

**AN ANALYSIS INTO THE EFFECT OF THE PUBLIC PROCUREMENT ACT 663 AS  
AMENDED ON PRODUCTIVITY IN THE TARKWA-NSUAEM MUNICIPAL  
ASSEMBLY: THE MEDIATING ROLE OF INFORMATION COMMUNICATION  
TECHNOLGY (ICT)**

By

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A Thesis Submitted to the Institute of Distance Learning, Kwame Nkrumah University of  
Science and Technology in partial fulfilment of the requirement for the degree of

**MASTERS OF SCIENCE IN PROCUREMENT AND SUPPLY CHAIN MANAGEMENT**

Institute of Distance Learning, KNUST

April, 2023

## DECLARATION

I hereby declare that this submission is my own work towards MSc Procurement and Supply Chain Management Degree and that, to the best of my knowledge, it contains no material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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## DEDICATION

I dedicate this work to my beloved sister Martha Abena Korankye Boateng.



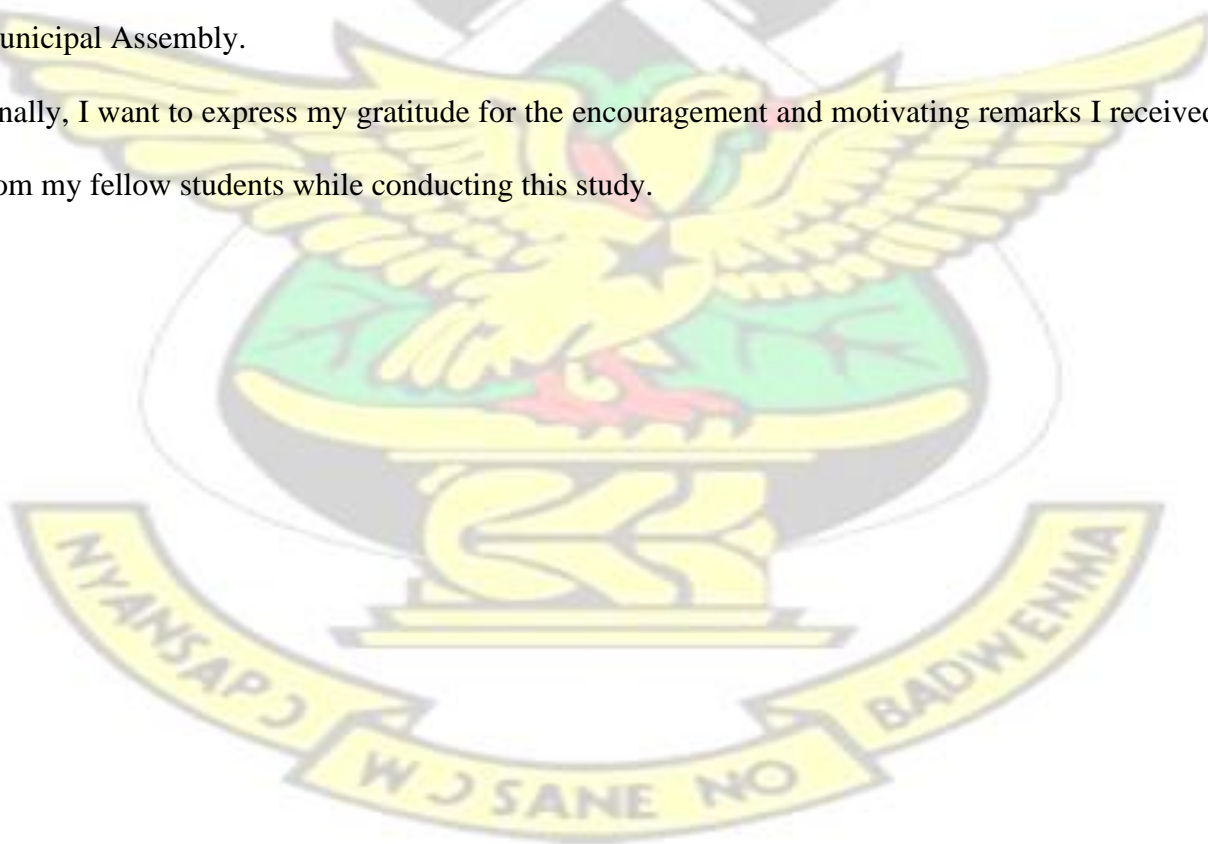
## ACKNOWLEDGEMENTS

First and foremost, I want to express my gratitude to the Almighty God for His protection and mercies during my research and studies in the graduate programme. May the Almighty Name of Jehovah God be praised.

My special appreciation and outmost gratitude goes to my supervisors Dr. Mawuko Dza and Dr. Seth Nkrumah.

I want to express my profound gratitude to Mr. Ernest Anokye, Head of the Procurement Unit, Mr. John Agyapong, Municipal Supply Officer, Chief Ing. Ebenezer Annor-Kwafo, Head of Works and Engineering Department, Madam Eugenia Quansah, Head of Management Information Systems Unit, and Mr. Bright Ohene-Appiah, Head of the Budget Unit, all of Tarkwa Nsuaem Municipal Assembly.

Finally, I want to express my gratitude for the encouragement and motivating remarks I received from my fellow students while conducting this study.



## ABSTRACT

Government operations are carried out primarily through public procurement. It is the procedure by which the government acquires goods, works, and services from outside parties to carry out its operations. It is based on the five "rights," which are obtaining goods, works, or services at the right price, in the right quantity, in the right quality, delivered at the right time and place, and from the right source. Systems used by the government for purchasing are generally sound in terms of how they are set up and how they operate. Additionally, manual processes are linked to corrupt practices because public procurement has always been done that way. Once more, various executional flaws exist, and all these have impact on how well they perform. The study aimed to analyze the effect of the Public Procurement Act 663 as amended on productivity in the public sector with the role of information communication technology as a mediating role. In light of this, the specific objectives were; to assess the Public Procurement Act understanding by Tarkwa-Nsuaem Municipal Assembly procurement professionals, assessing the effects of Public Procurement Act on Tarkwa-Nsuaem Municipal Assembly, evaluating Tarkwa-Nsuaem Municipal Assembly's application of information and communication technology in their procurement process, determining the difficulties Tarkwa-Nsuaem Municipal Assembly encounters when acquiring goods, services, and works in accordance with the Procurement Act and examining Tarkwa-Nsuaem Municipal Assembly's compliance using Public Procurement Act. A well-structured, closed-ended questionnaire was given to respondents in the assemblies as part of the study's methodology, which was quantitative in nature. Data received were analysed using frequencies, percentages, standard deviation and mean score ranking which was aided by Statistical Package for Social Sciences (SPSS). The key findings of the study indicated that Public Procurement Act is a critical determinant of public sector's level of procurement efficiency and is



required for a successful procurement plan, choice of procurement method, tender procedures, selection of evaluation panel, selection of potential suppliers/contractors/service providers and the disposal of stores items, vehicles and capital equipment. Additionally, it was discovered that public procurement professionals adhered to the Public Procurement Act in their day-to-day operations and could ensure a successful procurement cycle, encompassing pre-tendering, tendering, and post-tendering. Also, the adoption of e-procurement, an ICT application, had several benefits, making it simple for organizations like the public sector to recognize the need to reduce wasteful spending and irregularities in the acquisition of products, services, and works to replace the practice of manual procurement. The results further showed that the adoption of ICT served as a mediating factor which aided in the application of Public Procurement Act 663, as amended, on productivity in the public sector. Nevertheless, the uncomfortable internet connection, the difficulty in securing suppliers' electronic participation, and the integration of the internal and external environments were a few of the difficulties in implementing information communication technology in the public sector's practice of public procurement. It is therefore recommended that Information Communication Technology (ICT) tools like the Ghana Electronic Procurement System (GHANEPS) should be fully and adequately operated by public sector organisations to positively impact their productivity. Suppliers, service providers and contractors who are unwilling to cooperate with the adoption of ICT tools like GHANEPS and GIFMIS must be engaged effectively to educate them on the essence and effectiveness of the adoption of ICT which would help centralize all procurement activities, increase effectiveness, productivity, and personal performance. Although the assembly's procurement committee members and suppliers/contractors/service providers are aware of the Act's requirements, they lack the knowledge necessary to completely comply with the law. Thus, it is advised that the Public

Procurement Authority (PPA) provide frequent training sessions to introduce those participating in the procurement process to the guidelines and procedures for carrying out the Act.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background to the Study

A potent growth catalyst is public or governmental procurement. In addition to providing a nation with the products, services, and labor it needs, procurement has the power to boost regional economies, help the less fortunate, and expand regional trade. Purchasing supplies, works, services on behalf of a public body, such as a government agency, is known as "public procurement." (Mlinga, 2009). The use of tax money by governments to fund key stakeholders as well as the general public are greatly impacted by the resources and inputs needed to accomplish their goals. Additionally, given that 20% of government spending is devoted to procurement in developing countries, government purchases have an impact on both domestic and foreign trade. (Mlinga, 2009). With the exception of staff emoluments, state procurement in Ghana accounts for around 24 percent of all imports, 50% to 70% of the federal spending and 14% of GDP (Adjei, 2006). According to research, Ghana's yearly governmental procurement value is around US\$600 million (World Bank Report, 2003). The majority of these expenses were incurred as a result of the procurement of goods, services, and labor for initiatives undertaken by Ministries, Departments, Agencies (MDAs), District Assemblies (DAs), Public Hospitals, Universities, Schools, and Colleges. Therefore, enhancing the public procurement system would have a significant impact on Ghana's economy, resulting in budgetary savings and improved government spending efficiency, which will create wealth and end poverty. Governments in Ghana have passed a number of monetary and legal regulations since independence in an attempt to fix the problems with the public procurement system. These laws have been passed as legislative acts, constitutional clauses, executive orders, and financial circulars. Both the Ghana Supply Commission Act and the

Contracts Act, 1960 (Act 25), both passed by the government in 1960, were amended by PNDC Law 245 in 1990. The Supreme Military Council approved the Ghana National Procurement Agency Decree, 1976 (SMCD 55) in that year. Furthermore, the Financial Administration Decree (SMCD 221) became a legal document in 1979. (Adjei, 2006). The goal of all of these laws, orders, and other legal documents was to build a comprehensive administrative structure to regulate the public sector's procurement operations (Hunja et al. (2003).

However, the ambiguous institutional and organizational arrangements needed for the administration, the legal framework, the absence of standardized practices and laws, and the procurement procedures used by Ghana's government organizations are plagued by serious inefficiencies, fraud, and a lack of transparency. (Azeem, 2007). Additionally, the Public and Civil Service lacked a career path for procurement practitioners to enhance their skills. The value for money concept, which forms the basis of public procurement, was not maintained in government and donor-financed procurement. In specifically, the Public Financial Management Reform Programme (PUFMARP) was implemented in 1995 as part of a reform initiative. Therefore, PUFMARP was developed to promote efficiency, responsibility, and openness. The method for public financial management, or PUFMARP, is recommended to review the procurement process for government initiatives in order to achieve this. In order to aid in the development of a thorough public procurement reform initiative, the Ministry of Finance and Economic Planning (MOFEP) created the Public Procurement Oversight Group (PPOG) in 1999. An important goal of the group was achieved with the passing of a public procurement law in September 2002. (Adjei 2006). In order to address both real and imagined issues with the purchase of goods, services, and initiatives, Ghana's government enacted the Public Procurement Act, 2003 (663) in 2003. Additionally, adequate safeguards were included to encourage rivalry and lessen

waste's probability, cheating, corruption, and inappropriate using taxpayer money. (Public Procurement Board 2007). The Ghanaian Parliament approved and published the procurement Act of 2003(663) in an effort to, among other things, create institutions and guiding principles that coordinate the public procurement procedure and actions in order to sanitize and standardize it. The primary objectives of the legislation are to avoid discrimination in public procurement and to ensure cost effectiveness, efficiency, fairness, and transparency (Foster, 2014). On May 10, 2016, the Public Procurement Act, 2003 (663) was amended to add new public procurement clauses, to reinstate Section 2 of the Act, to include clauses for decentralized purchasing, and to accomplish other connected goals. (PPA Annual Report 2017). This dissertation examines the major issues with Ghana's public procurement, as well as the opportunities and challenges of analyzing Tarkwa-Nsuaem Municipal Assembly in relation to Public Procurement Act 663, as amended.

## **1.2 Problem Statement**

The legislation that governs, controls, and oversees public buying in Ghana is known as the Amended Public Procurement Act, 2003 (663). According to reports, Ghana was able to resolve a number of public procurement problems thanks to the laws. Despite the reform's admirable goals and objectives, it appears that the Procurement Act's implementation will be stymied by problems like poor customer-supplier ties, political meddling in the procurement process, onerous processes, outrageously low standards are all factors that prevent effective procurement practitioners from performing their duties. The Public Procurement Act, 2003 (663) was also enacted in order to clarify tendering procedures, establish the Public Procurement Authority, construct administrative and institutional frameworks for procurement, and address other connected matters. A number of changes were made to it after it was amended in 2016 (Act 914) and put into effect, including new procurement structures for government agencies, classification of entity tender committees,



dissolution of ministerial and district tender review boards, approval threshold changes, and adjustments to the thresholds for procurement methods (Report from the 2017 Public Procurement Authority). As admirable as these improvements may be, it becomes difficult to follow the laws and regulations they aim to create. As a result, this study seeks to ascertain whether achieving organizational goals, being familiar with procurement laws, and keeping an eye on procurement specialists have an effect on whether the Ghanaian program for public procurement reforms is implemented according to Act 663, the revised public procurement Act. Many MMDAs are facing difficulties adhering to some of the new regulations (Act 914) because they are not fully up to date. Additionally, some MMDAs are engaging in practices that impede the implementation of the Public Procurement Regulation, such as stifling competitors through deliberate efforts, breaking the law, splitting purchases, lacking funding, and noncompliant suppliers. Due to less compliance with the new revisions (Act 914) there is therefore the need for a study to be conducted to draw an analysis into how productive the act has been for the public and governmental agencies. Furthermore, the insurgents' constant reporting of government money theft, extravagant spending, and the prevalence of judgement debts at some MMDAs as a result of poor compliance with the Public Procurement Act has rendered procurement inefficient. Additionally, the use of public funds to finance corrupted government procurement of products, works, and services and conflict of interest due to lack of effectiveness of the public procurement factors/principles like efficiency, separation of duties, professionalism, value for money, ethical approach, accountability, transparency, fairness and competitiveness by some procurement/works departments and stakeholders of the MMDAs and other governmental sectors must follow the public procurement Act. The reform's overall goals and objectives are of particular concern to the scholar because they are greatly impacted by the aforementioned challenges. The current study, with a focus on the



Tarkwa-Nsuaem Municipal Assembly, seeks to close this gap by examining the possible advantages and underlying difficulties of the public procurement legislation since its introduction in 2004. Furthermore, there was a dearth of empirical study on Ghana's reforms to public procurement. The study also focused on the public perception of the Public Procurement Act's execution, specifically with regard to the Metropolitan, Municipal, and District Assemblies (MMDAs), and the accompanying accomplishments, challenges, and recommendations. Consequently, there have been comparatively few research outputs in this sector.

### **1.3 Objectives of the Study**

To evaluate the effect of Procurement Act 633, as amended on productivity at the Tarkwa-Nsuaem Municipal Assembly.

#### **1.3.1. Specific Objectives**

The study aimed to solve the specific objectives listed below:

1. To assess the Public Procurement Act understanding by Tarkwa-Nsuaem Municipal Assembly procurement professionals.
2. To assess the effects of Public Procurement Act on Tarkwa-Nsuaem Municipal Assembly.
3. To evaluate Tarkwa-Nsuaem Municipal Assembly's application of information and communication technology in their procurement process.
4. To determine the difficulties Tarkwa-Nsuaem Municipal Assembly encounters when acquiring goods, services, and works in accordance with the Procurement Act.
5. To examine Tarkwa-Nsuaem Municipal Assembly's compliance using Public Procurement Act

### **1.4. Research Questions**

The following fields of research were covered by the study:

1. How knowledgeable are the procurement professionals at Tarkwa-Nsuaem Municipal Assembly?
2. What effect does the Public Procurement Act have on the Tarkwa-Nsuaem Municipal Assembly's procurement?
3. What are the current Information Communication Technology (ICT) practices adopted by the Tarkwa Nsuaem Municipal Assembly?
4. What difficulties does the Tarkwa-Nsuaem Municipal Assembly encounter when using the Public Procurement Act to acquire goods, services, and works?
5. What are the prospects for the Tarkwa-Nsuaem Metropolitan Assembly's adherence to the Public Procurement Act.

### **1.5 Justification of the Research**

The procurement process encompasses the whole life cycle, starting with the initial conception and definition of the requirements of the public service and ending with the asset's useful life or the conclusion of a contract. Budgeting, cash / debit management, and accounting are three fundamental elements that are shared by all procurement systems (Hunja 2001). The imperious need for accountability, transparency, professionalism and value for money in the financial expenditure for the public sector and the public outcry against corruption, bribery, conflict of interest and misuse of government funds which leads to the payment of judgment debts at some MMDAs and other governmental agencies have necessitated the need for a study to be conducted on the analysis of the productivity effect's amendment to the Public Procurement Act. The Public Procurement Authority's website (PPA), provided the following information; procurement makes up 50%–70% of the federal budget, 14% of GDP, and 24% of all imports. This research will also demonstrate the usefulness of the public procurement act for some MMDAs that efficiently

manage their procurement procedures in order to cut costs and guarantee the accountability of public funds. The conclusions and recommendations will help some MMDAs and other government organizations realize the significance of abiding by the Public Procurement Act's guidelines and the need to protect the public treasury.

## **1.6 Scope of the Research**

The primary aim of this research was to analyze Public Procurement Act 633, as amended, and its effects on public sector productivity, using Tarkwa-Nsuaem Municipal Assembly as the area of study. The study would have been performed at all of the country's public and governmental services, but due to time and financial constraints, the research was limited to Tarkwa Nsuaem Municipal Assembly. The study concentrated on employees in the Works Department, Management Information Systems (MIS) Unit, Members of the Entity Tender Committee and the Procurement and Supply Unit, who are all in charge of upholding the Assembly's Public Procurement Act.

## **1.7 Overview of Research Methodology**

Creswell (2014) defines research methodologies as a set of strategies and methods for the study that shift judgements from general hypotheses to extensive methods for data gathering and analysis. It blends theoretical suppositions with strategies and exact methodologies. The following research methodologies were used to analyze the Public Procurement Act 663, as amended, and its effect on productivity in publicly owned companies. There were both main and secondary data. The primary sources were interviews, observations, and questionnaires collected from a sample population that included employees of the procurement, management information systems and works department, the organization tender committee members, and suppliers, service providers,



and agencies of the Tarkwa Nsuaem Municipal Assembly, or TNMA. The secondary sources included data from libraries, the internet, magazines, and articles on public procurement. The two types, qualitative and quantitative methodology were used in the investigation. With the intention of gathering information, structured questionnaires were distributed to the key participants/practitioners and members in the public procurement process, including members of entity tender committee, employees of the Procurement, MIS, and Works Departments, as well as contractors, suppliers, and service providers listed on Tarkwa-Nsuaem Municipal Assembly's list of registered companies or supplier database. The researcher derived conclusions and made inferences from the data collected in order to make sure that there was sufficient raw data collected for the goals of data analysis. Shona McCombs (2022) made a distinction between two groups of sampling methods: It is simple to acquire data using non-probability sampling because it involves non-random selection based on practicality or other factors. One can make reliable statistical inferences about the complete group using probability sampling, which uses random selection. A component of random selection called probability sampling enables the accurate statistical inferences about the complete group. The social studies statistical package was used to select service providers/suppliers/contractors, personnel of the procurement, MIS, and works departments, and members of the entity tender committee. The Statistical Product and Service Solutions for social sciences (SPSS, V.21.0), purposive sampling (a non-probability strategy) and random sampling (a probability method) were used to select members of entity tender committee, suppliers/contractors, and employees in the procurement, stores, MIS and works department.

### **1.8 Ethical Considerations**

Pritha Bhandari claims that a set of guidelines referred to as "ethical considerations in research" ought to direct one's study's methodologies and designs. (October 18, 2021, Revised on May 7,

2022). Every time data collected is from individuals, scientists and researchers had to adhere to a set of ethical rules. Human study frequently aims to comprehend actual events, investigate efficient treatments, look into habits, and improve lives in various ways. Significant ethical ramifications resulted from both the methodology and the research subject that was selected. These components collectively contributed to protecting the liberties of study participants, enhancing validity of the study, and preserving scientific method. Concerns about the study's ethics were one of the most important components. Dissertations may even be doomed to failure if this element were missing. According to Bryman and Bell (2007), the ten criteria below served as the principal recommendations for ethical concerns in dissertations.

- i. There should be zero tolerance for any form of harm to research subjects.
- ii. Prioritizing respect for the dignity of study participants is important.
- iii. Prior to the research, participants' full consent should be obtained.
- iv. Participants in study must have their privacy protected.
- v. The confidentiality of the study data should be adequately protected
- vi. It must be ensured that all participants in the study remain anonymous.
- vii. The goals and objectives of the study must not be misrepresented or exaggerated in any way.
- viii. All affiliations must be disclosed, along with financing sources and any potential conflicts of interest.
- ix. Honesty and transparency should be used in all communications relating to the study.
- x. The use of any false information must be avoided, as must the biased representation of original data findings.

The researcher observed the moral guidelines listed below while carrying out the study in light of the aforementioned considerations, the interviewees' right to confidentiality and anonymity is



extremely important, maximum degree of objectivity throughout the research in conversations and analyses, protecting the dignity and welfare of research participants, participants, and responses.

## **1.9 Organization of the Thesis**

The study focused on the Tarkwa-Nsuaem Municipal Assembly in the Western Region of Ghana. The study was limited to Tarkwa-Nsuaem Municipal Assembly because a national study would be extensive and beyond the researcher's ability, limiting the study. As a result, the inherent general constraint of a case study methodology may impede the generalization of the research's conclusions. It was also worth noting that the judgment conformity standards employed in this study were taken from the Public Procurement Authority (PPA), and hence any restrictions incorporated into them had an equal impact on this investigation.

There are five (5) chapters in the research. The study's introduction and historical context were provided in the first chapter. It also included a problem statement, objectives of the study, research questions, justification of the research, the scope of the research, overview of the research methodology and ethical considerations. The second chapter covered the reason for the reform, philosophical foundations, in addition to the Public Procurement Act's overall structure. Along with a discussion of a summary of the relevant literature reviewing the effectiveness of productivity in Ghanaian public procurement, it also included a theoretical analysis, empirical analysis, conceptual framework, and survey of the literature. The third chapter offered detailed description of the study design and analytical approach used to gather and analyze data. The sample size, demographics, and methodology, study design, method of data gathering, and manner of data presentation were all explained, along with how each method contributed to the accomplishment of the research's objectives. The fourth chapter dealt with the presentation of the research and data

analysis. The summary, conclusions, and recommendations derived from the results were presented in the fifth and final chapter.

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## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

Accessible material regarding the Public Procurement Act was examined in this chapter. A review of the relevant theories and an empirical review of the topic were done to get things started. The empirical review focused on research on the procurement act and public sector productivity. The section concluded with a conceptual framework for the study and a summary of the chapter.

#### **2.1 Public Procurement Overview**

Governments and other organizations that receive public funds use public procurement methods to obtain commodities, services, and labour needed to execute public initiatives. Consequently, it accounts for at least 15% of the global economy, with greater percentages in African nations. (World Bank, 2013).

Early in the 1970s, the majority of organizations considered procurement to be an administrative, reactive, and cost center. The circumstance has altered in contemporary times. Accenture Global Service asserts that the procurement function has evolved into a strategic, proactive, value-adding, and solutions-providing business function (2015). This function helps institutions address complex issues like profitability, corporate growth, and competitive advantage. Fundamentally, public procurement is the acquisition of goods, services, and works by public entities using government funds to accomplish public objectives. The aim of procurement, whether public or private, is to get the best value for money (O'Regan, D., 2008). During these difficult times, organizations are turning to their procurement functions for assistance, and these functions can account for between 50 and 75 % of overall spending, according to Carter et al (2006). According to Knight et al. (2012), the activity of acquiring products, works, and/or services for an organization's direct or

indirect benefit at the lowest attainable total cost of ownership in the appropriate quantity and quality, at the appropriate time and location. In an organization's cost structure, procurement is typically one of the greatest expense categories, according to Angeles and Nath (2007). According to Stentoft and Vagn (2012), the method by which industry groups obtain goods and services from outside suppliers is referred to as procurement. Furthermore, public procurement includes a broad range of products, from those that support governmental activities to those that are used on a daily basis. Examples range from simple expenditures (like stationery, temporary office personnel, furniture, or printed forms) to big expenditures (like building projects, PFI programs, vessels, or support for prime reform enterprises). Investigating supply market opportunities and implementing resourcing strategies that offer the business, its stakeholders, and customers the best supply outcome feasible are the goals of procurement.

According to CIPS (2013), procurement makes use of the science and skill of managing external resources and supplies by interpreting a body of knowledge. Miles (2015) asserts that "Procurement is a challenging process that can help businesses become more efficient." This is because all goods and parts would be purchased at the right quality, quantity, and price and would be delivered "just in time," eliminating the need to stockpile them.

### **2.1.1 Public Sector Procurement in Developing Countries' Perspective**

Hunja et al. (2003) claim that many developing countries do not perceive public procurement as having a strategic influence on the administration of public resources. It was mainly viewed as a procedure-focused task that was frequently carried out by non-professional employees of the procurement agencies. Few efforts were made to maintain the laws, procedures, and organizational structure that supervise the procurement process in order to ensure that public funds were used as efficiently and effectively as feasible to offer the greatest potential financial value. Hunja et al.



(2003), nevertheless, noted that this has been changing and that this is due to factors like budget cuts, combating corruption and establishing good governance by increasing public confidence in the effective use of public money. McDonald et al. (2008) assert that the rules governing government contracting and buying must be open and accountable. In addition to lowering crime, this strengthens ties between the people and the government. Due of the significant financial stakes, it is also significant. Governments typically rank as the largest individuals who purchase products and services in most nations in the world, most nations' largest individual consumers of goods and services, and procuring publicly accounts for roughly 4.5% of the GDP of emerging nations. The government function that has been found to be most susceptible to corruption is public procurement. Although they act as a crucial link between the public and private sectors, public procurement provides both public and commercial numerous opportunities for misusing public funds for personal gain. Executive Opinion Survey from 2005 by the World Economic Forum found that corruption by foreign firms is more prevalent in utilities than governmental procurement, taxes, the legal system, and state control. (OECD, 2007). Despite making up a major portion of public spending, government procurement still lacks transparent award and monitoring processes. For the purpose of offering potential advantages that could increase the business environment's viability and effectiveness, measures must be implemented to improve the openness of the procurement process and to encourage and/or regulate competition. Furthermore, Falsely et al. (2007) suggested that the two elements that make emerging countries more likely to engage in anti-competitive business practices due to small markets that can only support a handful of big businesses and a weak institutional setting, a few or very few companies tend to control many industries. Developing nations should create formal competition policies, according to (Singhet al. 2002), particularly in light of the structural changes brought on by privatization and deregulatory



measures. Many established and developing nations have changed their national procurement procedures to make sure that public funds are used as efficiently and affordably as possible and that the system provides value for money. Governments are reportedly becoming more aware of the (financial) benefits that come from a more structured and open procurement process. (Hunja R.R. 2003).

### **2.1.2 Public procurement's fundamental principles and its benefits**

In order to give the ministries and smaller local governments the best possible value for their money, Agwot (2018) claims that the public procurement system aims to guarantee the transparent, effective, and fair use of public money. The following are the fundamental tenets for public sector product, service, and job acquisition:

**Transparency:** The concept of transparency serves as the foundation for contemporary public procurement practices, which provides general public and the community of bidders in particular with information about and access to the law, regulation, policies, and practice of procurement by government procuring organizations. In this instance, the manner the procurement process is conducted should ensure that all interested parties are informed of and comprehend the real procedures and processes by which contracts are awarded and managed. This will ensure openness and clarity regarding the procurement policy. A transparent procurement process is one with transparent rules and processes, standard contracts and tender documents, and a fair process.

**Accountability:** The governmental officials in charge of procurement operations have duties and commitments related to performance and stewardship. Clear lines of authority for decision-making should exist in an effective procurement system, and public officials who make decisions should be held accountable. As a result, the definition of accountability is: "the attribute or condition of accountability, especially the duty or readiness to take ownership or to answer for one's actions."

According to this definition, public employees are required to take responsibility for their actions and must be ready to do so. Representatives of the government, community, and civic society must therefore exhibit effective leadership and enforcement or implement any applicable procurement laws or regulations, refrain from corruption, and take responsibility for their actions. The incorporation of third-party oversight, such as that of a civil society group, is one of the steps advised by current best practice to implement the principle of accountability in procurement. Other measures include keeping complete, auditable records that can be examined at any point in the procedure, instituting arbitration in the event of disagreements, requiring all interested parties to sign a joint undertaking guaranteeing the integrity of the process, and agreeing to sanctions in the event there is a violation.

**Fairness/Equal Consideration:** An equitable chance to participate should be provided to all participants in an effective public procurement system, and potential bidder discrimination should be avoided. During the contract awarding procedure, prospective suppliers must be treated equally and fairly at all times. According to the principle, different circumstances must not be treated similarly to identical situations, and vice versa. As opposed to the non-discrimination principle, which is based on country, this principle is based on treating people fairly. For instance, it would not be discrimination on the basis of nationality to deal with two bidders from the same nation in separate ways because they are of the same nationality. However, treating them differently could be considered unequal treatment.

**Competition:** There is a scenario when there is competition between public bidders for similar terms and conditions in a procurement agreement for the delivery of goods, services, or labor. Except in cases where there are compelling arguments to the opposite, procurement should be conducted through competition. Reputable domestic and international contractors and freelancers

who can compete to satisfy the needs of the government should be attracted by public procurement systems. The essential components of competition are: All interested suppliers have equal access to public procurement and disposal possibilities; adequate time is provided to contractors or suppliers; using the same criteria stated in the bidding documents to evaluate each bidder or service provider; and the use of unambiguous, flexible standards, job scopes or reference guidelines. In government procurement, integrity is a fundamental principle. The use of money, resources, assets, and power in accordance with the intended official objectives and in the best interests of the general public is referred to in this context as having integrity. Corruption and collusion with vendors or other parties should not be tolerated by the public authorities in charge of procurement processes. The guiding principle involves the individual's internal sense of "wholeness," which is the result of honesty and consistent moral rectitude in behavior. In the process of governmental procurement, this concept is crucial. It improves sound procurement practices, which facilitates effective and efficient management of state resources (taxpayer money).

**Economy and Efficiency:** Efficiency means producing the intended results with the least expensive and accessible tools or resources. Economy relates to the administration and control of public resources with the goal of maximizing efficiency and value for money. In this regard, effectiveness of public procurement is evaluated considering the expenses spent (time and labor), the degree of competition achieved (number of bids, participation from international bidders), and the perception of transparency. As a consequence, every public-sector company must have a formal program for monitoring and evaluating the efficiency of internal procurement. To support efficiency and effectiveness, all divisions should create and periodically evaluate a standard set of key performance indicators (KPIs).



Value for Money: While the cost of acquiring the essential components should be used to determine value for money, the procurement process should strive to obtain the appropriate things at the appropriate time and cost to aid government efforts. Mamiro (2010) asserts that value for money is a key factor that must support a procuring body's choice. The worth (output) that a specific expenditure has in the eyes of the customer or the intended audience is referred to as value for money. When resources are deployed in relation to the realization of certain expected output values, the notion of value for money is considered. The consumer or user department makes an effort to give the goods or services they obtain a value by evaluating them against.

A company or firms that uses its procuring functions can gain some advantages or benefits that enhance its performance as a whole. Implementing procurement practices, according to the journal (Loppacher, Cagliano & Spina, 2011), leads to decreased governments' operational and administrative costs and processing times, along with better vendor relations, spending control, and purchasing power. Pal, Wang, and Liang (2017) assert that creating a persisting relationship with a vendor and securing pricing for a sizeable quantity of essential materials, a business can significantly reduce costs. Some of the noted advantages include the following: good procurement services might assist your business in maximizing it because the purchasing procedure entails extensive study, money regarding price and worth (Lingg, Wyss, & Durán-Arenas, 2016). Additionally, a company's procurement division may be able to secure better value and pricing. A strong supplier and independent contractor will be encouraged to continue doing business. Additionally, holding extra inventory can be expensive because most businesses have limited warehouse and floor space, and not having enough can lead to severe shortages and unanticipated crises (P. Kakwezi & S.Nyeko, 2019). An exclusive procurement division will keep inventory under control to make sure that parts, machines, and machinery are accessible when required when



not taking up precious space. Additionally, the research of a procurement role and duties go beyond just assuring reduced costs and right quality (P. Kakwezi & S. Nyeko, 2019). An astute procurement division will ensure that federal and public standards are upheld, that goods and services are still accessible, and that they pose no environmental risks. Similar to this, procurement services ensure that the goods or services being bought satisfy the standards of quality set by the business. A highly sharp-witted procurement services shield businesses against subpar service providers and contractors, as well as from parts and equipment with short lifespans or a propensity for frequent failure (P. Kakwezi & S. Nyeko, 2019).

## **2.2 The governing laws and institutions**

The administrative and institutional framework for the Public Procurement Board's procurement structures, as well as for the tender review boards, the tender committees, and the tender evaluating panels, is established by the Public Procurement Act, 2003 (PPA, 2003; Act 663). These structures serve a specific purpose in ensuring the smooth functioning of the procurement processes. According to Section 2 of Act 663, in order to ensure the responsible, economical, and effective use of public funds as well as the fairness, openness, and nondiscriminatory nature of the process, the Board's objective is to harmonize public purchasing practices across the public sector. (The Public Procurement Oversight Group, 2002). The board's responsibilities include developing recommendations for procurement policies, guiding their execution, and developing human resources for public procurement. To ensure that public procurement conforms to legal requirements, write regulations and guidelines, supervise it and keep an eye on it, provide legal documentation in other formats, and publish an annual Public Procurement Report. to maintain a database of vendors, advisors, and freelancers as well as price records; keeping a record of businesses that are barred from governmental procurement; A buying practice that violates this

Act is being looked into and prohibited. According to the Public Procurement Oversight Group 2002, those suppliers, contractors, and consultants who flagrantly violated their contract duties during a public procurement, lied about their qualifications, or have made inducements are prohibited from participating, perform any additional tasks that are required for the achievement of the Act's objectives.

### **2.2.1 Standardized Tender Documents and Procurement Processes**

The Act specifies procurement laws and practices, including how to create a procurement strategy, size packages, qualify tenderers, request and assess bids, and award contracts. Pre-qualification processes, documentation assistance during the procurement process, documentation of the procurement process, justifications for rejecting tenders, proposals, and quotes, and language.

### **2.2.2. Purchasing strategy**

The Act specifies that open tendering is the favored process. A national or international competitive tendering procedure may be used in this. Restricted tendering, two-stage tendering, single sourcing, requests for quotes, and requests for proposals are additional techniques, the pre-selection and certification of qualified suppliers, ambiguous identification, regulatory controls, extremeness, or demand for consulting activities are all potential applications. The threshold also influences the method of choice, it should be mentioned.

### **2.2.3 Autonomous Control System**

The Public Procurement Authority's board of directors therefore has the authority to independently supervise all other procurement institutions, even though the Act does not mandate it.

#### **2.2.4 Effective Purchase Personnel**

The Act empowers the Public Procurement Authority to develop, promote, and support the professional development of those who work in public procurement, as well as to ensure that they are educated in upholding ethical standards.

#### **2.2.5 Actions against Corruption**

The Act also provides for the Public Procurement Authority power to investigate and prohibit suppliers, workers, and other third parties from engaging in procurement practices and providers/participants/consultants who have flagrantly breached their contractual duties, made false statements about their expertise, or given or provided incentives that violate the Act's rules. A list of companies that have been barred from participating in public procurement must also be maintained, and it must be shared frequently with the appropriate procurement organizations. These meet the Act's definition of anti-corruption measures.

### **2.3. PPA Principles, 2003 (ACT663)**

#### **2.3.1. Bid Evaluation**

In accordance with Section 59, the legislation specifies a fair methodology for evaluating bids. Evaluation is performed to choose the winning tenderer, adhering to the standards and rules specified in the invitation documents. The winning tenderer must have the lowest evaluated tender price, which is decided using objective, quantifiable factors that are stated in the invitation documents, according to the Act's sub-section 3(a)(b). Costs associated with using, caring for, and repairing the products or works must also be considered by the procurement authority in accordance with Section 4(a)(b)(c)(d) of the Act, subject to any margin of choice used in accordance with Section 60(2). The potential for economic growth given by suppliers or contractors, the payment and warranty conditions for the products, works, or services; the price of



using, maintaining, and fixing the products or works; and the countertrade deals provided by suppliers or contractors, the percentage of locally sourced components used in the products, works, or services that vendors or contractors are offering. In order to determine the lowest evaluated tender, consideration is given to suppliers and contractors, as well as how accepting the tender will impact the country's foreign currency holdings and balance of payments situation.

### **2.3.2 Normative behavior, responsibility, transparency, and nondiscrimination**

According to Sections 28 and 56 of the Act, procurement processes should be maintained, and the contract price should be immediately recorded in the documentation of the tendering process. In order to promote the values of fair play and nondiscrimination, Sections 63 and 64, respectively, contain clauses prohibiting negotiations with vendors or contractors as well as the withholding of details regarding the examination, clarification, evaluation, and comparison of proposals during the tender evaluation process. The procurement organization must allow a provider or vendor who has submitted a bid, or a representative of such a bidder, vendor, or service provider, to attend the opening of offers, according to section 56(3), which is one of the provisions relating to openness.

### **2.4 Definition of Public Entities' Compliance Level in Ghana**

A number of rules for the complete procurement process are laid out in the Public Procurement Act, 2003 (663) including laws, processes, procedures, and ethics. These rules aim to ensure efficiency in the use of public funds by ensuring there is no discrimination, fairness, transparency, or responsibility in the procurement process. The effectiveness and compliance with established procurement regulations is used to evaluate the effectiveness of public procurement management. (Schapper, et al 2006). According to the idea of compliance, regulators should operate in accordance with the relevant legal requirements. (Gelderman, et al 2006). Political and social authorities view compliance as a specified method for eliminating or avoiding the risk that is



typically connected to public procurement systems. Since then, the Public Procurement Authority's Benchmarking, Monitoring, and Evaluation Directorate has conducted annual evaluations of the public procurement process. The assessment's primary goals are to establish how the Act's "good practices" for procurement are implemented and to instill these practices in public sector groups that are in charge of monitoring and evaluating procurement performance, its supporting documents are being adopted by public entities. The Ghana Procurement Authority has advanced by implementing the Performance Assessment System. (PAS). The Public Procurement Model of Excellence-based assessment method of the comprehensive analysis of the performance of Public Entities is provided by the Performance Assessment System (PAS). The four main subjects of the PAS report are contract management, information and communication systems, procurement, and management systems. Government, human resources, methods for observing and policing conduct, and moral principles. Along with complaints, appeals, and dispute resolution processes, the management system handles compliance. In the category of information and communication, it is determined whether an organization has the ability to utilize information obtained and provide information in the appropriate format, including market knowledge, data analysis, and the top body. In the category for the procurement process, information is given about how the entities understand the cycle of procurement and how they carry out their duties at each stage. Initiating the tender process, planning the procurement, providing notice, preparing the tender documents, inviting tenders, receiving tenders, and selecting the winning bidder are all included in this. Contract management evaluates how organizations ensure that the contracts they award are carried out as agreed. This involves performance, administration, monitoring, checking, disposal and inventory management and reporting. It also includes planning and mobilization.

## **2.5 Issues with the Application of the Public Procurement Act**

The Republic of Ghana is not an exception to the widespread challenges facing the establishment of national legislation in developing countries. Due to this, public procurement no longer affects how the majority of developing nations handle their public resources strategically. The absence of a position for civil society or the media in the public procurement process is one of the biggest problems with the Public Procurement Act (PPA) 663. Given the significance of civil society and the media in observing public activities generally, it is inappropriate that the law, whose main goal is to achieve a wise, economical, and efficient use of public funds through fairness, transparency, and non-discrimination methods, did not assign civil society any specific role (Aidoo,2017). The majority of governmental organizations in Ghana are also reluctant to use information and communication technologies (ICTs) in public procurement procedures, but the PPA does not explicitly permit their use due to problems with internet access, related expenses, a lack of qualified individuals to operate the technologies, etc. Furthermore, despite the requirements outlined by legislation for their use, such as prior PPA approvals, the Act endorses the Public Procurement Authority's existing practices of sole sourcing and limited tendering. Domestic bidders are given a margin of advantage under the PPA. Some preferential consideration may be given to domestic suppliers and contractors under Section 60 with the PPA's permission. However, it is feared that favoring local businesses could undermine principles of open competition and good deal, perpetuating inefficiency and driving up costs. The PPL fails to offer complete ethical guidelines for the entire government that distinguish between private interests and the public interest and does not give the conflict-of-interest guidelines and the public procurement rule of ethics the attention they deserve. Unfortunately, the law only makes passing reference to a code of conduct and leaves it up to the PPA to provide the details in the absence of a set of regulations.

(Aidoo,2017). Policy-making is demonstrated, believable intention of elective or selected government officials, watchdogs from participants from civil communities, among others to combat systemic corruption's alleged causes or effects (Sahr, 1999). Political will, according to Asek (2006), is the desire and resolve of political actors to adopt and launch modifications that will result in important and long-lasting societal shifts. Individuals in places of power, though, lack the moral fortitude or power to use their position to effect the change that is required. Significant reform initiatives have previously shown that the single most important element in their success is an affirmation from the top government leadership at all levels. (Sahr, 1999). Kosack (2008) claimed vehemently that the political will of such countries' leaders and their dedication to boosting access to education were responsible for the success in various nations worldwide regarding that connection. Politicians' adoption of new laws and political ploys by themselves is insufficient to bring about procurement changes (Philip, 2002).

According to Ghana's 2003 Country Procurement Assessment Report despite receiving training, the majority of staff members in control of procurement at Ministries, Departments and Agencies (MDAs) and District Assemblies (DAs) lacked relevant knowledge. The study claims that thorough training, "refresher" programs, and encouragement of procurement officials are necessary for the effective execution according to the public procurement act's standard contract and tender documents. A further issue facing procurement reforms, according to Forgor (2007), is the managers of the procurement process' lack of sufficient training. This supports Azeem's claim that one of the main obstacles to the successful implementation of public procurement laws is the inadequate dissemination of procurement law. (2003).

Reforms in public procurement are having a difficult time taking effect because of political meddling in the procurement process. There are arbitrary decisions made because many legislators



believe they have the right to influence the procurement process. Insufficient career opportunities and pay for procurement employees are additional barriers to enacting changes in the procurement (World Bank, 2003). Two of the major obstacles to the implementation of procurement changes have been identified as being the delays in contractor and supplier payments (World Bank, 2003b). A low level or absence of capacity development for service providers has been recognized as one of the obstacles to effective public procurement reforms. Numerous challenges exist., including lack of basic legal knowledge, an inability to comprehend the standard tender papers, poor information retrieval, limiting the number of bids, and a lack of the administrative and practical skills necessary to participate during the tendering process. (ODPP Annual Report, 2007). The Malawian Office of the Director of Public Procurement's yearly report for 2006–2007 mentioned the following: a number of challenges to Malawi's procurement law's successful implementation, including a lack of qualified workers, insufficient funding, inadequate office space, noncompliance with certain legal requirements, inadequate record-keeping by organizations, and bidders who overcharge for goods, services, and labor.

## **2.6. Productivity**

Productivity is typically defined as the relation of input volume to output volume. To put it another way, it evaluates how well a country's economy utilizes labor and capital as production inputs to produce a certain volume of output. Another method for gauging the impact of demand and inflation is production capability. (OECD, 2008). Productivity is the amount of goods and services that a workforce produces over a given length of time. It may be assessed for a company, a procedure, an industry, or a nation. It was initially known as labor productivity and is still frequently called that today because it was first exclusively studied in relation to the work of laborers, rather than managers or professionals. The following are the top three entry metrics:

- Working hours



- The employment markets
- The total number of workers (OECD, 2002).

The exact capacity of a system or functional unit to complete assigned tasks within a specified timeframe is referred to as responsiveness, according to Faisal (2011). This may serve as an explanation, for example, a computer system's ability to comprehend and finish tasks in a timely way. It falls under the robustness principle as one of the criteria and rate of activity that ensures that customers receive their orders as quickly as feasible. The other three are task compliance, recoverability, and observability. The system's ability to use the existing resources as efficiently as feasible is far more crucial. To ensure smooth mouse interactions, for example, it seems sensible to let the mouse driver run at a very high priority. The most crucial aspect of long-term operations, like copying, downloading, or altering large files, is to offer meaningful user feedback rather than the operation's performance because it may quite easily run in the background utilizing just available processing time. 2004 (Hausman).

## **2.7 Overview of the Theories**

The study's theoretical foundations are reviewed in this part along with other theories that are pertinent to the study. The agency theory and the knowledge-based theory are two of these concepts.

### **2.7.1 Theory of Agency**

The agency theory hypothesis offers an account for why members of a group behave differently or form different opinions. The relationship between a principle and an agent is explicitly described. The fact that they frequently have distinct objectives and regardless of their personal objectives, possibly different perspectives on danger is highlighted as an explanation for why the

two parties behave or make different decisions. In essence, the idea acknowledges that different people working toward the same objective possess various motivations, and that these impulses may appear in different ways. Efficiency and effectiveness cannot be separated, it is claimed, and there will always be some information gaps between principal and agent as well as some degree of partial purpose conflict between the parties.

The main tenets of agency theory are as follows: agents are less risk-averse than principals; principals and agents may have competing goals; every side behaves in its own best interest.; principals and agents commonly exhibit information asymmetry; efficiency is the efficacy criterion. These assumptions may result in two possible problems in agency relationships: a problem with the agency and a problem with risk-sharing (Xingxing, 2012). The underlying problems in supply chain quality management are inherently compatible with the presumptions and recommendations of agency theory. The management of supplier quality presents challenges for buyers in agency relations. Customers naturally expect vendors to deliver high-quality goods and/or services and to constantly improve them, but vendors may be hesitant to make significant investments particularly if they feel that customers are the only ones interested in quality. Both customers and suppliers will only be interested in their own interests because of the differences between them. (Xingxing, 2012). The procurement processes that managers carry out on behalf of public organizations are governed by agency theory. Low levels of top management commitment are the outcome of poor principal agent relationships, and this has an effect on how institutions and suppliers engage. Conflicts of interest among the agents cause procurement procedures to be carried out in violation of procurement policies, increasing the procurement budget and causing the loss of procurement funds. In order to implement procurement practices in EMDA successfully, this model was used in the study to assess the effects of procurement policies.

### **2.7.2 Theory Based on Knowledge**

According to the knowledge-based theory, information is the company's most important tactical resource. (Grant, 2007). Different organizational knowledge bases and capacities, in the view of its proponents, are the primary factors that determine long-term competitive advantage and top-tier corporate success. These materials are allegedly hard to copy and have complicated social dynamics (Grant, 2007). Rules, procedures, documents, systems, people, and the company's culture and identity are just a few of the numerous entities that contain this knowledge. (Zander, 2007). Employee training significantly affects the types of skills that an organization's human resources hold, according to the knowledge-based theory. The organization's ability to attract and hold on to skilled labor is greatly aided by the availability of many employees with high educational levels and the presence of professionally trained staff in the procurement area.

To determine how EMDA trains staff members to provide them with knowledge that supports the efficient execution of public procurement methods, the study applied this approach.

### **2.8 Empirical Review**

In 2013, Frempong et al. assessed the economic effects of public procurement law in Ghana (Act 663) from 2003. According to the study, several benefits have been demonstrated when using the Public Procurement Act, 2003 (663), including the guarantee of high-quality goods, prompt delivery of goods, proper delivery of goods in the appropriate quantities, uniformity in the conduct of procurement activities, economical and efficient use of state resources, decreased corruption, value for money, and right price is provided, proper location of delivery is guaranteed, and harmonize public procurement processes in the District assemblies. Unaam and Mark (2015) investigated on how ethics and integrity affect a successful public procurement system in Nigeria. According to the study, there is a good correlation between ethics and integrity, on the one hand, and governmental procurements in Nigeria, on the other. The report also recommends that public



procurement personnel be properly reoriented on the need of uniformity and transparency in procurement procedure.

Muhammad, Adamu, and Ladi (2015) evaluated Nigeria's construction project procurement rules and came to the conclusion that the effectiveness of public sector project performance in Nigeria is influenced by the procurement strategy or policy employed to provide the building. The study also showed that Nigeria's public sector procurement was ineffective for carrying out projects successfully. They also believed that alternative or hybrid procurement procedures could enhance the performance of projects.

Ojo and Gbadabo (2014) conducted research on the evaluation of procurement process non-compliance in Nigerian work procurement. The results of their analysis show that the variables under consideration differ statistically significantly.

Gikonyo (2014) investigated the elements influencing the application of Kenya's public procurement statute in rural communities. The study's conclusions indicate that regulatory agencies favor morally upright procurement practices, and that the procurement procedure should maintain integrity and guarantee that there are no malpractices.

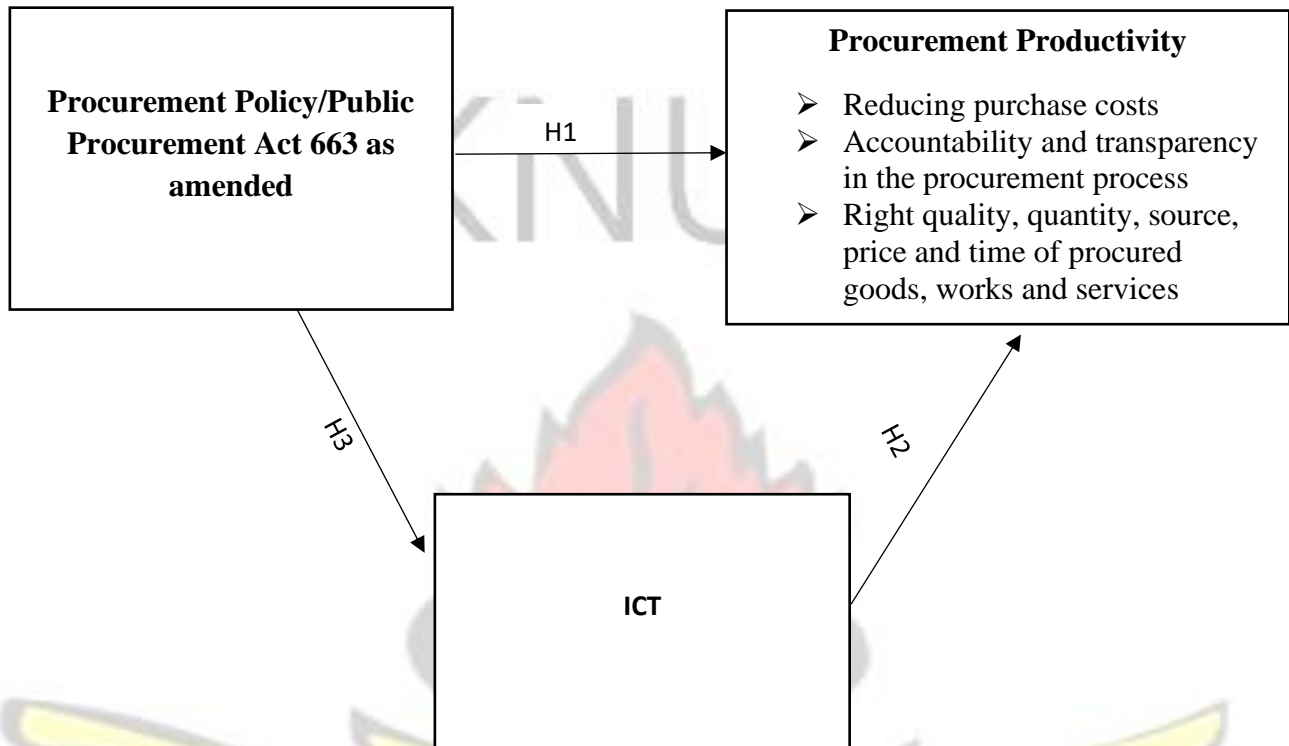
## **2.9. Conceptual Framework**

In order to set up a performance in the future, a conceptual framework is a collection of overarching ideas and guiding principles. (Biklen 2003). To demonstrate the connection throughout the study, a conceptual framework for understanding relationship between the independent and dependent variables were developed. As part of the study, public procurement responsiveness was considered as the dependent variable, and public procurement policy/Amendments to Public Procurement Act 663 as the independent variable. Figure 1 depicts the study variable structures and connections.



## Independent Variable

## Dependent Variable



### 2.9.1 Impact of Public Procurement Act on Procurement Productivity

The guidelines that control a company's procurement practices are known as procurement policies. Effective procurement practices can be executed within a framework that is well-designed and implemented for procurement policies (Bartik 2009). In order to ascertain whether the Public Procurement Act 663's implementation has led to a sizable number of efficient procurement practices; this research will examine one of the most popular procurement policies. According to Wittig (1999), any enhancements to the public procurement process may directly and favorably impact a nation's general economic situation. This emphasizes how crucial it is to guarantee that moral norms are upheld during public procurement procedures. According to Basheka and Tumutegyreize (2010), a significant portion of government funds are typically spent on purchasing the commodities, services, and projects needed by government departments.

According to Basheka and Tumutegyeize (2010), unethical behaviors entail public officials abusing the trust placed in them by the public procurement system to improperly profit themselves and/or those close to them. Accountability is a key component of any system for public purchasing (Jeppesen, 2010). In the absence of transparent and accountable platforms that enable governments and citizens to interact in mutually responsive ways, the vast resources channeled through public procurement systems run the risk of growing unethical activities and financial misuse. (Jeppesen, 2010). The reward (income) of the procurement professionals had an effect on how closely they adhered to the ethical code of ethics, according to study on the procurement profession in Kenya conducted by Ogachi (2011). Better compensation encouraged public procurement pros to adhere to their professional code of ethics (Ogachi, 2011). The procurement cycle is critical for promoting better ethical standards in Africa, according to Nyeko and Kakwezi's (2011) study. The study's results indicated that a successful procurement cycle encouraged supplier competition, professionalism, moral business conduct, and nondiscrimination in public procurement (Nyeko et al, 2011). According to Wanyama (2010), the fundamental provisions of the Act and the Regulations are inherently weak and open to misuse by procurement entities because they fail to take into account modern market conditions. According to Kenyanya et al. (2010), institutional capacity in purchasing entities and procurement markets is the weakest, despite the fact that the establishment of mechanisms for contract administration and appeals was applauded as a significant step.

**H1** – Public procurement responsiveness is immediately impacted by compliance in accordance with the Public Procurement Act 663, as amended.

### 2.9.2 The role of ICT on Productivity

In addition to its distinct benefits for productivity, IT has profoundly changed the nature of transactions and contributed significantly to the processing, storing, and sharing of information. ("productivity paradox"; Brynjolfsson and Hitt, 1996). Through the streamlined and simplified task execution that IT provides, the purchasing function performs better. Systems like modern enterprise resource planning (ERP) and material requirements planning have made information more accessible and integrated within businesses for more than 30 years. ((Kumar & Meade, 2002, Bendoly & Schoenherr, 2005). The creation of systems like electronic data exchange (EDI), which enhances the flexibility of inter-firm commercial transactions and its supply-chain "e-Procurement" operations, has also been made possible by the expansion of the Internet, in addition to encouraging the use of these tools. (Muffato & Payaro, 2004). Academics frequently highlight the developments brought about by specific IT tools, such as EDI, ERP, or the Internet. Barnejee and Sriram (1995), for example, investigated how EDI affected purchases and discovered that it increased order administration's systematization, automation, and simplification while decreasing the need for supervision, resulting in better operational performance. Platforms for sharing knowledge about relevant capabilities. Similarly, Wu et al. (2007) discovered that using transactional and coordination e-procurement applications can instantly increase firm efficiency. (Examples include enhancing communication between trading counterparties, decreasing human error rates, and accelerating the processing of purchase requests in real-time). Generally, IT improves communication between buyers and sellers by lowering transaction costs considerably (Lin and Pervan, 2003), boosting flexibility (Gunasekaran and Ngai, 2004), and increasing the dependability of buying activities. (Sriram and Stump, 2004). Consequently, I suggest that:

**H2:** IT investments in the procurement role have a positive impact on an organization's productivity.

### 2.9.3 ICT Usage in Public Procurement

By assisting the state in avoiding repetitive procedures like the allowing additional effective control mechanisms, registering and certifying contractors, and reducing paperwork, ICT in public procurement lowers administrative expenses and bureaucracy (Singer and Marcos, 2009). The use of ICT in procurement guarantees better value for money when public contracts are awarded, improves transparency, and lowers transaction costs. Similar to the last example, ICT in procurement has the potential to lower purchasing prices because of a more efficient system and more possible contractors (Singer and Marcos, 2009).

**H3:** ICT have a direct impact in public Procurement.

### 2.10 Chapter Summary

Chapter two discussed literature review in relation to the study's research topic. The chapter discussed concepts, theoretical analysis, empirical analysis, and conceptual framework that aided in developing an idea. The research techniques and methods used in this investigation were discussed in the following chapter



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

The population, sample size, sample technique, research design, and data collection methods, questionnaire validation, instrument administration, and data analysis methods were all covered in this chapter.

#### **3.2. Research Design**

A research design is a method for responding to research queries with empirical data, according to McCombs, Shona (June 7, 2021, Revised on January 23, 2023 by Pritha Bhandari). The use of the appropriate type of data analysis and the use of methods that are in line with the research objectives are both supported by a well-planned research design. For the investigation, the descriptive research method was used. Finding specific details about an actual phenomenon is the goal of a descriptive design. Descriptive design, according to Burns and Grove (2010), is a category of study that utilizes data from any type of systematic inquiry to explain and describe what is and is not present in the current state of a phenomenon being studied. With a descriptive design, results can be extrapolated from a small section of the sample of the entire population. This reduces the expense while maintaining the research's effectiveness.

#### **3.3 Population**

The Tarkwa Nsuaem Municipal Assembly registered suppliers, contractors, and service providers, stores and procurement staff, MIS staff, works and engineering department staff, as well as the entity tender committee members made up the study's main focus group. Ten (10) members of the TNMA Entity Tender Committee, seven (7) employees from the procurement unit, two (2)

employees from the stores unit, five (5) employees from the works department, two (2) employees from the Management Information Systems (MIS) Unit and twenty-six (26) TNMA registered suppliers made up the population. There were fifty-two (52) participants in the study as a whole.

### **3.4 Sampling and Sampling Techniques**

Never Mujere (2015) defines sampling as the act, process, or technique of choosing an appropriate sample or a representative portion of a population in order to ascertain the parameters or characteristics of the entire population. In order to come to decisions that apply to all group members, the researcher can examine a manageable number of examples from an enormous group through sampling (Burns & Grove, 2010). For the investigation, a purposive sampling approach was employed. According to Burns & Grove, 2010, this method allows the researcher to select particular subjects who will provide specific information. In order to create a representative sample without using a random sampling technique, the research concentrated on those who would be most likely to encounter, be aware of, or understand Ghana's public procurement reform's possibilities and difficulties (Burns & Grove, 2010).

#### **3.4.1 Sample Size**

In order to collect data, a researcher must select a sample from the community. A sample size of 10% to 30% is thought to be suitable for generalizing the results to the entire population, according to Mugenda & Mugenda (2003), if the sample is carefully chosen. Due to the target population's high degree of homogeneity, 10% of the sample size was chosen for the study, which is within acceptable ranges Mugenda and Mugenda (2003).

### **3.5 Data Collection Methods**

In the study, both primary and secondary data were used. Information gathered directly from individuals is referred to as primary data. (Kombo and Tromp, 2006). The researcher used

questionnaires for this study. Using a standardized questionnaire, primary data was gathered. To standardize the responses and reduce the time required from the respondents to complete the questionnaire, closed-ended questions were employed. The researcher exercised caution and control to make sure that all surveys sent to respondents were received. The purpose of the pilot study was to enable the pre-testing of the research instrument. The instrument's items were made clear to respondents in order to increase the validity and dependability of the instrument. The findings aided the researcher in addressing differences between examining the tools and making sure they were measuring what was meant. The secondary data used included relevant information from the organization's website, blogs, journals, newsletters, annual reports, performance reports, employment policies, and other written materials. These sources' data were examined for validity, sufficiency, reliability, and usefulness in addressing study objectives.

### **3.6 Validity and Reliability**

Reliability, according to Waltz et al. (2005), is the uniformity with which events are categorized into one group by various witnesses or by the same observer over the course of time. The ability of a study to evaluate what the researcher wants to test is known as validity. (Waltz, et al, 2005). The researcher designed an instrument for this study, which was then used in a pilot study and provided to the supervisor for criticism and improvement. The researcher focused intently to the questionnaire's formulation to make sure the questions elicited stipulates the information needed to accomplish the goals of the research.

### **3.7. Data analysis**

Miller (1991) states that a scholar needs to be familiar with the following statistical data analysis tools: test, inferential, and descriptive statistics in order to evaluate the data that has been collected.

The filled-out surveys were checked for accuracy to ensure uniformity.

The information was then coded, allowing for the segmentation of the answers into different groups. The numerical information was analyzed and presented as percentages, means, standard deviations, and frequencies using descriptive statistics in SPSS. Tables, charts, and figures were used to show the statistics. Utilizing SPSS V.21.0, a statistical package for social studies, this was accomplished by tallying answers, calculating percentages of response variation, and describing and interpreting the data in accordance with the study goals and assumptions. The goal was to ascertain the effect of the public procurement Public Procurement Act on Public Procurement responsiveness. Thematic coding and analysis were performed on the qualitative data, according to Mugenda and et al. (1999), who asserted that SPSS is a full, integrated collection of software applications for managing, analyzing, and displaying data.

### **3.8 Chapter Summary**

This chapter concluded by discussing the study design and methodology, including the population of interest, sampling technique, sampling area, data collection methods, analyzing statistics, dependability and the validity of the research. The chapter explained the option that influenced the research design used in the study in a helpful way.



## **CHAPTER 4**

### **DATA PRESENTATION, ANALYSIS AND DISCUSSIONS**

#### **4.1 Introduction**

The dissertation chapter examines the presentation, analysis, and discussion of data gathered in answer to significant questions raised in chapter one. The respondent's background, evaluation of the Public Procurement Act understanding of Tarkwa-Nsuaem Municipal Assembly procurement professional, assessing the effects of Public Procurement Act on Tarkwa-Nsuaem Municipal Assembly and the difficulties Tarkwa-Nsuaem Municipal Assembly encounters when acquiring goods, services, and works in accordance with the Procurement Act. The chapter also looked at Tarkwa Nsuaem Municipal Assembly's incorporation of information and communication technology (ICT) into routine public procurement activities.

#### **4.2. Background Information**

The respondents from the Tarkwa Nsuaem Municipal Assembly's sociodemographic information were examined in this part of the study. The major sociodemographic traits of the interviewees that have been discussed are their gender, age, level of education, and working experience.

##### **Gender Distribution of Respondents**

Data collected shows that men made up 61.5% of the overall survey respondents, while women made up 38.5% of the respondents.

##### **Age Distribution of Respondents**

The majority (44.2%) of those who responded to the poll were in the 31–40 age range.

However, 40.4% of the respondents to the poll in addition to 15.4% of them were, respectively, between the ages of 18 - 30 and 41 - 51. Therefore, the majority of those who responded to the survey were among Ghana's young working populace (GLSS, 2000).

### **Level of Education of Respondents**

The majority (65.4%) of those who responded to the survey had a bachelor's degree, HND, or diploma as their highest level of schooling. However, the highest level of schooling for 32.7% and 1.9% of the survey participants, respectively, is a master's degree and Senior High School (SHS). This indicates that more respondents with higher education were included in this study.

### **Working Experience of Respondents**

The majority of respondents to the poll (57.7%) have less than two years of professional experience, followed by those with two to five years and those with more than nine years, respectively (15.4% and 3.4%).

## **4.3 Procurement Practitioner's Understanding of Public Procurement Act**

**Table 4.1: The Assembly uses Public Procurement Act 663, as Amended**

		Rate	%	Valid %	Cumulative %
Valid	Neutral	6	11.5	11.5	11.5
	Agree	29	55.8	55.8	67.3
	Strongly Agree	17	32.7	32.7	100.0
	Total	52	100.0	100.0	

**Source: Fieldwork, 2022**

The respondents were asked whether the assembly has an amended public procurement Act 663. The majority of responses (55.8%) agreed, 32.7% firmly agreed, and 11.5% were neutral,

according to table 4.1's findings. The results showed that the vast majority of those surveyed said Tarkwa Nsuaem Municipal Assembly had the amended public procurement Act 663.

**Table 4.2: The Amended Public Procurement Act (663) provides guidance for the creation of the procurement plan.**

		Rate	%	Valid %	Cumulative %
Valid	Neutral	3	5.8	5.8	5.8
	Agree	24	46.2	46.2	51.9
	Strongly Agree	25	48.1	48.1	100.0
	Total	52	100.0	100.0	

**Source: Fieldwork, 2022**

The respondents were questioned whether the amended public procurement Act 663, guides the Assembly in preparing the procurement plan. Table 4.2 showed most individuals in the sample (48.1%) strongly agree, 46.2% agree, and 5.8% were neutral. The majority of respondents stated, per the findings, Tarkwa Nsuaem Municipal Assembly's procurement plan was prepared under the guidance of the public procurement Act. A procurement body is required to develop a procurement plan in accordance with Section 21 of the Public Procurement Act 663 as amended to support any authorized initiatives.

**Table 4.3: The Choice of Procurement Method is guided by the Public Procurement Act (663) as Amended**

		Rate	%	Valid %	Cumulative %
Valid	Disagree	1	1.9	1.9	1.9
	Neutral	6	11.5	11.5	13.5
	Agree	28	53.8	53.8	67.3
	Strongly Agree	17	32.7	32.7	100.0
	Total	52	100.0	100.0	

**Source: Fieldwork, 2022**

The respondents were asked if the method of procurement they chose was regulated by Public Procurement Act 663, as amended. Table 4.3's findings showed most individuals in the sample (53.8%) agreed, 32.7% firmly agreed, 11.5% were neutral, and 1.9% disagreed. The majority of respondents, according to the findings, indicated that the choice of the procurement method is regulated by the public procurement Act 663, as amended. This demonstrates approval for Section 34A of Public Procurement Act 663, as amended, which mandates that the purchasing body may make purchases using the following procurement methods in addition to those that may occasionally be decided by regulations. (Competitive tendering, single sourcing, selection of consultant, framework contract).

**Table 4.4: The Tender Procedures are guided according to the Public Procurement Act 663, as amended**

		Rate	%	Valid %	Cumulative %
Valid	Disagree	2	3.8	3.8	3.8
	Neutral	8	15.4	15.4	19.2
	Agree	21	40.4	40.4	59.6
	Strongly Agree	21	40.4	40.4	100.0
	Total	52	100.0	100.0	

Respondents were asked whether their tender procedures are guided by the public procurement Act 663, as amended. According to table 4.3, the majority of respondents (40.4%) agreed, 40.4% firmly agreed, 15.4% were neutral, and 3.8% disapproved. The findings demonstrate that most of the responses stated that their tendering processes are guided by the amended Public Procurement Act 663.



**Table 4.5: Guidelines for selecting the evaluation panel are provided by Public Procurement Act 663, as amended.**

		Rate	%	Valid %	Cumulative %
Valid	Neutral	5	9.6	9.6	9.6
	Agree	28	53.8	53.8	63.5
	Strongly Agree	19	36.5	36.5	100.0
	Total	52	100.0	100.0	

**Source: Fieldwork, 2022**

Most of the respondents (53.8%) agreed, 36.5% firmly agreed, and 9.6% were neutral, according to table 4.4's findings. The majority of respondents, according to the findings, claimed that, the Public Procurement Act 663, as amended, served as a guidance in selecting an evaluation panel for the Assembly. This is in reference to Public Procurement Act 663 Section 20E, which mandates that a procurement entity select a panel of experts to assess bids.

**Table 4.6: The Entity Tender Committee's Selection is guided by the Public Procurement Act (663) as Amended**

		Rate	%	Valid %	Cumulative %
Valid	Neutral	3	5.8	5.8	5.8
	Agree	21	40.4	40.4	46.2
	Strongly Agree	28	53.8	53.8	100.0
	Total	52	100.0	100.0	

**Source: Fieldwork, 2022**

The majority of respondents (53.8%) firmly agreed, 40.4% agreed, and 5.8% were neutral, according to table 4.5 results. According to the statistics, the majority of respondents said they choose a tender committee for an entity according to the amended Public Procurement Act 663. This is in reference to Section 20 of the Public Procurement Act 663, as amended, which

mandates a procuring body shall establish a tender committee in accordance with the first schedule and according to the categories specified in schedule A.

**Table 4.7: The Selection of Potential Suppliers/Contractor is guided by the Public Procurement Act (663) As Amended.**

		Rate	%	Valid %	Cumulative %
Valid	Strongly Disagree	1	1.9	1.9	1.9
	Disagree	2	3.8	3.8	5.8
	Neutral	5	9.6	9.6	15.4
	Agree	27	51.9	51.9	67.3
	Strongly Agree	17	32.7	32.7	100.0
	Total	52	100.0	100.0	

**Source: Fieldwork, 2022**

The respondents were questioned about whether the amended public procurement Act 663 affected their decision-making when selecting potential suppliers or contractors. The majority of respondents (51.9%) agreed, 32.7% firmly agreed. Table 4.6 shows the findings, with 9.6% neutral, 3.8% disagreeing, and 1.9% strongly disagreeing. The findings reveal most respondents indicated that the Public Procurement Act 663, as amended, serves as a guide when choosing prospective suppliers or contractors. The procurement method will decide the suppliers and contractors selected, in accordance with Section 34A of the amended Public Procurement Act 663.

**Table 4.8: The amended Public Procurement Act 663, specifies guidelines for disposing of store items, vehicles, plants, and machinery.**

		Frequency	%	Valid %	Cumulative %
Valid	Strongly Disagree	3	5.8	5.8	5.8
	Disagree	4	7.7	7.7	13.5
	Neutral	4	7.7	7.7	21.2
	Agree	21	40.4	40.4	61.5
	Strongly Agree	20	38.5	38.5	100.0

Total	52	100.0	100.0	
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**Source: Fieldwork, 2022**

The respondents were questioned on whether their disposal of stores items, vehicles, plants, and equipment was guided by the Public Procurement Act 663, as amended. Table 4.7 showed that the plurality of respondents (40.4%) agreed, 38.5% strongly agreed, 7.7% were neutral, and 7.7% and 5.8%, respectively, firmly disagreed. The majority of respondents stated that the amended, Public Procurement Act 663, served as their guide when disposing of store items, vehicles, plants, and equipment, which supports section 84 of the Act. This confirms section 83(1) of the Public Procurement Act 663, as amended, which requires the head of the procurement entity to assemble a board of survey comprised of representatives of departments with vehicles, unusable, surplus, or outdated stores, plant, and equipment. Upon receiving a detailed report on the items, the board of survey is required to report on them and suggest the best disposal strategy.

#### **4.4 The effects of the Public Procurement Act at the Tarkwa-Nsuaem Municipal Assembly**

**Table 4.9. Model Fitness**

Indicator	Co-efficient
R	.448 <sup>a</sup>
R Square	.201
Adjusted R Square	.133

**Source: Fieldwork, 2022**

The findings shown in Table 4.9 show the regression model's suitability for explaining the phenomena under investigation. The Public Procurement Act 663, as amended, which governs tendering procedures, the preparation of procurement plans, the possession of the amended Public Procurement Act 663 by the assembly, the choice of the procurement method under the Public Procurement Act 663 as amended, were discovered to be adequate factors for explaining

procurement productivity. This is supported by coefficient of determination also known as the R square of 20.1%. This indicates that the amended Public Procurement Act 663, which regulates the use of procurement methods, the existence of tender processes, the creation of procurement plans, the possession of the Public Procurement Act 663, as amended, by the Assembly accounts for 20.1% of the differences in the dependent variable, procurement productivity. This outcome also indicates demonstrating the effectiveness of the model used to link the relationships between the variables.





**Table 4.10: Analysis of Variation (ANOVA)**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.428	4	.857	2.951	.030 <sup>b</sup>
	Residual	13.649	47	.290		
	Total	17.077	51			

**Source: Fieldwork, 2022**

a. Dependent Variable: Productivity

b. Predictors: (Constant), the tender procedures are guided by the amended Public Procurement Act (663), the preparation of the assembly's procurement plan is guided by the amended Public Procurement Act 663 and is a statute that the assembly has as a guide for choosing a procurement method. The test figure for determining statistical significance is the F-statistic, which is displayed in the output of the linear model. The significance of the model's variables is determined by the F-statistic numbers in the ANOVA display. (Cooper and Schindler, 2008). The outcomes of the study of the variance are presented in Table 4.10 (ANOVA). According to the results, the model as a whole was statistically important. Additionally, the findings indicate that adoption of Public Procurement Act 663, as amended, is a trustworthy marker of procurement productivity. This was corroborated by a reported p value of (0.030), which was less significant than the F statistic of 2.951 stated at the standard 0.05 threshold of significance.



**Table 4.11.: Correlation<sup>s</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	VIF
		B	Std. Error	Beta			Tolerance	
1	(Constant)	3.517	.629		5.589	.000		
	PUBLIC PROCUREMENT ACT 663, AS AMENDED, IS A STATUTE THAT THE ASSEMBLY HAS	-.021	.150	-.023	-.140	.889	.623	1.605
	THE PREPARATION OF OUR PROCUREMENT PLAN IS GUIDED BY THE PUBLIC PROCUREMENT ACT (663) AS AMENDED	.417	.169	.437	2.467	.017	.543	1.843
	THE AMENDED PUBLIC PROCUREMENT ACT 663 PROVIDES A GUIDE FOR SELECTING A PROCUREMENT METHOD.	.029	.136	.035	.211	.834	.617	1.620
	THE TENDER PROCEDURES ARE DIRECTED BY THE AMENDED PUBLIC PROCUREMENT ACT 663.	-.261	.111	-.375	-2.348	.023	.666	1.503

Dependent Variable: Productivity in Procurement

For drawing conclusions about the regression results in linear regression, the t-statistic is helpful.

The variables are subjected to a hypothesis test to compare the alternate hypothesis—that the

coefficient is not zero—to the null hypothesis, which states that the corresponding term is not important. Tests of significance using T-statistics for each term given the model's other variables (Cooper & Schindler, 2008). The values of regression Table 4.10's findings demonstrate that assembly having Public Procurement Act (663) as amended had an inverse relation with procurement productivity with a coefficient of -0.027 and significance level of 0.889 which implies the relationship is insignificant. Thus, instead of positive impact which would have improved their productivity, the assembly having Public Procurement Act (663) as amended rather tends to inversely affect the productivity of Tarkwa Nsuaem Municipal Assembly. This is contrary to the public procurement act as amended, which was changed to reduce corruption and increase transparency in the procurement procedure, which in turn boosts the procurement entity's output. Their procurement plan was based on Public Procurement Act 663, as amended, which, according to relationship between procurement efficiency and the coefficient was positive but not statistically significant at 0.017 and 0.417, respectively. This is consistent with the findings of Basheka (2008) which states that procurement plan influence productivity in the sense that they provide focused and efficient utilization of available resources to assure productivity. The Public Procurement Act 663 as amended, which governs procurement methods, had a favorable but unremarkable relationship with procurement productivity, with a 0.029 coefficient and a 0.843 degree of significance. Tendering processes regulated by Public Procurement Act 663, as amended, had an inverse but significant relationship with procurement productivity, with a correlation of -0.261 and a degree of 0.023 significance, indicating that the relationship is less than 5% significant. This suggests that the relationship is less than 5% significant. This is inconsistent with the findings of Kuloba et al, (2017) that the tendering procedure and organizational productivity are positively correlated.

#### 4.5 ICT adoption in the Procurement Process

**Table 4.12: ICT Adoption**

<b>Statements</b>	<b>Mean</b>	<b>Std. Deviation</b>
The Assembly has good and resilient network with high levels of ICT utilization	<b>3.94</b>	<b>6.91</b>
The Information Communication Technology system provides opportunities for suppliers to give feedback	<b>3.98</b>	<b>.577</b>
Government Integrated Financial Management Information System (GIFMIS) has totally replaced paperwork in procurement process for preparing Purchase Orders (POs) and Stores Receipt Advice (SRAs)	<b>4.40</b>	<b>.569</b>
Ghana Electronic Procurement System (GHANEPS) has been integrated for procurement activities of the assembly	<b>4.21</b>	<b>0.536</b>
Use of ICT has improved the advertisement of tenders on the PPA website	<b>4.31</b>	<b>1.020</b>

**Source: Fieldwork, 2022**

These findings are significant because they suggest that Tarkwa Nsuaem Municipal Assembly's adoption of ICT for procurement tasks may not have gathered the necessary momentum. The bottom line is that E-procurement does indeed speed up the procurement process, but it also needs access to the internet and other ICT services (Muhia, & Afande, 2015). By integrating GIFMIS which has made the preparation of Purchase Orders (POs) and Stores Receipt Advice (SRAs) very efficient, effective, accountable, transparent, security of data management and comprehensive financial reporting. Although GHANEPS has not been fully integrated in the Assembly, its adoption aids in the procurement of goods, work, consulting, non-consulting, and asset disposal. The system enables a number of public procurement processes, such as registration of users, notification of tenders, preparation and submission of tenders, online assessment of



tenders, awarding contracts, catalog creation and management, framework agreement creation and management, bids, and making payments.

**Table 4.13: Correlation between ICT adoption and procurement productivity**

		ICT Adoption	Procurement Productivity
ICT Adoption	Pearson Correlation	1	-0.028
	Sig. (2-tailed)		0.843
	N	52	52
Procurement Productivity	Pearson Correlation	-0.028	1
	Sig. (2-tailed)	0.843	
	N	52	52

**Source: Fieldwork, 2022**

The correlation matrix displays the correlation values, which represent the degree to which each group of variables is linearly correlated. The range of the correlation values is from -1 to +1. Positive correlation results from the two factors rising and falling in tandem. When one variable increase while the other decreases, the correlation number is negative. Table 4.12 demonstrates the existence of a negative, negligible linear relationship between ICT adoption and procurement productivity, indicating that a debt increases in ICT adoption will cause procurement productivity to decrease. The Pearson correlation value of -0.028 and significant value of 0.843 back up this assertion.

**Table 4.14: Correlation between ICT Adoption and Public Procurement Act Application**

		ICT Adoption	Public Procurement Act Application
ICT Adoption	Pearson Correlation	1	0.005
	Sig. (2-tailed)		0.974
	N	52	52
Public Procurement Act Application	Pearson Correlation	0.005	1
	Sig. (2-tailed)	0.974	
	N	52	52

**Source: Fieldwork, 2022**

Table 4.13 demonstrates the existence of a positive but weak and insignificant linear relation between ICT adoption and public procurement act application, which suggests that as debt increases in public procurement Act application, there will be a modest increase in ICT adoption. The Pearson correlation value of 0.005 and significant value of 0.974 back up this assertion.

#### **4.6 Difficulties in Implementing the Procurement Act governing the Acquisition of Goods, Works, and Technical Services**

**Table 4.15: Challenges**

	Mean	Std. Deviation
The act is designed to be more controlling than facilitating the procurement process itself	3.31	.961
The act does not allow for introduction of innovative techniques in the procurement process	3.21	.977
The procurement process is very procedural	3.48	0.918
There are technical challenges in applying the Amended Public Procurement Act.	3.06	0.916

Members of the tender committee are not equipped with the necessary knowledge and training for the procurement procedure.	3.00	0.907
External coercion to sabotage the procurement process	3.52	1.000
Procurement of goods, works and services are now very risky as a result of the Act.	2.87	1.010
Most suppliers and contractors cannot obtain the needed documents	2.96	1.204
The majority of suppliers and contractors struggle to acquire the required documents	3.38	0.933

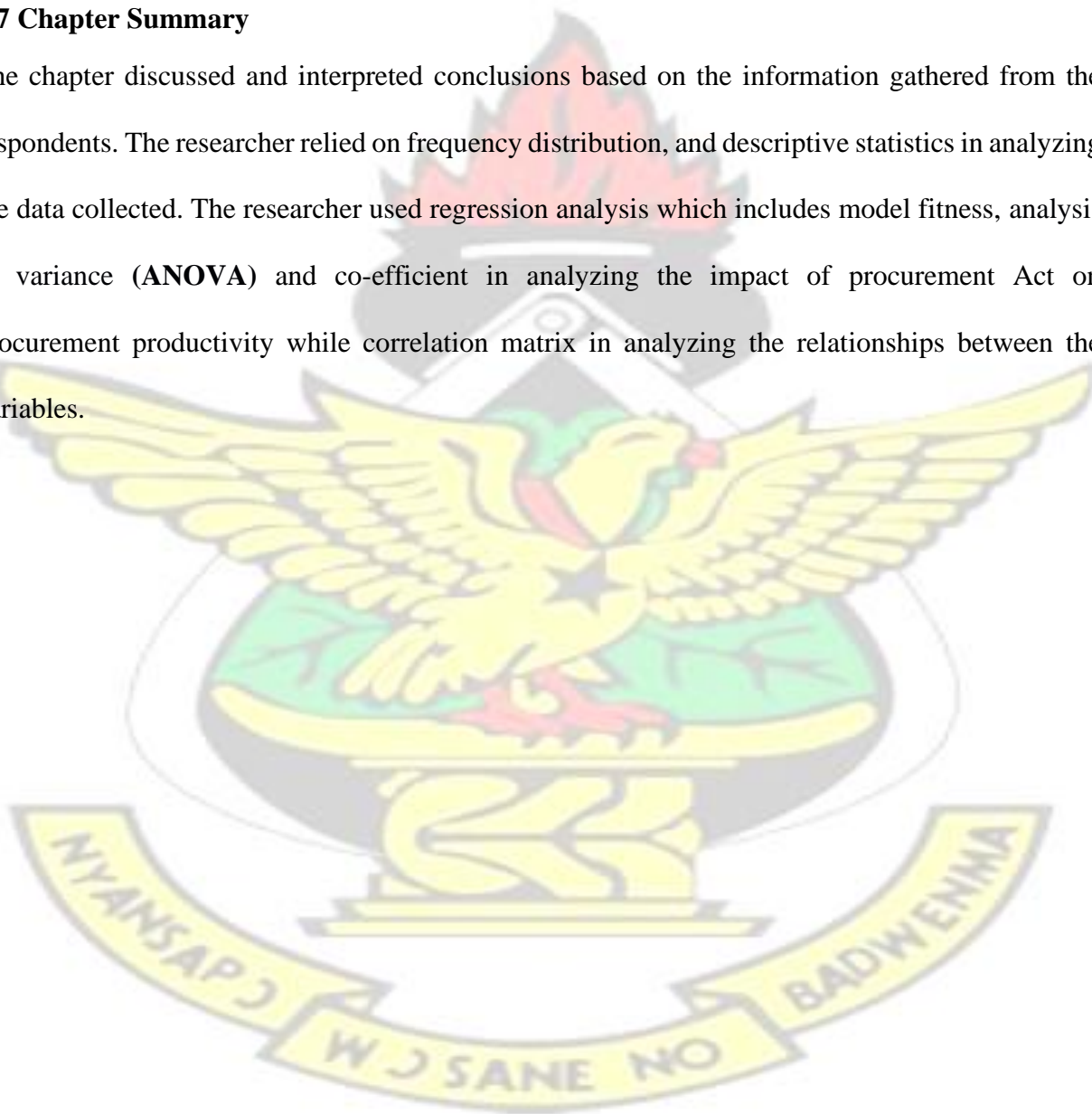
**Source: Fieldwork, 2022**

Having a mean of 3.52 and a standard variation of 1.00, Table 4.14 shows that the biggest challenge was coping with outside temptation to sabotage the procurement process. The findings of this research corroborate those of Heng, Heng, et al. (2004), who reached the same conclusion regarding the interference of political players in the procurement process. Following is the procurement procedure, which has a high degree of bureaucracy and scores an average of 3.48 with an SD of 0.916. According to a 3.38 mean and a 0.933 standard deviation, few vendors and contractors look for ads on procurement websites. The average act was 3.31, with a standard variation of 0.961 intended to be more facilitating than controlling, which posed the following difficulty. The act that prohibited the use of innovative methods in the procurement process was followed by a mean and a standard deviation of 3.21 and 0.977, respectively. Technical problems with the application of the act in all of its aspects followed next, with 3.06 as the average and 0.916 as the standard deviation. The subsequent problem of members of the tender committee lacking the knowledge and training required for the procurement process was addressed with a 3.00 mean and a 0.907 standard deviation. The results of the study supported the assertion made by Heng, Heng, et al. (2004) that practitioners and suppliers are not adequately trained in the procurement act. The most

frequent inability of suppliers and contractors to obtain required documentation was followed by a mean 2.96 and a standard deviation of 0.1.204. The Act, which made purchasing goods and services extremely risky at an average of 2.87 and a standard variation of 1.010, presented the very little difficulty. The Act makes purchasing goods and services exceedingly dangerous, and most suppliers and contractors were unable to secure the necessary documentation.

#### **4.7 Chapter Summary**

The chapter discussed and interpreted conclusions based on the information gathered from the respondents. The researcher relied on frequency distribution, and descriptive statistics in analyzing the data collected. The researcher used regression analysis which includes model fitness, analysis of variance (ANOVA) and co-efficient in analyzing the impact of procurement Act on procurement productivity while correlation matrix in analyzing the relationships between the variables.





## CHAPTER 5

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

The major conclusions are summarized in this chapter. It also considers the research's findings, conclusions, and suggestions.

#### 5.2 Summary of Findings

The results lend credence to the idea that the Public Procurement Act is a critical determinant of public sector's level of procurement efficiency and is required for a successful procurement plan, choice of procurement method, tender procedures, selection of evaluation panel, selection of potential suppliers/contractors/service providers and the disposal of stores items, vehicles and capital equipment. When public procurement practitioners follow the Public Procurement Act in their daily activities, they can guarantee an effective procurement process throughout the procurement cycle, including pre-tendering, tendering, and post-tendering.

- **Procurement Practitioner's Understanding of the Public Procurement Act**

The study's objective was to establish how practitioners at Tarkwa Nsuaem Municipal Assembly understood the amended Public Procurement Act 663. The study found that the Assembly followed their tendering processes and created their procurement plan using Public Procurement Act 663, as amended. This Act also served as a guide for choosing a procurement method. The amended Public Procurement Act 663, provides guidance in the selection of the evaluation panel, the selection made by their Entity Tender Committee was guided by the amended Public Procurement Act 663, the amended Public Procurement Act 663, provided guidelines for the selection of their potential suppliers, contractors, and service providers. Finally, guidelines for the disposal of their

capital equipment, vehicles, and store items were regulated by the amended Public Procurement Act 663. The findings indicated that the Public Procurement Act, as amended, served as the foundation for all procurement-related activities at the Tarkwa Nsuaem Municipal Assembly. As a result, Tarkwa Nsuaem Municipal Assembly is well-aware of the law.

- **The effects of the Public Procurement Act on the Tarkwa-Nsuaem Municipal Assembly**

This study similarly provides empirical evidence of existing relationship between the Procurement Act 663 as amended on productivity at the Tarkwa Nsuaem Municipal Assembly. The results demonstrate a substantial and favourable correlation between the implementation of the amended Public Procurement Act 663 on productivity at Tarkwa Nsuaem Municipal Assembly. The findings revealed that several provisions were found in the amended Public Procurement Act 663 with effects on productivity at the Tarkwa Nsuaem Municipal Assembly, including; achieving value for money, openness in the procurement process, adherence to business policies, uniformity in the performance of procurement activities, economical and effective use of resources, and synchronization of public procurement procedures in the assembly, promoting the assurance of high-quality goods, works, and services, as well as timely dispatch of goods, works, and services and reduction in corruption.

- **Utilization of ICT in the procurement processes**

Furthermore, the results showed that the adoption of ICT serves as a mediating factor to aid in the application of Public Procurement Act 663, as amended, on productivity at the Tarkwa Nsuaem Municipal Assembly. The study also revealed that e-procurement, an ICT application, has several advantages thereby making it simple for organizations like the public sector to recognize the need to cut back on wasteful spending and irregularities in the acquisition of products, services, and works. The Tarkwa Nsuaem Municipal Assembly experienced extremely high productivity as a

result of the introduction of electronic procurement into reality and compliance with Public Procurement Act 663 as amended. The mean varied from 3.94 to 4.40. The study also revealed that the assembly's adherence to Act 663, as amended, had a favourable impact on ICT adoption in connection to the use of procurement procedures. The assembly has also adopted e-procurement tools such as GHANEPS and GIFMIS systems to replace manual procurement, ensuring that all procurement activities and processes are efficient, effective, accountable and transparent, globally, data security is managed, and thorough financial reporting is provided. Additionally, it was discovered that there was a weak, linear connection between productivity and the use of ICT in public procurement under the revised law 663, which suggest that the adoption of ICT would decrease productivity although it is expected to have a positive impact on procurement productivity. This could be attributed to uneasy access of internet, the challenge in obtaining suppliers' electronic cooperation and the integration of the internal and external environments may be challenging.

- **The difficulties Tarkwa-Nsuaem Municipal Assembly encounters in the acquisition of goods, services, and works in accordance with the Procurement Act.**

Finally, the findings indicated that there were some issues with productivity at the assembly when it came to complying with the amended Public Procurement Act 663 in as much as having positive impacts on productivity at the Tarkwa Nsuaem Municipal Assembly. The findings revealed that the most difficult aspect of adhering to and implementing the Public Procurement Act 663, as amended, on productivity at Tarkwa Nsuaem Municipal Assembly was dealing with external pressures to undermine the procurement process, followed by the bureaucratic nature of procurement processes as evidenced by the amended Public Procurement Act 663, and the most



fundamental aspect was that the Act had made the purchase of services and products more straightforward.

- **Adherence to the Public Procurement Act by Tarkwa Nsuaem Municipal Assembly employees**

Procurement compliance is the development, application, and enforcement of policies for controlling company spending. According to Ibrahim et al. (2017), compliance is defined as adhering to the laws, regulations, instructions, or other similar frameworks and standards governing any procurement management system. The extent to which the Act is being complied with by organizations determines how well they are adhering to the laws' provisions. In light of the aforementioned, it was noted that the practitioners of the assembly comprehend the public procurement act, which indicates their full compliance with the act. As a result, they all abide by the public procurement regulations, and their compliance level is very high.

### **5.3 Conclusion**

The Public Procurement Act 663's effects on productivity were primarily examined at Tarkwa Nsuaem Municipal Assembly in the study. In addition, ICT's role as a mediator was adopted, and the relationship between public sector production and the amended Public Procurement Act 663 was taken into account. Again, with regard to the Tarkwa Nsuaem Municipal Assembly, this study significantly impacted how the Public Procurement Act 663, as amended, was implemented and the use of information and communication technology (ICT) as a negotiating strategy on productivity in the public sector. This research made a major contribution to this development. At the study's conclusion, it can be resolved that an analysis into effect of the public sector's adoption of the amended Public Procurement Act 663 was a key determinant for making institutional and administrative frameworks for procurement, specifying the tendering process,



selecting relevant suppliers/contractors/service providers and addressing any relevant issues pertaining with regards to the public sector's procurement procedure. Furthermore, adoption of ICT was required to ensure effective and efficient implementation productivity in state-owned organizations as a result of Public Procurement Act 663 amendments. Information Communication Technology tools like the GIFMIS and GHANEPS systems by the assembly were useful for improving productivity in the practice of procurement process at the assembly. To begin, the GIFMIS system was put into practice to assist when putting into practice the Public Procurement Act 663, as amended to improve service performance effectively in the distribution of scarce resources, replace governmental financial transactions, and streamline information flow and decision-making among public institutions. Additionally, the adoption of GHANEPS has equally helped in the offering of a secured, interactive, dynamic environment for carrying out procurement of all categories, complexity or value thereby guaranteeing that considerable advantages are realized at the bottom line, including cost savings, spending restraints and compliance. The study also revealed that there were some challenges or negative observations of the e-Procurement processes adopted by the assembly namely; operational challenges due to uneasy access to internet and team compliance for example the challenge in obtaining suppliers' electronic cooperation. Additionally, the research revealed that Public Procurement Act 663, as amended, had a variety of effects on productivity, including achieving key factors including value for money, transparency in the procurement system, adherence to corporate policies, uniformity in conducting procurement activities, economic and efficient use of resources, harmonization of public procurement processes in the Assembly, promotion of the assurance of quality goods and timely delivery of goods, and cost reduction. The study also found that Public Procurement Act 663 as amended presents some challenges for implementation and compliance. on productivity at Tarkwa Nsuaem Municipal

Assembly including external pressure to obstruct the procurement process and the bureaucratic nature of the procedures used to acquire goods, works, and services. The study finds that the Tarkwa Nsuaem Municipal Assembly was able to utilize the Act to ensure value for money and openness in their procurement process, as a guide for their procurement procedure, ensure compliance with business policies, promote uniformity when carrying out procurement activities, achieve greater efficiency, and promote the assurance of quality goods, works, and in addition to prompt goods, works, and services delivery. The study's final finding is that, despite a few glitches, the Tarkwa Municipal Assembly knew how the Public Procurement Act 663 as amended was to be implemented.

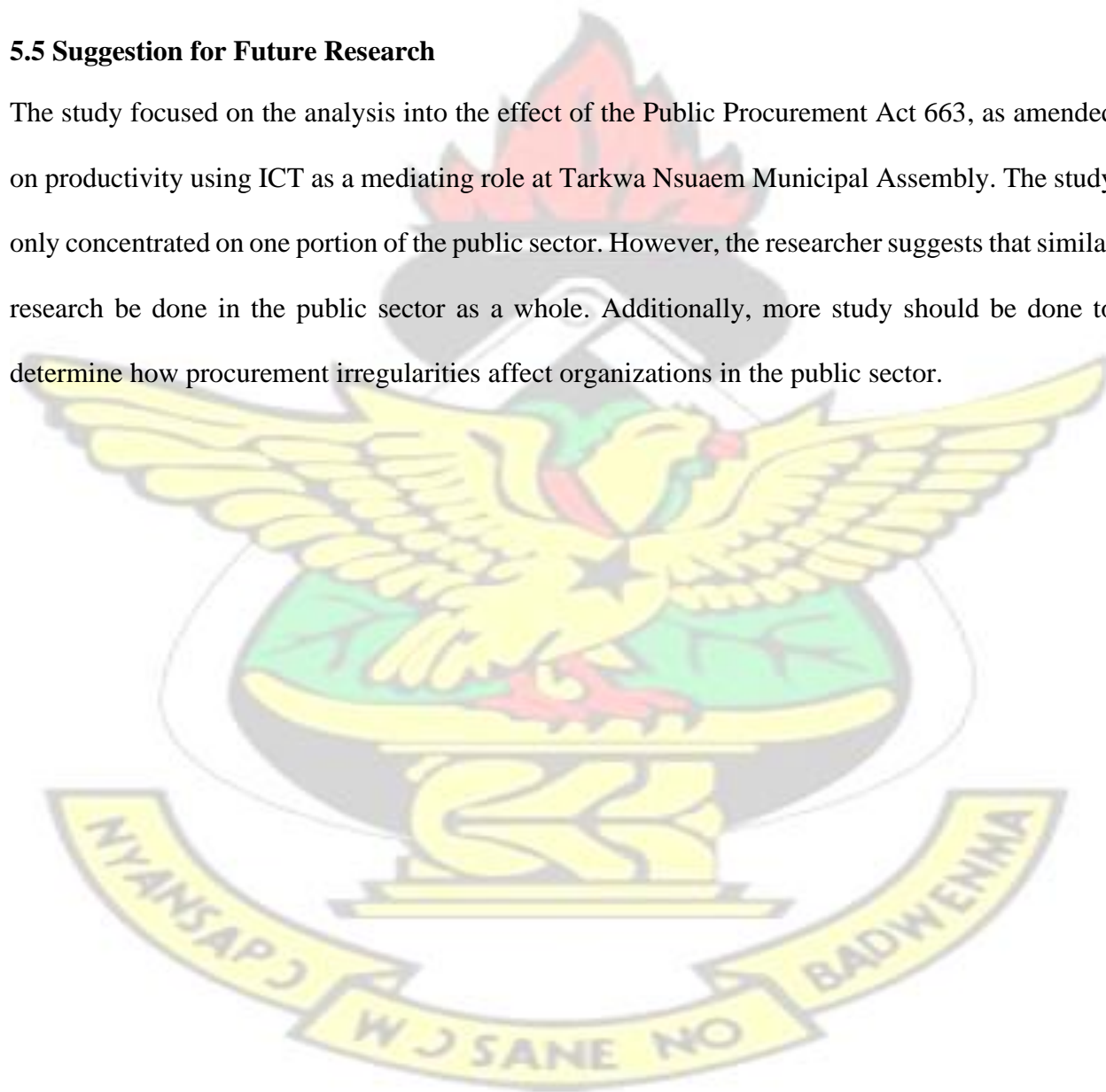
#### **5.4. Recommendations**

In light of the study's findings and conclusions, the following suggestions were made; Firstly, Information Communication Technology (ICT) tools like the GHANEPS must fully be operated by the Tarkwa Nsuaem Municipal Assembly to positively impact their productivity. Suppliers, service providers and contractors who are unwilling to cooperate with the adoption of ICT tools like GHANEPS and GIFMIS must be engaged to educate them on the essence and effectiveness of the adoption of ICT which would help centralize all procurement activities, increase effectiveness, productivity, and personal performance. Notwithstanding this, old practitioners/contractors/suppliers who would have a hard time using the GHANEPS needs to be overlooked for tech savvy suppliers/contractors and practitioners who are abreast with ICT. Although the assembly's procurement committee members and suppliers/contractors/service providers are aware of the Act's requirements, they lack the knowledge necessary to completely comply with the law. Thus, it is advised that the Public Procurement Authority (PPA) provide frequent training sessions to introduce those participating in the procurement process to the

guidelines and procedures for carrying out the Act. The monitoring and compliance assurance duties of the assemblies must receive more attention from the Public Procurement Authority. The monitoring period should be regular and occur at least once every three months in order to prevent gaps. The PPA must also reduce or eliminate political involvement in routine procurement decisions in order to improve compliance coupled with the amended Public Procurement Act 663.

### **5.5 Suggestion for Future Research**

The study focused on the analysis into the effect of the Public Procurement Act 663, as amended on productivity using ICT as a mediating role at Tarkwa Nsuaem Municipal Assembly. The study only concentrated on one portion of the public sector. However, the researcher suggests that similar research be done in the public sector as a whole. Additionally, more study should be done to determine how procurement irregularities affect organizations in the public sector.



## REFERENCES

- Accenture Global Services (2015). Methods for managing and developing sourcing and procurement. GMBH Report, Switzerland.
- Acquaye, J.A. (2011) Guide to practice of procedures in public procurement of works. Roystack Style Publications, Accra.
- Adizes, I. (1999). *Managing corporate lifecycles*. New Jersey: Prentice Hall Press.
- Ahadzie, D. K. (2010). Critical success criteria for mass house building projects in developing countries. *International Journal of Project Management*, 26(6), pp. 675-687.
- Ameyaw, C., & Mensah, S. (2013). Curbing corruption in the public procurement process in Ghana. *Public policy and administration research*, 3 (5), 44-53
- Amos, D. (2008). Moving from performance measurement to performance management. *Facilities*, 20 (5/6), pp.217-223.
- Angeles, R., & Nath, R. (2007). Business-to-business e-procurement: success factors and challenges to implementation. *Supply Chain Management: An International Journal*, 12(2), 104-115
- Arthur, P. (2009). An overview of EC policy on procurement: Current position and future prospects. *Procurement Law Review*, 1(1), pp. 28-39.
- Asek, S .N (2006).Political Will and Sustainable Development.
- Azeem, V. (2007). Impact of the Public Procurement Act, 2003 (Act 663) in Ghana integrity initiative's perspective. Paper presented at a special forum on improving efficiency and transparency in public procurement through information dissemination.



- Barnejee, S. and Sriram, V. (1995), "The impact of electronic data interchange on purchasing: an empirical investigation", *International Journal of Operations and Production Management*, Vol. 15 No. 3, pp. 29-38.
- Bartik, L. (2009). Supply chain management practices in institutions. *Procurement Journal*, 28, pp. 63-82.
- Basheka, B. C. (2008). Procurement Planning and Accountability of Local Government Procurement Systems in Developing Countries: Evidence from Uganda. *Journal of Public Procurement*, 8 (3), 379-406.
- Basheka, B.C. & Tumutegereize, M. (2010). Determinants of Public Procurement Corruption in Uganda: A conceptual Framework. Retrieved from [www.google.com](http://www.google.com).
- Bendoly, E. and Schoenherr, T. (2005), "ERP system and implementation-process benefits implications for B2B e-procurement", *International Journal of Operations & Production Management*, Vol. 25 No. 4, pp. 304-319.
- Benton, WC (2007). Power influences in the supply chain. *Journal of Business Logistics*, 21(1), pp. 49-73.
- Biklen, S. K. (2003). *Qualitative Research of Education: An Introductive to Theories and Methods* (4th ed.). Boston: Allyn and Bacon.
- Bilken, C. (2003). The role of financial journalists. *Fordham Journal of Corporate and Financial Law*, 12, pp. 323-336.
- Boateng, D (2008). Government service delivery lies in the supply chain management, not the centralized procurement, smart procurement.

- Brynjolfsson, E., Hitt, L.M., (1996), "Paradox Lost? Firm-Level Evidence on the Returns to Information Systems Spending" *Management Science* 42(4): 541—58.
- Brau, J. C., Fawcett, S. E., Magnan, G. M., and McCarter, M. W. (2005). *Information sharing in supply chain management: A two-dimensional perspective*. Urbana-Champaign: University of Illinois.
- Burns, N., and Grove, S. K. (2010). *The practice of nursing research: Conduct, critique and utilization* (4<sup>th</sup> ed.). Philadelphia: WB Saunders.
- Burns, T., and Stalker, G. (1961). *The management of innovation*. London: Tavistock Publications.
- Cecchini, P (1992). *The European challenge: Benefits of a single market*. Brussels: Free Press.
- Cohen, L., Manion, L., and Morrison, K. (2005). *Research method in education* (5<sup>th</sup> ed.) London: Routledge Corporation.
- Compton, D. (2007). *Purchasing and supplies chain management*. (3<sup>rd</sup> ed.). New York: Pearson Publishers.
- Covaleski, M. A., Dirsmith, M. W., and Samuel, S. (2006). Managerial accounting research: The contributions of organizational and sociological theories. *Journal of Management Accounting Research*, 8, pp. 43-62.
- Cox, A. (2007). Implementing 1992 public procurement policy. *Journal of Logistics Management*, 33(7), pp. 77-83.
- Cox, A., and Furlong, P. (1995). European procurement rules and national preference: Explaining the local sourcing of public works contracts in the EU in 1993. *Journal of Construction Procurement*, 1(2), pp. 87-99.
- Daft, R. (2001). *Organization theory and design*. Sydney: South Western College Publishing.

- De Boer, L., and Telgen, J. (1998). Purchasing Practice in Dutch Municipalities. *Journal of Supply Chain Management*, 34(2), pp. 31- 36.
- De Vos, A. S., Strydom, H., Fouche, C. B., and Delport, C. S. L. (2011). *Research at grass roots*. (4<sup>th</sup> ed.). Cape Town: Van Schaik Publishers.
- DeLone, W. H. (2003). The DeLone and McLean model of information system: A ten-year update. *Journal of Management Information System*, 19(4), pp. 9–30.
- Dey, P. K. (2010). Multi-criteria decision-making approaches for supplier evaluation and selection: A literature review. *European Journal of Operational Research*, 202(1), pp. 16-24
- Donaldson, L. (2001). *The contingency theory of organizations*. Thousand Oaks, CA: Sage
- Ellram, L. (2008). Supplier partnership in manufacturing versus nonmanufacturing firms. *International Journal of Logistics Management*, 5(1), pp. 43–53.
- Ellram, L., Tate, W., and Billington, C. (2004). Understanding and managing the services supply chain. *Journal of Supply Chain Management*, 40(4), pp. 17–32.
- Erridge, A., and Hill, J. (1999). Public sector quality: Political project or legitimate goal? *International Journal of Public Sector Management*, 11(5), pp. 341-53.
- Faisal, M. N. (2011). Prioritising agility variables for cold supply chains. *International Journal of Logistics Systems and Management*, 10(3), 253-274.
- Falvey, R., Chimia, L., A. Morrissey, O. and Zgovu, E. (2008). *Competition policy and public procurement in developing countries*. Nottingham: University of Nottingham.
- Forgor, E. S. (2007). Proposed amendments to make procurement flexible: The practical experiences of District Chief Executives with respect to the implementation of the Public Procurement Law, Decentralization Agenda, 1-3.



- Frempong, R. K., Owusu-Bempah, G., Amoako, D., & Osei-Tutu, S. T. (2013). An assessment of the impact of the public procurement act 663 (2003) of the Republic of Ghana, approaching a decade of its enactment. *European Centre for Research Training and Development*, 1(1).
- Gelderman, C. J., Ghijsen P. W.Th. & Brugman, J. M. (2006). Public procurement and EU tendering directives explaining non-compliance. *The International Journal of Public Sector Management*.
- Gikonyo, P. K. (2014). Factors affecting implementation of public procurement act in Sacco societies in Kenya. *International Journal of Academic Research in Business and Social Sciences*, 4(2), 169-194
- Grant, R. M. (2007). Prospering in dynamically-competitive environments. *Journal of Supply Chain Management*, 36(4), pp. 144-148.
- Gunasekaran, A. and Ngai, E.W.T. (2004), "Information systems in supply chain integration and management", *European Journal of Operational Research*, Vol. 159 No. 2, pp. 269-295.
- Hardcastle, E. (2007). *Procurement regime in Ghana*. Accra: Embassy of Switzerland.
- Heide, J. B., and John, G. (1990). Alliances in industrial purchasing: The determinants of joint action in buyer-supplier relationships. *Journal of Marketing Research*, 27(1), pp. 24-39.
- Heng L, Cao, N. J., Daniel, C., and Miroslaw, S. (2004). A framework for developing a unified e-trading construction marketplace. *Journal of Automation in Construction*, 1(2), pp. 201-211.
- Hill, C. W. L. (2005). Managing the new product development process: Strategic imperatives. *The Academy of Management Executive*, 12(3), pp. 67-81.
- Hinson, C., and McCue, C. P. (2004). *Planning, scheduling and requirement analysis*, Herndon, VA: National Institute of Governmental Purchasing, Inc.



- Humphreys, P., Huang, G., and Cadden, T. (2005). A web-based supplier valuation tool for the product development process. *Industrial Management and Data Systems* 105(2), pp. 147–163.
- Hunja, R. R. (2003). *Obstacles to public procurement reform in developing countries*. London: Kluwer International.
- Irving, J. A. (1990). *The benefits, challenges, and practice of team leadership in the global context*. Bloomington, IN: Author House.
- Jensen, M. C., and Meckling, W. H. (1977). Can the corporation survive? *Financial Analysts Journal*, 23, pp. 114-129.
- Jeppesen, R. (2010). “Accountability in Public Procurement - transparency and the role of civil society”, United Nations Procurement Capacity Development Centre September 2010.
- Kakwezi, P., & Nyeko, S. (2019). Procurement processes and performance: Efficiency and effectiveness of the procurement function. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 3(1), 23-41.
- Kariuki, E. N., and Aduda, J. (2016). Procurement performance measurement in Commercial banks in Kenya. *International Journal of Business Strategies*, 1(1), pp. 10-25.
- Kim, J., and Rogers, K. (2005). An object-oriented approach for building a flexible supply chain model. *International Journal of Physical Distributions and Logistics Management*, 35(7), pp. 481-502.
- Knight, L., Harland, C., Telgen, J., Thai, K. V., Callender, G., & McKen, K. (Eds.) (2012). *Public procurement: International cases and commentary*. Routledge.
- Kombo, D.S., and Tromp, D.L (2006). *Proposal and Thesis Writing. An Introduction*. Nairobi: Paulines Publications Africa.

- Kosack, S. (2008). Directing foreign aid for basic education: Taking account of political will. Brookings Global Economy and Development Policy Brief No. 4, Washington, DC: The Brookings Institution.
- Kuloba, E, (2017). Influence of Tendering Procedures on Organizational Performance at MOI Teaching and Referral Hospital. *International Journal of Academic Research and Reflection*, 5(6),
- Kumar, S. and Meade, D. (2002), “Has MRP run its course? A review of contemporary developments in planning systems”, *Industrial Management & Data Systems*, Vol. 102 No. 8, pp. 453-462.
- Lawrence, P. R., and Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Boston: Harvard University.
- Leenders, M. L., Fearon, H. E. (1997). *Purchasing and supply management* (11<sup>th</sup> ed.). New York: McGraw-Hill.
- Leenders, M. R., Fearon, H.E., Flynn, A. E., and Johnson, P. F. (2006). *Purchasing and supply management* (12th ed.). New York: McGrawHill Irwin.
- Lin, C. and Pervan, G. (2003), “The practice of IS/IT benefits management in large Australian organizations”, *Information & Management*, Vol. 41 No. 1, pp. 13-24.
- Lingg, M., Wyss, K., & Durán-Arenas, L. (2016). Effects of procurement practices on quality of medical device or service received: a qualitative study comparing countries. *BMC Health Services Research*, 16(1), 362-378.
- Loppacher, J. S., Cagliano, R., & Spina, G. (2011). Key drivers of buyer supplier relationships in global sourcing strategies. *International Journal of Procurement Management*, 4(2), 156-180.

- Mlinga, R. (2009). Promoting integrity in public procurement. *Tanzania Procurement Journal*, 2(5), pp. 13-39.
- McDonald, O. (2008). Buying Power Aid, Governance and public Procurement. Ghana; Christian Aid.
- Miller, R. B. (1991). *Statistics for business: Data analysis and modelling*. PWS Publishing Company.
- Muffato, M. and Payaro, A. (2004), “Implementation of e-procurement and e-fulfillment processes: a comparison of cases in the motorcycle industry”, *International Journal of Production Economics*, Vol. 89 No. 3, pp. 339-351.
- Mugenda M.O. & Mugenda A. (2003); *Research methods: Qualitative and quantitative Approaches*, Africa Center for technology studies, Nairobi, Kenya.
- Mugo, H. W. (2011). *Internal factors affecting procurement process of supplies in the public sector: A survey of Kenya Government Ministries*. Nairobi: Government Ministries.
- Muhammad, B. A., Adamu, T., & Ladi B. D. (2015). Appraisal of construction project procurement policies in Nigeria. *American Journal of Engineering Research*, 4(3), 19-24
- Muhia D.W., & Afande F.O., (2015), Adoption of E-procurement strategy and procurement performance in state corporations in Kenya (A case of KRA), *Journal International knowledge sharing platform*, Vol.5, No.6.
- Neko, S. & Kakwezi, P. (2011). *Procurement Processes and Performance: Efficiency and Effectiveness of the Procurement System Function*.
- NPPA Annual Report. (2005). National Public Procurement Authority Annual Report, 2005. Sierra Leone.



- Nzimande, N., & Padayachee, P. (2017). Evaluation of the current procurement planning process in a district municipality. *International Journal of Public Policy and Administration Research*, 4(1), 19-34.
- OECD (2002), the Size of Government Procurement Market, Paris
- OECD. (2007). Integrity in Public Procurement Good Practice from A to Z, OECD Publishing, Paris, France.
- Ogachi, J.F. (2011). The Status of the Procurement Profession in Kenya: Baseline Indicators 2011. Nairobi: Centre Advanced Procurement Studies.
- Ojo, A. E., & Gbadebo, M. A. (2014). An assessment of non-compliance with procurement proceedings in procurement of works in Nigeria. *International journal of economic and business management*, 2(3), 25-34
- Okinyi, T. O., & Muturi, W. (2016). Factors affecting efficiency of procurement in public institutions: a case of public entities in Homabay County. *Int. Journal of Social Science and Information Technology*, 2(2), 1-14.
- Pal, R., Wang, P., & Liang, X. (2017). The critical factors in managing relationships in international engineering, procurement, and construction (IEPC) projects of Chinese organizations. *International Journal of Project Management*, 35(7), 1225-1237.
- Philip, M. (2002). Conceptualizing political corruption. In Heidenheimer, A. J. and Johnston, M. (Eds), *Political Corruption - Concepts and Contexts* (3rd Ed), Transaction Publishers, London.
- PPA Annual Report. (2007). National Public Procurement Authority Annual Report 2007. Ghana.
- PPA Annual Report. (2008). National Public Procurement Authority Annual Report 2008. Ghana.



Public procurement act (2003) Act 663 of the Republic of Ghana, Ghana Publishing Corporation, Accra Ghana.

Public Procurement Oversight Group (2002). Public Procurement Act, 2003 (Act 663). Ghana Publishing Company (Assembly Press): Ghana.

Pugh, D. S., Hickson, D. J., Hinnings, C. R., and Turner, C. (1969). The context of organizational structures. *Administrative Science Quarterly*, 1(4), pp. 91-114.

Pugh, S. D. (1994). Citizenship behaviour and social exchange. *Academy of Management Journal*, 37(3), pp. 656-670.

Raymond, J. (2008). Benchmarking in public procurement. *Benchmarking: An International Journal*, 15(6), pp. 782-793.

Rutteman Working Group (1994). *Internal control and financial reporting: Guidance for directors of listed companies*. London: Institute of Chartered Accountants of England and Wales.

Sahr J. K. (1998). Corruption and integrity improvement initiatives in developing countries. United Nations Development Programme.

Schapper, P. Veiga, Malta, & Gilbert, D. L. (2006). An analytical framework for the management and reform of public procurement. *Journal of Public Procurement*, Vol. 6 No 1-2, 1-26.

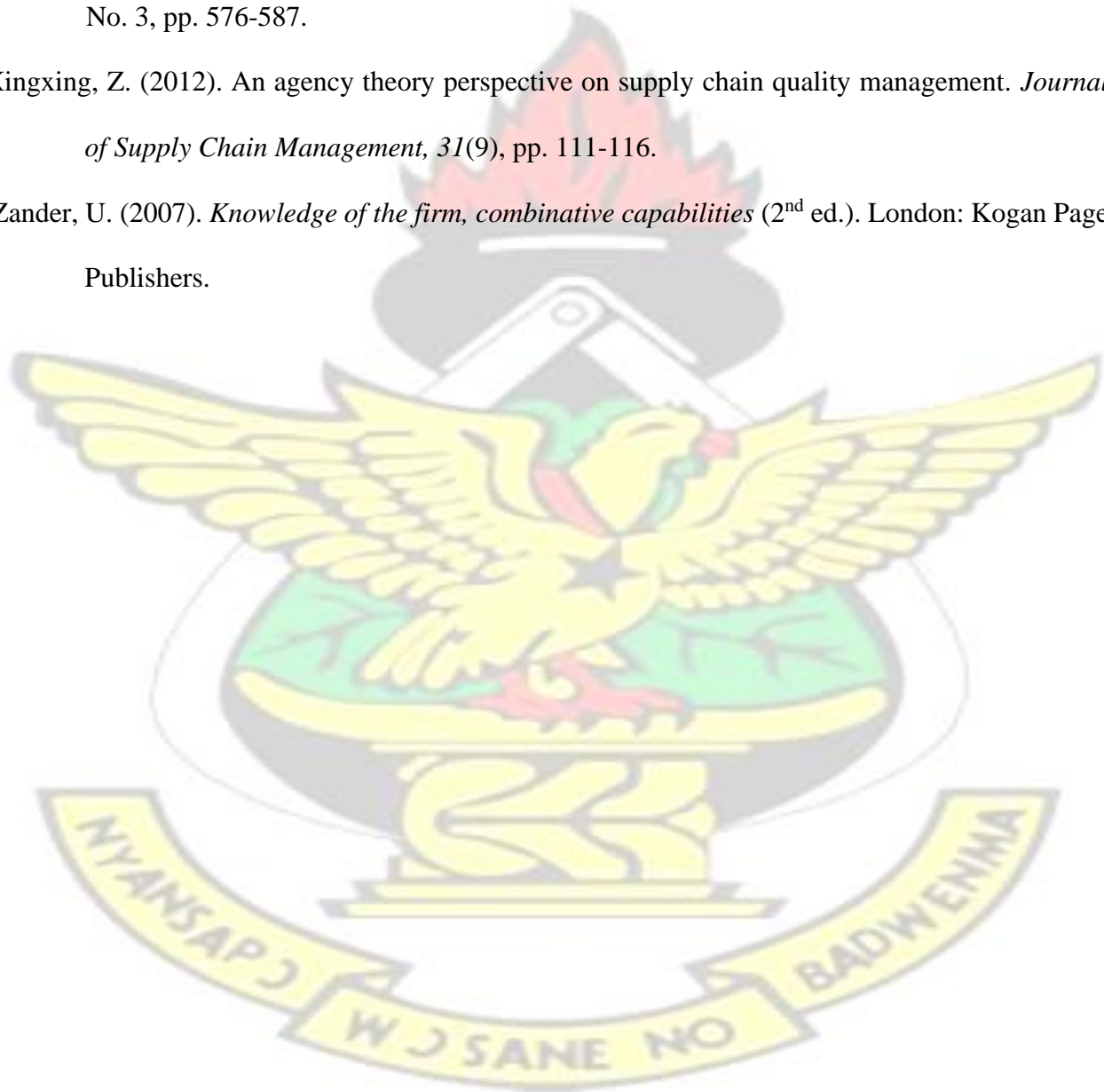
Singer, K. R. & Marcos, B. (2009). "Does EProcurement Save the State Money?"J. Public Procurement 9(1). PrAcademics Press.

Snider, K. F., & Rendon, R. G. (2008). Public procurement policy: Implications for theory and practice. *Journal of Public Procurement*, 8(3), 310-333.

Sriram, V. and Stump, R. (2004), "Information technology investments in purchasing: an empirical investigation of communications, relationship and performance outcomes", Vol. Omega, The International Journal of Management Science, Vol. 32 No. 1, pp. 41-55.

- Stentoft Arlbjørn, J., & Vagn Freytag, P. (2012). Public procurement vs private purchasing: is there any foundation for comparing and learning across the sectors? *International Journal of Public Sector Management*, 25(3), 203-220.
- Tan, K.C., Lyman, S.B., and Wisner, J. D. (2009). Supply chain management: A strategic perspective. *International Journal of Operations and Production Management*, 22(6), pp. 614-31.
- Unaam, A, O. E., & Mark, J. (2015). Effect of ethics and integrity on good public procurement system. *International journal of arts and humanities*, 4(1), 168-176
- Velnampy, M. (2010). Evaluation of factors influencing effective procurement management. *Journal of Management*, 21(8), pp. pp. 455-471.
- Waltz, C. F., Strickland, O. L., and Lenz, E. R. (2005). *Measurement in nursing and health research*. (3<sup>rd</sup> ed.). New York: Springer Publishing.
- Wanjiru, D. K. (2014). Effects of records management on the efficiency of the procurement. *Supply Chain Management*, 20(11), pp. 132-139.
- Wanyama, S.C., (2010.) Factors affecting performance of procurement function among public technical training institutions in Kisumu County, Kenya. *International Journal of Economics, Commerce and Management United Kingdom*, 3(1), pp. 25-39.
- Wittig, W. A. (1999). Building Value through Procurement: A Focus on Africa. Paper presented to the 9th International Anti-Corruption Conference.
- Williamson, O. E. (2005). Outsourcing: Transaction cost economics and supply chain management. *Journal of Supply Chain Management*, 44(2), pp. 5-16.
- Woodward, D. G. (2001). A Greek perspective on the decision to outsource or retain the internal audit function. *J. Appl. Accounting Res.* 8(1), pp. 1 – 71

- World Bank. (2003). *Ghana 2003 country procurement assessment report*. Washington, DC: World Bank.
- Bank. (2003). *Economic report on Ghana*. Washington, DC: Ghana Country Department, the World Bank.
- Wu, F., Zsidisin, G.A. and Ross, A.D. (2007), “Antecedents and outcomes of e-procurement adoption: an integrative model”, *IEE Transactions on Engineering Management*, Vol. 54 No. 3, pp. 576-587.
- Xingxing, Z. (2012). An agency theory perspective on supply chain quality management. *Journal of Supply Chain Management*, 31(9), pp. 111-116.
- Zander, U. (2007). *Knowledge of the firm, combinative capabilities* (2<sup>nd</sup> ed.). London: Kogan Page Publishers.



**APPENDIX**  
**RESEARCH QUESTIONNAIRE**

**TOPIC: AN ANALYSIS INTO THE EFFECT OF THE PUBLIC PROCUREMENT ACT 663 AS AMENDED ON PRODUCTIVITY IN THE TARKWA-NSUAEM MUNICIPAL ASSEMBLY: THE MEDIATING ROLE OF INFORMATION COMMUNICATION TECHNOLOGY (ICT)**

These set of questions are intended for a research work on An Analysis into the effect of the Public Procurement Act 663 as Amended on Productivity in The Tarkwa-Nsuaem Municipal Assembly: The Mediating Role of Information Communication Technology (ICT). The research seeks to establish how procurement is undertaken in this organization and other related issues. This study is purely academic work in partial fulfilment for MSC in Procurement and Supply Chain Management. I would be grateful if you could complete the questionnaire for me. Your cooperation is therefore needed in providing the required information as factual as possible. All responses derived from this study will be treated with the utmost confidentiality and used for academic purpose only.

**SECTION ONE: Demographic Data of Respondent**

Instruction: Please fill your personal information for the demographic data by ticking [✓]

Gender: (a) Male [ ] (b) Female [ ]

Age: 18-30 [ ] (b) 31-40 [ ] (c) 41-50 [ ] (d) 51 and above [ ]

What is your highest level of academic qualification?

Masters and above [ ] Bachelor's Degree/HND/Diploma Senior Secondary School

Work experience (years) 1-5 [ ] (b) 6-10 [ ] (c) 11-15 [ ] (d) 16 and above [ ]



## SECTION TWO: Procurement Practitioners Understanding of the Public Procurement Act

1. Please indicate the extent of your agreement with the following statements on a 5-point scale. Please tick ✓ one answer.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Statement	1	2	3	4	5
The assembly uses Public Procurement Act (663) as amended					
The Amended Public Procurement Act (663) provides guidance for the creation of the Procurement plan					
The choice of procurement method is guided by the Public Procurement Act (663) as amended					
The tender procedures are guided according to the Public Procurement Act 663 as amended					
Guidelines for selecting the evaluation panel are provided by the Public Procurement Act (663) as amended					
The Entity Tender Committee's selection is guided by the Public Procurement Act (663) as amended					
The Selection of potential suppliers/contractors is guided by the Public Procurement Act (663) as amended					
The amended Public Procurement Act (663), specified guidelines for disposing of store items, vehicles, plants and machinery					

## SECTION THREE: The effects of the Public Procurement Act at the Tarkwa-Nsuaem Municipal Assembly.

2. Please indicate the extent of your agreement with the following statements on a 5-point scale. Please tick ✓ one answer.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Statement	1	2	3	4	5
Public Procurement Act 663, as amended, guides the Assembly to achieve value for money.					
The Public Procurement Act 663, as amended, has promoted transparency in the procurement system					
Public Procurement Act 663, as amended, has helped with compliance with business policies.					
The Amended Public Procurement Act 663 has promoted uniformity in performing procurement activities					
The Amended Public Procurement Act 663, guides the Assembly in economic and efficient use of state resources.					
The Public Procurement Act 663, as amended, harmonizes public procurement processes in the Assembly and also greater efficiency					
The Public Procurement Act 663, as amended, promotes the assurance of quality goods and timely delivery of goods.					
The Amended Public Procurement Act 663 reduces corruption.					

**SECTION FOUR: The Application of Information Communication Technology in the Procurement Process.**

3. Please indicate the extent of your agreement with the following statements on a 5-point scale. Please tick ✓ one answer.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 =Strongly Agree

Statement	1	2	3	4	5
The Assembly has good and resilient network with high levels of ICT utilization					
The Information Communication Technology System provides opportunities for suppliers to give feedback					
The Government Integrated Financial Management Information System (GIFMIS)has totally replaced paperwork in procurement processes for the preparation of Purchase Orders (POs) and Stores Receipt Advice (SRAs)					

The Ghana Electronic Procurement System (GHANEPS) has been integrated for procurement activities of the assembly					
The use of ICT has improved the advertisement of tenders on the PPA website					

**SECTION FIVE: Difficulties in implementing the Procurement Act governing the acquisition of goods, works and technical services**

4. Please indicate the extent of your agreement with the following statements on a 5-point scale. Please tick ✓ one answer.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Statement	1	2	3	4	5
The Act is designed to be more controlling than facilitating the procurement process itself					
The Act does not allow for introduction of innovative techniques in the procurement process					
The procurement process is very procedural					
There are technical challenges in applying the Amended Public Procurement Act.					
Members of the tender committee are not equipped with the necessary knowledge and training for the procurement procedure.					
External coercion to sabotage the procurement process					
Procurement of goods, works and services are now very risky as a result of the Act					
Most suppliers and contractors cannot obtain the needed documents					
The majority of suppliers and contractors struggle to acquire the required documents					

Thank You.