

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY!

COLLEGE OF ART AND BUILT ENVIRONMENT

DEPARTMENT OF BUILDING TECHNOLOGY

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**PROCUREMENT OF INNOVATIVE GOODS & SERVICES UNDER THE
PUBLIC PROCUREMENT ACT, 2003 (ACT 663): THE CASE OF THE
PROCUREMENT OF BIOMETRIC SYSTEMS FOR THE 2012 GENERAL
ELECTIONS IN GHANA**

SUBMITTED BY

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**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI**

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR A DEGREE

OF

MASTER OF SCIENCE

NOVEMBER, 2015

DECLARATION AND CERTIFICATION

I declare that except for the references and interviews, which have been duly acknowledged by me, this dissertation is the result of my own research carried out under the supervision of Dr. Bernard K. Baiden and has never been presented neither in whole nor in part for the award of a degree in any institution.

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ABSTRACT

The overarching objective of this study was to explore the provisions under the Public Procurement Act, 2003 (Act 663) for the procurement of innovative goods, services and how the Electoral Commission used the provisions to purchase of the Biometric system for the 2012 General Elections as a case study. Innovative public procurement is when public entities act to procure nonexistent goods or services. The urgent demand for fairer, transparent and credible elections has seen the application of information and communication technologies (ICTs) in most electoral activities, a development that has considerably improved election administration in many countries. Biometric systems have become the main response to voter impersonation and multiple voting practices. This study used both the stratified and simple random sampling techniques to collect data from twenty-seven (27) key and relevant personnel at the Head Office of the Electoral Commission of Ghana. Using the relative importance index the study found that the main objectives of introducing the BVR were to eliminate multiple registration and impersonation which affect the credibility of the register. The five most important challenges encountered during the procurement of the BVR were the lack of familiarity with procurement rules by procurers and other stakeholders resulting into poor compliance levels; ineffective engagement between procurers and suppliers; bureaucracy; insufficient expertise and complexity of substantive issues involved in public procurement of innovative goods, services and works. Based on the findings of this study especially with respect to the challenges of procuring innovative products, works and services,

recommendations made included training of employees/procurers, improving upon the communication channel among procurement entity and suppliers; good record keeping, streamlining the procurement function at the EC and fair compensation and reward.

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DEDICATION

This piece of work is dedicated to Akosua my wife and my children Kofi Adom, Adjoa Aseda and Yaw Nhyira for tolerating my long absence from home when I was pursuing this Course.

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May the Lord whose abundant Love, Grace and Mercy sustain us daily bless you all for your kindness.

“Those who leave everything in God’s Hand will eventually see God’s hand in everything.”

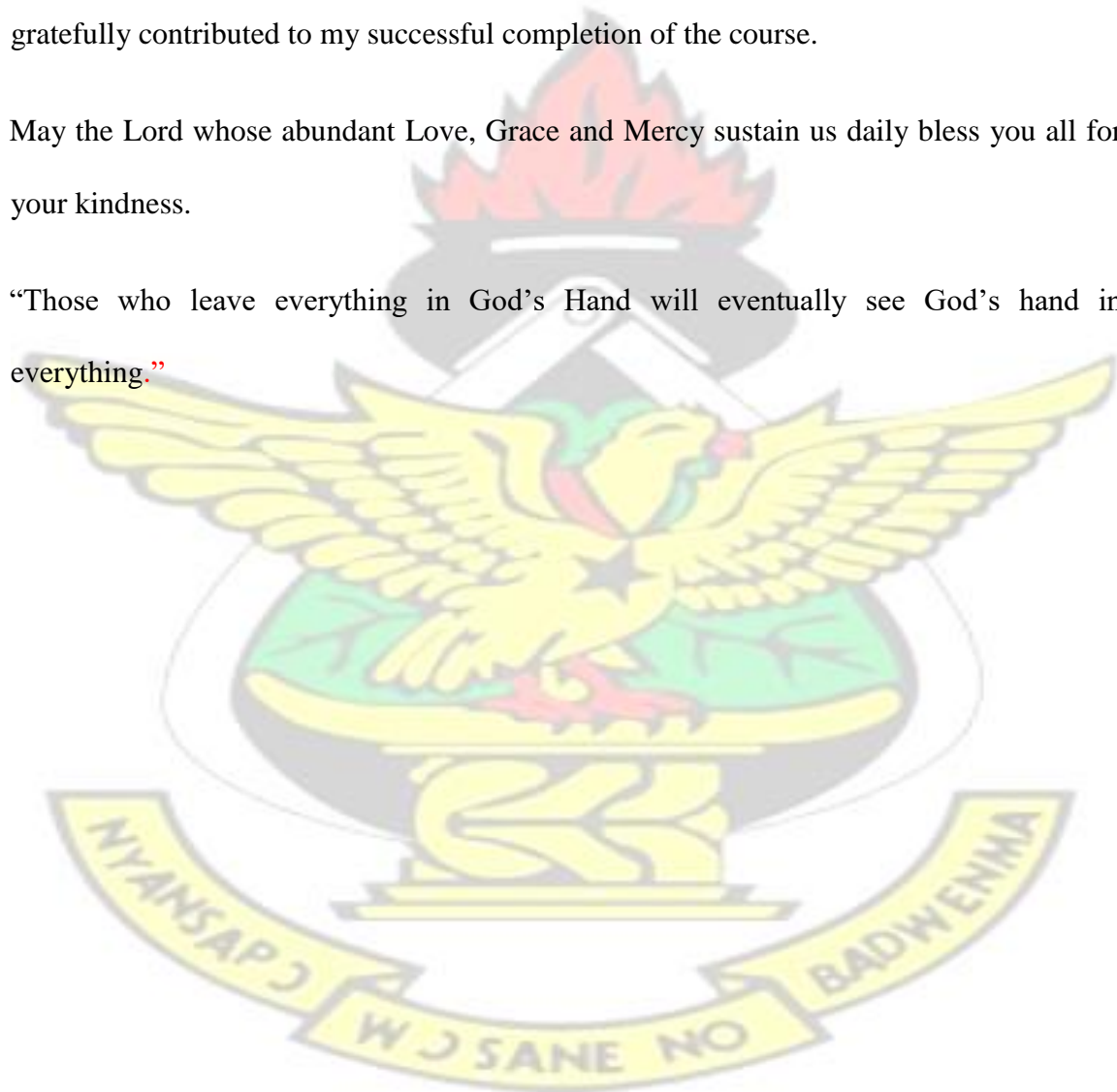


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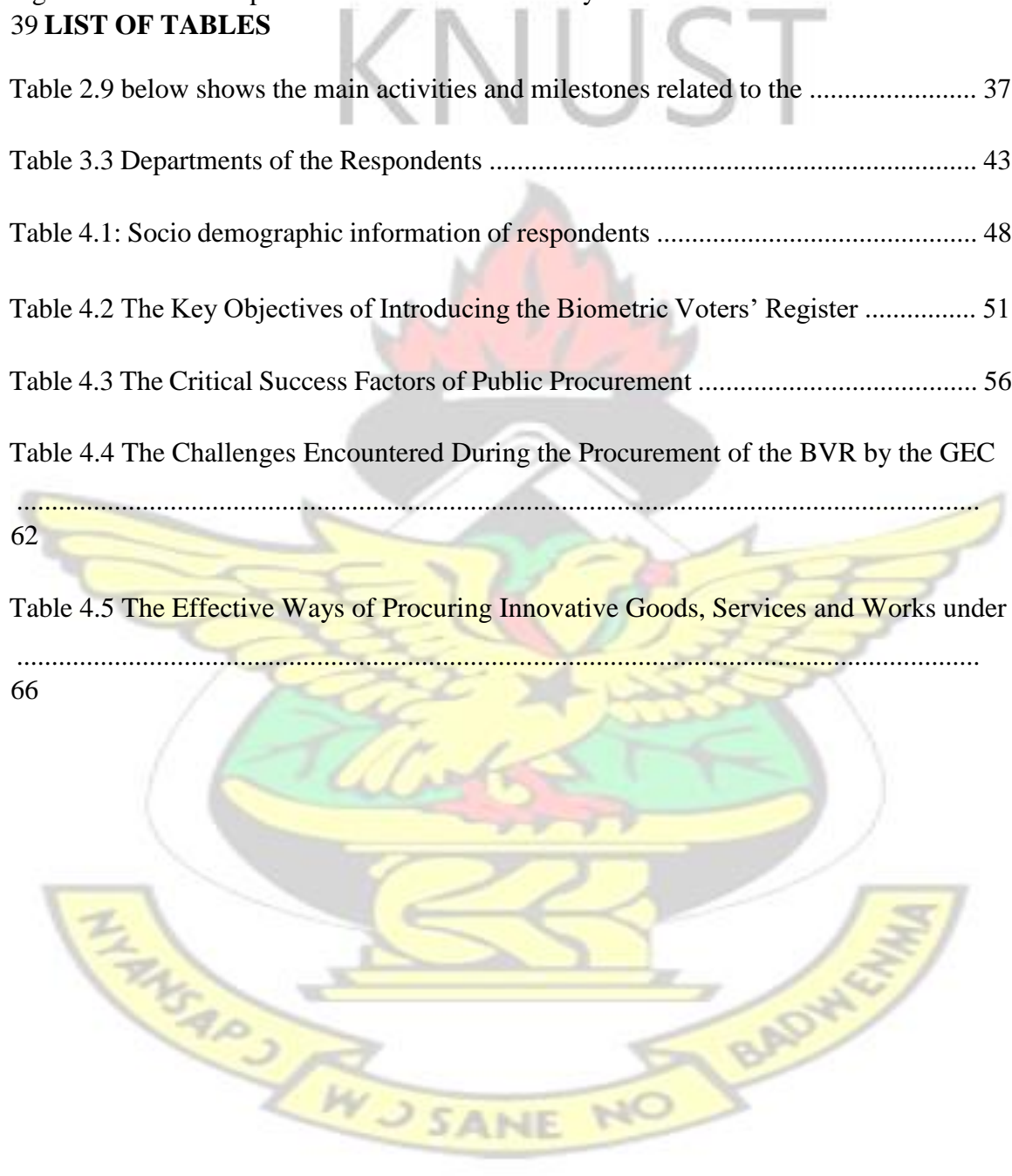
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CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

The procurement function is highly critical in the realization of corporate and public sector organisational objectives. Public procurement as described by Thai (2001) is a process undertaken by state funded organizations to acquire goods, services and works required for public projects. This definition in effect means that for any government or state to achieve its policy objectives, as (Thai, 2001) suggested, procurement entities charged with using state funds must conduct their procurement processes in such a manner so as to achieve value for money for all their acquisitions. This further underlines the fact that the procurement function is critical to government business since as Roodhooft and Abeele (2006) pointed out includes acquisition of large construction projects such as roads, stadia, airports, and power stations. Again, countries all over the world spend a sizeable percentage of their GDP on procuring products, services and works needed to facilitate their development and growth.

For instance, Roodhooft and Abeele (2006) have reported that public procurement budgets can be as high 18.42 of the world's GDP and that it forms about 20% of the GDP of developing countries (Mlinga, 2009). The same applies to Ghana. As reported by Adjei (2006), public procurement forms between 50 – 70% of the country's budget and about 14% of the nation's GDP. This therefore underscores the need to conduct public procurement activities according to the law to avoid incurring unnecessary expenditures, mismanagement and carelessness as pointed by (Adjei, 2006).

For this reason nations including Ghana have promulgated laws to guide procurement activities in the public sector. Ghana in 2003 promulgated the Public Procurement Act 2003 (Act 663) (Oppong, 2013; Public Procurement Authority: Electronic Bulletin, 2011), to streamline procurement efforts so as to engender value for money purchases and to curb financial malfeasance typically associated with public procurement.,

Specifically, The Public Procurement Authority has been given the powers under sections 3(d), 3(e) and 3(h) to evaluate the performance of state entities and ensure that they all operate within the confines of the Act. Thus Ministries, Departments and Agencies (MDAs) are expected to comply with all the provisions in the Act when embarking on any public sector related procurement activity.

The Ghana Electoral Commission (GEC) in its present form was set up under Article 43(1) of the 1992 constitution and the Act of Parliament, Act 451, 1993. Its mandate is to organize and supervise all public elections and referenda as a way of advancing the course of democracy and good governance in Ghana.. The Commission consists of the seven (7) members; a Chairman, two Deputy Chairmen and Four other Members. Per the law it has presence in all regions and districts.

To effectively carry out this mandate, the institution every so often procures products, works and services. Procurement of electoral materials and services is a key part of the organization of elections in terms of planning, costs and implementation (purchasing and distribution). Integrity and transparency is thus essential; lack of integrity in the purchasing system may put the legitimacy of the whole electoral exercise at risk (ECUNDP, 2010).

The urgent demand for fairer, transparent and credible elections has seen the application of

innovative information and communication technologies (ICTs) in most electoral activities, a development that has significantly improved election administration in many countries. Voter registration is the most expensive part of the electoral process and the area in which the use of innovative ICTs is expanding most. As part of new arrangements to have transparent and credible elections in 2012 the GEC procured biometric systems to establish an accurate voters' roll.

Biometric systems are new innovations used to measure physical characteristics and behaviours (fingerprints, speech, face, iris and the like) with the objective of recognizing identical patterns. Biometric systems have proven particularly expedient during voter registration and polling operations. When automatic fingerprint identification system (AFIS) technology is used in the course of voter registration, duplicate registrations can be detected. AFIS is the software for establishing the identity of individuals through fingerprints by the use of biometric functions.

Biometric systems have become the main response to voter impersonation and multiple voting practices according (EC-UNDP, 2010).

According to Edquist et al. (2006), innovative public procurement is when public entities such as the GEC act to procure nonexistent goods or services required for additional or new products or systems for the public which can be developed in good time by suppliers.

The two-stage tendering as per section 36(a) of the Public Procurement Act is the provision under the law to procure innovative goods, services and works. This tendering method

begins with an invitation to tenderers in the first stage to contribute to the development of comprehensive specifications for goods, services and works. The second stage involves a review of proposals submitted, preparation of a new detailed specification and the issuance of a restricted tender for bids selected from the first stage. The dual stage method of procurement is also most useful if it is difficult to formulate detailed specifications for the goods, services and works because of rapid technological advances.

1.1 Problem Statement

Ghana's Public Procurement Act, 2003 (Act 663) was mainly promulgated to ensure transparency, curb corrupt practices, and to sanitize the procurement process in all public sector entities. However, the strict application of the law can be challenging and problematic due to several bottlenecks such as shortage of qualified personnel, poor interpretation of the Act, poor record management, insufficient training on the Act, the existence of grey areas, the difficulty in applying the law to encourage innovation in goods, services and works because of the length and cost of the procurement process required and the risk associated with being creative under the law (Public Procurement Act, 2007).

In spite of these challenges, there are some successes. Since commencement of implementation of the Act in January, 2004, Ghana's modest achievements have been recognized by the OECD Development Assistance Committee as a significant tool for reducing corruption in the country (Oppong, 2013). Although the public procurement act came to reform the public procurement systems, its implementation challenges have not assisted in the value for money. The issues are: Do Ghanaian public sector entities evaluate

their procurement practices and do they consider how these might be enhanced to drive innovation? How do these entities embed innovation at the heart of their procurement practices? What are the bottlenecks hampering the procurement of innovative products, services and works in Ghanaian public establishments? Are procurement units well resourced? What are the issues mitigating against complying with the procurement act? Is it lack of adequate knowledge of the dictates of the procurement Act?

The purpose of this study was to examine how the GEC used the provisions under the law to procure a biometric system for the 2012 elections and the extent to which the Act exploits the potential of public procurement to encourage the development of innovative solutions and whether the current provisions in law which are intended to encourage innovation are effective; and what more can be done.

Considering that innovative products such as the Biometric Voters' Register (BVR) are now central to the conduct of free and fair elections any study into the challenges of the procurement function at the GEC is deemed highly relevant and opportune. However, there is little empirical research on the barriers impeding the procurement of innovative goods and services at the GEC. The present study was therefore an attempt to bridge this gap and also increase the academic discourse on the subject matter.

1.2 Research Questions

To realize objectives of the study, the following questions were modeled:

1. What are the critical success factors of public procurement?

2. What were the challenges encountered during the procurement of the BVR by the GEC?
3. What are the effective ways of procuring innovative goods, services and works under the Public Procurement Act, 2003 (Act 663)?

1.3 Objectives of Study

The aim of this study was to explore the provisions under the Public Procurement Act, 2003 (ACT 663) and how the GEC used the provisions to purchase the Biometric Voters' Register (BVR) for the 2012 Elections. Specifically, this study sought to:

1. To identify the critical success factors of public procurement
2. Determine the challenges encountered during the procurement of the BVR(innovative goods, services and works) for the 2012 elections
3. Identify effective ways of overcoming the barriers of procuring innovative goods, services and works under the Public Procurement Act, 2003 (Act 663)

1.4 Significance of the Study

From the above, the research will bring to the fore how public sector organizations adhere to the provisions of the procurement law or otherwise. The study will also be useful for policy makers develop indicators on the state of procurement practice in Ghana.. In addition, the study will provide new practical ways to monitor, assess, and evaluate the work of procurement personnel. The best way for governments to achieve this is by

ensuring cost-effective buying. Again, it is envisaged that the results of this study will help assist in improvements for value for money (VFM) in the public procurement through the recommendations that will be made. Since the GEC funded by the central government and foreign donors, a better understanding of its procurement challenges or otherwise would help assure local and international partners of the credibility of its Procurement Activities and by so doing, attract more funding to finance its programmes.

This study would further the build capacity of procurement officers at the GEC and other MMDAs in the procurement of innovative products for their organisations.

1.5 Scope and Limitations of the study

The focus of this study was exclusively on the impediments of procuring innovative goods, services and works of Ghanaian public sector entities. Considering the breadth of the study, the researcher decided to concentrate on the GEC because of its engagement in significant procurement activities whilst considering procurement mechanisms across the public sector generally. This study specifically focused on the procurement of the BVR by the GEC in 2012. The EC was chosen because of its important role of conducting elections in the country as well as easy access to information, data and key respondents. The GEC was established under Article 43 of the Ghanaian Constitution. Its functions include the compilation of the voters' Register, demarcation of electoral boundaries, voter education on the electoral process and conducting and supervising all public elections and referenda. In fulfilling this mandate, the Constitution assures functional, administrative and financial

autonomy to the commission by protecting it from outside interferences and providing that its finances is charged in the consolidated funds (Section 10, Electoral Commissions Act of 1993).

It must however be mentioned that concentrating solely on the GEC limits the study in terms of generalizing the findings. However, it is the belief of the researcher that the findings of this study would throw more light on the subject matter of study and therefore serve as a base for future studies.

1.6 Report Outline

The research was made up of five major chapters; chapter one consisted of the introduction and it included the background of the study, the statement of the research problem, the study's objectives, the research questions, scope and delimitations and the significance of the study. Chapter two was devoted to literature review with a look at conceptual to theoretical aspect of the critical success factors of public procurement, reviewing the challenges of procuring innovative goods, services and works and identifying effective ways of overcoming the barriers of procuring innovative goods, services and works. The research methodology was tackled in chapter three, in which the data collection and presentation procedures has been examined. Chapter four was made up of analysis of the various data gathered based on the responses from the respondents. The data captured from the respondents were analyzed using descriptive statistics indicating the mean values, standard deviation as well as one sample test. Finally, summary of major findings, recommendations and conclusions formed the chapter five

for this study.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the existing literature on public procurement. It specifically reviewed the concept of public procurement, essence of public procurement, the critical success factors of public procurement, the challenges of procuring innovative products, services and works and the development of a conceptual framework for the study.

2.2 The Concept of Public Procurement

The procurement function and its relevance in the public sector are presented in this section of the study.

2.2.1 Procurement

The procurement function has been defined differently by different authors. For instance, it has been defined by Lysons and Farrington (2006) as the process of obtaining goods and services in any way, and which includes borrowing, leasing and even force of pillage while

Jibrin et al. (2014) regard procurement as encompassing the entire process of acquiring property and /or services. The procurement function has also been defined by Jahns (2005) as an organization-wide process with a special focus on the security and cost aspects of purchasing contains strategic activities and considers the technical and economical aspects of the supply market. This definition illustrates how firms are stressing on the protection and cost-efficiency facets of purchasing. Knudsen (1999) has further defined procurement as including all activities required in order to get the product from the supplier to its final destination, whereas purchasing covers all activities for which the firm receives an invoice from outside parties.

This study adopts the definition as given by Barly (1994). The author defined procurement as purchasing the right quality of material at the right time, in the right quantity, from the right source and at the right price. Barly's definition basically captures all aspects of the procurement process and implies that for an effective procurement to exist firms or procurers must focus on meeting all the five rights (Barly, 1994).

2.2.2 Public Procurement

Waara (2007) has defined public procurement as any purchasing performed by any public sector entity while Bjorn Wickenberg (2004) has described public procurement as the procedure by which public sector entities acquire goods and services using public funds and which includes planning, inviting offers, awarding contracts and managing contracts. Additionally, Thai (2001) as the process by which governments and other public-funded entities acquire goods, works and services needed to implement public projects. These definitions mean that to achieve stated objectives of the state, there is the need to have a

procurement entity charged with using state funds judiciously in order to get value for money during the procurement process (Thai, 2001).

As indicated by Bovis (2007), public procurement is the procedure in which public sector establishments purchase products and services. Public procurement set ups are exceptionally centralized with state procurement boards that oversee the procurement activities of a country.

The definition as provided by Bjorn Wickenberg (2004) is quite comprehensive since it sees public procurement as a process and this process includes asking suppliers to bring in their tenders, evaluating the tenders and selecting qualified suppliers and then awarding the contracts and also managing the contracts. Again, the definition makes mention of using public funds and this again inherently implies an element of being judicious and getting value for money.

2.2.3 The Basic Purposes of Public Procurement

According to Benslimane et al. (2005), the main objective of the procurement function is to carry out functions in an effective way that results in procuring items that meet specifications of the firm (that is ensuring that items procured are of the right quality, right source, right price, right quantity, right place and right time). There are 'six rights' in acquisition and they can be accomplished through following specific objectives of procurement (Benslimane et al, 2005). According to Uyarra and Flanagan (2010), it can be seen that the procurement function from a managerial point of view plays a crucial role in the provision of strategic information for evaluating and controlling the effectiveness and efficiency of organizational buying efforts.

According to Dobler and Burt (1996), the main benefits of the procurement function can be seen in these vital areas of an organisation's operations:

1. Security of supply;
2. Lowering of cost through efficiency and better management of scarce resources;
3. Reduction of risks associated with procuring products and services from all over the world and under different laws, rules, procedures and transparency;
4. Improvement of quality of products and services since products of high quality are procured and which leads to excellent finished products;
5. Addition of greater value to a firm's operations;
6. Cost cutting
7. Channel partner acceptance and better collaboration.

According to Uyarra and Flanagan (2010), tactical roles of the procurement function include but not limited to the following:

1. Determining expenditure trends and knowing high costs areas;
2. Identifying key suppliers and assessing their performance;
3. Evaluating the number of invoices per category and per activity;
4. Identifying the type of contracts within different categories;
5. Identifying transaction cost per business activity
6. Evaluating supplier contract observance and issues in relation to contracts;
7. Indicating the specific needs within units/departments
8. Selecting suitable suppliers and

9. Contracting suppliers.

Again and according to Uyarra and Flanagan (2010), the procurement function has an operational aspect and this involves the daily activities carried to ensure that the continued availability of goods and services. These operational activities are:

1. Ordering products and services;
2. Monitoring and evaluating orders and receiving goods and services that meet specifications; Managing inventory and
3. Controlling, coordinating and managing other activities such as the payment for goods delivered and dealing with administrative bottlenecks.

Bjorn Wickenberg (2004) has pointed out that public procurement when effectively done can inure to the benefit of nations both economically and socially. As stated by Ghana's Public Procurement Authority (2007), public procurement has a great influence on key areas such as ensuring that government's projects are delivered successfully and within schedule; getting value for money as a result of better financial management and accountability and control; curbing corrupt practices of procurers; facilitating fair competition and therefore getting the best suppliers and enhanced reputation of state institutions.

According to McCue and Pitzer (2000), procurers play critical roles regarded as management function. This is because the purchasing function often minimizes total expenditure on procurement through combining procurement needs to obtaining economies of scale advantage. Again, the procurement function plays a control function in

organizations by enforcing strict observance of laid down procurement rules, regulations and procedures.

2.2.4 Differences between Public and Private Sector Procurement

There are several areas that public sector procurement differs from that of the private sector. According to authors such as Larson (2009); Leyenaar (2004) and Murray (1999), areas where these differences manifest the most are reporting structures, regulating agencies, sources of funding and operating motives. For instance and in respect to regulatory structures, it is known that typically, public sector procurement is governed by strict rules and regulations enacted by legislative bodies while in the private sector, procurement activities are usually guided by the board of directors, the stated objectives and plans of the firms and the purchasing policies of firms.

Another difference is seen in the area of funding. The public sector procurement has its funding sources drawn from taxpayers' contributions and fees and carry with them inherent external regulations concerning how this funds are put to use. On the other hand, the main sources of procurement funding are derived from the revenue of income generated from sales of products and services and there is no eternal requirements as to how funds are used (Leyenaar, 2004).

Moreover, the scope and span of public procurement extends beyond simply purchasing needed products and services and that it takes into consideration key issues such as the development of the local economy and small entities therein, the creation of jobs, promotion of fairness in the procurement process and stringent observance of laws, procedures, fair competition and transparency (Larson, 2009). Again and as pointed out by

Larson (2009), the main focus of public procurement is ensuring transparency, accountability, curbing corruption and promoting trust and confidence through making the citizenry have access to all procurement activities of the state. On the other hand, the private sector is not saddled with meeting all these requirements and opening itself to public scrutiny even though procurers are answerable to management and the board

(Larson, 2009).

2.3 The Procurement Process

Due to the often huge amounts involved in the procurement of public products, goods and services, there is the need to follow certain processes and procedures in order to ensure that value for money is derived in all transactions, eliminate or manage all risks as well as improve the overall performance of the process (Shaw, 2010). According to Wan Lu (2007), the procurement process is a cycle or chain that depicts the activities that procurement goes through in getting a given need for operational and strategic objectives. This definition suggests the procurement process entails a flow chart and detailed plan describing the process in pictorial forms and with arrow lines linking each operation step. Figure 2.1 illustrates a typical procurement model applicable for most procurement processes including public procurement (Emmert and Crocket, 2008). According to Emmert and Crocket (2008), a typical public procurement model commences as shown in Figure 2.1 with the following:

Identification of operational necessities required to ensure the success of the whole procurement process. According to Emmert and Crocket (2008), a well-organized and suitable procurement function must initiate with the identification of specific needs and that such a need when fulfilled should lead to the betterment of the organization as a whole.

Again, this stage the procurement unit decides on other equally important issues such as founding sources, the method of procurement and finally, drawing a timetable which will guide the entire procurement process.

Specification: This is the communication tool employed by the procurement unit to convey the need of the procuring firm to suppliers who have vested interest in the product or service required (Sollish and Semanik, 2007). According to Shaw (2010), specification is a vital component and it is often developed in collaboration with all functions, departments and units of the firm so that a complete integration with the firm's overall strategy is achieved. As pointed out by Lysons and Farrington (2006), typical issues communicated on include quotations, drawings, and other documentations or information that will facilitate suppliers to deliver a quotation.

Enquiry and evaluation

This stage is another crucial one since it evaluates and assesses critically the quality of the items to be procured. Here suppliers are required to convey information on key areas such as their performance or track record, capacity, equipment and facilities, information on the management members of the supplying firm and their technical and financial competencies and capabilities (Sollish and Semanik, 2007). According to Maurer (2004), usually, the procurement departments of firms embark on the following:

1. Analyzing and assessing the offers pre-agreed standards, specifications, requirements and introducing the analysis to procurement appointed committee;
2. Verifying the capacity of suppliers
3. Evaluating and reviewing the results of product scrutiny where required
4. Verifying key reports where needed

5. Negotiating with suppliers on key cost areas as and when necessary
6. Placing the order and facilitating prompt delivery

Negotiation

According to Lysons and Farrington (2006), negotiation is basically seen as the stage where all parties involved in the procurement process come to the table to resolve all issues, clear all doubts and ambiguities and discrepancies. This is the stage where an agreement is reached in improving performance in order to achieve procurement efficiency and effectiveness.

Early delivery

Early delivery of requested items typically implies the procurement process was duly followed (Lysons and Farrington, 2006). In Ghana, the procurement Act stipulates that the contract should be managed by the buyer (public sector entity) and the supplier to ensure that items are delivered on time. Under the procurement act, activities under this section entail expediting (what needs to be done during this stage is constant monitoring, check – ups and follow-ups to ensure that suppliers are on course and indeed making all efforts to deliver items on schedule, within specifications and budget) (Bovis, 2007; Shaw, 2010). It also include arrangement for the inspection or freight forwarding, bank guarantees, establishing letters of credit if required, verifying documents to ensure they meet specifications and making payments (Bovis, 2007; Shaw, 2010)

Payment

According to Lysons and Farrington (2006), after having supplied products on time, within specification and all contract terms met, the next stage is to make provision for paying the

supplier. Here the processes include sending the requisite documentations to the finance department for instance for verification and authorization of final payment.

Review

The review part of the procurement process has to do with measuring objectives with the outcome of the procurement exercise to determine whether the objectives of the procure exercise has been met; reviewing to unearth how the procurement function was implemented and also review the performance of the supplier in order to guide future decisions on what to do or not do in order to achieve procurement success (Shaw, 2010).

Figure 2.1 A Typical Procurement Process Model



Source: Emmert and Crocket 2008

2.4 The Procurement Processes at the GEC

The procurement process of the GEC typically follows the following steps

1. Procurement Planning

This phase entails identifying the needs of the GEC in terms of quantities, reconciling needs and determining funding sources, determining the choice of procurement methods and seeking approval from relevant authorities. The GEC plays much emphasis on planning its procurement and the head of entity based on the decision of the tender committee approve the budget for all procurement activities. Selective tendering is used procure sensitive election materials.

2. Sourcing

This phase entails inviting bids from potential suppliers, evaluating responses and selecting qualified suppliers. To ensure transparency and fairness, all procurement opportunities are advertised in all national newspapers with extensive coverage to catch the attention of all interested suppliers and contractors willing to participate in the tendering process. The evaluation tender committee is typically made up of five of the following Directors of Departments – Director of Finance, Human Resources, Elections, Public Affairs, Training, Research and Monitoring including the Director of Information Technology

3. Contracting

This usually entails notification of awards and preparation of contract agreements. The head of the Procurement Unit is responsible for the preparation of the notification of award and signing of the contract award is done by the Head of the Entity. It also requires obtaining performance security from credible banks as part of the conditions of the contract on the part of suppliers.

4. Contract management

Here, the contract is managed by the Head of the procurement unit and assisted by the deputy. Effective contract management entails resolution of contractual disputes, claims for non-performance, prompt payments to suppliers including release of performance securities and retentions.

5. Receipts and inspection

In this phase, all items supplied by suppliers are received and inspected at the GEC's Headquarters. The stores department is responsible for all receipts of all items and the procurement unit provides documentary support functions.

6. Contract Closure

This brings to an end the procurement process for that item(s) in question. Contract closure involves going through all administrative procedures aimed at ensuring that all contractual obligations are fulfilled and there are no pending issues.

2.5 Key Principles of Public Procurement

Public procurement has principles that must be followed in order to realize its full potential and benefits (Raymond, 2008). There are several principles depending on which author one refers to. For instance, Raymond (2008) mentions value for money, being ethical, encouraging competition, being transparent and accountability as being the principles of public procurement. According to Thai (2001), the procurement function should be carried

out in absolute transparency and integrity through the avoidance of all forms of malpractices; informed decision-making which requires public sector entities to make their decisions based on precise information and further ensure that all legal requirements are met. The World Bank (2003) has also insisted that firms must always take into consideration the issue of transparency in order to engender sincerity and clarity with respect to procurement practices and its implementation.

Caldwell et al (2009) concluded that there are three essential standards of procurement. The main and first principle is that of transparency which provides that all stages in the procurement procedure are fair and precisely recorded. The second principle is that of accountability this is because sponsors and financiers demand that items are purchased based on meeting laid down procedures and standards. The last principle is that of efficiency and cost effectiveness and this principle essentially means satisfying the “6R” of ensuring that items procured are of the right quality, right source, right price, right quantity, right place and right time.

According to Bauld and McGuinness (2006), the basic principles of effective procurement typically include it being accountable (putting in place structures that ensures that procurement functions are carried out cost effectively); having a clear understanding of being accountable to public entities; supply competitiveness (the need for supplies to be organized on competitive basis as much as possible) and consistency (which stresses on fairness, transparency, equity and devoid of discrimination of all forms and shapes).

2.6 Innovative Goods, Services and Works

Numerous authors have defined innovations differently and these differences in definitions come about based on the background, industry and perspectives. However, irrespective of the definition used, one thing is still clear – there is always the focus on knowledge which is used in changing products, services, procedures and processes into new ones (Rogers, 199). Rogers (2003) for instance defined innovation as an idea, practice, or project that is perceived as new by an individual or other unit of adoption.

Innovation has also been described as something that is new or improvement done by a firm to develop appreciably added value either directly for the firm or indirectly for its customers (Carnegie and Butlin, 2003). Additionally, Stahle et al. (2004) concisely defined innovation as an improvement which a firm can use as an advantage to compete in the market. Stahle et al. (2004) are of the view that innovation can be old and that it is its application that can be new.

This study however adopted Roger's (2003) definition of innovation because the author introduced two important variables or concepts and these are "new" and "adoption" which suggest that an innovative idea, product or service could have long existed but once users and firms perceive it as a novelty, then it should be deemed an innovation to them.

2.6.1 Types of Innovation

According to Rogers (2003) and Lin and Chen (2007), innovations can be of different forms and that they can be categorized as technological and organizational innovations, product and process innovations and radical and incremental innovations.

Radical or breakthrough innovation

According to Lin and Chen (2007), radical innovation arises when a company pioneers or launches and develops a completely new form of processes, practices, procedures, or when there is a completely new and extensive change that leads to new patterns or trends and which departs totally from prior processes. The advantages of using radical innovation is that it can change the fortune of a firm from a market follower to a market leader overnight and that it can also put the firm into the limelight and even win the battle for hearts and minds of target customers (Rogers, 1995, 2003). The demerit however is that it involves big investments and when it does not catch on with customers, can collapse a firm (Leifer et al. 2001). However, the weakness of radical innovation is that because of the huge capital expense involved in developing those innovative products and services, the desired and expected benefits may not be realized and can even impact on the performance of firms negatively (Leifer et al. 2001).

Incremental or Improved Innovation

In this category of innovation, the focus is on enhancing upon the performance or efficiencies of existing procedures, processes and practices and that firms are more interested introducing or adding the innovation in a more gradual process. This means the change is not too abrupt and therefore not disruptive. The merit of incremental innovation is that it allows firms to adopt to a given innovation in a more gradual manner and therefore forestalling throwing budgets and plans out of gear (Terziovski, 2000).

Technological Innovation

Technological innovations encompass product, service and process innovations (Rogers, 2003). For instance a product innovation involves improving the features, characteristics, performance and functions of a given product with the sole purpose of improving the bottom-line and customer acceptance (Terziovski, 2000). On the other hand, service innovation arises when there is the delivery of new and improved services which are different from products (Rogers, 2003). Process innovation includes launching changes into the operational procedures of companies with the aim of increasing efficiency and value for money (Lin and Chen, 2003).

2.6.2 The Aims and Objectives of Technological Innovations

Technological innovations are highly crucial to the success of most firms – whether they into manufacturing, services, for profit or non-governmental (Shah and Clarke, 2009). This is because technological innovations facilitate the ability and capacity of firms to reduce cost, increase efficiency, reduce redundancy, cuts waste, shorten operational processes and also modernizes a firm's operations (Lee 2001). According to authors such as Rogers (2003), Lee (2001), Shah and Clarke (2009) and Lin and Chen (2003), technological innovations are highly indispensable especially in today's highly competitive and customer demanding business environment. Technological innovations therefore enables firms to achieve more with the same level of inputs than before.

2.7 Critical Success Factors (CSFs) of Public Procurement

CSFs are essentially those few factors or aspects or areas in which organizations must focus on and in which results if found to be satisfactory will lead to successful operations and performance (Rockart, 1979). Simply, CSFs are seen as those crucial but few areas that must function effectively in order to ensure the success of firms.

Gaining support from highest political echelons

Getting the political support from highest politicians is highly critical for the success of public procurement since politicians do have strong influence and decides who gets what , when and how.

1. Maximum publicity

Publicizing the essence of the procurement function and how it ensures value for money and ensuring transparency and competition is another CSF since taxpayers will want to know how their taxes are spent.

2. Cooperation

There is the need to establish a strong partnership between public sector entities (procurer) and the private sector (suppliers) so that the needs and challenges of each party are well understood and appreciated.

3. Good procurement training

Raising the skills and competences of public procurers is very crucial to public procurement success. Again, the private sector needs to also familiarize themselves with public procurement laws

4. Sound procurement laws

There is the need to have procurement laws that are in sync with current trends and that again, there is the need to have stringent penal systems in place so that those who infringe procurement laws are severely sanctioned (also serving as deterrent to others)

5. Creating a central public procurement board

There is the need to have a centralized public procurement authority which oversees all procurements.

Again, Jibrin et al. (2014) identified 14 CSFs for public procurement. These 14 CSFs are as follows:

1. Media Publicity

According to Zubcic and Sims (2011), focusing on the media and ensures transparency and accountability since all what transpires during the procurement process is available to the public for scrutiny and inspection and all wrongdoings can be exposed. As further pointed out by Hui et al.(2011) through media publications, aspects of public procurement such as tenders are advertised publicly and this forestalls and curbs corruption, participation and competition.

2. Enforcement

According to Zubcic and Sims (2011), enforcement is seen as any step or action taken by the regulators to ensure observance and compliance and those that fall foul of the law penalized or sanctioned. Enforcement is highly critical since it ensures that public procurers

operate within the confines of the law and the sanctions can also serve as deterrent to potential wrongdoers (Nwabuzor, 2005).

3. Records management

Keeping records is highly beneficial in the public procurement process and as Jibrin et al. (2014) pointed out, an accurate record keeping culture reduces the potential for unacceptable manipulation which can result in delays, corruption and inaccuracies. Again, Gelderman et al. (2006) opined that poor records management weakens the public procurement process and it also does not allow procurers to learn from their mistakes since experiences, issues and challenges encountered are not documented.

4. Organizational culture

Organizational culture plays a central role in determining how successful or otherwise public procurement will be (Lisa, 2010). This is because an organizational culture that fosters conformity to laid down rules and procedures and one that pays attention to detail promotes better procurement.

5. Political interference

There is a strong link between public procurement and politics and this stems from the fact that ministers who are political appointees can influence the process and decide who gets what, when and how (Bolton, 2006). As pointed out by Pillary (2004), senior public officials sometimes use public office for their selfish interest and this tends to weaken the procurement process since only those who have links with politicians can get contracts. Hui et al. (2011) have even pointed out that where procurers are prepared to follow the

rules, threats of being dismissed, transferred or demoted intimidates public procurers into obeying illicit ministerial directives.

6. Professionalism

Being professional and ethical in their behaviours is one CSF that public procurers must exhibit at all times during the procurement process (Raymond, 2008). As pointed out by Hui et al. (2011), in addition to the educational and professional qualifications of procurers, a professional approach towards the procurement function is highly critical since not being educated or professional may lead to challenges in the procurement process such as breaches of the code, corruption, lawsuits, delays etc. this means that public procurers must be well-trained on all aspect of the procurement process (Raymond, 2008).

7. Organizational incentives

According to Gelderman et al. (2006), an effective organizational incentive such as adequate compensation of public procurers goes a long way in determining the success of the procurement process. Again, procurers perform better when they know that they have the support of top management and that they will be rewarded rather than penalized when they follow laid down rules and not illegal instructions which thwarts the procurement process ((Ntayi et al. 2010).

8. Perceived rule legitimacy, moral obligation and social influence

According to Sutinen and Kuperan (1999), readiness and enthusiasm with which procurers adhere to laws and regulations because of moral obligations and social influence is dependent on the perceived legitimacy of the authorities responsible for the implementation

of the procurement rules. According to Lazarides (2011), complying willingly and voluntarily is the result of personal or corporate ethics, motivation schemes and in most instances, the outcome of corporate interest alignment with the legal provisions behaviour.

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9. Purchasers' familiarity with the rules

Purchasers' familiarity with laid down rules and regulations determines their compliance levels. According to Gelderman et al. (2006), public procurers will observe the rules when they perceive them to be clear and that the lack of clarity is believed to increase the possibilities for deliberate non-compliance. This therefore underscores the need to train and educate public procurers so that they become well conversant with the law.

10. Top management support

According to Hui et al. (2011), top management's support and efficiency is one of the most critical means of preventing corruption, promote transparency, accountability, facilitate oversight and provide a strong basis for making the procurement process more credible. As pointed out by Krawiec (2003), a public sector entity with a true commitment to legal compliance is illustrated by top management's dedication to ethical corporate behaviour.

11. Corruption

Corruption is the misuse of entrusted power for private gain (Transparency International, 2006). Corrupt practices of procurers need to be checked or else, there will be no value for money, can threaten legitimacy of procurement laws. That is why there is the need to set

clear and unambiguous rules and regulations supported by significant and effective penalties, applied by public administrations and courts.

12. Corporate governance

Having in place good corporate governance mechanisms is critical to the success of public procurement (Collier, 2002). As pointed out by Collier (2002), corporate compliance compares to corporate governance and refers to the contrivances by which organizations are directed and controlled and by which those who direct and control organizations are monitored and supervised and made accountable for their actions.

13. Service delivery

Since public entities operate within a framework of public accountability and cost effectiveness, considerable emphasis is placed on the fair treatment of suppliers, compliance, competitive tendering and procedures for ensuring propriety and regularity, impeding the development of collaborative procurement arrangements (Raymond, 2008). This unfortunately disrupts service delivery since collaborative purchasing is crucial for service delivery (Raymond, 2008). According to Trepte (2005), stringent regulations impede the efficiency of the procurement and ultimately, service delivery.

14. Information technology

Information technology plays a key role in improving upon the procurement function especially in the public sector which can be highly bureaucratic and redundancy (Jibrin et al. 2014). Information technology when employed effectively can provide efficiency in the

procurement process; give smoother and faster process flow, better distribution of information, decentralization of tasks and decisions, increased transparency and better control (Jibrin et al. 2014).

2.8 Obstacles to Public Procurement

Public procurement efforts can be challenging in terms of long bureaucracy, delays etc (Thai, 2001 and Hunja (2003). According to Thai (2001), each nation has its own economic, social, cultural and political environment and these factors tend to provide different challenges to public procurers. According to Thai (2001), Hunja (2003) and Edler and Georghiou (2007), the following are the main obstacles of public procurement:

The big size of public procurement

The huge amounts of monies spent on government projects such as road construction, building airports etc makes public procurement challenging since there is the need to obtain value for money, meet the needs of all stakeholders, be transparent, curb corruption and be professional all at once (Hunja, 2003). This therefore underscores the need for procurers to be well educated, trained and highly professional in the execution of their procurement responsibilities.

Selfish motive and political unwillingness to do the right thing

According to Thai (2001), Hunja (2003) and Edler and Georghiou (2007), some elements in the public procurement channel can have ulterior motives, vested and selfish interest and these may thwarts the overall realization of the procurement function if effective measures are not established. As pointed out by Hunja (2003), people can take advantage of a

procurement system that has loose or ambiguous rules and which lacks strict enforcement. According to Thai (2001), vested and selfish interest can be manifested in various ways including using local cartels that may have an interest in maintaining a legal framework that prevents competition from foreign suppliers. Other groups with a selfish interest in maintaining the status quo is usually the individuals and or entities managing the reform process.

Lack of technical knowledge and capacity

According to Thai (2001), most procurement practitioners especially in developing countries often lack adequate technical procurement skills and also lack the wider policy and other issues necessary to plan, manage and implement wide-ranging efforts. Additionally, Edler and Georghiou (2007) have concluded that some procuring organizations do not have adequate knowledge and expertise in undertaking better procurement of innovative and technologically oriented goods and this inevitably results in a low-risk approach or continual engagement with current suppliers.

Complexity of substantive issues involved

According to Van Weele (2000), procurement processes are typically encapsulated in series of bureaucracies and often demand that all key members put their signatures under the intended order and therefore further prolonging the process. As concluded by Hunja (2003), the extensive authorization procedures make procurement a tedious, laborious and slow process and it therefore explains why most public procurement entities especially in developing countries are more procedure rather than result oriented.

2.9 The Procurement Process for GEC's Biometric Voters' Register

The Electoral Commission of Ghana (GEC), as part of preparations towards the 2012 General Elections replaced the Voters Roll established in 2004 using biometric technology. The purpose for the new roll was to address the concerns of double registration and impersonation which affected the accuracy of previous registers. Using the provisions under the two- stage tendering process as per section 36(a) of the Procurement Act the Commission launched an Expression of Interest (EOI) in February, 2011 to invite vendors to submit proposals for pre-qualification. 48 vendors' submitted proposals and 3 were short listed for the second stage of the procurement process. The second stage involved developing a solution mostly extracted from the EOI that ensured that the technology and equipment procured were suited to Ghana's climatic conditions and met international requirements for biometric voter registration systems with respect to sustainability and standardization and inviting the short listed vendors for a restricted tender.

The solution consisted of the following components:

- A. Registration kits (including hardware components) and voter registration software (including licenses and SDKs). Kit components include:
 - i. An embedded computer
 - ii. A webcam and a light source
 - iii. A fingerprint scanner
 - iv. A colour printer with consumables

v. All necessary connexions, plugs and cables vi. The technical and operational manuals of all equipment and the accompanying guidelines vii. Voter Registration Software.

B. The corresponding autonomy set for each kit

i. A cooling device for the computer (desktop or laptop) ii. Spare Li-Ion batteries for the embedded computer and the inkjet printer iii. External chargers for the spare Li-Ion batteries, chargers that should be compatible with the computer battery and the inkjet printer battery iv. A power regulator unit

C. Generators to power the registration kits and/or recharge the Li-Ion battery of the autonomy set.

D. Maintenance kits for digital registration kits.

E. An AFIS infrastructure that includes:

i. AFIS Servers capable of handling the search of duplicates in a database of 20 million applicants ii. Minimized False Acceptance Rate (FAR) and False Rejection Rate (FRR) iii. Maximized PR and True Acceptance Rate (TAR) (with TAR at 99.98%) F. A voter database infrastructure that includes:

i. Database servers for storing at least 20 million voters ii. High speed printers to produce the voters lists and the electoral documents iii. Software for managing the voters database G. Training to be provided in Accra for:

i. 20 Key Trainers (operation of the kits), ii. 40 to 50 technicians (for the hardware and the repairs to be done), iii. 3 to 5 software engineers (for the voter

registration software and the AFIS system, its development environment, and its source codes),

iv. 5 Data centre personnel,

v. 3 AFIS personnel, vi. 15 Adjudication workstation operators, vii. The supervision of the trainers and the formation of the digital registration kit data entry operators.

H. A one year warranty for the equipment.

I. Technical assistance (for 10 months) through a local technical centre in Accra.

The procurement process combined aspects related to goods, services and works under the Act. It went through the following stages:

- Sourcing
 - Expression of interest
 - Short listing of vendors
- Restricted tender
- Technical evaluations which included vendor demonstrations and visits to the manufacturing and software production sites (if deemed necessary)
- Financial evaluation
- Contract awarding
- Contract management.

Table 2.9 below shows the main activities and milestones related to the procurement:

Dates	Milestones
07/02/2011	Expression of interest (EOI)
29/03/2011	Pre-qualification

16/05/2011-20/05/2011	Definition of Solution (Specification)
12/05/2011-23/05/2011	Preparation of tender documents
24/05/2011	Invitation to tender
24/05/2011-24/06/2011	Solicitation period
09/06/2011	Pre-bidding conference
14/06/2011	Cut-off date for clarifications
24/06/2011	Deadline for submissions
24/06/2011	Opening of tenders
25/06/2011-30/06/2011	Technical evaluation
01/07/2011	Invitation to Demonstration
08/07/2011	Arrival of digital registration kit samples
11/07/2011-14/07/2011	Demonstration
15/07/2011-21/07/2011	Visit to manufacturing and software development facilities
22/07/2011-29/07/2011	Financial evaluation
29/07/2011	Contract awarded

The technical evaluation methodology was two-fold. First, the tender documents were analyzed to see if they met all the technical requirements. Then, the compliant solutions were tested in a laboratory and in the field. The tender document contained a Technical Specifications section which listed 230 requirements to be met by all solutions (202 technical requirements, 8 additional ones and 20 project schedule ones). Vendors stated whether they met the requirements or not. If they didn't (or if an evaluator concluded so),

it constituted a deviation. The evaluator then determined the degree of gravity of the deviation. A major deviation meant the solution could not perform according to the operational concept underlying the biometric voter registration. A minor deviation meant a negligible impact on the project costs.

Compliance meant a complete, consistent, sound and valid description of vendor's solution. Assumptions, calculations, tests and the data used to claim performance were required. A lack of documentary evidence led to a de facto non-compliance. All Documentary evidence was expected in the tender. Evaluators not convinced by the provided evidence, sought clarification from the vendors through a formal process managed by the GEC Procurement Office

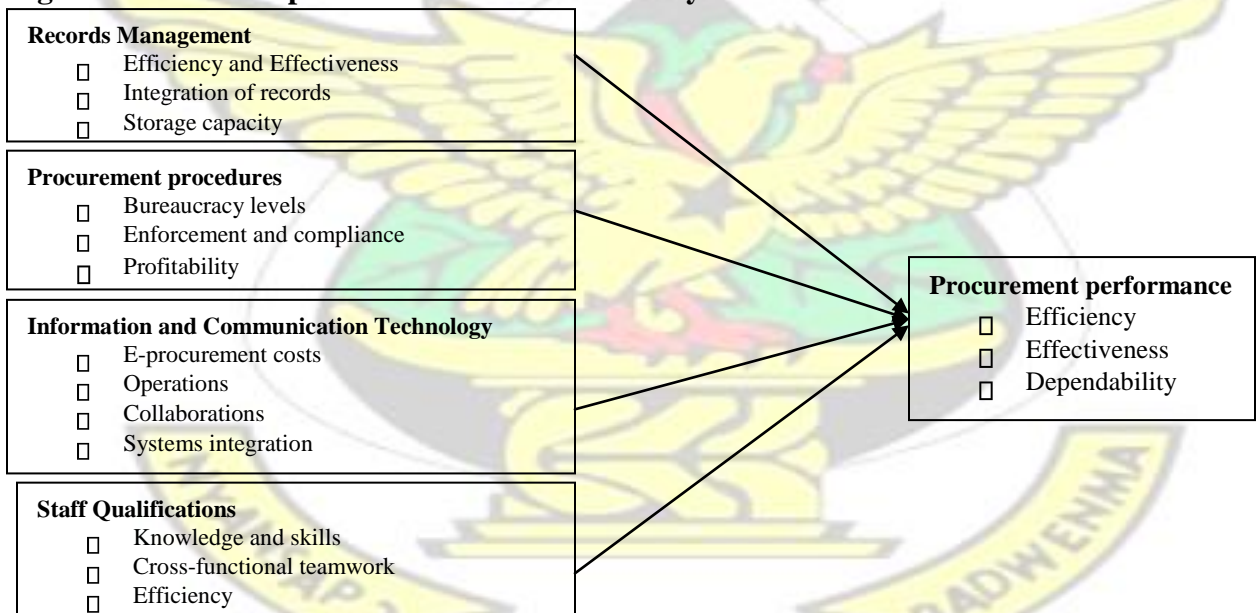
The documentary analysis was followed by the vendor demonstrations. The aim of the tests was to prove the conformance of solutions to a set of technical requirements. Solutions were not compared to each other. Instead, they were tested against the documentary evidence provided by tenderers. After the demonstrations, the evaluation panel visited manufacturing and software development facilities of vendors to confirm if tenderers could deliver goods on time. Finally, the compliant tenders (who also meet the delivery requirements) were ranked based on their solutions costs. GEC selected the lowest cost solution for the registration exercise.

2.10 Conceptual framework of the study

Improving the procurement function is needed if public institutions are to achieve stated objectives. According to Chimwani et al. (2014), there is the need for functional

relationships, better records management, suitable processes, focusing on training and developing [procurers, using suitable technology and motivating procurers to deliver their best. This study adopted Chimwani et al. (2014) framework to operationalize the study's objective. As shown in Figure 2.2 below, the independent variables are: records management systems, procurement procedures, and information communications technology and staff qualifications. According to Chimwani et al. (2014), a dependent variable is what is measured in the experiment and what is affected during the experiment and that the dependent variable responds to the independent variable. As illustrated in Figure 2.2, the four variables when effectively implemented would lead to better procurement performance in the public sector.

Figure 2.2 Conceptual Framework of the Study



Source Chimwani et al. (2014)

2.11 Summary of Literature Review

In summary, the literature of the study looks at the concepts and essence of public procurement. The reporting structures in an organization, regulating agencies, sources of

funding and operating motives were identified as the differences between public and private sector Procurement.

The procurement process describes in details in the literature and the Emmert and Crocket, 2008 model was cited as an example of a typical procurement process.

Finally, the literature review discuss the procurement process at the GEC and how it was used to purchased Biometric systems for the 2012 general elections. A discussion on the critical success factors necessary for Public procurement was also reviewed in this section.

A clear and definitive approach require for the purchase of innovative goods, services and works was the main gap identified in the literature



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The focus of this chapter is on the research design to be used in this study. Specifically, the chapter describes the sample of the study by reflecting on the biographical data of the respondents, the measuring instrument used and issues pertaining to its validity and reliability, the procedure followed to gather the data, and the statistical techniques to use to analyze the data.

3.1 The Research Design

According to Collis and Hussey (2003), a research design is a plan for selecting sources and type of information used to answer the research questions. The research design is used to specify the relationship existing among the variables of the research. It additionally frameworks every single step, from the formulation of the hypothesis to the final analysis of the collected data. It can be said to be the design plan of the study in that it among other things focuses on the means of collecting data, the sampling type used, and also the resource limitations confronting the researcher. This research examines the factors that impeding the procurement of innovative goods, services and works at the Electoral Commission of Ghana. For the purpose of this study, the researcher adopted the case study approach which means comprehensive examination of a current occurrence within its real-life context (Yin, 2003). Thus, the researcher needed to contact the key personnel and staff of the institution in order to effectively garner precise information on the subject matter of the study. It is the researcher's view that to effectively operationalize this objective; the best method to use was the case study approach since it enabled the researcher to obtain detailed information on the subject matter required for drawing a valid conclusion.

3.2 Population of the Study

Collis and Hussey (2003) define the population of a study as the total collection of elements about which some inferences are made. Therefore a population is the aggregation of all cases that conform to some designated set of specification. The population of this study comprised the entire management and staff of the EC. However, the target population was

the twenty seven key and relevant personnel of EC involve in the procurement of the biometric systems.

3.3 Sampling Design/Strategy and sampling Size

A sample is a fraction of the population that answers the research question (Neuman, 2007).

The purpose for undertaking studies is to enable the researcher generalize from the sample to the population that the hypothesis regarding attitudes, behaviour among others can be made (Yin, 2003). Thus how respondents are selected for a particular study is of utmost importance for the success of a study. In terms of the non-probability sampling, the researcher adopted the purposive sampling type. Here, the researcher selected the respondents specifically based on the fact that they have the background and relevant pieces of information that matters to the study. Firstly, stratified random sampling was adopted to group the commission into strata (departments). Secondly, simple random sampling was used to select respondents from every department to make up the sample size. The reasons for the use of these two approaches (stratified random sampling and simple random sampling) were to ensure that every department in the organization was fairly represented and every element (employee) had equal chance of being chosen to be in the sample.

Table 3.3 Departments of the Respondents

Departments	Number
Supplies department	5
Tender Committee	5
EC's procurement consultants	2

Logistics	5
ICT	5
Employees from other departments	5
Total	27

3.3.1 Sample Size

The sample size of this study was decided based on the limited resources and time available to the researcher. Consequently, 27 employees of the organization were contacted for the study.

3.4 Data Collection

Secondary and primary data were utilized for analysis in this chapter.

3.4.1 Primary Data

Primary data was secured from a questionnaire given to some members of management and staff of the commission. Respondents were required to answer questionnaire themselves.

3.4.2 Secondary Data

The secondary data for the study was mined from selected pamphlets, books, journals and the internet on the project topic. This was done based on Neuman's (2007) observations that documents provide great insights into meanings that support social actions

3.4.3 Research Instrument

This research instrument was based on the literature review discussed earlier. The likert scale was used to measure the attitude of respondents towards an attribute. The likert scale reduces uncertainty, confusion and misunderstanding. The advantage here is that it helps to reduce non response by eliminating respondent fatigue (high response rate is very critical for every research because it makes it more credible. The relevance of the likert scale lies in the undisputable ordinality of response ratings such as “strongly agree: strongly disagree”, “agree” and “disagree”.

3.4.4 Administration of the Research Instrument

To ensure data collected was useful for the study; especially with regard to error free responses, the researcher personally administered the questionnaires. Permission was sought from the management before administering the questionnaire. Due to the very busy schedule of most of the respondents, the researcher gave them a week to complete the questionnaires.

3.5 Data Processing and Analysis

The aim of examining the information from the research questions was to précis the data collected so that it answered the research questions as well as meeting the objectives of the study. The data collected was then analyzed in both descriptive and quantitative forms using frequency tables, RII, and percentages. The SPSS (Statistical Package for Social Science) and Microsoft Excel were used.

3.6 Calculating the Relative Importance of Factors

The relative importance index (RII) was employed in this study in order to attain the objectives. The five-point scale ranged from 1 (not important) to 5 (extremely important) was used and then changed to relative importance indices (RII) for each factor as shown below:

$$RII = \sum W \div (A * N)$$

And where W represents the weighting assigned to each factor by the respondents (ranging from 1 to 5); A represents the highest weight (which is 5 in this instance) and N is the total number of respondents (27). The RII value had a range from 0 to 1 (0 not inclusive), the higher the value of RII, the more important was the cause or effect.

3.7 Summary of Research Methodology

The chapter three discusses the plan used in selecting respondent in order to obtain empirical data useful to the hypothesis formulated.

In using the EC as a case study the strategy of reaching the target population was easily achieved. Primary data was obtained through the administration of a self-administered questionnaire to all the 27 Respondents. The likert scale was applied in the research instrument to reduce uncertainty, confusion and misunderstanding in the minds of the respondents. The relative importance index was used to obtain the objective of the study.

CHAPTER FOUR

PRESENTATION OF RESULT AND DISCUSSION

4.0 Introduction

This chapter presents and discusses the result of the study in an attempt to address the specific objectives of the study. The major areas the chapter discusses, include respondent's characteristics, the key objectives of introducing the biometric voters' register, the CSFs of public procurement, the challenges encountered during the procurement of the BVR by the EC and the effective ways of procuring innovative goods, services and works under the public procurement ACT, 2003 (ACT 663).

4.1 Background Information of Respondents

The socio demographic characteristics of the respondents of the surveyed are examined in this section of the study. The major or main socio demographic information of the respondents discussed included their academic and professional qualifications, their departments and the number of years they have worked with the EC.

Table 4.1: Socio demographic information of respondents

Socio demographics	Frequency	Percent
Academic & Professional qualifications		
BSc	24	88.9
MSc/MBA	2	7.4
Unspecified qualification	1	3.7

Total	27	
Department/committees of the respondents		
Tender committees	7	25.9
Supplies department	4	14.8
Procurement consulting	3	11.1
Logistics	3	11.1
ICT	3	11.1
Others	7	25.9
Total	27	
Number of years worked with EC		
5-10 years	4	14.8
11-15 years	4	14.8
16 years +	19	70.4
Total	27	

Source: Field Survey, 2015

As can be seen in Table 4.1, twenty four respondents (88.9%) were BSc/HND holders, two (7.4%) were M.Sc./MBA or higher degree holder and the remaining one respondent (3.7%) was holding an unspecified professional qualification. This finding implies that most of the respondents are well educated and therefore in a position to participate in the study and provide valid answers to questions posed. It was also found as shown in Table 4.1 that seven respondents (25.9%) each were from the tender committees and other unspecified departments respectively. Four respondents (14.8%) each were from supplies department and three respondents (11.1%) each were from the EC's procurement consulting department, logistics and ICT departments respectively. This finding implies that the study

contacted all the key and relevant personnel directly involved with EC procurement process and therefore making the responses gathered more reliable.

It was also found as shown in Table 4.1 that nineteen respondents (70.4%) have worked with the EC 16 years or more while four respondents (14.8%) each have between 5 – 10 years and 11 – 15 years of experience working with the EC. This finding implies that the respondents have been with the EC long enough to have firm grasp of procurement processes, functions and issues confronting the organization.

4.2 The Critical Success Factors of Public Procurement

The objectives of introducing the BVR as well as the CSFs of public procurement are identified in this section.

4.2.1 The Key Objectives of Introducing the Biometric Voters' Register

The objectives of introducing the Biometric Voters' Register were found to be varied. This study found that even though there are several reasons for introducing the BVR, the five most important objectives as depicted in Table 4.2 are (1) to ensure that all essential data of voters was captured in the biometric voters' register (RII=1.0); (1) to eliminate double registration and impersonation which affect the accuracy of the register (RII=1.0); (2) to make election results more credible and acceptable to all stakeholders (RII=0.970); (3) to cut future operational costs and enhance efficiency of Ghana's electoral process (RII=0.852); (4) to facilitate fair and transparent elections (RII=0.837) and (5) to ensure that a new voter registration exercise was conducted and a new voters' list compiled (RII=0.430).

These findings imply that the three most important objectives of introducing the BVR are to ensure that all essential data of voters was captured in the biometric voters' register; to eliminate double registration and impersonation which affect the accuracy of the register and to make election results more credible and acceptable to all stakeholders. These findings also imply that the BVR was seen as a panacea to the periodic and consistent complaints made by political parties that the voters' register is over bloated due to multiple registrations. These findings are very significant considering that Ghana is generally seen as an oasis in a rather turbulent region of the world and this apparent peace has existed because of the acceptance of democratic system of governance by the people.

To therefore perpetuate this peace, a credible voters' register is seen a first step of ensuring free and fair elections (EC-UNDP (2010)).

These findings further underscores the important function that public procurement can play in deepening the democratic dispensation of the country. As pointed out by authors such as McCue and Pitzer (2000) and Uyarra and Flanagan (2010), the public procurement function not only cuts cost and ensure efficiency, but that it also ensure that all stakeholders along the supply chain are satisfied. This finding therefore imply that the procurement function should be regarded by all stakeholders of the Ghanaian electoral system as being pivotal in ensuring consistent free and fair elections.

Table 4.2 The Key Objectives of Introducing the Biometric Voters' Register

Factors	No. of Respondents					Total	RII	Rank
	5	4	3	2	1			

To ensure that all essential data of voters was captured in the biometric voters' register	27	0	0	0	0	27	1.00	1
To eliminate double registration and impersonation which affect the accuracy of the register	27	0	0	0	0	27	1.00	1
To ensure that a new voter registration exercise was conducted and a new voters' list compiled	25	2	0	0	0	27	0.430	5
To make election results more credible and acceptable to all stakeholders	24	2	1	0	0	27	0.970	2
To cut future operational costs and enhance efficiency of Ghana's electoral process	15	8	2	1	1	27	0.852	3
To facilitate fair and transparent elections	16	6	2	2	1	27	0.837	4

Source: Field Survey, 2015

4.2.2 The Critical Success Factors of Public Procurement

This section analyzed the critical success factors of public procurement. This study identified certain CSFs deemed to be indispensable of public procurement is to be a success. As illustrated in Table 4.3, the five most important critical success factors of public procurement can be seen in the following order: (1) enhancing operation (RII=0.985); (2) having adequately educated employees in procurement matters, regulations and procedures (RII= 0.978); (3) having strong law enforcement mechanisms (RII= 0.970); (4) high

professional conduct from procurement officers (RII= 0.963) and (5) having efficient and effective records keeping (the data and reports showing compliance to regulatory needs must be robust and come from a reliable source) (RII= 0.941).

Enhancing operation (RII=0.985)

This finding implies that the number CSF of public procurement at the EC is the ability of the function to enhance and facilitate the commission's work of organizing elections in the country. The EC as per Article 43 of the Ghanaian constitution is the body solely charged with the mandate of organizing, managing and supervision of elections in Ghana. Considering that elections in the country are always fiercely contested, there is the need for the EC to have an effective procurement system which ensures that come the D-day, vital equipment and general election accoutrements are available. This means that the procurement function is a critical component of the EC's operations and this further implies that it is indispensable in terms of the conduction of free and fair elections in the country. The fact that enhancing the operations of the GEC is regarded as the number critical success factor speaks volumes and underscores the need for the procurement function to be supported with all resources and attention if the commission is to effectively carry out its responsibility. This finding in fact confirms what authors such as Thai (2001) and Roodhooft and Abbeelee (2006) reported to the effect that the public procurement function is central to the realization and operationalization of corporate objectives.

Having adequately educated employees in procurement matters, regulations and procedures (RII= 0.978)

This study found as illustrated in Table 4.3 that the second most important public procurement CSF is the need to have employees who have the skills, knowledge and experience in dealing with the dictates of the public procurement law, regulations and procedures. This finding is very evident of the fact that the EC's strategic position of organizing and managing elections in the country necessitates that its employees are well conversant with the public procurement law and that they strictly follow to the letter what the law says in order to avoid falling foul of the law and more importantly, incurring the wrath of stakeholders in the country's electoral system. This finding corroborates with what authors such as Walker (2003), Raymond (2008), Hui et al. (2011) and Rossi (2011) found to the effect that having skillful, knowledgeable, professional and experienced employees in highly critical in achieving procurement success in the public sector.

According to Walker (2003) and Raymond (2008) for instance, the usually murky, bureaucratic and frustrating public procurement process requires that organizations employ staff with the requisite knowledge and experience in meeting all requirements while still hastening the procurement process in order to achieve deadlines. This finding is rather very crucial for an organization such as the EC which must without fail organize elections at certain periods. This means that the organization has to put its acts together all the time to ensure that its mandates are well operationalized and this therefore calls for staff with the required professional background and the skill needed to go through the procurement

process without infringing the law and more importantly, without incurring the wrath of stakeholders such as political parties.

Having strong law enforcement mechanisms (RII= 0.970)

As can again be seen in Table 4.3, the ability to enforce procurement laws and appropriately penalize those that infringe the procurement law is seen as very important in the public procurement process. As pointed out by authors such as Zubcic and Sims (2011) and Nwabuzor (2005), typical public sector procurement processes are laden with fraudulent and corrupt practices which tend to defeat the very purpose of setting up the public procurement process. This therefore implies that there should be strict monitoring of procurers behaviours and those that infringe the rules must be severely punished to serve as deterrent to others. This finding implies that strict enforcement of the law is very crucial to public procurement success.

High professional conduct from procurement officers (RII= 0.963)

This finding is similar to the second most important ranked CSF and further underscores the need for procurers to behave professionally at all times during the procurement process to ensure the success of the process (Table 4.3).

Having efficient and effective records keeping (RII= 0.941)

Having an effective records keeping system is highly critical to public procurement process since it documents all procurement processes, issues and challenges encountered, lessons learnt and ways of overcoming future procurement bottlenecks (Kemoni and Ngulube, 2008). This finding therefore resonates with what Gelderman et al. (2006) and Jibrin et al.

(2014) found to the effect that effective record keeping reduces corruption, non-compliance, leaves an audit trail and also identifies those responsible during procurement failures and lapses.

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Table 4.3 The Critical Success Factors of Public Procurement

Factors	No. of Respondents						Total	RII	Rank
	5	4	3	2	1				
EFFECTIVE RECORD KEEPING									
Having efficient and effective records keeping (the data and reports showing compliance to regulatory needs must be robust and come from a reliable source)	20	6	1	0	0	27	0.941	5	
Integration of records which can serve a guide for future procurement	18	7	2	0	0	27	0.889	9	
Having enough storage capacity	17	4	5	1	0	27	0.867	10	
EFFECTIVE PROCUREMENT PROCEDURES									
The presence of enforcement actions and increased penalties for those who flout procurement procedures	1	2	3	10	11	27	0.348	12	
Having strong law enforcement mechanisms	23	4	0	0	0	27	0.970	3	
Curbing political inferences	9	9	6	4	0	27	0.793	11	

INFORMATION AND COMMUNICATION TECHNOLOGY								
Using e-procurement tools which cuts down costs	19	5	3	0	0	27	0.919	7
Enhancing operation	25	2	0	0	0	27	0.985	1
Collaborations leading to smoother and faster process flow of the procurement process	13	10	4	0	0	27	0.867	10
Systems integration for efficient distribution of information among stakeholders	15	10	2	0	0	27	0.896	8
STAFF QUALIFICATIONS								
Having adequately educated employees in procurement matters, regulations and procedures	24	3	0	0	0	27	0.978	2
High professional conduct from procurement officers	22	5	0	0	0	27	0.963	4
Staff who exhibit professionalism during procurement process	20	5	2	0	0	27	0.933	6

Source: Field data, 2015

4.3 The Challenges Encountered During the Procurement of the BVR by the GEC

Public procurement processes and procedures as pointed out by researchers such as Thai (2001) and Hunja (2003) can be frustrating, full of “red tape”, protracted and challenging. However and it must still be carried out and rules followed to the letter considering the magnitude of items procured yearly by central governments all over the world. This section of the study therefore presents the challenges EC encountered during the procurement of the BVR.

As shown in Table 4.4, the five most important challenges encountered are as presented in the following order: (1) lack of familiarity with procurement rules by procurers and other stakeholders resulting into poor compliance levels (RII=0.963); (2) ineffective engagement between procurers, suppliers and other key stakeholders (RII=0.956); (3) purchasing procedures of innovative goods, services and works are usually embedded in lots of bureaucracy and require that every superior puts his signature under the intended order (RII=0.925); (4) insufficient expertise to undertake the effective procurement of innovative products and services, which inevitably results in a low-risk approach or continual engagement with the incumbent businesses (RII=0.919) and (5) complexity of substantive issues involved in public procurement of innovative goods, services and works (RII=0.911).

The fact that the number challenge encountered during the introduction of the BVR was the lack of familiarity with procurement rules by procurers and other stakeholders resulting

into poor compliance levels underscores the significance of employing staff or engaging consultants with adequate understanding of how to deal with the public procurement of innovative or new systems. This finding is extremely worrying considering the fact that the 2012 presidential and parliamentary elections were fiercely contested due to the high stakes. One would have thought that the EC would have followed to the letter the dictates of the public procurement act to forestall bottlenecks, issues with political parties, mistrust, costly courts cases and general dissatisfaction with the way the BVR was procured and the subsequent challenges encountered during the election itself (reported cases of the BVR not picking the finger prints of voters).

This finding therefore contradicts what Mangan et al. (2008) pointed out to the effect that an effective procurement process involves identifying and getting goods and services and it includes sourcing, acquisition and it also involves all exercises from the determination of potential suppliers through to delivery from supplier to the customer or beneficiaries. As further pointed out by Lardenoije et al. (2005), it is important that the products/services to be procured are suitable and that they are obtained at the best conceivable expense to address the needs of the buyer as far as quality, amount, time, and location are concerned.

Obviously the BVR had issues and therefore clearly indicates that the EC failed to do a better job of procuring suitable BVRs taking into consideration the weather conditions of the country as well as the nature of voting, the voting population, the capacity of the BVR and the suitability of other accessories of the BVR such as batteries. This finding therefore clearly resonates what authors (e.g. Hunja, 2003;Thaia, 2001 and Edler and

Georghiou, 2007) pointed to the fact that paucity of information, inexperienced procurers, unfamiliarity with rules and procedures and general ineptitude can lead to disastrous procurement processes.

It was again found as shown in Table 4.4 that failure to collaborate effectively with various stakeholders affected the procurement process of the BVR. This finding emphasizes the need for effective collaboration among supply chain partners and it in fact echoes what Hunja (2003) concluded to the effect that poor collaboration among procurement partners usually due to vested and selfish interest is a big challenge especially within the public procurement arena.

As can again be seen in Table 4.4, the third most significant challenged encountered during the procurement of the BVR was the undue bureaucratic procedure and processes needed to be addressed. This finding clearly demonstrates and attest to the fact that the GEC had to consult and discuss the merits or otherwise of the BVR with several and different groups and associations such the Inter-party Advisory Committee (IPAC), Parliament (for approval of budget), IT consultants, donor agencies etc. This long process obviously impacted negatively of the fast procurement of the BVR and therefore leading to the failure of the GEC to identify and resolve all potential; issues before going live which in this case was the 2012 general elections. This finding therefore supports and gives credence to what Hunja (2003), Thai (2001) and Van Weele (2000) concluded to the effect that public procurement is highly bureaucratic, very sophisticated, and the rather extensive authorization procures makes it laborious, slow and frustrating.

Table 4.4 again demonstrates that the fourth most critical challenge encountered during the purchase of the BVR was the inadequate know-how to carry out the successful procurement of the BVR. This finding further supports what the first major challenge and reiterates the fact that the lack of knowledge, experience, expertise and know-how is a serious impediment of procurement of innovative products and services and that urgent steps must be taken to rectify this anomaly to ensure the procurement of suitable products, works and services in the future.



Table 4.4 The Challenges Encountered During the Procurement of the BVR by the GEC

Factors	No. of Respondents					Total	RII	Rank
	5	4	3	2	1			
Lack of familiarity with procurement rules by procurers and other stakeholders resulting into poor compliance levels	22	5	0	0	0	27	0.963	1
Complexity of substantive issues involved in public procurement of innovative goods, services and works	17	8	2	0	0	27	0.911	5
Purchasing procedures of innovative goods, services and works are usually embedded in lots of bureaucracy and require that every superior puts his signature under the intended order	19	6	2	0	0	27	0.925	3
The extensive authorization procedures make procurement of innovative products a tedious, laborious and slow process	8	18	1	0	0	27	0.852	6
Risk-averse attitude of public procurers to demand new goods or services is regarded as a key barrier to increase innovation public procurement	6	17	4	0	0	27	0.815	8
Focusing on unit price of innovative goods, services and works rather than long-term relations and impact	4	10	8	4	1	27	0.689	11
Untimely disbursement of funds available for procurement purposes	4	8	12	2	1	27	0.689	11

Ineffective engagement between procurers, suppliers and other key stakeholders	23	2	2	0	0	27	0.956	2
The lack of political will at the highest levels of Government to significantly overhaul an existing system	18	6	3	0	0	27	0.911	5
Procurement contracts during the procurement of the BVR by the EC included overly detailed specification, which can also inhibit innovation	23	3	1	0	0	27	0.963	1
Insufficient expertise to undertake the effective procurement of innovative products and services, which inevitably results in a low-risk approach or continual engagement with the incumbent businesses	20	5	1	1	0	27	0.919	4
Supervision of procurement officers in some instances by persons with less procurement knowledge and skill	14	7	3	2	1	27	0.830	7
Continuing political control of the procurement process was a major constraining factor during the procurement of the BVR by the EC	4	3	6	10	4	27	0.707	9
The lack of culture for innovation is a barrier for public procurement for innovation	4	12	6	4	1	27	0.704	10

Source: Field data, 2015

4.4 The Effective Ways of Procuring Innovative Goods, Services and Works under the Public Procurement ACT, 2003 (ACT 663)

This section presents the findings in relation to the effective ways of procuring innovative goods, services and works under the public procurement ACT, 2003 (ACT 663). This study identified several strategies that when adopted and effectively implemented, can lead to an

efficient public procurement process especially for the EC which lacks the requisite expertise and skills in the procurement of certain innovative products, goods and services such as the BVR. As illustrated in Table 4.5, the five most effective strategies identified can be seen in the following order of significance. (1) ensuring the legal ownership of the output of the system as well as the system itself (RII=0.985); (2) training and educating procurement staff on the dictates of the public procurement ACT 663 (RII=0.978); (3) ensuring there is clarity on what service(s) are to be provided by the technology and educating all stakeholders on it is (RII=0.970); (4) maintaining transparency and ensure ethical behaviour while adopting innovative goods, services and works (RII=0.941) and (5) ensuring voter confidentiality in the innovative goods, services and work (RII=0.919).

Based on the findings in respect to the strategies, it can be surmised that all is not yet lost on EC's ability and capacity to procure innovative products, goods and services within the confines of the law and still meet all stakeholders' requirements and more importantly, getting these products, works and services on time, to specification and within budget. For instance, the fact that ensuring the legal ownership of the output of the system as well as the system itself implies that the current BVR has an ownership issue since sometimes service providers (especially ICT services) tend to want to own the right to the software (Lucey, 2005). This finding points to the need to have all ownership issues sorted out before signing the final procurement contract to forestall acrimonious issues later on.

The fact that training was deemed to be the second most important solution to GEC's effective management of its procurement processes underlies the significance of skills, knowledge, experience and absolute knowledge in the nation's procurement law and by so

doing, managing the institution’s procurement efforts effectively and to the satisfaction of all stakeholders.

Another critical ensuring strategy is that there is clarity on what service(s) are to be provided by the technology and educating all stakeholders on the ICT in order to minimize and curb resistance from all stakeholders especially employees, political parties and other minor stakeholders. As pointed out by authors such as Griffiths and Light (2006), Wagner and Newell (2007) and Nasirin et al. (2005), user resistance is a major of MIS post implementation challenge that must be addressed as soon as practicable if the MIS application is to be accepted, embraced and utilized by users and all stakeholders.

Maintaining transparency and ensuring ethical behaviour while adopting innovative goods, services and works is equally deemed highly significant in making the GEC’s procurement practices more acceptable especially by political parties especially since it can have a direct effect on the outcome of elections. This finding is related to the fifth most important strategy which is ensuring voter confidentiality in the innovative goods, services and work. As pointed out by the EC –UNDP (2010), an electoral system that follows laid down procedures and rules throughout the process right from the procurement initiation stage to the final receipt of the procured item goes a long way in assuring voters of fair, transparent and ethical practices and this usually engenders voter acceptance, confidence and trust in the electoral system.

Table 4.5 The Effective Ways of Procuring Innovative Goods, Services and Works under the Public Procurement ACT, 2003 (ACT 663)

Factors	No. of Respondents						RII	Rank
	5	4	3	2	1	Total		

Taking a holistic view of the innovative goods, services and works and considering its long-term impact on EC's activities	6	16	5	0	0	27	0.807	7
Maintaining transparency and ensure ethical behaviour while adopting innovative goods, services and works	20	4	2	1	0	27	0.941	4
Considering the risks related to the procurement of innovative goods, services and works	2	22	1	1	1	27	0.770	9
Assessing the sustainability of innovative goods, services and works	8	18	1	0	0	27	0.793	8
Ensuring voter confidentiality in the innovative goods, services and work	19	7	1	0	0	27	0.919	5
Ensuring there is clarity on what service(s) are to be provided by the technology and educating all stakeholders on it is	23	4	0	0	0	27	0.970	3
Ensuring inclusiveness all stakeholder	6	19	1	1	0	27	0.822	6
Curbing undue bureaucracy	0	1	3	8	15	27	0.326	
Curbing political interferences	8	18	1	0	0	27	0.793	8
Evaluating the flexibility of the technology to adapt to new election regulations	4	20	3	0	0	27	0.807	7
Training and educating procurement staff on the dictates of the public procurement ACT 663	24	3	0	0	0	27	0.978	2
Ensuring the legal ownership of the output of the system as well as the system itself	26	1	0	0		27	0.993	1

Source: Field data, 2015

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.0 Introduction

This chapter finalizes the thesis and it comprises the conclusions and recommendations of the study.

5.1 Summary of the Study

The summary of the findings of this study were as presented below:

It was found that the main objectives of introducing the BVR was to eliminate double registration and impersonation which affect the accuracy of the register; to make election results more credible and acceptable to all stakeholders; to cut future operational costs and enhance efficiency of Ghana's electoral process; to facilitate fair and transparent elections and to ensure that a new voter registration exercise was conducted and a new voters' list compiled. In relation to the first objective of the study, it was found that the five most important critical success factors of public procurement especially at the GEC are its ability to enhance GEC's operation; having adequately educated employees in procurement matters, regulations and procedures; having strong law enforcement mechanisms; high professional conduct from procurement officers and having efficient and effective records keeping (the data and reports showing compliance to regulatory needs must be robust and come from a reliable source).

The five most important challenges encountered during the procurement of the BVR were found to be the lack of familiarity with procurement rules by procurers and other stakeholders resulting into poor compliance levels; ineffective engagement between procurers, suppliers and other key stakeholders; purchasing procedures of innovative goods, services and works are usually embedded in lots of bureaucracy and require that every superior puts his signature under the intended order; insufficient expertise to undertake the effective procurement of innovative products and services, which inevitably results in a low-risk approach or continual engagement with the incumbent businesses and

complexity of substantive issues involved in public procurement of innovative goods, services and works.

In relation to the effective ways of procuring innovative goods, services and works under the public procurement ACT, 2003 (ACT 663), it was found that ensuring the legal ownership of the output of the system as well as the system itself; training and educating procurement staff on the dictates of the public procurement ACT 663; ensuring there is clarity on what service(s) are to be provided by the technology and educating all stakeholders on it is; maintaining transparency and ensuring ethical behaviour while adopting innovative goods, services and works and ensuring voter confidentiality in the innovative goods, services and work.

5.2 Conclusion of the Study

The procurement function is highly indispensable in the realization of organizational objectives. This role is highly magnified within the public sector where it plays a critical role in the development of nations. The procurement function's role is therefore not any different in Ghana's Electoral Commission which has the sole mandate of organizing, managing and supervising elections in the country. This means that the GEC play's a central role in safe-guarding and entrenching Ghana's democracy and this therefore calls efficiency whenever the commission embarks on any procurement exercise. Considering that the electoral system is made up of several stakeholders with vested interest in the GEC's activities, it is incumbent on the commission to operate within the confines of the law while at the same time circumventing the circuitous and winding bureaucratic

processes to ensure that critical and innovative goods, services and works are procured within time, to specification, within budget and to the satisfaction of all stakeholders.

This is where having skillful, knowledgeable and experienced staff comes into play.

Based on the findings of this study therefore, it can be concluded that considering the inherently bureaucratic nature of the public procurement process, having staff with the requisite background, skills and experience is the single most important means of sailing through the confusing maze of public procurement. This means that having qualified staff would go a long way in procuring innovative products and services that meets the satisfaction of all stakeholders while still operating within the confines of the procurement law. This is especially important considering that a critical factor affecting the procurement of innovative products and services rather than off-the-shelf solutions is seen as the skills and know-how of public procurers in using procurement processes in an innovation friendly way. This means that effective and effective training and awareness raising would engender the utilization of innovative procurement.

5.3 Recommendations of the Study

Based on the findings of this study especially with respect to the challenges of procuring innovative products, works and services, the following recommendations are made.

Training of employees

This study found that procuring items within the confines of the procurement law is challenging and based on this finding, it is recommend that the GEC should invest in training its procurement officers on all aspects of the public procurement law to forestall

infringing the law which can lead to court cases, delays and general dissatisfaction with the electoral processes. In effect, the recruitment and training of competent procurers and officials is highly indispensable for an effective procurement process which in turn leads to peaceful and successful elections. Again, this suggestion underscores the need for a transparent and rigorous recruitment process devoid of partisan interest. Competence and professionalism are the watchwords.

Improving upon the communications channel among procurement teams

Due to the challenges of long winding bureaucratic tendencies of public procurement, there is the need for a concerted efforts on the part of management for project supervisors to communicate regularly and effectively to ensure that all issues are resolved to satisfaction of all stakeholders. Again, the obligation of all stakeholders to follow agreed decisions should not be compromised to ensure observance to all identified issues.

Good record keeping

It was also recommended that there should be an effective record keeping process and should be given maximum attention by top management of the GEC. This should include the digitization of all procurement records and collaborating with key stakeholders along the procurement channel. This is because documenting procurement processes will serve as a source of reference for future procurement efforts and more importantly, reveal what went wrong, how issues were resolved and by so doing, guiding effective future procurement efforts.

Streamlining the procurement function at the EC

This study found that the procurement process at the EC is long and highly bureaucratic. There is therefore the need to streamline the procurement process at the EC and off course

with the involvement of all salient stakeholders. This means that the current organizational structure in which the procurement function operates is too long and there is an urgent need to make it more flatter in order to curb the red-tape and bureaucracy. It is suggested that realignment of the EC's procurement procedures with key performance indicators such as performance contracts and service charter will improve upon service delivery at the GEC. In the same vein, realizing the paradigm shift into ICT will facilitate new areas of knowledge as well as total automation and streamlining of the procurement function is critical to the realization of the institution's objectives.

Fair Compensation and reward

The dynamic, competitive and changing climate of today's business world means that employers will do anything to keep their most valuable employees and that employee recognition and rewards programmes have been proven to be an effective tool although on its own, it is not enough. The findings of this study revealed that the EC lacks staff with the requisite expertise in the procurement function and this could probably be due to the inability of the commission to attract qualified staff due to its low remuneration and compensation package. It is therefore suggested that the GEC should adequately and fairly reward and recognize its employees and motivate them to deliver their utmost best during procurement efforts and also not tempted by outside influences. It is also recommended that the institution should provide its senior managers and employees with the tools that facilitate giving of recognition on –the-spot. This can be done though for example keeping small supplies of note cards and gifts on hand for recognition opportunities as and when needed.

In effect, the GEC should design base pay and compensation packages that attract the right employees and once in, the institution should use its rewards programmes to strategically direct employees, efforts in a manner that culminates in desired behaviours. As suggested by Stroh (2001), the management of the company should always keep in mind the fact that there should be a balance between the efforts required and the accompanying size or significance of the reward. This is to say, rewards and recognition programmes at the GEC should ensure equal treatment for equal accomplishments.

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APPENDIX

RESEARCH QUESTIONNAIRE

**MASTERS OF SCIENCE IN PROCUREMENT MANAGEMENT
(KNUST)**

Dear Sir/Madam,

**PROCUREMENT OF INNOVATIVE GOODS, SERVICES AND WORKS
UNDER THE PUBLIC PROCUREMENT ACT, 2003 (ACT 663). THE CASE OF
THE PROCUREMENT OF BIOMETRIC SYSTEMS FOR THE 2012 GENERAL
ELECTIONS IN GHANA**

Your kind co-operation is sought for the completion of this questionnaire, which is a survey being conducted to collect data for an academic exercise towards the award of master degree from the above mentioned University. Your willingness to complete the questionnaire will be much appreciated. All information will be treated as strictly confidential.

SECTION I (BACKGROUND OF RESPONDENTS)

Please tick where applicable in the box/space provided below:

1. Academic and professional qualifications

- a. SSE and below
- b. B.Sc./HND holder
- c. M.Sc./MBA or higher degree holder
- d. Professional (Please specify): _____

2. Your department within EC?

- a. Supplies department
- b. Tender Committee
- c. EC's procurement consultants
- d. Logistics
- e. ICT
- f. Other departments (Please specify):

3. Working experience?

- a. Less than 5 years
- b. 5 – 10 years
- c. 11- 15
- d. 16 years or longer

SECTION II (THE CRITICAL SUCCESS FACTORS OF PUBLIC PROCUREMENT)

4. To what extent do you agree with the following statements as being the key objectives of introducing the biometric voters' register? (Where 1 = Highly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Highly Agree)

S/ N	Variables	1	2	3	4	5
i.	To ensure that essential data of voters was captured in the biometric system					
ii.	To minimize problems noted with the manual registration					
iii.	To ensure that a new voter registration exercise was conducted and a new voters' list compiled					
iv.	To make election results more credible and acceptable to all stakeholders					
v.	To simplify voter registration process					
vi.	To cut operational costs and enhance efficiency of Ghana's electoral process					
vii.	To facilitate fair and transparent elections					
viii.	Other(s), please specify					

5. To what extent do you agree with the following statements as being the critical success factors of public procurement? (Where 1 = Highly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Highly Agree)

S/ N	Variables	1	2	3	4	5
i.	<i>Effective Record keeping</i>					
ii.	Having efficient and effective records keeping (the data and reports showing compliance to regulatory needs must be robust and come from a reliable source)					
iii.	Integration of records which can serve a guide for future procurement					
iv.	Having enough storage capacity					
v.						
vi.	<i>Effective Procurement procedures</i>					
vii.	Cutting unnecessary bureaucratic tendencies during tendering right down to final approval					
viii.	The presence of enforcement actions and increased penalties for those who flout procurement procedures					
ix.	Having strong law enforcement mechanisms					
x.	Curbing political inferences					
xi.						
xii.	<i>Information and Communication Technology</i>					
xiii.	Using e-procurement tools which cuts down costs					
xiv.	Enhancing operations					
xv.	Collaborations leading to smoother and faster process flow of the procurement process					
xvi.	Systems integration for efficient distribution of information among stakeholders					
xvii.	<i>Staff Qualifications</i>					
xviii.	Having adequately educated employees in procurement matters, regulations and procedures					
xix.	High professional conduct from procurement officers					
xx.	Staff who exhibit professionalism during procurement process					
xxi.	Other(s), please specify					

SECTION III (THE CHALLENGES ENCOUNTERED DURING THE

PROCUREMENT OF THE BVR BY THE EC)

6. To what extent do you agree with the following statements as being the challenges encountered during the procurement of the BVR by the EC? (Where 1 = Highly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Highly Agree)

S/ N	Variables	1	2	3	4	5
i.	Lack of familiarity with procurement rules by procurers and other stakeholders resulting into poor compliance levels					
ii.	Complexity of substantive issues involved in public procurement of innovative goods, services and works					
iii.	Purchasing procedures of innovative goods, services and works are usually embedded in lots of bureaucracy and require that every superior puts his signature under the intended order					
iv.	The extensive authorization procedures make procurement of innovative products a tedious, laborious and slow process.					
v.	Risk-averse attitude of public procurers to demand new goods or services is regarded as a key barrier to increase innovation public procurement					
vi.	Focusing on unit price of innovative goods, services and works rather than long-term relations and impact					
vii.	Untimely disbursement of funds available for procurement purposes					
viii.	Ineffective engagement between procurers, suppliers and other key stakeholders					
ix.	The lack of political will at the highest levels of Government to significantly overhaul an existing system					
x.	Procurement contracts include overly detailed specification, which can also inhibit innovation					
xi.	Insufficient expertise to undertake the effective procurement of innovative products and services, which inevitably results in a low-risk approach or continual engagement with the incumbent businesses					
xii.	Supervision of procurement officers in some instances by persons with less procurement knowledge and skill					
xiii.	Continuing political control of the procurement process is a major constraining factor					
xiv.	The lack of culture for innovation is a barrier for public procurement for innovation					
xv.	Other(s), please specify					

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SECTION IV (THE EFFECTIVE WAYS OF PROCURING INNOVATIVE GOODS, SERVICES AND WORKS UNDER THE PUBLIC PROCUREMENT ACT, 2003 (ACT 663))

7. To what extent do you agree with the following statements as being the effective ways of procuring innovative goods, services and works under the public procurement ACT, 2003 (ACT 663)? (Where 1 = Highly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5= Highly Agree)

S/ N	Variables	1	2	3	4	5
i.	Taking a holistic view of the innovative goods, services and works and considering its long-term impact on EC's activities					
ii.	Maintaining transparency and ensure ethical behaviour while adopting innovative goods, services and works					
iii.	Considering the security issues related to the innovative goods, services and works					
iv.	Testing the accuracy of results produced by the use of innovative goods, services and works					
v.	Ensuring voter confidentiality in the innovative goods, services and works					
vi.	Ensuring there is clarity on what service(s) are to be provided by the technology and educating all stakeholders on it					
vii.	Ensuring inclusiveness all stakeholder					
viii.	Curbing undue bureaucracy					
ix.	Curbing political interferences					
x.	Evaluating the flexibility of the technology to adapt to new election regulations					
xi.	Training and educating procurement staff on the dictates of the public procurement ACT 663					
xii.	Ensure the legal ownership of the output of the system as well as the system itself.					
xiii.	Other(s), please specify					

Thank you for your cooperation and participation!!!!!!

KNUST

