondents agreed that there is greed or perceived value of possible benefits, 35.7 percent of the respondents strongly agreed that there is greed or perceived value of possible benefits, 14.3 percent of the respondents were uncertain whether there is greed or perceived value of possible benefits or not, 7.1 percent of the respondents disagreed that there is greed or perceived value of possible benefits, and 1.4 percent of the respondents strongly disagreed that there is greed or perceived value of possible benefits (See figure 4.3 below). This means that there is greed in the tendering of public procurement in the Tamale Metropolis. This implies that officials who are engage in the bidding process benefits out of the possible outcomes of the procurement contract.

Figure 4. 3: Greed or the Perceived Value of Possible Benefits

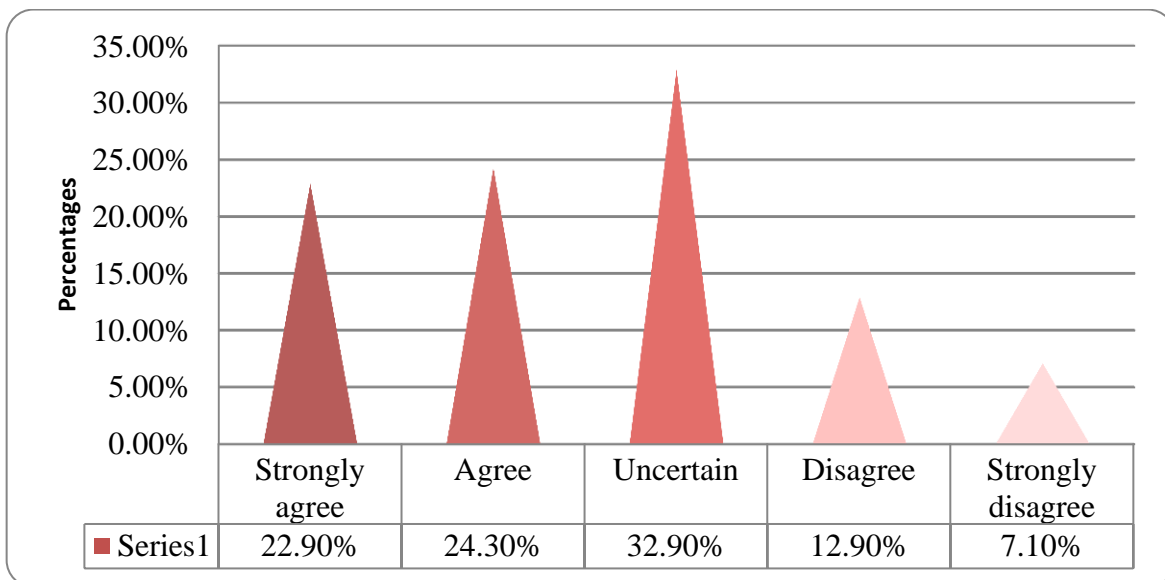


Source: Field Survey, 2016

The study further revealed that 32.9 percent of the respondents were uncertain whether there is lack of knowledge of warning signs of collusive tendering or not, 24.3 percent of the respondents agreed that there is lack of knowledge of warning signs of collusive tendering, 22.9 percent of the respondents strongly agreed that there is lack of knowledge of warning signs of collusive tendering, 12.9 percent of the respondents disagreed that there is lack of

knowledge of warning signs of collusive tendering, and 7.1 percent of the respondents strongly disagreed that there is lack of knowledge of warning signs of collusive tendering. Base on this information, there is about 50.0 percent of the respondents agreement among respondents that there is lack of knowledge of warning signs of collusive tendering (See figure 4.4 below). This means that majority of the staff do not well verse in the procedures of the procuremetn Act 663 of the republic of Ghana. This implies that tendering process in the Tamale Metropolitan Assembly is under treat of been compromise by staff because of lack of knowledge and experince with the procdeures and steps in the procurement process.

Figure 4. 4: Lack of Knowledge of Warning signs of Collusive Tendering

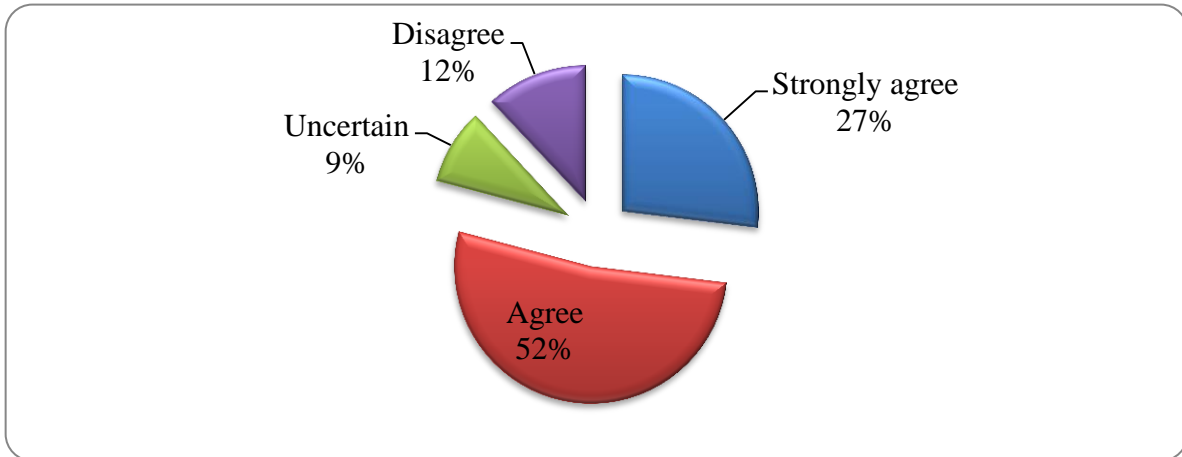


Source: Field Survey, 2016

On the issue of low incentives and salaries of public workers, the information revealed that 52.2 percent of the respondents agreed that incentives and salaries of public workers are low, 26.9 percent of the respondents strongly agreed that incentives and salaries of public workers are low, 11.9 percent of the respondents disagreed that incentives and salaries of public workers are low whiles 9.0 percent of the respondents were uncertain whether incentives and salaries of public workers are low or not (See figure 4.5 below). This means that there is dissatisfaction of staff with regards to their remuneration for work done as a

result of this; staffs are involved in collusive tendering of projects in the Tamale metropolis. This implies that projects tendering is been implicated with fraudulent activities by staff who are involved in the tendering process.

Figure 4. 5: Low Incentives and Salaries of Public Officers

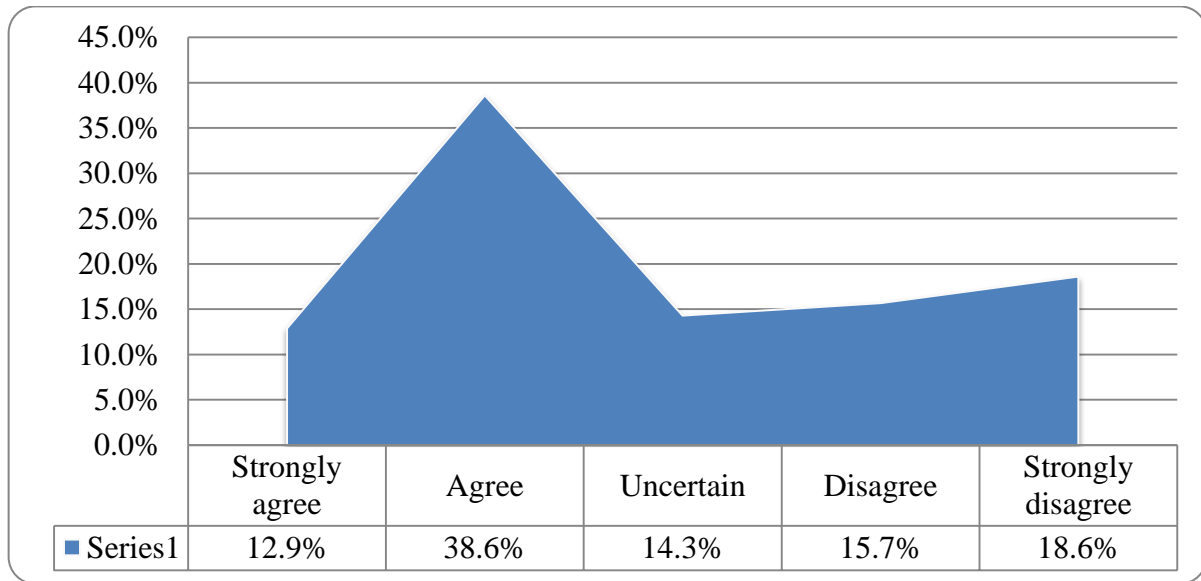


Source: Field Survey, 2016

In the figure below, 38.6 percent of the respondents agreed that there is absence of a complain mechanism for suppliers to convey competition issues, 18.6 percent of the respondents strongly disagreed that there is absence of a complain mechanism for suppliers to convey competition issues, 15.7 percent of the respondents disagreed that there is absence of a complain mechanism for suppliers to convey competition issues, 14.3 percent of the respondents were uncertain whether there is absence of a complain mechanism for suppliers to convey competition issues or not, and 12.9 percent of the respondents strongly agreed that there is absence of a complain mechanism for suppliers to convey competition issues (See figure 4.6 below). In all 51.5 percent of the respondents agreed that there is absence of a complain mechanism for suppliers to convey competition issues. This mean that supplies to the Tamale Metropolitan Assembly do have mechanism to complian of their problems with regards to competition issues regarding contract tendering and procurement issues.



Figure 4. 6: Absence of a Complain Mechanism for Suppliers to convey Competition Issues



Source: Field Survey, 2016

Also information from the study reveals that 26.5 percent of the respondents disagreed that there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff, 23.5 percent of the respondents strongly agreed that there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff, 20.6 percent of the respondents were uncertain whether there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff or not, 16.2 percent of the respondents agreed that there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff and 13.2 percent of the respondents strongly disagreed that there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff (See table 4.4 below). This findings indicates 50 and 50 chances of agreed and disagreed that there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff.



Table 4. 4: Lack of Knowledge about both the Procurement Ordinary Market regarding Input Price Changes by Procurement Staff

Responses	Frequency	Valid Percent
Strongly Agree	16	23.5
Agree	11	16.2
Uncertain	14	20.6
Disagree	18	26.5
Strongly disagree	9	13.2
Total	68	100.0

Source: Field Survey, 2016

The study revealed that 25.8 percent of the respondents were uncertain whether there are restrictive barriers to entry or not, another 25.8 percent of the respondents disagreed that there are restrictive barriers to entry, 22.6 percent of the respondents agreed that there are restrictive barriers to entry, 17.7 percent of the respondents strongly disagreed that there are restrictive barriers to entry and 8.1 percent strongly agreed that there are restrictive barriers to entry (See table 4.5 below). In all 43.5 percent of the respondent disagreed that there are restrictive barriers to entry into the tendering process of projects.

Table 4. 5: Restrictive Entry Barriers

Responses	Frequency	Valid Percent
Strongly agree	5	8.1
Agree	14	22.6
Uncertain	16	25.8
Disagree	16	25.8
Strongly disagree	11	17.7
Total	62	100.0

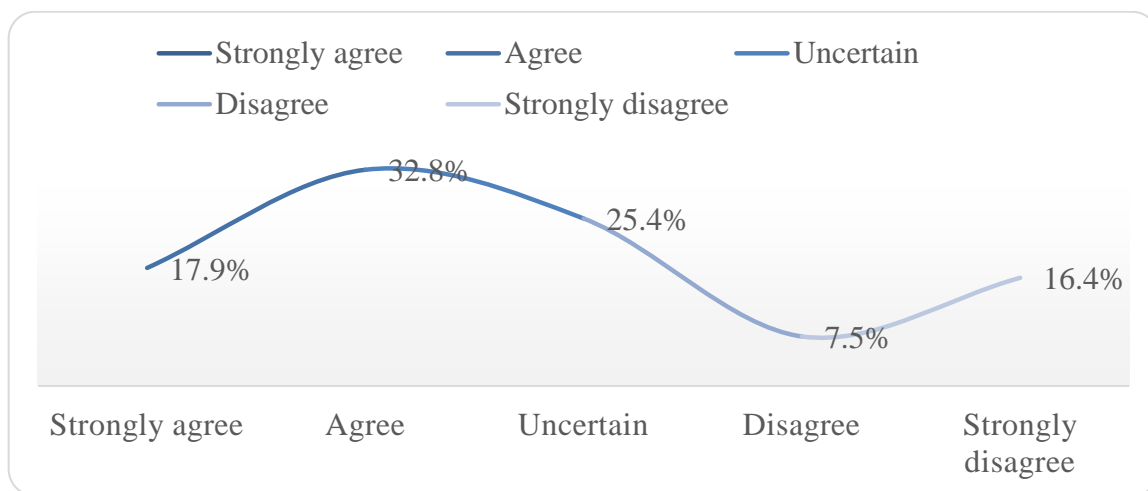
Source: Field Survey, 2016



Furthermore, the study looked at Lack of awareness of procurement staff about the most common signs of bid rigging. Data from the study reveals that 32.8 percent of the respondents agreed that there is lack of awareness of procurement staff about the most common signs of bid rigging, 25.4 percent of the respondents were uncertain whether there is lack of awareness of procurement staff about the most common signs of bid rigging or not, 17.9 percent of the respondents strongly agreed that there is lack of awareness of procurement staff about the most common signs of bid rigging, 16.4 percent of the respondents strongly disagreed that there is lack of awareness of procurement staff about the most common signs of bid rigging, and 7.5 percent of the respondents disagreed that there is lack of awareness of procurement staff about the most common signs of bid rigging (See figure 4.7 below). In all 50.7 percent of the respondents agreed that there is Lack of awareness of procurement staff about the most common signs of bid rigging. This finding confirms the finding is in line with table 4.4 which indicates 50 and 50 chances of respondents agreed and disagreed that there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff.



Figure 4. 7: Lack of Awareness of Procurement Staff about the Most Common Signs of Bid Rigging



Source: Field Survey, 2016

4.4 Causes of Collusive Tendering in Public Procurement in the Tamale Metropolitan Assembly

This section looked at causes of collusive tendering in public procurement in the Tamale Metropolitan Assembly. Respondents were question about their understanding of what collusive tendering is. Respondent's views, knowledge and experience of collusive tendering in their various departments, units, and portfolios were sought from the researcher. Information from the study gives the following as the various respondents understanding of what collusive tendering is: A contractor submitting tender late, Awarding contract through a wrong procedure, Corruption in the procurement process, Favouring a contractor to win a contract, Illegal offering of contracts to suppliers, Officials agreeing to share contracts among themselves, Practicing public procurement secretly, Public officials take bribe to award contract, Raising prices of goods in a bid by officials, Secretly acting illegally for personal gains, Submitting tender offers directly/indirectly, Tendering done in secrete way, The agreement to submit identical bids, When bidders come together to execute a project, When officials manipulate procurement process (See table 4.6 below). This means that respondents have fair understanding of what collusive tendering is and that gives them open minded to respond to the various question posed by the researcher.



The study found out that 37.1 percent of the respondents disagreed that there are incidents of collusion in Tamale Metropolitan Assembly, 28.6 percent of the respondents agreed that there are incidents of collusion in the metropolis, 15.7 percent of the respondents were uncertain whether there are incidents of collusion in Tamale Metropolitan or not, 12.9 percent of the respondents strongly agreed that there are incidents of collusion in Tamale Metropolitan Assembly, and 5.7 percent of the respondents strongly disagreed that there are incidents of collusion in Tamale Metropolitan Assembly (See figure 4. 8 below).

Table 4. 6: Respondents Understanding of Collusive Tendering in Public Procurement

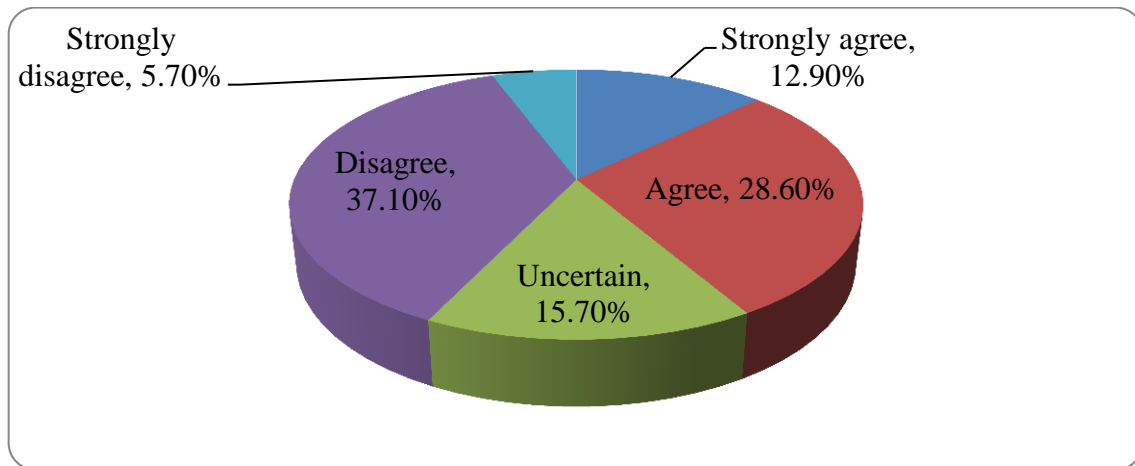
Respondents Understanding of Collusive Tendering	Frequency	Valid Percent
A contractor submitting tender late	1	1.4
Awarding contract through a wrong procedure	1	1.4
Corruption in the procurement process	2	2.9
Favouring a contractor to win a contract	1	1.4
Illegal offering of contracts to suppliers	5	7.1
Officials agreeing to share contracts among themselves	3	4.3
Practicing public procurement secretly	3	4.3
Public officials take bribe to award contract	2	2.9
Raising prices of goods in a bid by officials	2	2.9
Secretly acting illegally for personal gains	2	2.9
Submitting tender offers directly/indirectly	1	1.4
Tendering done in secrete way	7	10.0
The agreement to submit identical bids	2	2.9
When bidders come together to execute a project	5	7.1
When officials manipulate procurement process	3	4.3
Total	70	100.0

Source: Field Survey, 2016

In all 42.7 percent of the respondent disagreed that there are no incidents of collusive tendering in the Tamale Metropolitan Assembly and almost equal 41.5 percent of the respondents agreed that there is no incidents of collusive tendering in the Tamale Metropolitan Assembly. This means that there is a possibility of collusion in tendering of projects among officials in the Tamale Metropolitan Assembly. Table 4.6 above shows that officials in charge of the tendering secretly act illegally for personal gains via collusive tendering behaviour.



Figure 4. 8: Incidents of Collusive Tendering in the Metropolis



Source: Field Survey, 2016.

On the issue of how tenders and contract awards are done in secrecy, devoid of competitive bidding system in Tamale Metropolitan Assembly. Respondents came out with the following as how tenders and contract awards are done in secrecy, devoid of competitive bidding system; Adverts are done on only one media house, All the tenders are not treated equally, Compliance bidding must be followed by all, Contracts are advertise in open newspapers, Contracts are awarded to competitors bidding, Contracts are carried out the prescribed way, Greed and corruption of public officials, Having interest in gaining a favour in a bid, Information are leaked to preferred contractor, It is always done in competitive manner, Laid down rules are bridged for personal gain, Many cases have political influence, Most contracts are awarded to experience contractors, Most contracts are based on political influence, Public officers do tendering secretly, Secrete awards due to personal gains, Suppliers are allowed to be present in tendering process, Tamale Metropolitan Assembly still have their way out of award of contracts (See table 4.7 below). This means that majority of the respondents have fair idea as to how tenders and contract awards are done in secrecy, devoid of competitive bidding system in the Metropolis. This implies that there is some form of violations of the tendering process of the Tamale Metropolitan Assembly.



Therefore, management of the Tamale Metropolitan Assembly needs to act on the very issues to combat the various challenges that are affecting the tendering process of the assembly.

Table 4. 7: How Tenders and contract awards are done in secrecy, devoid of Competitive Bidding system in the Metropolis

How Tenders and contract awards are done	Frequency	Valid Percent
Adverts are done on only one media house	2	2.9
All the tenders are not treated equally	5	7.1
Compliance bidding must be followed by all	2	2.9
Contracts are advertise in open news papers	3	4.3
Contracts are awarded to competitors bidding	2	2.9
Contracts are carried out the prescribed way	3	4.3
Greed and corruption of public officials	2	2.9
Having interest in gaining a favour in a bid	2	2.9
Information are leaked to preferred contractor	4	5.7
It is always done in competitive manner	2	2.9
Laid down rules are bridged for personal gain	2	2.9
Many cases have political influence	2	2.9
Most contracts are awarded to experience contractors	4	5.7
Most contracts are based on political influence	2	2.9
Public officers do tendering secretly	4	5.7
Secrete awards due to personal gains	9	12.9
Suppliers are allowed to be present in tendering process	2	2.9
The assemble still have their way out of award of contracts	7	10.0
Total	70	100.0

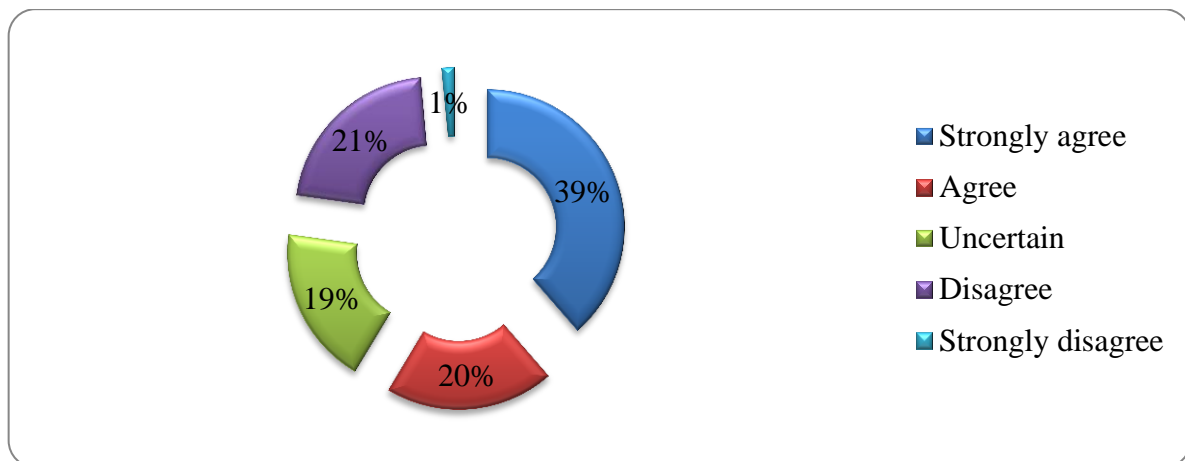
Source: Field Survey, 2016

On the issue of bribery, it was revealed that 38.6 percent of the respondents strongly agreed that there is bribery to win lucrative contracts in Tamale Metropolitan Assembly, 21.4 percent of the respondents disagreed that there is bribery to win lucrative contracts in



Tamale Metropolitan Assembly, 20.0 percent of the respondents agreed that there is bribery to win lucrative contracts in Tamale Metropolitan Assembly, 18.6 percent of the respondents were uncertain whether there is bribery to win lucrative contracts in Tamale Metropolitan Assembly or not and 1.4 percent of the respondents strongly disagreed that there is bribery to win lucrative contracts in Tamale Metropolitan Assembly (See figure 4.9 below). In all 58.6 percent of the respondents agreed that there is bribery to win lucrative contracts in Tamale Metropolitan Assembly. This means that there is bribery and corruption in the award of contracts through the tendering process in Tamale Metropolitan Assembly. This will affect the local level management of the administration of the resources.

Figure 4. 9: Bribery to win Lucrative Contracts



Source: Field Survey, 2016



The study found out that 58.6 percent of the respondents agreed that there is nepotism in the award of contract in the Tamale Metropolitan Assembly, 15.7 percent of the respondents strongly agreed that there is nepotism in the award of contract in Tamale Metropolitan Assembly, 12.9 percent of the respondents disagreed that there is nepotism in the award of contract in Tamale Metropolitan Assembly, 8.6 percent of the respondents were uncertain whether there is nepotism in the award of contract in the Tamale Metropolitan Assembly or not, and 4.3 percent of the respondents strongly disagreed that there is nepotism in the

award of contract in the Tamale Metropolitan Assembly. In all 74.3 percent of the respondents agreed that there is nepotism in the award of contract in the Tamale Metropolitan Assembly. In view of this information there is no doubt that there is nepotism in the award of contract in the Tamale Metropolitan Assembly (See table 4.8 below). This means that there is some form of discrimination and favouritism in the award of contracts to contractors who are not qualified to be awarded with contracts. This implies that the award of contracts has been misled by personal interest of procurement officials in the Tamale Metropolitan Assembly.

Table 4. 8: Nepotism in the award of Contract in Tamale Metropolitan Assembly

Responses	Frequency	Valid Percent
Strongly agree	11	15.7
Agree	41	58.6
Uncertain	6	8.6
Disagree	9	12.9
Strongly disagree	3	4.3
Total	70	100.0

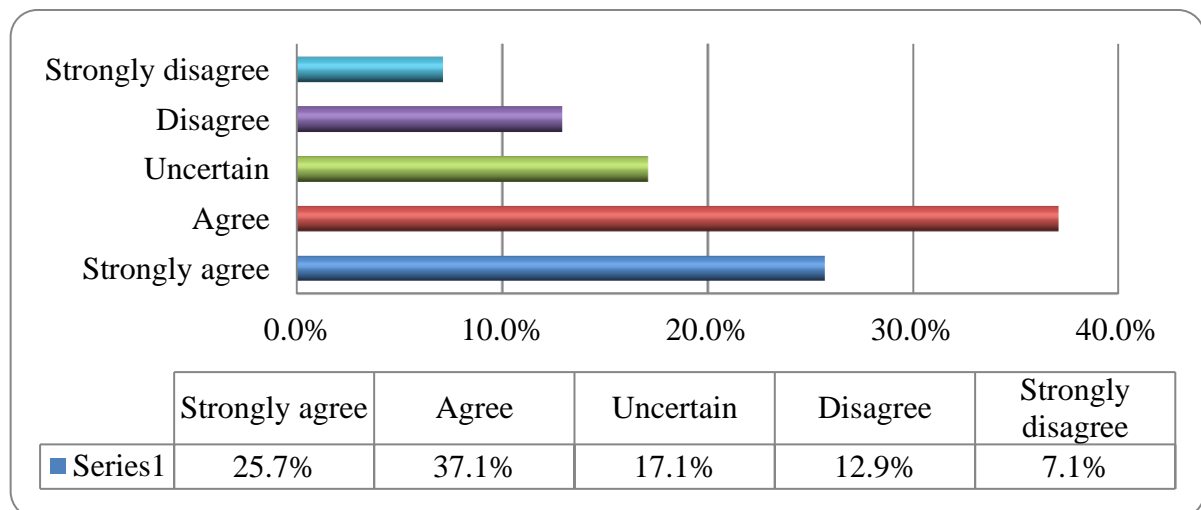
Source: Field Survey, 2016

Also on the issue of Disclosure / Leaking of Vital Information to Selected bidders of Contracts in Tamale Metropolitan Assembly, it was found out that, 37.1 percent of the respondents agreed that there is disclosure/leaking of vital information to selected bidders of Contracts in Tamale Metropolitan Assembly, 25.7 percent of the respondents strongly agreed that there is disclosure/leaking of vital information to selected bidders of Contracts in Tamale Metropolitan Assembly, 17.1 percent of the respondents were uncertain whether there is disclosure/leaking of vital information to selected bidders of Contracts in Tamale Metropolitan Assembly or not, 12.9 percent of the respondents disagreed that there is disclosure/leaking of vital information to selected bidders of Contracts in Tamale



Metropolitan Assembly, and 7.1 percent of the respondents strongly disagreed that there is disclosure/leaking of vital information to selected bidders of Contracts in Tamale Metropolitan Assembly. This information attests to the fact that there is disclosure/leaking of vital information to selected bidders of Contracts in Tamale Metropolitan Assembly (See figure 4. 10 below). This means that some contractors who are the favourites of the officials are been informed as to what is required to be selected for a particular contract before he/she submit the tendering documents for the contract to be awarded to him/her. These kinds of disclosure to contractors give way for shoddy works of contractors in some projects that are been awarded to bidders of contracts in the Tamale Metropolitan Assembly.

Figure 4. 10: Disclosure / Leaking of Vital Information to Selected bidders of Contracts in Tamale Metropolitan Assembly

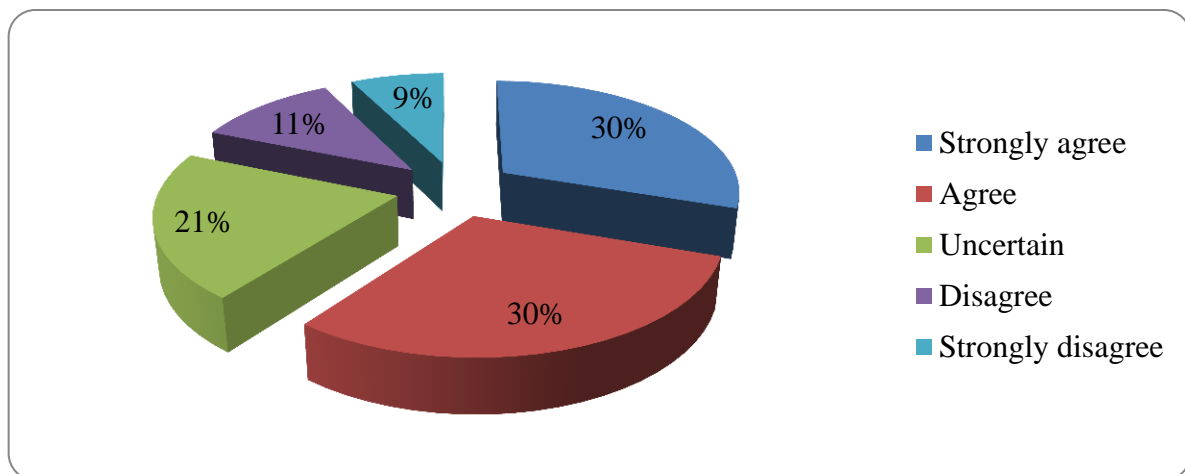


Source: Field Survey, 2016

The figure below shows the publication status of the auction. It was observed that 30.2 percent of the respondents strongly agreed that there is limited publication of a request for bids of contracts in the Tamale Metropolitan Assembly, 30.2 percent of the respondents also agreed that there is limited publication of a request for bids of contracts in the Tamale Metropolitan Assembly, 20.8 percent of the respondents were uncertain whether there is

limited publication of a request for bids of contracts in the Tamale Metropolitan Assembly or not, 11.3 percent of the respondents disagreed that there is limited publication of a request for bids of contracts in the Tamale Metropolitan Assembly, and 7.5 percent of the respondents strongly disagreed that there is limited publication of a request for bids of contracts in the Tamale Metropolitan Assembly. In percentage wise, publication of a request for bids of contracts in the Tamale Metropolitan Assembly was undoubtedly limited (See figure 4.11 below). This means that publications of bids are limited and not to all bidders who wishes to apply for the contract. This implies only bidders who are the favourites of the officials will be considered for the contracts.

Figure 4. 11: Limited Publication of a Request for Bids of contracts in the Tamale Metropolitan Assembly



Source: Field Survey, 2016



The study further looked at the falsifying documentation to justify direct contracting awards in the Tamale Metropolitan Assembly. Information available indicates that 43.4 percent of the respondents are uncertain whether there is falsification of documentation to justify contracting awards in the Tamale Metropolitan Assembly or not, 30.0 percent of the respondents strongly agreed that there is falsification of documentation to justify contracting, and 9.4 percent of the respondents agreed that there is falsification of

documentation to justify contracting awards in the Tamale Metropolitan Assembly. On the contrary, 9.4 percent of the respondents disagreed that there is falsification of documentation to justify contracting awards in the Tamale Metropolitan Assembly and 7.5 percent of the respondents strongly disagreed as well that there is falsification of documentation to justify contracting awards in the Tamale Metropolitan Assembly (See table 4.9 below). This means that respondents are not sure of the falsification of documentation to justify contracting awards in the Tamale Metropolitan Assembly. This implies documents are not altered by officials to favoured a bidder to win a contract in the Tamale Metropolitan Assmbly.

Table 4. 9: Falsifying Documentation to justify Direct Contracting Awards in the Tamale Metropolitan Assembly

Response	Frequency	Valid Percent
Strongly agree	16	30.2
Agree	5	9.4
Uncertain	23	43.4
Disagree	5	9.4
Strongly disagree	4	7.5
Total	53	100.0

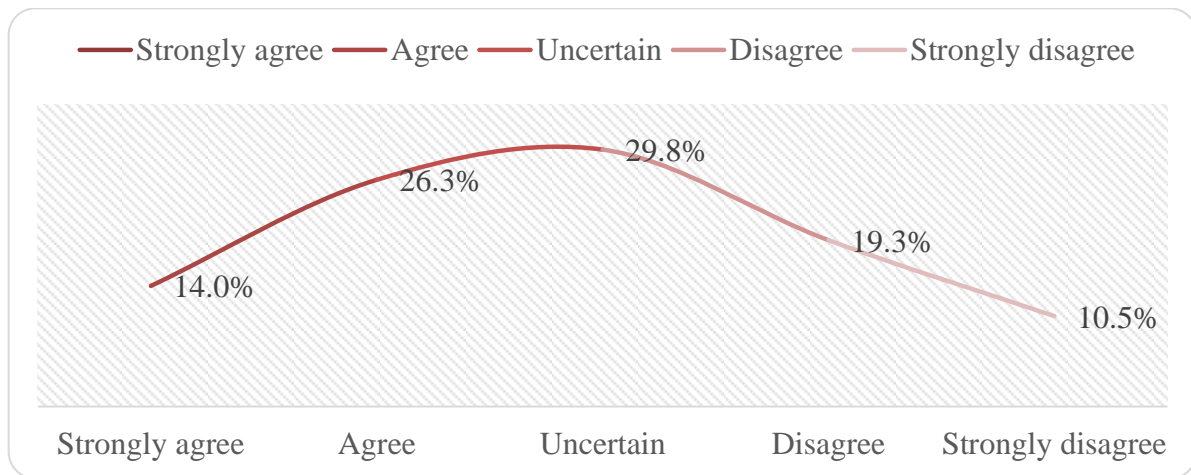
Source: Field Survey, 2016



The study also established that 29.8 percent of the respondents are uncertain whether there is failure to maintain procurement records by Officials in Tamale Metropolitan Assembly or not, 26.3 percent of the respondents agreed that there is failure to maintain procurement records by Officials in Tamale Metropolitan Assembly, 19.3 percent of the respondents disagreed that there is failure to maintain procurement records by Officials in Tamale Metropolitan Assembly, 14 percent of the respondents strongly agreed that there is failure to maintain procurement records by Officials in Tamale Metropolitan Assembly, and 10.5

percent of the respondents strongly disagreed that there is failure to maintain procurement records by Officials in Tamale Metropolitan Assembly (See figure 4.12 below). This finding is similar to the finding in table 4.9 where 43.4 percent of the respondents are uncertain whether there is falsification of documentation to justify contracting awards in the Tamale Metropolitan Assembly. This particular finding is also in doubt about maintaining of procurement records by officials in the Tamale Metropolitan Assembly. This probably may mean that procurement officials are not well versed in the documentation process of the assembly.

Figure 4.12: Failure to Maintain Procurement Records by Officials in Tamale Metropolitan Assembly



Source: Field Survey, 2016

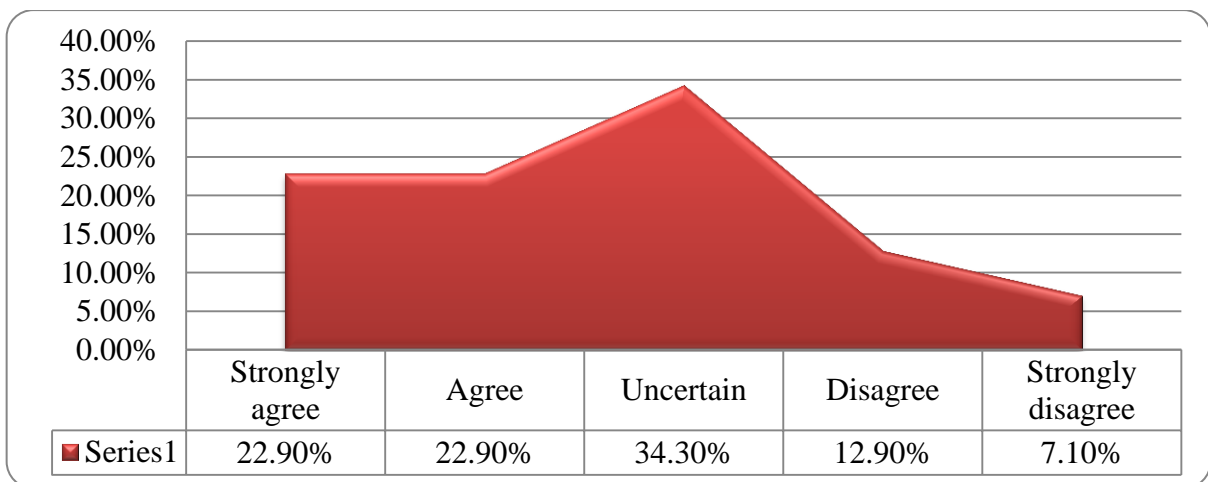


In the case of splitting up purchases the study revealed that 34.3 percent of the respondents are uncertain whether purchases are splitted in order to stay below the tresh holeof awarding of contract by the Tamale Metropolitan Assembly or not, 22.9 percent of the respondents strongly agreed that purchases are splitted in order to stay below the tresh holeof awarding of contract by the Tamale Metropolitan Assembly, 22.9 percent of the respondents also agreed that purchases are splitted in order to stay below the tresh holeof awarding of contract by the Tamale Metropolitan Assembly, 12.9 percent of the respondents disagreed

www.udsspace.uds.edu.gh

that purchases are splitted in order to stay below the thresh holeof awarding of contract by the Tamale Metropolitan Assembly, and 7.1 percent of the respondents strongly disagreed that purchases are splitted in order to stay below the tresh holeof awarding of contract by the Tamale Metropolitan Assembly. This suggest that about 50.0 percent of the respondents each splitted over the issue of thresh hold that is to stay below the tresh holeof awarding of contract by the Tamale Metropolitan Assembly (See figure 4. 13 below).

Figure 4.13: Splitting up Purchases in order to stay Below the Thresh hole of Awarding of Contract by the Tamale Metropolitan Assembly



Source: Field Survey, 2016

The study further revealed that 47.0 percent of the respondents agreed that competitors are allowed to buy a whole lot of a bid through the Tamale Metropolitan Assembly, 15.2 percent of the respondents srongly agreed that competitors are allowed to buy a whole lot of a bid through the Tamale Metropolitan Assembly, 13.6 percent of the respondents disagreed that competitors are allowed to buy a whole lot of a bid through the Tamale Metropolitan Assembly, another 13.6 percent of the respondents are uncertain whether competitors are allowed to buy a whole lot of a bid through the Tamale Metropolitan Assembly or not, and 10.6 percent of the respondents strongly disagreed that competitors are allowed to buy a whole lot of a bid through the Tamale Metropolitan Assembly (See table 4.10 below).

Table 4. 10: Allowing Competitor to buy a Whole lot of a Bid through the Tamale Metropolitan Assembly

Response	Frequency	Valid Percent
Strongly agree	10	15.2
Agree	31	47.0
Uncertain	9	13.6
Disagree	9	13.6
Strongly disagree	7	10.6
Total	66	100.0

Source: Field Survey, 2016

Also the study finds out about other anticompetitive practices that in their view exist in the Tamale Metropolitan Assembly came out with several facts.

Table 4. 11: Other Anti-Competitive Practices that exist in the Tamale Metropolis

	Frequency	Valid Percent
Award of contract to party boys	1	1.4
Awarding contracts based on previous experience	3	4.3
Awarding contracts due to relationship influence	2	2.9
Contracts are awarded to party faithful's	7	10.0
Institutions undermine processes of procurement	3	4.3
Most contracts are awarded to experience contractors	2	2.9
Officials share contracts among themselves	1	1.4
Price adjustment/over invoicing	1	1.4
Sole sourcing	1	1.4
Soliciting finance to influence the process	2	2.9
Tender advert. on only one media (daily graphic)	2	2.9
There is bid rigging	3	4.3
They take monies before contracts awarded	1	1.4
Understand dealings between members and bidder	2	2.9
Total	70	100.0

Source: Field Survey, 2016



www.udsspace.uds.edu.gh

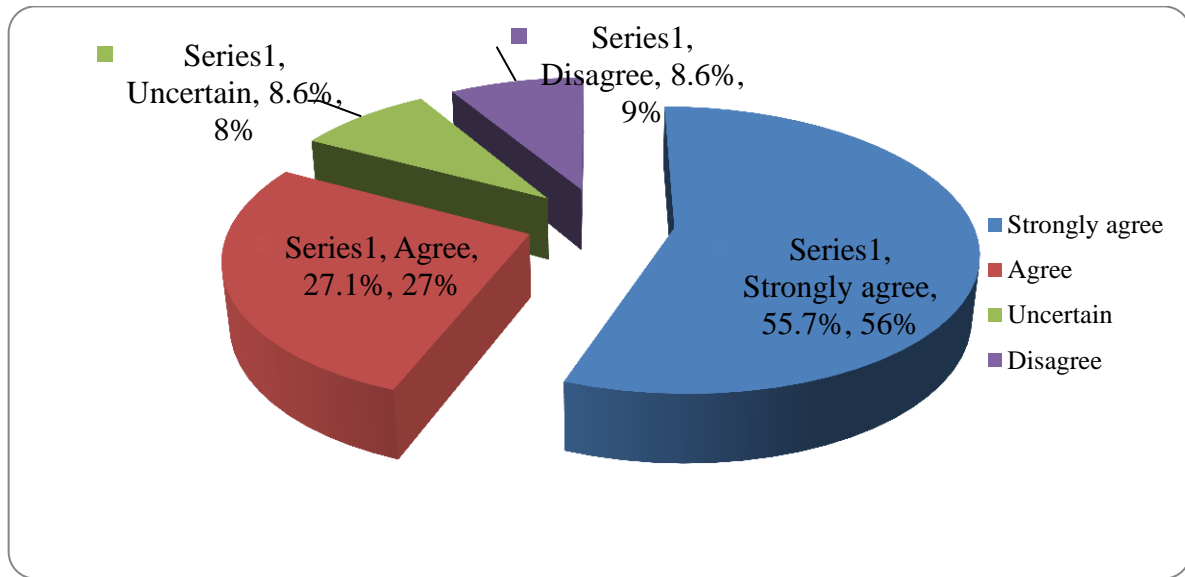
According to Table 4.11, the following challenges are predominant; Award of contract to party boys, Awarding contracts based on previous experience, Awarding contracts due to relationship influence, Contracts are awarded to party faithful's, Institutions undermine processes of procurement, Most contracts are awarded to experience contractors, Officials share contracts among themselves, Price adjustment/over invoicing, Sole sourcing, Soliciting finance to influence the process, Tender advertise on only one media (daily graphic), There is bid rigging, Take monies before contracts awarded, Understand dealings between members and bidder (See table 4.11 above).

4.4 Effects on Procurement of Goods, Works and Services in the Tamale Metropolitan Assembly

This section looked at the Effects on Procurement of Goods, Works and Services in the Tamale Metropolitan Assembly. Findings from the study reveals that, 55.7 percent of the respondents strongly agreed that the process undermines/deprive consumers of the benefits of competition (fair trade) in the market, 27.1 percent of the respondents agreed that the process undermines/deprive consumers of the benefits of competition (fair trade) in the market, 8.6 percent of the respondents are uncertain whether the process undermines/deprive consumers of the benefits of competition (fair trade) in the market or not while another 8.6 percent of the respondents disagreed that the process undermines/deprive consumers of the benefits of competition (fair trade) in the market. This however prove or confirm that the process undermines/deprive consumers of the benefits of competition (fair trade) in the market.



Figure 4.14: It Undermines/Deprives Consumers of the Benefits of Competition (fair trade) in the Market

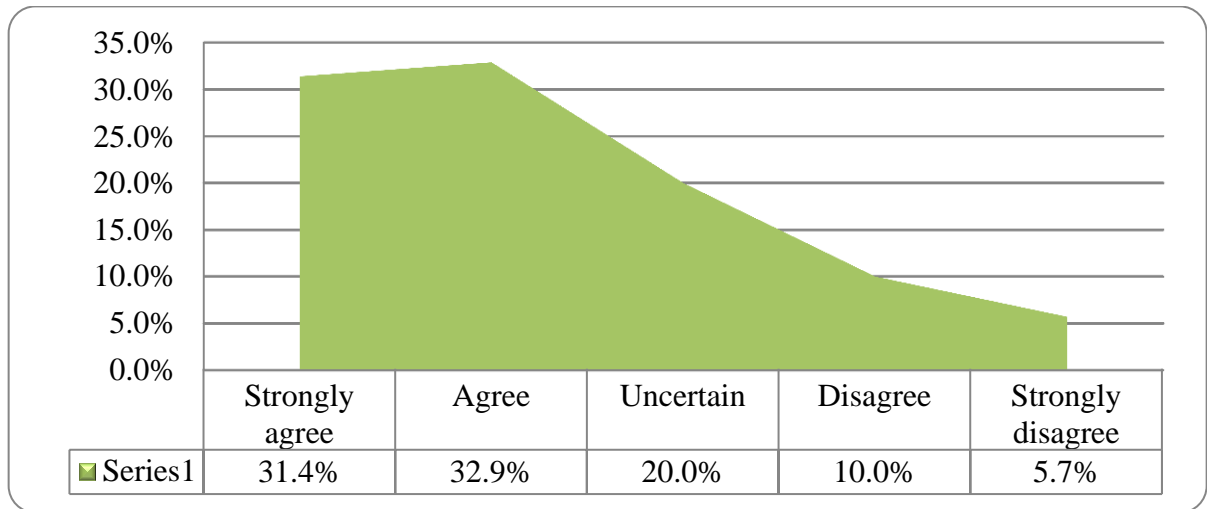


Source: Field Survey, 2016

The study revealed that 32.9 percent of the respondents agreed that the process raises the cost of doing business in the metropolis enabling people to earn higher profits for lesser efforts, 31.4 percent strongly agreed that the process raises the cost of doing business in the metropolis enabling people to earn higher profits for lesser efforts, and 20.0 percent are uncertain whether the process raises the cost of doing business in the metropolis enabling people to earn higher profits for lesser efforts or not. On the other hand, 8.6 percent of the respondents disagreed that the process raises the cost of doing business in the metropolis enabling people to earn higher profits for lesser efforts.



Figure 4.15: Cost of Doing Business in the Metropolis, Enabling to Earn Higher Profits for Less Effort

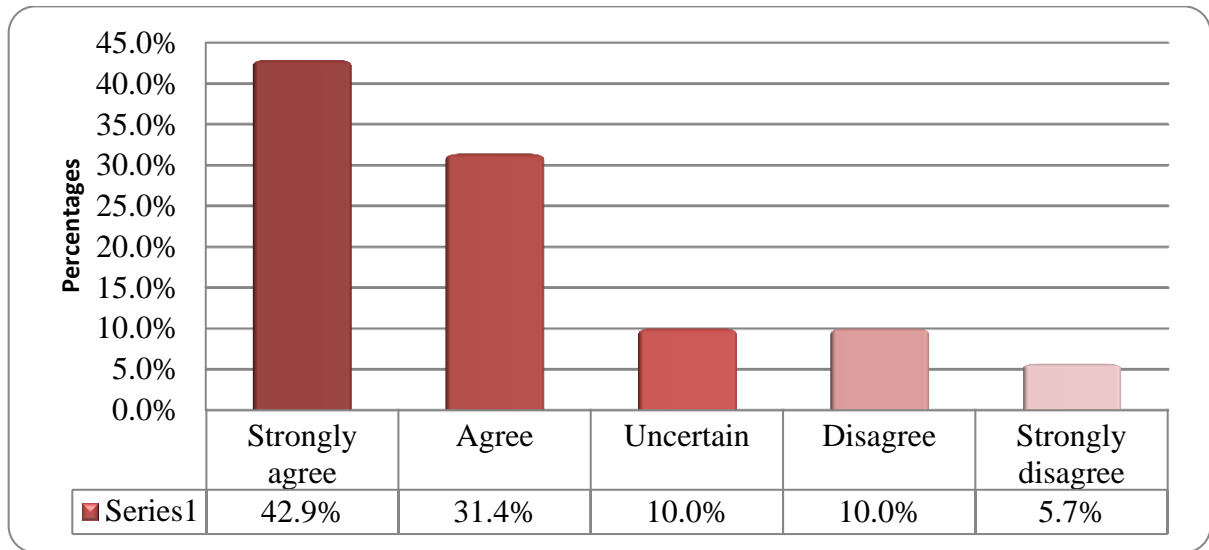


Source: Field Survey, 2016

The study further revealed that 42.9 percent of the respondents strongly agreed that the process create unnecessary economic pressure on the government, the tax payer and development partners, 31.4 percent of the respondents agreed that the process create unnecessary economic pressure on the government, the tax payer and development partners, 10.0 percent of the respondents are uncertain whether the process create unnecessary economic pressure on the government, the tax payer and development partners or not, another 10.0 percent of the respondents disagreed that the process create unnecessary economic pressure on the government, the tax payer and development partners, and 5.7 percent of the respondents strongly disagreed that the process create unnecessary economic pressure on the government, the tax payer and development partners. Base on this, the over 70.0 percent of respondents agreement among respondents shows the extent to which the process create unnecessary economic pressure on the government, the tax payer and development partners (See figure 4.16 below).



Figure 4.16: Create Unnecessary Economic Pressure on the Government, the Tax Payer and Development Partners



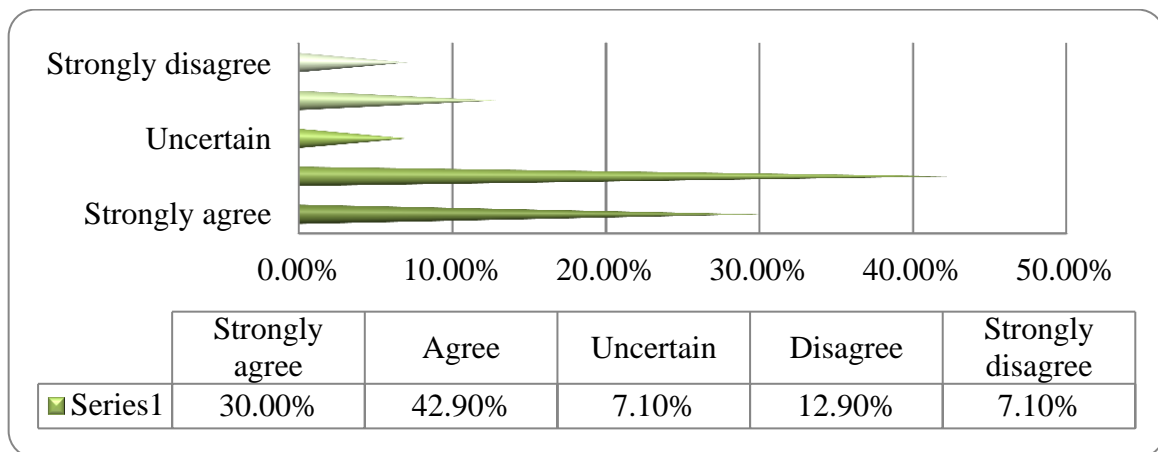
Source: Field Survey, 2016

In the figure below, 42.9 percent of the respondents agreed that it inhibits investment and economic development in Tamale Metropolis, 30.0 percent of the respondents strongly agreed that it inhibits investment and economic development in Tamale Metropolis, 12.9 percent of the respondents disagreed that it inhibits investment and economic development in Tamale Metropolis, 7.1 percent of the respondents strongly disagreed that it inhibits investment and economic development in Tamale Metropolis and another 7.1 percent are uncertain whether it inhibits investment and economic development in Tamale Metropolis.

In view of this, over 72.0 percent of the developmental challenges can be associated to investment and economic wastages.



Figure 4.17: Inhibits Investment and Economic Development in Tamale Metropolis



Source: Field Survey, 2016

On the issue of threaten the moral integrity of public officers and ethical business standards in Tamale Metropolitan Assembly. Data from the finding reveals that 52.9 percent of the respondents agreed that the process threaten the moral integrity of public officers and ethical business standards in Tamale Metropolitan Assembly, 32.9 percent of the respondents strongly agreed that the process threaten the moral integrity of public officers and ethical business standards in Tamale Metropolitan Assembly, 8.6 percent of the respondents are uncertain whether the process threaten the moral integrity of public officers and ethical business standards in Tamale Metropolitan Assembly or not, and 5.7 percent of the respondents disagreed that the process threaten the moral integrity of public officers and ethical business standards in Tamale Metropolitan Assembly. This means that the process threaten the moral integrity of public officers and ethical business standards as over 80 percent of the respondents agreed to threaten the moral integrity of public officers and ethical business standardst in Tamale Metropolitan Assembly (See table 4.12 below).



Table 4. 12: Threaten the Moral Integrity of Public Officers and Ethical Business Standards

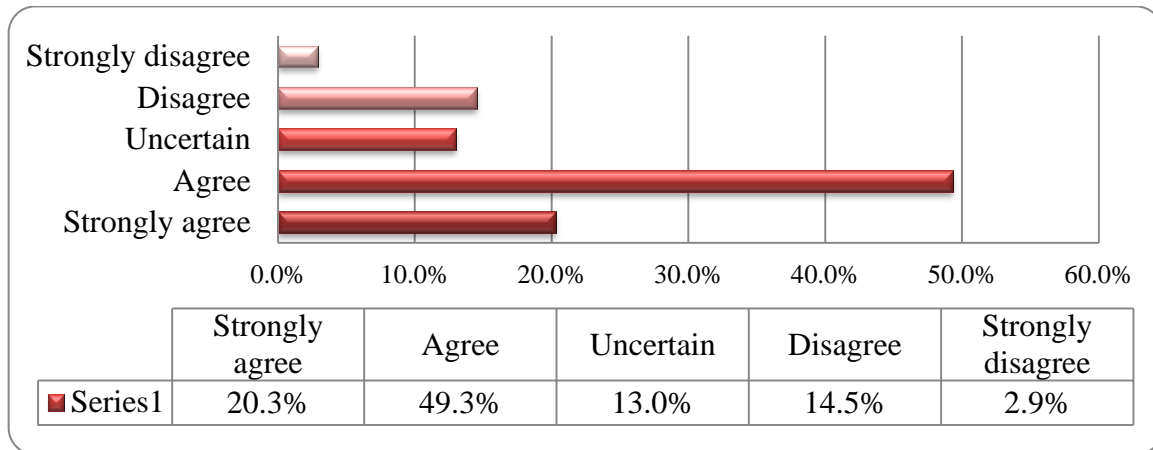
Respondents	Frequency	Valid Percent
Strongly agree	23	32.9
Agree	37	52.9
Uncertain	6	8.6
Disagree	4	5.7
Total	70	100.0

Source: Field Survey, 2016

On the issue of the poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative, 49.3 percent of the respondents agreed that poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative, 20.3 percent of the respondents strongly agreed that poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative, 14.5 percent of the respondents disagreed that poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative, 13 percent of the respondents are uncertain whether poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative or not, and 2.9 percent of the respondents strongly disagreed that poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative. The results undoubtedly shows that poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative as over 60 percent of the respondents agreed to the poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative in the Tamale Metropolitan Assembly.



Figure 4.18: Poor Quality of Goods and Services are received as Tendering Parties have Less Incentive to be Efficient and Innovative

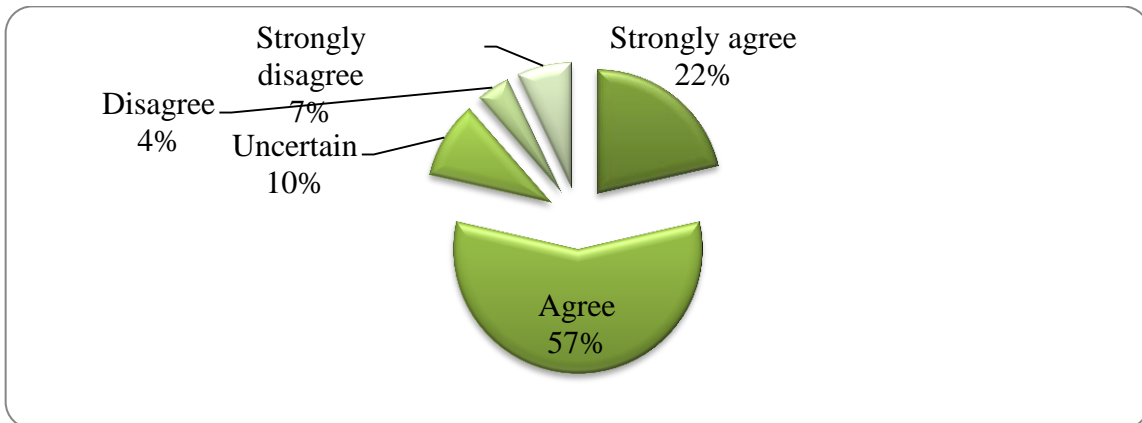


Source: Field Survey, 2016

The study further revealed that 57.1 percent of the respondents agreed that there is high possibility of shoddy works leading to the collapse and loss of human lives and property, 21.4 percent of the respondents strongly agreed that there is high possibility of shoddy works leading to the collapse and loss of human lives and property, 10.0 percent of the respondents are uncertain whether there is high possibility of shoddy works leading to the collapse and loss of human lives and property or not, 7.1 percent of the respondents strongly disagreed that there is high possibility of shoddy works leading to the collapse and loss of human lives and property, and 4.3 percent of the respondents disagreed that there is high possibility of shoddy works leading to the collapse and loss of human lives and property. Base on this information, over 70 percent of collapse and loss of human lives and properties can be associated with shoddy works.



Figure 4.19: High Possibility of Shoddy Works leading to Collapse and Loss of Human Lives and Property



Source: Field Survey, 2016

4.5 Challenges to Tackling Collusive Tendering in Tamale Metropolis

Challenges are inevitable in every organization or institution where people are engaged in the use of state resources to the betterment of the people. This challenge comes in different ways and in different directions from individuals and entities that are entrusted with state resources to manage. Tamale Metropolitan Assembly is no exception to these challenges as the study investigated the issues of challenges encountered in addressing collusive tendering behaviours in the Tamale Metropolitan Assembly. Information from the study reveals the following as challenges encountered in addressing collusive tendering behaviour in Tamale Metropolitan Assembly; Bidders/contractors lose confidence in the tendering process, Delay in the delivery of development projects, Failure to follow the right process by tendering officials, Interference of politicians in contract process, Lack of information in tender process, Lack of monitoring and enforcement of regulation, Lack of public knowledge of the procurement Act 663, Political parties should not interfere in procurement, Public officials are not punished for tendering, Public officials resist directives from politicians, Suppliers are educated on changes in tendering, those who take action end up losing their jobs, Too much time and energy wasted (See table 4.13 below).



Table 4. 13: Challenges Encounter in Addressing Collusive Tendering Behaviours in the Tamale Metropolitan Assembly

Challenges	Frequency	Valid Percent
Bidders/contractors lose confidence in the tendering process	2	2.8
Delay in the delivery of development projects	1	1.4
Failure to follow the right process by tendering officials	1	1.4
Interference of politicians in contract process	3	4.3
Lack of information in tender process	4	5.7
Lack of monitoring and enforcement of regulation	2	2.9
Lack of public knowledge of the procurement Act 663	3	4.3
Political parties should not interfere in procurement	16	23.0
Public officials are not punished for tendering	1	1.4
Public officials resist directives from politicians	2	2.9
Suppliers are educated on changes in tendering those who take action end up losing their jobs	2	2.9
Too much time and energy wasted	3	4.3
Total	70	100.0

Source: Field Survey, 2016

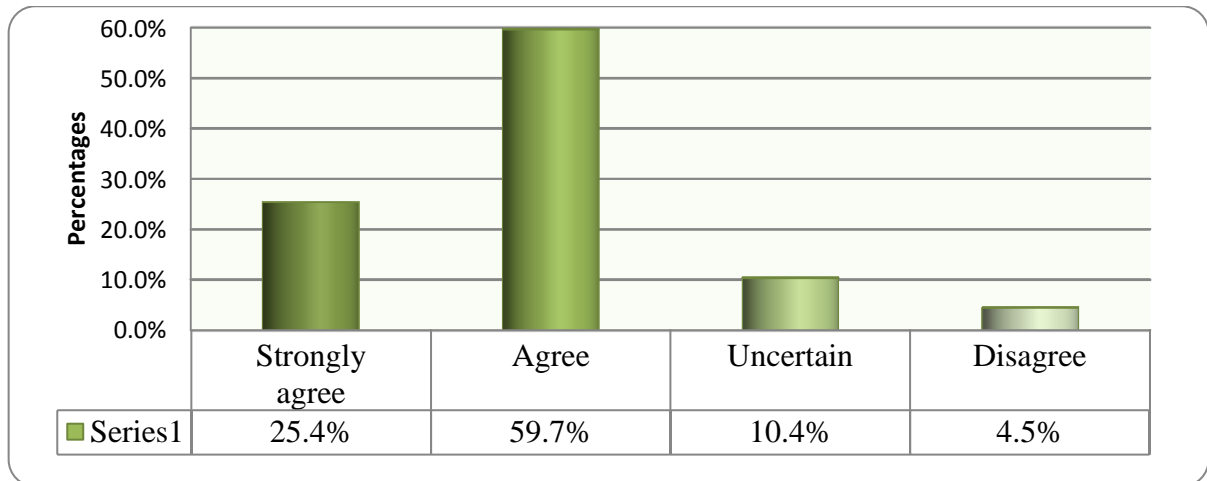
Another issue investigated by the researcher is unwillingness by firms and public officials to volunteer information making it difficult to detect irregularities of tendering documents.

The research reveals that, 59.7 percent of the respondents agreed that unwillingness by firms and public officials to volunteer information make it difficult to detect irregularities in tendering documents, 25.4 percent of the respondents strongly agreed that unwillingness by firms and public officials to volunteer information make it difficult to detect irregularities in tendering documents, 10.4 percent of the respondents are uncertain whether unwillingness by firms and public officials to volunteer information make it difficult to detect irregularities in tendering documents or not and 4.5 percent of the respondents disagreed that unwillingness by firms and public officials to volunteer information make it difficult to



detect irregularities in tendering documents. This explains how challenging it is to detect irregularities in the absence of firms and public co-operation in the tendering process of Tamale Metropolitan Assembly (see figure 4.20 below).

Figure 4.20: Unwillingness by Firms and Public Officials to Volunteer Information making it Difficult to Detect Irregularities



Source: Field Survey, 2016

The study also found out that 48.6 percent of the respondents agreed that the process have low risk of sanctions and fines by management of Tamale Metropolitan Assembly, 31.4 percent of the respondents strongly agreed that the process have low risk of sanctions and fines by management of Tamale Metropolitan Assembly, 10.0 percent of the respondents are uncertain whether the process have low risk of sanctions and fines by management of Tamale Metropolitan Assembly or not and another 10.0 percent of the respondents disagreed that the process have low risk of sanctions and fines by management of Tamale Metropolitan Assembly (See table 4.14 below).



Table 4. 14: Low Risk of Sanctions and Fines by Management of Tamale Metropolitan Assembly

Responses	Frequency	Valid Percent
Strongly agree	22	31.4
Agree	34	48.6
Uncertain	7	10.0
Disagree	7	10.0
Total	70	100.0

Source: Field Survey, 2016

Additionally, on the issues of low degree of professional integrity by staffs of the procurement and tendering unit of the Tamale Metropolitan Assembly, the study further revealed that 45.6 percent of the respondents agreed that the process have low degree of professional integrity by staffs of the procurement and tendering unit of the Tamale Metropolitan Assembly, 22.1 percent of the respondents strongly agreed that the process have low degree of professional integrity by staffs of the procurement and tendering unit of the Tamale Metropolitan Assembly, another 22.1 percent of the respondents disagreed that the process have low degree of professional integrity by staffs of the procurement and tendering unit of the Tamale Metropolitan Assembly, while 10.3 percent of the respondents are uncertain whether the process have low degree of professional integrity by staffs of the procurement and tendering unit of the Tamale Metropolitan Assembly or not (See table 4.15 below).



Table 4. 15: Low degree of Professional Integrity by Staff of the Procurement and Tendering Unit of the Tamale Metropolitan Assembly

Responses	Frequency	Valid Percent
Strongly agree	15	22.1
Agree	31	45.6
Uncertain	7	10.3
Disagree	15	22.1
Total	68	100.0

Source: Field Survey, 2016

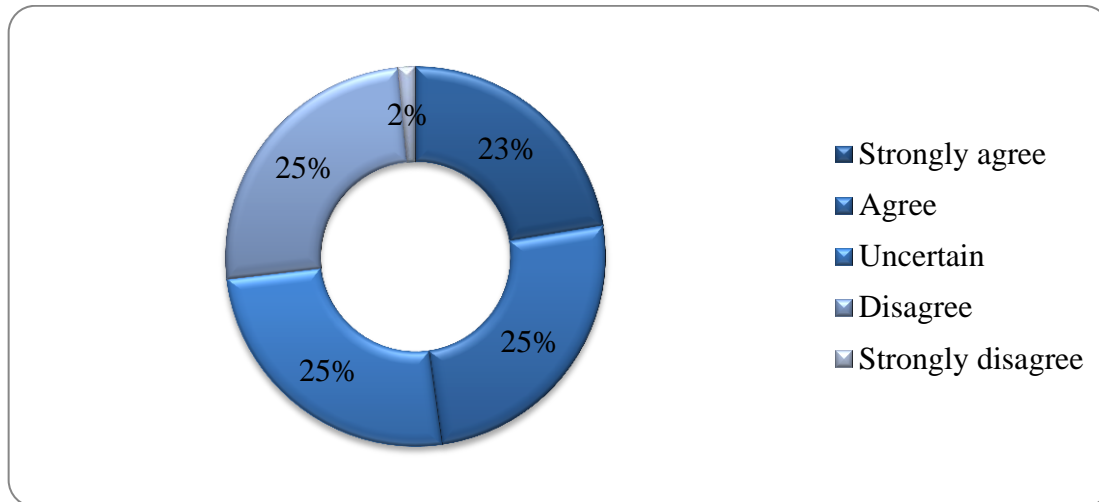
On the issue of accountability and control mechanisms in Tamale Metropolitan Assembly, data from the study indicates that 25.4 percent of the respondents agreed that there is insufficient accountability and control mechanisms in Tamale Metropolitan Assembly, 25.4 percent of the respondents also disagreed that there is insufficient accountability and control mechanisms in Tamale Metropolitan Assembly, 25.4 percent of the respondents are uncertain whether there is insufficient accountability and control mechanisms in Tamale Metropolitan Assembly or not, 22.4 percent of the respondents strongly agreed that there is insufficient accountability and control mechanisms in Tamale Metropolitan Assembly, while 1.5 percent of the respondents strongly disagreed that there is insufficient accountability and control mechanisms in Tamale Metropolitan Assembly (See figure 4. 21 below).

In view of this, one can conclude that there is an insufficient accountability and control mechanism in the process of tendering and bidding for contracts in Tamale Metropolitan Assembly. This means that there is control of all activities regarding the procurement and tendering of bid documents by contraction to the Tamale Metropolitan Assembly. This also implies that there is monitoring and evaluation of all the tendering and procurement process



of the assembly to ensure effective and efficient project implementation in the Tamale Metropolitan Assembly.

Figure 4.21: Insufficient Accountability and Control Mechanisms

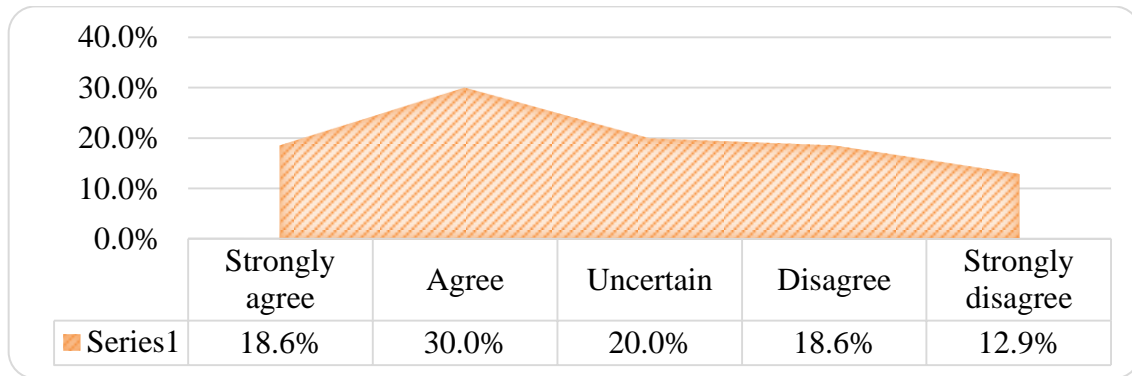


Source: Field Survey, 2016

The study revealed that 30.0 percent of respondents agreed that some of the procurement officers and competing firms are ignorant about the dangers of collusion, 20.0 percent of the respondents are uncertain whether some of the procurement officers and competing firms are ignorant about the dangers of collusion or not, 18.6 percent of the respondents strongly agreed that some of the procurement officers and competing firms are ignorant about the dangers of collusion, another 18.6 percent of the respondents disagreed that some of the procurement officers and competing firms are ignorant about the dangers of collusion, and 12.9 percent of the respondents strongly disagreed that some of the procurement officers and competing firms are ignorant about the dangers of collusion (See figure 4. 22 below). In all 48.6 percent of the respondents agreed that procurement officers and competing firms are ignorant about the dangers of collusion. This means that some staff of the Tamale Metropolitan Assembly lack the knowledge in the procurement and tendering of contract documents. This implies that most contract are been awarded with some form of diffults in the procedures and practices of the procurement Act 663 of the Republic of Ghana.



Figure 4.22: Ignorance of Some Procurement Officers and Competing Firms about the Dangers of Collusion

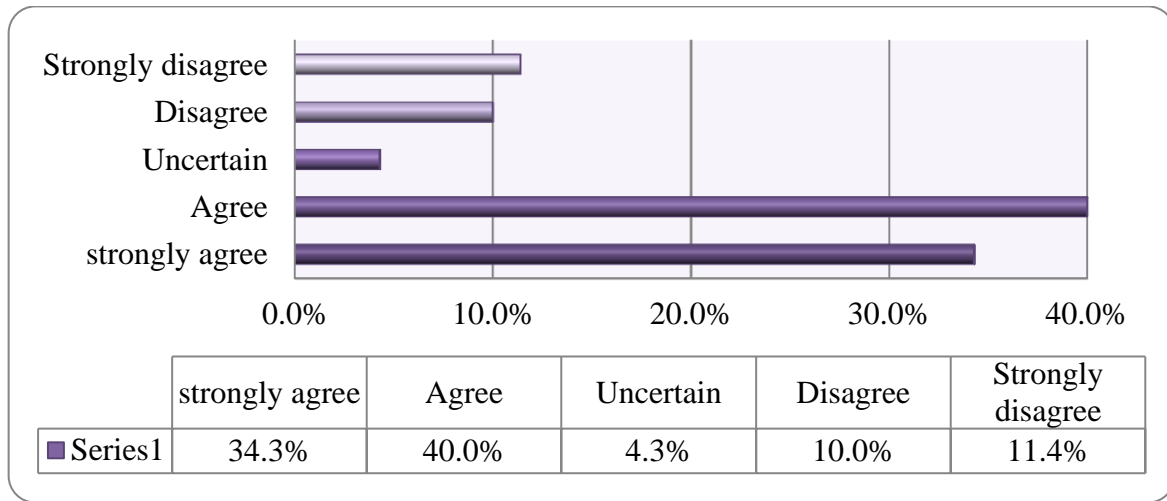


Source: Field Survey, 2016

Another issue investigated is the Weakness in execution, compliance, monitoring and enforcement of existing regulation. Information from the study reveals that 40 percent of the respondents agreed that there is weakness in execution, compliance, monitoring and enforcement of existing regulation, 34.3 percent of the respondents strongly agreed that there is weakness in execution, compliance, monitoring and enforcement of existing regulation, 11.4 percent of the respondents strongly disagreed that there is weakness in execution, compliance, monitoring and enforcement of existing regulation, 10 percent of the respondents disagreed that there is weakness in execution, compliance, monitoring and enforcement of existing regulation and 4.3 percent of the respondents are uncertain that there is weakness in execution, compliance, monitoring and enforcement of existing regulation (See figure 4. 23 below). In all 74.3 percent of the respondents agreed that there is weakness in execution, compliance, monitoring and enforcement of existing regulation in Tamale metropolitan assemble. This finding is similar to the finding in figure 22 which reveals that 30.0 percent of respondents agreed that some of the procurement officers and competing firms are ignorant about the dangers of collusion.



Figure 4.23: Weakness in Execution, Compliance, Monitoring and Enforcement of Existing Regulation



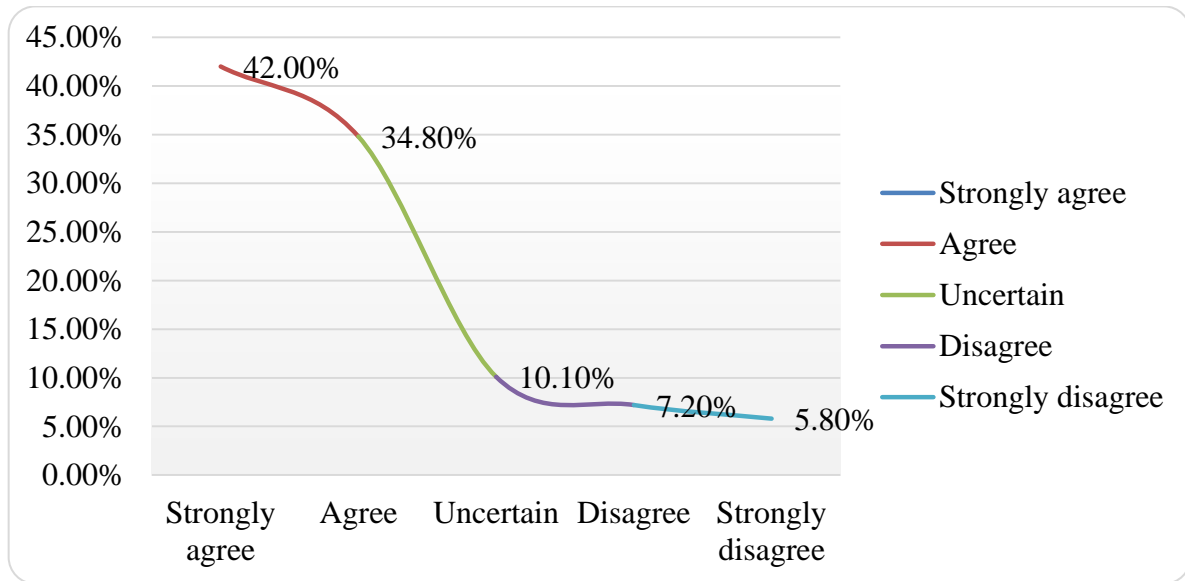
Source: Field Survey, 2016

4.6 Ensure Transparent and Competitive Bidding System in Tamale Metropolis

This section looked at how Tamale Metropolitan Assembly ensures transparent and competitive bidding system. The study reveals tht 42.0 percent of the respondents strongly agreed that there is sanction against corrupt and fraudulent suppliers and adequate time for submission of offers, 34.8 percent of the respondents agreed that there is sanction against corrupt and fraudulent suppliers and adequate time for submission of offers, 10.1 percent of the respondents are uncertain whether there is sanction against corrupt and fraudulent suppliers and adequate time for submission of offers or not, 7.2 percent of the respondents disagreed that there is sanction against corrupt and fraudulent suppliers and adequate time for submission of offers, and 5.8 percent of the respondents strongly disagreed that there is sanction against corrupt and fraudulent suppliers and adequate time for submission of offers (See figure 4. 24 below).



Figure 4.24: Sanction Against Corrupt and Fraudulent Suppliers and Ensure Adequate Time for Submission of Offers



Source: Field Survey, 2016

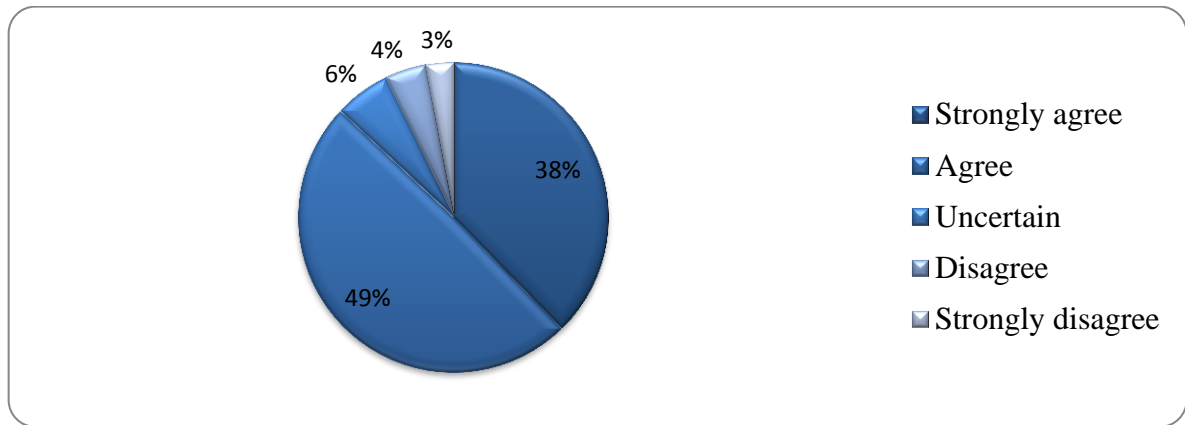
It was also found out from the study that 49.3 percent of the respondents agreed that there is the need to establish an independent procurement unit staffed professionals to ensure compliance with the procurement Act 663, 37.7 percent of the respondents strongly agreed that there is the need to establish an independent procurement unit staffed professionals to ensure compliance with the procurement Act 663, 5.8 percent of the respondents are uncertain whether there is the need to establish an independent procurement unit staffed professionals to ensure compliance with the procurement Act 663 or not, 4.3 percent of the respondents disagreed that there is the need to establish an independent procurement unit staffed professionals to ensure compliance with the procurement Act 663, and 2.9 percent of the respondents strongly disagreed that there is the need to establish an independent procurement unit staffed professionals to ensure compliance with the procurement Act 663. In effect, the need for an independent procurement unit staffed professionals is evidenced as over 80 percent of the respondents agreed that there is the need to establish an independent



procurement unit staffed professionals to ensure compliance with the procurement Act 663

(See figure 4. 25 below).

Figure 4.25: Establishment of an Independent Procurement Unit staffed with Professionals to Ensure Compliance



Source: Field Survey, 2016

On the issue of Avoidance of Entry Barriers and Ensure Widest Publicity of procurement opportunities and the disclosure of rules to be followed, 47.0 percent of the respondents strongly agreed that there is the need to avoid entry barriers and ensure widest publicity of procurement opportunities and the disclosure of rules to be followed, 36.4 percent of the respondents agreed that there is the need to avoid entry barriers and ensure widest publicity of procurement opportunities and the disclosure of rules to be followed, 9.1 percent of the respondents are uncertain whether there is the need to avoid entry barriers and ensure widest publicity of procurement opportunities and the disclosure of rules to be followed or not, and 7.6 percent of the respondents disagreed that there is the need to avoid entry barriers and ensure widest publicity of procurement opportunities and the disclosure of rules to be followed (See table 4.16 below).



Table 4. 16: Avoidance of Entry Barriers and Ensure Widest Publicity of Procurement Opportunities and the Disclosure of Rules to be followed

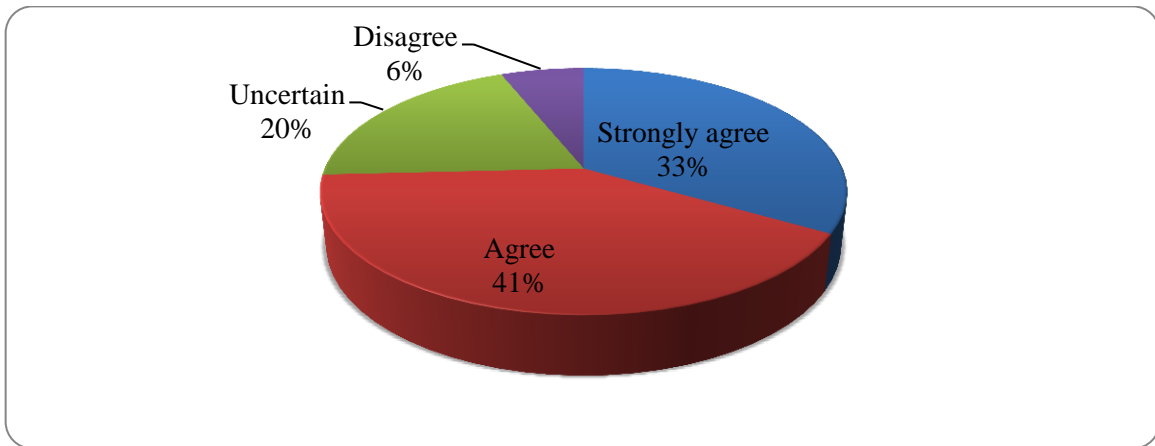
Responses	Frequency	Valid Percent
Strongly agree	31	47.0
Agree	24	36.4
Uncertain	6	9.1
Disagree	5	7.6
Total	66	100.0

Source: Field Survey, 2016

The study established that 40.9 percent of the respondents agreed that Tamale Metropolitan Assembly needs to strengthen firm integrity guidelines and effective internal control systems and the audit unit, 33.3 percent of the respondents strongly agreed that Tamale Metropolitan Assembly needs to strengthen firm integrity guidelines and effective internal control systems and the audit unit, 19.7 percent of the respondents are uncertain whether Tamale Metropolitan Assembly needs to strengthen firm integrity guidelines and effective internal control systems and the audit unit or not and 6.1 percent of the respondents disagreed that Tamale Metropolitan Assembly needs to strengthen firm integrity guidelines and effective internal control systems and the audit unit (See figure 4.26 below)



Figure 4.26: Strengthening Firm Integrity Guidelines and Effective Internal Control Systems and Audits

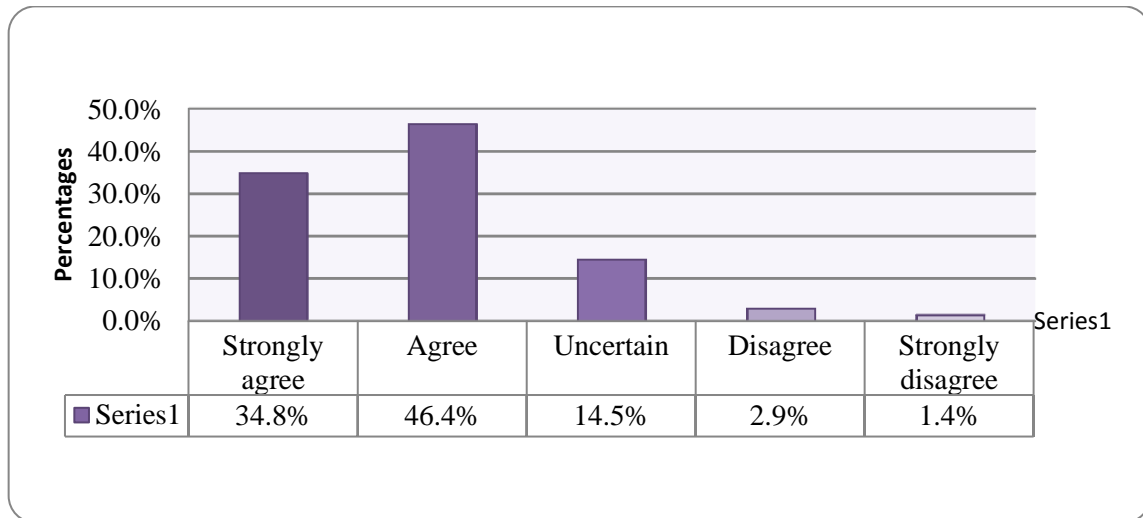


Source: Field Survey, 2016

Data on the study revealed that 46.4 percent of the respondents agreed that there is the need to provide a system for monitoring and enforcing applicable procurement rules and regulations and agreements on government procurement system, 34.8 percent of the respondents strongly agreed that there is the need to prefer open tendering as far as possible and agreements on government procurement procedure, 14.5 percent of the respondents are uncertain whether there is the need to prefer open tendering as far as possible and agreements on government procurement procedure or not, 2.9 percent of the respondents disagreed that there is the need to prefer open tendering as far as possible and agreements on government procurement procedure, and 1.4 percent of the respondents strongly disagreed that there is the need to prefer open tendering as far as possible and agreements on government procurement procedure (See figure 4. 27 below).



Figure 4.27: The Preference of Open Tendering as far as Possible and Agreements on Government Procurement Procedure

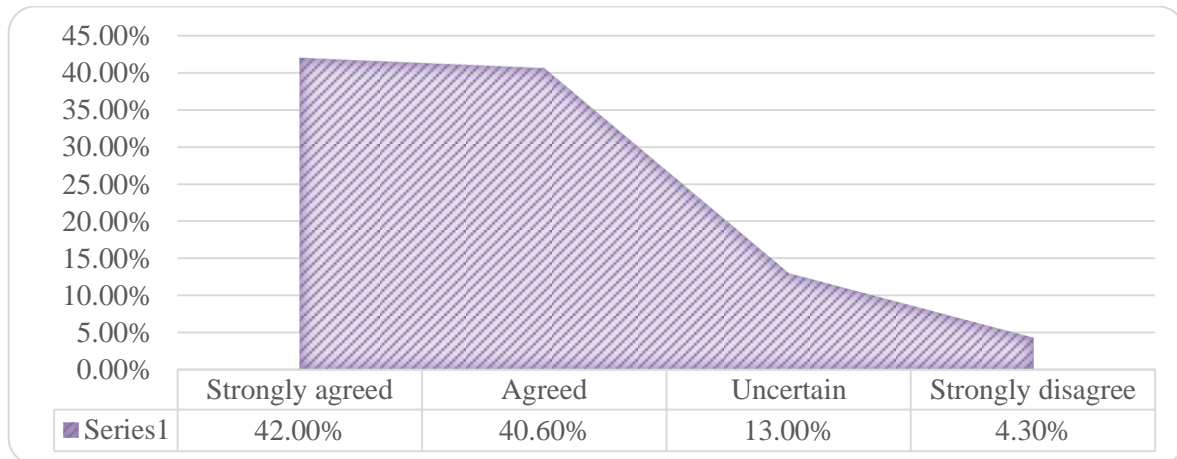


Source: Field Survey, 2016

Further investigation on the issue of tendering looked at how bidders should be permitted to be present at the bid opening session and bids submitted after deadlines need not be evaluated. Data from the study shows that, 42.0 percent of the respondents strongly agreed that all bidders should be permitted to be present at the bid opening session and bids submitted after deadlines need not be evaluated, 40.6 percent of the respondents agreed that all bidders should be permitted to be present at the bid opening session and bids submitted after deadlines need not be evaluated, 13.0 percent of the respondents are uncertain whether all bidders should be permitted to be present at the bid opening session and bids submitted after deadlines need not be evaluated or not, and 4.3 percent of the respondents strongly disagreed that all bidders should be permitted to be present at the bid opening session and bids submitted after deadlines need not be evaluated (See figure 4. 28 below).



Figure 4.28: Open Bids in Presence of Bidders and Bids Submitted after Deadlines need not be Evaluated



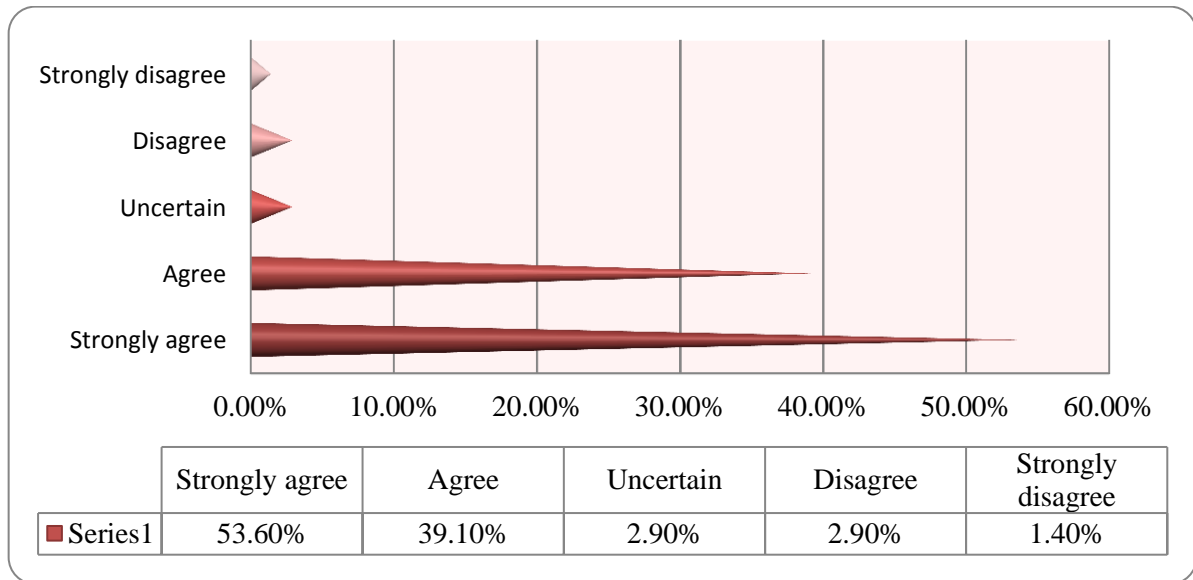
Source: Field Survey, 2016

It was revealed at the end of the study that, 53.6 percent of the respondents strongly agreed that evaluation of bids should be carried out exactly as per notified criteria and by a committee with the relevant technical and economic experience to ensure fair, impartial and non-discriminatory application, 39.1 percent of the respondents agreed that evaluation of bids should be carried out as notified and by a committee with the relevant technical and economic experience to ensure fair, impartial and non-discriminatory application, 2.9 percent of the respondents are uncertain that evaluation of bids should be carried out as per the notified criteria and by a committee with the relevant technical and economic experience and award criteria to ensure fair, impartial and non-discriminatory application, another 2.9 percent of the respondents disagreed that evaluation of bids should be carried out exactly as per notified criteria and by a committee with the relevant technical and economic experience to ensure fair, impartial and non-discriminatory application and 1.4 percent of the respondents strongly disagreed that evaluation of bids should be carried out exactly as per notified criteria and by a committee with the relevant technical and economic



experience to ensure fair, impartial and non-discriminatory application (See figure 4. 29 below).

Figure 4.29: Evaluation of Bids as per Notified Criteria and by a Committee with the Relevant Technical and Economic Experience



Source: Field Survey, 2016

Respondents on their views gives the following as the otherways Assembly Ensure Transparent, Fair and Open Bidding System in Tamale Metropolitan Assembly; Advertising of tenders for bidders, All procurement processes must be advertised, Educate the public on procurement Act 663, Encourage both officers and suppliers to report any collusive bidding, Ensure transparency in the process on tendering, Evaluators must be carefully choose competent bidder, Experience and competence must be encouraged, Monitoring , holding public officials accountable, Party members should not be given contracts, Provide experts and evaluate contracts regularly, Strict adherence to procurement laws, Strict enforcement of rules and regulations, Technical experts must help every situation, The assembly must obey procurement ethics, There must be transparency in the



process, There should be whistle blowers line, Train the staff regularly, Well trained procurement officers be employed (See table 4.17 below).

Table 4. 17: Other ways Assembly Ensure Transparent, Fair and Open Bidding System

Ways Assembly Ensure Transparent, Fair and Open Bidding System		
Bidding System	Frequency	Percentage
Advertising of tenders for bidders	4	5.7
All procurement processes must be advertised	2	2.9
Educate the public on procurement act 663	2	2.9
Encourage both offices and supplies to report any collusion bidding	5	7.1
Ensure transparency in the process on tendering	2	2.9
Evaluators must be carefully choose competent bidder	3	4.3
Experience and competence must be encouraged	5	7.1
Monitoring , holding public officials accountable	3	4.3
Party members should not be give contracts	2	2.9
Provide experts and evaluate contracts regularly	1	1.4
Strict adherence to procurement laws	2	2.9
Strict enforcement of rules and regulations	1	1.4
Technical expects must help every situation	1	1.4
The assembly must obey procurement ethics	4	5.7
There must be transparency in the process	3	4.3
There should be whistle blowers line	2	2.9
Train the staff regularly	2	2.9
Well trained procurement officers be employed	3	4.3
Total	70	100.0

Source: Field Survey, 2016



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of major findings of the study, conclusions and recommendations of the study. The study investigates collusive tendering in public procurement in the Tamale Metropolitan Assembly in the Northern Region of Ghana. First, the study finds out whether there is collusive tendering in public procurement in the Tamale Metropolitan Assembly. Second, the study identifies the causes of collusive tendering in public procurement. It further ascertains its effects on procurement of goods, works and services in the Tamale Metropolitan Assembly. It also find out the challenges to tackling collusive tendering in Tamale Metropolitan Assembly, and finally, it finds out how Tamale Metropolitan Assembly ensure transparent and competitive bidding system.

5.2 Summary

The study was conducted to find the level and incidence of collusive tendering as well as its causes and effects in the public procurement processes of Ghana using both primary and secondary data collected from the Tamale Metropolitan Assembly in the Northern Region. From the analysis of the data gathered, the study found that 41.4 percent of the respondents agreed that there is greed or perceived value of possible benefits also 47.2 percent of the respondents agreed that there is lack of knowledge of warning signs of collusive tendering. Similarly, the study reveals that 52.2 percent of the respondents agreed that incentives and salaries of public workers are low, 38.6 percent of the respondents agreed that there is absence of a complain mechanism for suppliers to convey competition issues, 50.7 percent of the respondents agreed that there is Lack of awareness of procurement staff about the most common signs of bid rigging, however, there is 50.0 percent chances of agreed and



disagreed that there is lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff.

The study further found that the following are causes of collusive tendering process in public procurement; Adverts are done on only one media house, All the tenders are not treated equally, Compliance bidding must be followed by all, Contracts are advertise in open newspapers, Contracts are awarded to competitors bidding, Contracts are carried out the prescribed way, Greed and corruption of public officials, Having interest in gaining a favour in a bid, Information are leaked to preferred contractor, It is always done in competitive manner, Laid down rules are bridged for personal gain, Many cases have political influence, Most contracts are awarded to experience contractors, Most contracts are based on political influence, Public officers do tendering secretly, Secrete awards due to personal gains, Suppliers are allowed to be present in tendering process, Tamale Metropolitan Assembly still have their way out of award of contracts, however, 42.7 percent of the respondent disagreed that there is no incidents of collusion tendering in the Tamale Metropolitan Assembly and almost equal, also 38.6 percent of the respondents strongly agreed that there is bribery to win lucrative contracts in Tamale metropolitan assembly, 58.6 percent of the respondents agreed that there is nepotism in the award of contract in the Tamale Metropolitan Assembly, 37.1 percent of the respondents agreed that there is disclosure/leaking of vital information to selected bidders of Contracts in Tamale Metropolitan Assembly, 30.2 percent of the respondents strongly agreed that there is limited publication of a request for bids of contracts in the Tamale Metropolitan Assembly, 47.0 percent of the respondents agreed that competitors are allowed to buy a whole lot of a bid through the Tamale Metropolitan Assembly.



www.udsspace.uds.edu.gh

Also, it was found that 55.7 percent of the respondents strongly agreed that the process undermines/deprive consumers of the benefits of competition (fair trade) in the market, 32.9 percent of the respondents agreed that the process raises the cost of doing business in the metropolis enabling people to earn higher profits for lesser efforts, 42.9 percent of the respondents strongly agreed that the process create unnecessary economic pressure on the government, the tax payer and development partners, 42.9 percent of the respondents agreed that it inhibits investment and economic development in Tamale metropolis. Also 52.9 percent of the respondents agreed that the process threaten the moral integrity of public officers and ethical business standards in Tamale Metropolitan Assembly. The findings of the study further reveals that 49.3 percent of the respondents agreed that poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative, and 57.1 percent of the respondents agreed that there is high possibility of shoddy works leading to the collapse and loss of human lives and property.

Additionally, the study found that major challenges of preventing collusive behaviour hinder efforts to curb this unethical behaviour in the public procurement process. About 59.7 percent of the respondents agreed that unwillingness by firms and public officials to volunteer information make it difficult to detect irregularities in tendering documents, 48.6 percent of the respondents agreed that the process have low risk of sanctions and fines by management of Tamale metropolitan assembly, 45.6 percent of the respondents agreed that the process have low degree of professional integrity by staffs of the procurement and tendering unit of the Tamale metropolitan assembly, 47.8 percent of the respondents agreed that there is insufficient accountability and control mechanisms in Tamale metropolitan assembly. Also 48.6 percent of the respondents agreed that procurement officers and competing firms are ignorant about the dangers of collusion. Additionally, 40 percent of the





respondents agreed that there is weakness in www.udsspace.uds.edu.gh execution, compliance, monitoring and enforcement of existing regulation.

Also on the issue of transparent and competitive bidding system, the study established that 42.0 percent of the respondents strongly agreed that there is sanction that debar corrupt and fraudulent suppliers and adequate time for submission of offers, 49.3 percent of the respondents agreed that there is the need to establish an independent procurement unit staffed with professionals to ensure compliance with the procurement Act 663, 47.0 percent of the respondents strongly agreed that there is the need to avoid entry barriers and ensure wide publicity of procurement opportunities and the disclosure of rules to be followed, 40.9 percent of the respondents agreed that Tamale Metropolitan Assembly needs to strengthen firm integrity guidelines and effective internal control systems and the audit unit, 46.4 percent of the respondents agreed that there is the need to prefer open tendering as far as possible and agreements on government procurement procedure be strictly followed, 42.0 percent of the respondents strongly agreed that all tenderers should be permitted to be present at the bid opening session and bids submitted after deadlines need not be evaluated, 53.6 percent of the respondents strongly agreed that evaluation of bids should be carried out exactly as per notified criteria and by a committee with the relevant technical and economic experience to ensure fair, impartial and non-discriminatory application.

5.3 Conclusions

The study can conclude on the following issues discussed as follows:

On collusive tendering in public procurement in the Tamale Metropolis, it was established that the following are collusive tendering process; greed or perceived value of possible benefits, lack of knowledge of warning signs of collusive tendering, incentives and salaries



of public workers are low, www.udsspace.uds.edu.gh absence of a complain mechanism for suppliers to convey competition issues, lack of awareness of procurement staff about the most common signs of bid rigging, and lack of knowledge about the procurement of ordinary market regarding input price changes by procurement staff.

Also, the study concludes that the following as causes of collusive tendering in public procurement; Adverts are done on only one media house, All the tenders are not treated equally, Compliance bidding must be followed by all, Contracts are advertise in open newspapers, Contracts are awarded to competitors biding, Contracts are carried out the prescribed way, Greed and corruption of public officials Having interest in gaining a favour in a bid, Information are leaked to preferred contractor, It is always done in competitive manner, Laid down rules are bridged for personal gain, Many cases have political influence, Most contracts are awarded to experience contractors, Most contracts are based on political influence, Public officers do tendering secretly, Secrete awards due to personal gains, Suppliers are allowed to be present in tendering process, Tamale Metropolitan Assembly still have their way out of award of contracts, bribery to win lucrative contracts in Tamale Metropolitan Assembly, nepotism in the award of contract in the Tamale Metropolitan Assembly, disclosure/leaking of vital information to selected bidders of Contracts in Tamale Metropolitan Assembly, limited publication of a request for bids of contracts in the Tamale Metropolitan Assembly, and competitors are allowed to buy a whole lot of a bid through the Tamale Metropolitan Assembly.

Moreover, the study concludes that collusive tendering undermines development by depriving consumers of the benefits of competition (fair trade) in the market, the process raises the cost of doing business in the metropolis enabling people to earn higher profits for

lesser efforts, the process create unnecessary economic pressure on the government, the tax payer and development partners, inhibits investment and economic development in Tamale metropolis, the process threaten the moral integrity of public officers and ethical business standards in Tamale Metropolitan Assembly, poor quality of goods and services are received as tendering parties have less incentive to be efficient and innovative, and high possibility of shoddy works leading to the collapse and loss of human lives and property.

The study further concludes that unwillingness by firms and public officials to volunteer information make it difficult to detect irregularities in tendering documents, the process have low risk of sanctions and fines by management of Tamale Metropolitan Assembly, the process have low degree of professional integrity by staffs of the procurement and tendering unit of the Tamale Metropolitan Assembly, insufficient accountability and control mechanisms in Tamale Metropolitan Assembly, procurement officers and competing firms are ignorant about the dangers of collusion, and weakness in execution, compliance, monitoring and enforcement of existing regulation.

Similarly, the study concludes that efforts to promote transparency in the public procurement process has taken such forms as sanctions that debar corrupt and fraudulent suppliers and ensure adequate time for submission of offers, the need to establish an independent procurement unit staffed with professionals to ensure compliance with the procurement Act 663, the need to avoid entry barriers and ensure wide publicity of procurement opportunities and the disclosure of rules to be followed, Tamale Metropolitan Assembly needs to strengthen firm integrity guidelines and effective internal control systems and the audit unit, the need to prefer open tendering as far as possible and agreements on government procurement procedure are strictly followed, all tenderers are



www.udsspace.uds.edu.gh

permitted to be present at the bid opening session and bids submitted after deadlines need not be evaluated, evaluation of bids should be carried out exactly as per notified criteria and by a committee with the relevant technical and economic experience to ensure fair, impartial and non-discriminatory application.

5.4 Recommendations

In the light of the above conclusions, it is recommended that:

1. The level of remuneration in public enterprises for public officials is improved so that the minimum grounds for corruption motives are reduced. When salaries are too low, officers are obviously forced to indulge in unethical activities which in turn affect the general public directly or indirectly.

2. All public officials undergo training in the dimension of corruption and negative impact of systemic corruption on the well-being of the public. If officers are trained or equipped with knowledge on how corruption can be reduced, public enterprise performance and integrity can be improved. Corrupt individuals and businesses pose a great challenge in the management of public enterprises, therefore, they must not be employed or engaged in any way in government related work at both local and national levels. This is achievable through vetting (screening) of individuals and businesses. Corrupt people and businesses work to the disadvantage of the public as they seek to enrich themselves.

3. The culture of public enterprise governance be transformed to reflect the changing needs of the public. All public activities/work should be accessed by any interested party (lifting of secrecy), although confidentiality should be observed. The level of secrecy in public enterprise, as it is currently in Ghana, promotes corrupt activities by public officials. If



www.udsspace.uds.edu.gh

officers perform their duties under the public eye, they are likely to improve on how they handle public affairs. Whistleblowing, as a key strategy in minimizing systemic corruption in public enterprises should be encouraged providing that whistle-blowers will be protected from victimization.

4. Strong anti-corruption strategies in public enterprises based on Ghanaian experience should be developed with the involvement of all interested parties - the general public, non-governmental organizations, minority parties, religious institutions among others. The involvement of all interested parties ensures that acceptable and inclusive anti-corruption strategies are developed.

5. With regard to the appointment of executive officers, managers and operatives to posts in public enterprises, it is suggested that appointments must be based on competence and relevant educational qualification plus experience. Patronage appointment/s must therefore be avoided. A workforce with low level of competence in managing and handling public affairs offer a dis-service to the nation as they fail to discharge their duties in the manner that is desirable.

6. Finally, all cases of corruption, regardless of form, must be treated as high level criminal cases thus attracting longer and deterrent court sentences. In fact, special courts that deal with corruption must be established. Currently, most corrupt activities attract very low charges in the courts of law in Ghana. Some corrupt activities are not even legislated against, thus those who commit such offences are left free as they cannot be prosecuted.



REFERENCE

Acts and Regulations. (1890). The Sherman Anti- Trust Act. Sourced from

http://en.wikipedia.org/wiki/Sherman_Act, on August 2, 2015.

Asker, J. (2009). Bidding Rings: An entry for New Palgrave Dictionary of Economic.

Sourced from [http://pages.stern.nyu.edu/jasker/Palgrave Bidding Rings 091028.pdf](http://pages.stern.nyu.edu/jasker/Palgrave_Bidding_Rings_091028.pdf),
on May 17, 2015.

Adjei, A. B. (2005). Public Procurement Authority: “What Are We Learning from
Different Approaches to Monitoring Capacity and Development.” An Assessment
Tool for Public Procurement System and Its Applications to Monitoring Capacity
and Performance of the Procurement System in Ghana.

Adjei, A.B. (2006). Message from the Chief Executive. Public Procurement Board, June
2006.

Andoh-Kwofie. (2001). 70% of Corruption Practices Done Through Procurement. Press
Conference, Accra. Sourced from <http://www.mobile.ghanaweb.com>, on March 23,
2015.

Azeem, V. (2007). Impact of the public procurement act, 2003 (Act 663) in Ghana.

Integrity initiative perspective. Sourced from

<http://www.sciepub.com/referene/16079>, on February16, 2015.

Bajari, P., and Summers, G. (2000). Detecting Collusion in Procurement Auctions: A
Selective Survey of Recent Research. Retrieved March 27, 2009, Sourced from

http://www.siepr.stanford.edu/workp/swp_01014.html.

Bajari, P., and Linxin, Ye. (2003). Deciding Between Competition and Collusion. The
Review of Economics and Statistics. 85 (4): 971-989.



Barrus, D. (2011). Firm Bidding Behaviour in Highway Procurement Auctions: An Analysis of Single Bid Contracts, Tacit Collusion, and the Financial Impact of Kentucky. Doctoral dissertation, University of Kentucky.

Bierens, Herman, J. (2008). The Logit Model: Estimation, Testing and Interpretation.

Sourced from <http://econ.la.psu.edu/hbierens/MLLOGITPDF>, on April 16, 2015.

Chawdhury, J. (2008). The Basic of Bid Rigging. Sourced from

<http://www.cuts-international.org/pdf/CCIER-7-2008.pdf>, on June 8, 2015.

Cole Alison. (2007). Procurement Definition EzineArticles.com/?expert=Alison_Cole

Competition Policy International (2014), The HCC Guide on the Detection and Prevention of Collusive Tendering. Retrieved April 26, 2015 from <http://www.competitionpolicyinternational.com>

Coviello, D., and Gagliarducci, S. (2009). Political Longevity and Collusion in Public Procurement Auctions. Sourced from

<http://www.cepr.org/meets/wkcn/6/6685/papers/Coviello.pdf>, on April 1, 2015.

Creswell, W. J. and Plano Clark, V. L. (2011). Designing and Conducting Mixed Methods Research (2nd, ed.) Los Angeles, CA. Sage Publishing.

De Silva, Dakshina, G., Timothy, D., and Georgia, K. (2003). An Empirical Analysis of

Entrant and Incumbent Bidding in Road Construction Auctions. *The Journal of Industrial Economics*. 51 (3): 295-316.

Feinstein, J. S., Block, M. K., and Nold, F. C. (1985). Asymmetric Information and

Collusive Behaviour in Auction Markets. *The American Economic Review*. 75 (3): 1443-1489.



Frederic Jenny. (2013). www.udsspace.uds.edu.gh
Transparency, Collusion and Corruption in Public Procurement.
Press Release.

Ghana Public Procurement Act, 2003. (Act 663). Public Procurement Act. Republic of
Ghana. Accra Ghana Publishing Corporation.

Ghana Public Procurement Authority. (PPA). (2008). Annual Report, pp. 18.

Ghana Public Procurement Authority. (PPA). (2009). Annual Report, pp. 2-20.

Hardcastle, E. (2007). Procurement Regime in Ghana, Embassy of Switzerland, Ghana,
Accra.

Haider, L., and Hunter, G. (2010). Screening and Testing for Collusive Conduct in the
Absence of a Smoking Gun: Insight in Economics. Sourced from
[http://www.nera.com/nerafiles/](http://www.nera.com/nerafiles/Insights_1010.pdf) Insights_1010.pdf, on October 2, 2015.

Harrington, J. (2005). Detecting Cartel. Sourced from
<http://www.econ2.jhu.edu/People/Harrington/DetectingCartels-10.8.05.pdf>, on
October 2, 2015.

Hendricks, K., and Porter, Robert, H. (1989). Collusion in Auctions. Sourced from
[http://www.kellogg.northwestern.edu/research/math/](http://www.kellogg.northwestern.edu/research/math/papers/817.pdf) papers/817.pdf, on March 23,
2015.

Hendrickson, C. (1998). Project Management for Construction: Fundamental Concepts for
Owners, Engineers, Architects and Builders. Pittsburgh: Carnegie Mellon
University.

Hyttinen, A., Lundberg, S., and Toivanen, O. (2007). Politics and Procurement: Evidence
From Cleaning Contracts. Sourced from
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1082817, on August 19, 2015.



- Heng Li, Cao, N.J., Daniel, C. & Mirosław, S. (2004). www.udsspace.uds.edu.gh. A Framework for Developing a Unified B2B E-trading Construction Marketplace. *Journal of Automation in Construction*. Vol. 12: Page 201 – 211.
- Hunja. (2001). Procurement and Development Effectiveness: Obstacle to Public Procurement Reforms in Developing Countries.
- Kong, C.W., Heng, L., Hung P. L., Shi, W.Z., Daniel, C.L., Mirosław, S. (2004). Enabling Information Sharing Between E-Commerce Systems for Construction Material Procurement. *Automation in Construction*. Vol. 13: Page 261 – 276.
- Hawking, P., & Stein, A. (2004). E-Procurement: Is the Ugly Duckling Actually a Swan Down Under, *Asia Pacific Journal of Marketing and Logistics, Australia, Vol.16, No.1*.
- Matthew, K., Patrick, K., & Denise, K. (2013). The Effects of Fraudulent Procurement Practices on Public Procurement Performance, *International Journal of Business and Behavioural Sciences*. Vol. 3, No. 1: January 2013.
- Rajkumar, T. M. (2001). E-procurement: Business and Technical Issues, *Information Systems Management*. Vol.18 (4), pp 52-53.
- Reddick, C.G. (2004). The Growth of E-procurement in America State Governments: A model and Empirical evidence, *Journal of Public Procurement*. Vol. 4(2) pp 151-152.
- Rizkiyana, R. and Iswanto, V. (2008). The Arrangement of Prohibition of Collusive Tendering In Law No. 5 Year of 1999, *Journal of Law Supremacy (Journal Hukum Supremasi)*, Vol. 2, No: 1 October, 2008-March 2009.
- The Canada Competition Act. (1985). A Step From Substantive Competition Policy Convergence: The International Implications of Leegin Creative Leather Products. Sourced from <http://www.competitionbureau.gc.ca/eic/site/cbbc.nsf/eng/h00148.html.126>,



on August 6, 2015. www.udsspace.uds.edu.gh

The Ghana Statistical Service (2010). Population and Housing Census Final Results.

Sourced from http://www.statsghana.gov.gh/.../census_2010, on May 22, 2015.

The Japanese Fair Trade Commission. (1947). The Japanese Anti-Monopoly Act. Sourced from http://www.jftc.go.jp/en/legislation_guidelines/index.html, on September 11, 2015.

McAfee, R. P. and McMillan, J. (1992). Bidding Rings. *The American Economic Review*. 82, 3 (June): 579-599.

McMillan, P. R. (1991). Dango: Japan's Price Fixing Conspiracies. *Economics and Politics*. 3: 201-218.

Maci, Marsela. (2011). Bid Rigging in the EU Public Procurement Markets. Doctoral dissertation, University of London.

National Anti-Corruption Commission. (1999). The Act on Offences Relating to Submission of Bids to State Agencies B.E. 2542. Sourced from http://www.nacc.go.th/download/en_load/BidOffencesAct.pdf, on March 17, 2015.

Nikos (2007). Corruption In The Procurement Process/Outsourcing Government Functions: Issues, Case Studies, Implications. Report To Institute For Fraud Prevention. North eastern University, Boston. February 2007.

Okatani, Naoaki. (1995). Regulations on Bid Rigging in Japan, The United States and Europe. *Pacific Rim Law & Policy Association*. 4 (1): 252-257.

Organization For Economic Co-operation and Development.(2008). Competition in The Construction Industry. Paris: OECD.



- www.udsspace.uds.edu.gh
- Organization For Economic Co-operation and Development. (2010). Roundtable on Collusion and Corruption in Public Procurement. Paris: OECD.
- Organization For Economic Co-operation and Development. (2008). Public Procurement The Role of Competition Authorities in Promoting Competition. Paris: OECD.
- Parker, Howard J., and Maher, L. n.d. What You Should Know About Detecting and Preventing Antitrust Violation. In United States Department of Justice. Antitrust Division. San Francisco: The Antitrust Division United State of Justice.
- Pesendorfer, M. (2000). A Study of Collusion in First Price Auctions. *The Review of Economic Studies*. 67 (3): 381-411.
- Porter, Robert H., and Zona, J. D. (1993). Detection of Bid Rigging in Procurement Auctions. *The Journal of Political Economy*. 101, 3 (June): 518-538.
- Porter, Robert H., and Zona, J. D. (1999). Ohio School Milk Markets: An Analysis of Bidding. *The Rand Journal of Economics*. 30 (2): 263-288.
- Public Procurement Board. (2007). Introduction to procurement audit; Short term training manual on the Public Procurement Act. (Act 663), Module 24, September 2007.
- Procurement Board. (2007). Procurement planning: Short term training manual on the Public Procurement Act (Act 663), Module 9, September 2007.
- Public Procurement Board. (2007). 'Procurement principles and ethics', Short term training manual on the Public Procurement Act (Act 663), Module 3, September 2007.
- Public Procurement Board. (2007). Role of procurement and legal framework; Short term training manual on the Public Procurement Act (Act 663), Module 1, September 2007.



Public Procurement Board. (www.udsspace.uds.edu.gh) (2007). Re: Submission of documentary evidence for assessment of MDDBS PAF 2006-2008' April, 2007. Unpublished assessment report.

Savuth (2012). Forensic Accounting and Fraud Risk Factors: The Influence of Fraud

Diamond Theory. *European Journal of Business and Management Vol.7 (28). 2015.*

Sutthi S. (2012). Screening for Bid Rigging in Rural Road Procurement of Thailand. School of Development Economics: National Institute of Development Administration, 2012.

Tukamuhabwa, Benjamin R. (2012). Antecedents and Consequences of Public Procurement Non-Compliance Behaviour. *Journal of Economics and Behavioural Studies. Vol. 4 (1). pp – 34-36, 2012.*

The UK Competition Act. (1998). Competition Act Law. Sourced from

<http://www.legislation.gov.uk/ukpga/1998/41/contents>, on August 5, 2015.

Reuschlein, H., & Gregory W. (1979). Agency and partnership' Saint Paul, West Publishing.

World Bank. (2003). Public Procurement Act, Washington DC. Ghana Country Department. The World Bank.

Bell, J. (2005). Doing Your Research Project: A Guide for first-time Researchers in Education, Health and Social Science. 4th Ed. Open University Press: Berkshire

Glasow, P. A. (2005). Fundamental of Survey Methodology. MITRE Washington C3 Center; Mclean, Virginia.

Owens, L., K. (2002). Introduction to Survey Research Design. SRL Fall 2002 Seminar Series. <http://www.srl.uic.edu.com>

Government of Ghana. (2003). The Public Procurement Act, Act 663, 2003.



Government of Ghana. (2007). www.udsspace.uds.edu.gh The Public Procurement Authority: Short-Term Training Modules on the Public Procurement Act 2003, (Act 663). Sourced from www.ppda.go.ug, on the April 12, 2015.

Government of Uganda. (2006). Final Report of the National Public Procurement Integrity Baseline Survey, Kampala, Uganda: Sourced from www.ppda.go.ug, on April 18, 2015.

Ishii, R. (2007). Detecting Collusion through Exchange of Favours in Repeated Procurement Auctions. Sourced from <http://www.econ.osaka-u.ac.jp/library/global/dp/0715.pdf>, on April 23, 2015.

Jakobsson, M., and Eklof, M. (2003). Bid Rigging In Swedish Procurement Auctions. Sourced from http://www.kkv.se/upload/Filer/Forskarestudenter/projekt/Bid_rigging.pdf, on April 23, 2015.

Jofre-Bonet, M., and Pesendorfer, M. (2003). Estimation of a Dynamic Auction Game. *Econometrica*. 71 (5): 1443-1489.128

Lee, I., and Hahn, K. (2002). Bid Rigging in Auction for Korean Public Works Contracts and Potential Damages. *Review of Industrial Organization*. 21 (1): 73-88.

Lengwiler, Y. and Wolfstetter, E. G. (2005). Bid Rigging: An Analysis of Corruption in Auctions. Sourced from <http://epub.ub.uni-uenchen.de/13509/1/39.pdf>, on April 19, 2015.

Kasunic, M. (2005). Designing an Effective Survey –Software Engineering Measurement and Analysis. Carnegie Mellon University.

Organization for Economic Co-operation & Development. (2008). Competition in The Construction Industry. Paris: OECD.



www.udsspace.uds.edu.gh
Organization for Economic Co-operation & Development. (2010). Roundtable on Collusion
and Corruption in Public Procurement, Paris: OECD.

Chawdhury, J. (2008). The Basics of Bid Rigging. Retrieved May 16, 2015 from
<http://www.cuts-international.org/pdf/CCIER-7-2008.pdf>

Maci, Marsela. (2011). Bid Rigging in the EU Public Procurement Markets. Doctoral
dissertation, University of London.

Woodall, B. (1996). Japan Under Construction: Corruption, Politics, and Public Works.
Berkeley, Calif.: University of California Press.

Okatani, Naoaki. (1995). Regulations on Bid Rigging in Japan, The United States and
Europe. Pacific Rim Law & Policy Association.4 (1): 252-257.



SURVEY QUESTIONNAIRE

UNIVERSITY FOR DEVELOPMENT STUDIES-TAMALE CAMPUS

SCHOOL OF BUSINESS AND LAW

DEPARTMENT OF ACCOUNTANCY AND COMMERCE

Dear Respondent,

**INVESTIGATING COLLUSIVE TENDERING IN PUBLIC PROCUREMENT IN
TAMALE METROPOLIS**

This research instrument is designed to collect information for the conduct of academic exercise on the above stated subject, and as a part of the requirement for the award of Master of Commerce Degree in Procurement and Supply Chain Management. Please your support and cooperation is very much anticipated as information provided will be treated as confidential.

Thank you for your time and expertise.

Yours Sincerely,

Adam Mustapha

(0207266175/0242377698).



Please choose the option that applies to you by placing a tick () in the bracket of your choice. Please provide only **one** answer.

SECTION A: Socio-Demographic Characteristics

1. Sex: Male () Female ()
2. Age: () Below 25yrs () 25 – 35yrs () 36 – 45yrs () 46 – 55yrs () 56 +
3. Number of years in service: () 1-3 years () 4-6 years () 7-10 years () More than 11 years
4. Highest academic or professional qualification attained: () PhD () Master’s degree () HND/Diploma () Other (Specify) :.....
5. Designation: Engineer/Planner/Administrator (), Finance/Accounts Officer (), Internal Auditor (), Procurement Staff/Officer (), Supplies (), Unit Head ()

SECTION B: Collusive Tendering

6. Indicate whether you agree or disagree that the following are causes of collusive tendering in the Metropolis? Using the rating scale as follows: 1= strongly agree 2= Agree 3= Uncertain 4= Disagree 5= strongly disagree

	CAUSES	1	2	3	4	5
A)	Greed or the perceived value of possible benefits.					
B)	Lack of knowledge of warning signs of collusive tendering.					
C)	Low incentives and salaries of public officers.					
D)	Absence of a complain mechanism for suppliers to convey competition issues.					



E)	Lack of knowledge about both the procurement and ordinary market regarding input price changes by procurement staff.					
F)	Restrictive entry barriers.					
G)	Lack of awareness of procurement staff about the most common signs of bid rigging.					

SECTION C: Incidents of Collusion in the Metropolis

7. What is your understanding of collusive tendering in public procurement?

.....

.....

.....

.....

8a. Do you agree that most tenders and contract awards are done in secrecy, devoid of

Competitive bidding system in the Metropolis? Strongly agree () Agree ()

Uncertain () Disagree () strongly disagree ()

b. Explain your answer to Q9a above:

.....

.....

9. Indicate whether you agree or disagree that the following constitute some form of violation during tender design and contract award processes in the Metropolis? Use the rating scale as follows: 1= strongly agree 2= Agree 3= Uncertain 4= Disagree 5= strongly disagree



	Most Common Violations	1	2	3	4	5
A)	Bribery to win lucrative contracts.					
B)	Nepotism					
C)	Disclosure/leaking of vital information to selected bidders.					
D)	Limited publication of a request for bids.					
E)	Falsifying documentation to justify direct contracting.					
F)	Failure to maintain procurement records.					
G)	Splitting up purchases in order to stay below the threshold.					
H)	Allowing a competitor to buying a whole lot of a bid.					

10. What other anticompetitive practices exist in the Tamale Metropolis?
(Specify):.....
.....

SECTION D: Effects of Collusive Tendering in the Metropolis

11. Indicate whether you agree or disagree that the following are effects of collusive tendering in the Metropolis? Use the response rating given as follows: 1= strongly agree
2= Agree 3= Uncertain 4= Disagree 5= strongly disagree

	EFFECTS	1	2	3	4	5
A)	Undermines/deprives consumers of the benefits of competition (Fair trade) in the market.					
B)	Raises the cost of doing business in the metropolis, enabling firms to earn higher profits for less effort.					
C)	Creates unnecessary economic pressure on the Government, the taxpayer and development partners.					
D)	Inhibits investment and economic development.					



E)	Threaten the moral integrity of public officers and ethical business standards.					
F)	Poor quality goods and services are received as tendering parties have less incentive to be efficient and innovative.					
G)	High possibility of shoddy works leading to building collapse and loss of human lives and property.					

12. In your view, what other effects of collusive tendering exist in the Metropolis?

.....

.....

SECTION E: Challenges to fighting Collusive Tendering in the Metropolis

13. What challenges does the assembly encounter in addressing collusive tendering behaviours in the Metropolis?

(Specify):.....

.....

.....

14. Do you agree that the following constitute challenges to fighting collusive tendering in the Metropolis? 1= strongly agree () 2= Agree () 3= Uncertain () 4= Disagree () 5= strongly disagree ()

Challenges to Fighting Collusive Tendering	1	2	3	4	5
--	---	---	---	---	---



A)	Unwillingness by firms and public officials to volunteer information making it difficult to detect irregularities.					
B)	Low risk of sanctions and fines.					
C)	Low degree of professional integrity.					
D)	Insufficient accountability and control mechanisms.					
E)	Ignorance of some procurement officers and competing firms about the dangers of collusion.					
F)	Weaknesses in execution, compliance, monitoring and enforcement of existing regulations.					

SECTION E: Transparent Bidding in the Metropolis

15. Indicate whether you agree that the following will help ensure fair and open bidding system in the Metropolis? 1= strongly agree () 2= Agree () 3= Uncertain () 4= Disagree () 5= strongly disagree ()



	Ensuring Transparent Bidding	1	2	3	4	5
A)	Sanction against corrupt and fraudulent vendors and ensure adequate time for submission of offers.					
B)	Establishment of an independent procurement unit staffed with professionals to ensure compliance.					

C)	Avoidance of entry barriers and ensure adequate and wide publicity of procurement opportunities and disclosure of rules to be followed.					
D)	Strengthening firm integrity guidelines and effective internal control systems and audits.					
E)	Prefer open/competitive tendering as far as possible and agreements on government procurement be strictly observed.					
F)	Open bids in presence of bidders and bids submitted after deadline need not be evaluated.					
G)	Evaluate bids exactly as per notified criteria and by a committee with the relevant technical and economic experience to ensure fair, impartial or non-discriminatory application.					



16. What other ways may the assembly ensure transparent, fair and open bidding system in the Metropolis? (Specify).....

.....

Thank you.