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THE EFFECT OF PROCUREMENT COMPLIANCE BEHAVIOR ON QUALITY OF SERVICE DELIVERY: A CASE STUDY OF THE ELECTRICITY COMPANY OF GHANA (ECG)

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Abstract

Purpose: The purpose of this study was to model the effect of procurement compliance behavior on quality of service delivery

Methodology: The study adopted an explanatory research design in order to achieve the study objectives. The population for this research was made up of the employees of ECG and the customers of ECG, who were systematically sampled. Data was then analyzed through descriptive statistics using the Statistical Package for Social Science. The study employed descriptive statistics, multivariate data analysis as well as regression models

Results: The study found out that compliance levels were just low in the ranks of ECG; about 15.9%. Non-compliance complements this score by recording an alarming 84.1%. This level of compliance is unacceptable by any standard, no matter how it is justified

Unique contribution to theory, practice and policy: There is the need to improve compliance levels in the ranks of ECG is very imperative. It would be necessary to strategically work at improving compliance levels through professional procurement training, monitoring of processes for adherence to established policies and standard operating procedures including independent auditing

Key words: *Model, Procurement Compliance Behaviour, Quality of Service Delivery*

1.0 INTRODUCTION

Kidd (2005) acknowledged procurement as a synonym for purchasing and supply. However, he was able to establish a difference between the two. He showed that procurement was “less operational than strategic”, while the converse was true for purchasing and supply. Procurement does not refer to only a part of the process but rather the full course of securing external resources for the well-being of the business or government; from identifying the need through its disposal. He identified pre-contract, post contract and regulatory compliance as essential to managing procurement theory and practice. The benefits that accrue from effective procurement management include, but are not limited to, security of supply, reduced risk, innovation and competitive advantage.

Academia has been relatively quiet on procurement management, although the theory and practice actively lives on. Thai (2001) reviewed literature to provide a summary of a government’s initiatives to spruce up public procurement. The procurement cycle has loops and openings that allow the procurement officer and the supplier to earn personal benefits off the record. The paper work to cover the transaction is almost always flawless. The loops usually play out this way; the bureaucrat who has the power to award a contract issues it to the supplier whom he is able to collude with. The cost of the transaction is inflated by the supplier by a specified percentage. The invoice comes back to the bureaucrat for approval and payment. Since the actual cost is below the transaction, the supplier has his/her fair share to complete the task at hand. The rest of the money is split as per the agreement between the two colluding parties. This collusion is termed “handshake, kickback, breaking bread, etc.” among different circles. The final handshake is usually done in cash to eliminate any paper trails between the two parties. The suppliers in a poor system as represented above, usually offer bribes and promises of specific percentages of the contract sum to the bureaucrat if he/she wins the contract (Büchner, Freytag, González and Güth, 2008).

To better understand procurement, it is necessary to understand the Procurement Cycle (Thai, 2001). The reason is that it serves as a blue print for the procurement duties to be carried out. It defines the key activities and personnel responsible for each activity at every stage of the procurement process. It also walks the procurement officers through the process and provides a point of reference for monitoring and evaluation of the procurement process to ensure efficiency and effectiveness (Büchner, 2008). The procurement cycle starts with planning, sourcing, contracting, evaluation and execution of the contract.

The planning stage of the procurement cycle requires the procurement officer to predefine the scope of operations. When the strategy is defined in consideration of other push and pull factors, a timetable for executing the procurement process is put together to serve as a way of calibrating the progress of the process. Mitchell (2012) explained compliance as the behavioural tendencies to conform to laid down rules and regulations. This explanation fits into the procurement context of this research. He further explained that compliance is influenced by behavioural changes, international relations, environmental law, and personal values, especially integrity. However, he addressed compliance as a circumstantial variable that was fickle and changed easily with the

values and circumstances of the individual or organisation. Compliance is measured against a formal yardstick (legal definition), which has a priori calibration.

Compliance reeks of coercion however subtle or insignificant. This is visible in the publication of Kelman (1958); it suggests forced obedience to the laid down legal structure that has predefined the line of action and acceptable levels of compliance and in some cases the repercussions of non-compliance. This way, compliance is inorganic and therefore needs constant supervision and application of force to ensure high levels of compliance. Compliance in the public sector is preferred when it occurs out of enthusiasm and not through coercion and apathy.

The Relevance of Public Procurement Policies

The rules of engagement in public procurement are defined to achieve best of quality efficiently; to limit corruption in the public sector; ensure the successful execution of public projects and services; and to ensure value for money through sound financial management.

For development purposes public procurement policies are important. These policies help to reduce poverty, improve education and health services delivery among others since it aims to optimize the public benefit from the limited resources available. Planning the procurement process allows managers of public funds to prioritize items on the public expenditure list to improve budgetary decision making.

Interest in the nuances of public procurement processes is increasing mostly because of its connection with some national goals and objectives. The hazy association of the private sector with that of the public sector is one that raises eyebrows on many occasions, especially in Ghana. The effect of public procurement policies and compliance levels is seen through the achievement of project objectives and the cost of such projects. Indeed, these policies may speak volumes about numerous other national priorities, practices, and concerns (McCrudden, 2004). Publishing the objectives of a project gives the benchmarks, which should be used to evaluate the success of the said project and the judicious use of public funds.

Profile and History of Procurement

From the colonial days, Ghana had a procurement structure that was instituted by the British Government. After independence, it continued to work through the supervision of civil and military regimes (World Bank, 2003). An example is the Ghana Supply Commission (GSC), which was established in 1960 and supplied all goods requested by public institutions. With time, the demands and inefficiencies of the GSC helped to collapse its influence on the public institutions it was responsible for. In 2000 the World Bank instituted a procurement procedures manual to mitigate the situation with Ghana's public procurement systems.

The need for a workable public procurement system was addressed by Ghana's Public Financial Management Reform Program in 1996, and subsequently the Public Procurement Oversight Group in 1999 to direct the procurement practices of public institutions.

In 2003, the Public Procurement Bill (tabled in 2002) was passed into law as the Public Procurement Act (Act 663). The iterative nature of the reforms suggested a dalliance with an important, but tricky subject matter.

Act 663 was established with the aim of harmonizing public procurement processes among public institutions; optimizing the benefits derived from state resources and investments; and establishing fairness and transparency in the distribution of wealth and resources among Ghanaians.

Agbesi (2009) defined part II of Act 663 that the functions of procurement included, but are not limited to the following: Receive a request, check the request, and assess the request to ascertain its conformity with the definitions of procurement plans and budgetary constraints; Setting out the specifications, numbers, terms of reference, bills of quantities, drawings, shortlist or advertisements and prequalification, tender or request for quotation documents; Publishing the details of the works to be procured asking for expression of interest; The opening of tenders and quotations and ensuring the preparation of formal records of tender or quotation opening in accordance with Section 56 of the Act; Participating in evaluation activities of the tender evaluation panel where necessary and assisting in preparation of formal evaluation reports; Preparing submissions for approval of award by the appropriate authority in accordance with the threshold values established in Schedule 3 of the Act; Maintaining and updating the database of suppliers, contractors and consultants; Participating in negotiations with consultants where necessary or other tenderers where expressly permitted in the Act or Regulations; Preparing notification of awards and contracts; Arranging publication of notices of contract awards; Preparing contract documents and purchase orders in line with the award decision; Preparing and issuing tender rejection and tenderer debriefing letters; Preparing contract variations and modifications; Assisting with inspection and acceptance of goods, works and services; and Maintaining procurement records in accordance with Section 28 of the Act and the Regulations.

Uyarra and Flanagan (2010) credited public procurement for a significant proportion of the aggregate demand for goods and services and a potential driver of innovation and policy. As a catalyst, the role of procurement is not in doubt. The debate arises when a homogeneous result is expected from every procurement practice. This is because the diversity of procurement is downplayed or not acknowledged in many cases, though goods and services procured carry inherent qualities that surmise the approach to procurement that has to be employed. The diversity of the nature of innovations and in the range of ways that procurement can impact upon innovation is also downplayed. Every variant of procurement helps in the iterative process of innovation and competition as seen and expected among suppliers. They proposed a system where the characteristics of the goods and services to be procured were used to evaluate the impact on innovation and the market (demand and supply of goods and services). Their conclusion was that “public purchasing should first and foremost remain concerned with proximate public policy goals and that, rather than trying to co-opt public procurement into the innovation policy toolbox, policy-makers should focus on promoting innovation-friendly practices across all types of procurement at all levels of governance” (Uyarra and Flanagan, 2010).

Their objective was to examine sustainability and e-procurement, concurrently. These innovations have gained roots in many countries. They sampled 280 procurement practitioners from 20 countries. The data collected was analysed via multiple regression to create a model of the relationship between sustainability and e-procurement. They found that e-procurement was an engine for sustainable procurement. Walker and Brammer (2012) noted that, when the two procurement systems worked together, the environmental, labour, health and safety aspects of sustainable procurement saw significant improvements. The only disadvantage was in the dealings with very small firms.

Reporting the liberties enjoyed in the private sector and the constraints present in public sector procurement, Tadelis (2012) charted the progress of the two worlds of procurement. He found that the flexibility enjoyed in the private sector had efficiency advantages over the public sector. His recommendation was to relax some of the constraints put in the public sector so that it could benefit from the cost, scale and time efficiencies seen in the private sector.

The power of demand and supply are seen in procurement theory and practice. Public procurement is increasingly viewed as having important potential to drive innovation. Despite this interest, numerous barriers prevent the public sector from acting as an intelligent and informed customer (Uyarra *et al.*, 2014). Their study sought to examine the effect of constraints on processes and procedures on the ability to innovate in the public sector. They used data from a survey of public sector suppliers in the UK from a probit model. The focus was on the structural, market and innovative determinants the suppliers look out on these barriers set up by the public sector. They found that the main barriers reported by suppliers referred to the lack of interaction with procuring organisations; the use of over-specified tenders as opposed to outcome based specifications; low competences of procurers; and a poor management of risk during the procurement process (Uyarra *et al.*, 2014).

The results also indicated that certain organisations, particularly smaller firms and not-for-profit organisations, had to contend with greater difficulties with innovation arising from the procurement process. Government procurement policies were queried with respect to these findings.

Dalpe (1994) noted the capacity of the user and the value of risk associated with the goods or services to be procured as the most important factors when it came to innovations in procurement theory and practice. He continued to review strategies to convert government procurement into instruments of technology and innovation. He factored political will into his analysis as procurement practice in the public sector meant a barrage of political decisions about how, when, what and how much will yield to the largest social satisfaction.

Dalpe (1994) used benchmarks and thresholds to improve the quality of public procurement systems, as well as the perceived weakness. The case study dealt with Sri Lanka's public procurement system and how political power was interfering with the function of public procurement. After forming a theoretical base for analysis, he concluded that "reform solutions within government procurement systems must include measures that address issues of accountability, transparency, value for money, a professional work force and ethics" (Jeanette, 2008). Dalpe's (1994) work was criticized for being limited to Sri Lanka and therefore could not

make valid generalizations about the rest of the developing world. He, however, concluded that poor procurement policy and practices hindered sustainable development and negatively impacted upon economic growth. Jeanette's (2008) work provided a framework for third world countries to overcome the flaws in public procurement systems.

To review the perceptions of the participants in the public procurement system (the suppliers and the procurement officers) in relation to accountability, transparency, corruption, integrity and cronyism in Malaysia, Hui *et al.* (2011) used a thematic approach to understand the dynamics of compliance. The principal components were arrived at through content analysis of transcribed interviews with public procurement officers and contractors. The principal components were transparency; procurement policies and procedures and its implementation; personnel involved in the procurement system; estimation/budget/pricing; professionalism and ethics; and timeliness (Hui *et al.*, 2011). They found that interference from third parties, usually powerful political figures with hidden interests and cronyism, were the most significant hindrance to compliance with public procurement statutes.

The conceptual framework of the antecedents of compliance or rather non-compliance behaviour towards public procurement was assessed in their publication. The dearth of research interest and work in the area spawned their piece, though there was evidence of rampant non-compliance in the Ugandan public procurement system. Hui *et al.*, (2011) work put the antecedents of compliance together with their consequences. Extensive review of literature birthed a conceptual framework in which the media, enforcement agencies, records management, organizational culture among others were identified as antecedents. According to Tukamuhabwa (2012) “cognitive dissonance, low employee motivation, low corruption, better corporate governance and low service delivery” represent the consequences. His work set a precedent for the incidence of academia’s interest in the unabashed levels of non-compliance.

The benefits of innovations and advances in procurement theory and practice comes from compliance. Their research looked at the degree to which “user-perceived e-procurement quality (EPQ) (operationalised through the dimensions of professionalism, processing, training, specification, content, and usability) influences both system and contract compliance” (Brandon-Jones & Carey, 2011). Using data from four UK firms, 274 respondents provided the evidence of a progressive relationship between user-perceived EPQ and contract compliance. They showed that system compliance was mostly influenced by professionalism and content dimensions, whilst contract compliance was most strongly influenced by processing, specification, and content dimensions ((Brandon-Jones & Carey, 2011). They recommended that procurement specialists should give more thought to the organization of different scopes of alleged quality as they had dissimilar effects on both bond and system compliance.

Contemporary procurement management systems set exceptional criteria of culpability and pellucidity mostly since it keeps the beneficiaries together with the objectives at all times. The sources of funds for public projects also demand high standards and strict adherence to a predefined procurement management process. These standards require a display of integrity and efficiency in procurement. African countries have had reforms of public procurement systems

and standards in a bid to sanitize the function of procurement. However, according to Abebe (2012), ensuring efficiency, accountability and transparency in undertaking the national, regional and international public procurement process is challenging. His publication evaluated the practice of efficiency, accountability and transparency in public procurement in Africa, using Ethiopia as the study area. He concluded that compliance levels were generally low. He was silent on mitigating factors or systems that could help improve the level of compliance recorded in Africa.

A novel structural approach to evaluating compliance in the world of public procurement was attempted by Ntayi, Ngoboka, Mutebi and Sitenda (2012). This approach brought together conceptual contributors of compliance like “effects of social value orientation, expected utility, fairness in procurement procedures, the legitimacy of the procurement law and the procurement law enforcement authority on compliance with the procurement law, guidelines, procedures and regulations” (Ntayi *et al.*, 2012,). One hundred and ten (110) data points were analysed using factor analysis and structural equations to arrive at the conclusion that social value orientation, expected utility, legitimacy of the procurement law enforcement agency and perceptions of procedural justice were significant predictors of the Public Procurement (ref with page number). This research was limited by its inability to trace the effects of changes in any combination of the significant predictors of public procurement compliance. They recommended that agencies and ministries responsible for pruning the procurement systems should recalibrate their instruments to include social value orientation (Ntayi *et al.*, 2012).

Through the review of extant literature on procurement management and compliance, the hypothesis to test the causes of non-compliance in public procurement was developed. Cross sectional data were collected from 46 procuring and disposing entities in Uganda. Ntayi *et al.*, (2012) concluded that, among the themes under consideration, familiarity was statistically significant in determining compliance. The other factors were professionalism and institutional factors. Their conclusions were enervated because it used local government as a proxy for the central government. The managerial implication of the findings of their study was that, “for compliance with public procurement regulations to be improved, focus needs to be placed on improving familiarity with procurement procedures amongst procurement personnel and staff employed in the public entities” (Eyaa & Oluka, 2011).

In South Africa, procurement was one of the ways of compensating for the unfairness in the distribution of wealth. Constitutional provisions were made to preferential treatments for blacks who were capable of supplying the government with any goods or services. To examine the constraints of the public procurement sector with its bias towards blacks, Migiro (2010) revealed that the supply chain management outpost lacked the essential skills. He listed tender specification, evaluation and adjudication as the sources of the problem. He surmised that the law was ready to help the blacks but the blacks were not well equipped with marketable skills and technology that would meet the needs of government, both local and central. He recommended training and vigilance to ensure fairness and effectiveness in meeting government objectives.

Grandia's (2016) tested whether behaviour acted as a “mediator between knowledge, commitment to change, and the application of sustainable procurement in procurement projects in the Dutch national government” p.1. To test his hypothesis, he surveyed public procurers. The results showed that sustainable procurement behaviour positively mediates the relationship between an affective commitment to change and knowledge on the one hand, and the application of both compulsory and voluntary sustainable public procurement in procurement projects on the other. He therefore concluded that focus should be on effective procurement behaviour to ensure the full benefits of sustainable procurement behaviour (Grandia, 2016).

The birth of the EU presented another challenge in procurement and compliance. Interest was mostly in its impact on cross-border trade leaving that of compliance. To process non-compliance and the variables or factors that are sensitive to it, Gelderman, Ghijsen and Schoonen (2010) used a multidisciplinary approach to the model. Criminal theory, economics, social psychology and public purchasing were the disciplines that lent their understanding to the model. Data was collected from the Dutch defence authority. Their analysis showed that both the expected gains of compliance and the organizational pressure had significant positive effect on compliance. On the other hand, the effect of sanctions and the perceived resistance of suppliers in the case of non-compliance was negligible (Gelderman *et al.*, 2010).

An exhaustive framework was developed to examine procurement affected project performance. Extant literature showed that cooperative procurement procedures (joint specification, selected tendering, soft parameters in bid evaluation, joint subcontractor selection, incentive-based payment, collaborative tools, and contractor self-control) had a positive influence on project performance (cost, time, quality, environmental impact, work environment, and innovation) (Eriksson and Westerberg, 2011).

Ghana instituted the Public Procurement Act (Act 633) in 2003. The aim was to give legal backing to the proposed procurement structure that had been introduced. The structure was to increase fairness and transparency in its execution. So far, implementations of these laws have been met with challenges on all sides. Osei-Tutu *et al.* (2011) sought to reveal the extent to which public procurement officials complied with this law in the execution of their duties. Using a structured questionnaire, they revealed that the compliance levels of the Ashanti and Brong Ahafo Regions were 19.8% and 17.8% respectively. Using this basis for generalisation, they concluded that the level of compliance in the country was generally low. They reported that the structures and solutions to poor compliance were undermined by the deep seated desire of procurement officials to benefit from their jobs.

2.0 RESEARCH METHODOLOGY

The study adopted an exploratory research approach and employed the quantitative method to establish a hypothesis between the variables and generate numeric data by using statistical instrument. This study used a positivist perspective because it made use of a controlled methodology, measurable exploration and organized responses so as to achieve the study objectives.

The population for this research was made up of the employees of ECG and the customers of ECG. ECG managers, engineers, relationship officers, procurement officers, client services and every office in between formed part of the population; and people who use the services of ECG formed the customer population. However the study further conducted a purposive sampling to collect information from key informants such as project managers, financial controllers and the sales manager.

The Procurement Compliance Act (Act 663) of Ghana gave the benchmarks for measuring the level of compliance among the ranks of ECG. Since procurement services make provision for all sections of operations and administration, the percentage of responses under each category is indicative of the level of procurement compliance inside ECG.

The analysis of data about procurement compliance was transformed into a dichotomy: two response classes being *non-compliance* for all responses in the lower categories (never, occasionally and not sure); and *compliance* for higher categories on the ordinal scale (often and always). Item response was used to get the true picture of compliance levels in each class of response. The total in each class was then expressed as a percentage of the total.

The study used primary data the study employed a five point Likert scale was used to measure the variables used in this research. The use of frequencies informed the decision to employ an ordinal categorical data collection structure. The research instruments used in the research were questionnaires both structured and unstructured.

The study employed descriptive statistics, multivariate data analysis as well as regression models. The data was tested for reliability to determine if the study was devoid of any random mistakes. Data was then analyzed through descriptive statistics using the Statistical Package for Social Science

3.0 RESULTS

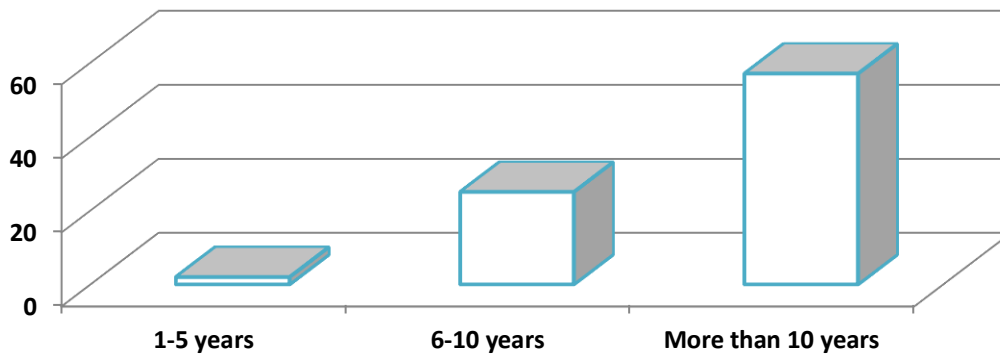
3.1 Introduction

This section presents the findings as observed through empirical research using a structured questionnaire. The presentation covers a preliminary analysis, gap analysis, presentation of the dimensions and the display of procurement compliance levels in the context of service quality in ECG.

3.2 Preliminary Analysis

The length of time in years as observed through the descriptive chart below shows that most of the respondents had been customers of ECG for more than 6 years. This gives an indication that the responses are coming from people who have enjoyed the benefits of ECG and suffered the miseries of ECG too. The distribution of the length of patronage of ECG is given in the table below.

How long have you been a customer of ECG?



Source: Authors field survey, September, 2016

Figure 2: Length of exposure to ECG's procurement processes

The types of services demanded by the customers of ECG are presented in the table below. The distribution shows that all respondents were customers of ECG. They had been connected to the national grid and paid bills to ECG. Twenty-six (26) of the respondents acknowledged the street lights provided by ECG and another 57 showed that their meters had been replaced by ECG.

Types of services demanded by ECG's customers

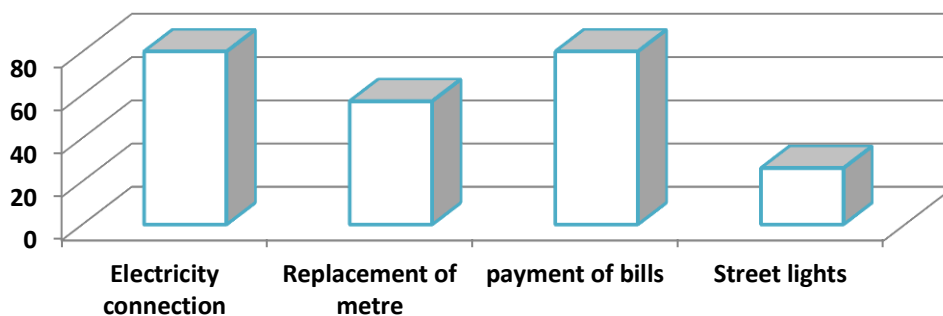


Figure 1: Distribution of services demanded by ECG's customers

3.3 Procurement Compliance

Respondents to this questionnaire who were staff of ECG shared their knowledge and perceptions of the existing procurement processes. They were from various departments and each of them had worked with ECG for more than one year. The data gathered to ascertain the levels of procurement compliance in EGC was summarized in an array of frequencies using item response or strong true score theory.

Table 1: Control of procurement and expenditure

Description	Never	Occasionally	Not sure	Often	Always
Was the tasks of expense processing (checking, records, and endorsement) disjointed and spread across desks?	18	6	5	3	2
Were all expenditures sanctioned by the Governing Board?	20	5	1	3	5
Did the Governing Board sanction all lasting contracts before they were effected?	22	4	1	5	2
Did ECG safeguard the sufficiency of cash and budget capability in advance before authorizing payouts?	18	1	1	5	9
Did pre-numbered and numerically-controlled purchase orders arranged for all of ECGs payouts and sanctioned by the Board before each order carried through?	13	10	4	6	1
In the event of blanket purchase orders, did ECG define a fixed period and specify a spending perimeter?	17	5	3	2	7
Were reports received for all purchases for goods and services replete with dates, quantities and signatures of the recipients?	15	6	2	5	6
Total			177		61

It was observed that 177 points were recorded for the low compliance category compared with the 61 points for the high compliance levels. These shows the compliance levels were generally low with respect to the governance of procurement activities and processes.

Table 2: Increasing the odds of getting a better deal

Description	Never	Occasionally	Not sure	Often	Always
Did ECG gives sufficient notification of the invitation for bid (IFB) or request for proposal (RFP)?	16	10	3	3	2
Did ECG accumulate and update a list of potential bidders to a database of suppliers for future procurement needs?	7	18	8	1	0
Did ECG issue its IFBs or RFPs at least 14 days before the scheduled date for bid opening, unless in special cases where necessary?	9	11	6	2	6
Did ECG include all prerequisite information and specifications in each IFB or RFP?	5	12	8	8	1
Were stamped and sealed bids or proposals replete with times and dates stored until the period set for public opening?	8	14	4	5	3
Total		139		31	

It was observed that 139 points are recorded for the low compliance (never, occasionally, not sure) category compared with the 61 points for the high compliance (often, always) levels. This showed the compliance levels were generally low with respect to competitive sealed bidding and competitive sealed proposals for procurement activities and processes.

The Table below also shows low procurement compliance in the ranks of ECG; 346 points against 36 points shows low procurement compliance once more.

Table 4: Management of Ad hoc procurement

Description					
	Never	Occasionally	Not sure	Often	Always
Were emergency procurements carried out based on justifiable demands that were well documented and justified for the selection of the supplier, the specifications of the goods or services, prices, etc.?	3	11	10	8	2
Was sole sourcing justified to the Governing Board as the best option through writing for the procurement of goods and services?	9	7	6	12	0
Were purchases classified as part of General Services Administration (GSA) made with the approval of the Governing Board and restricted to elements defined by the procurement contract?	4	14	15	1	0
Were cash expenses made through pre-numbered and numerically controlled drafts?	9	19	3	3	0
Were checks suitably completed preceding the issuance of procurement orders and not through cash or bearer certificates?	7	11	8	7	1
Were unused checks restrictions or controlled assess to limit abuse of the procurement processes?	12	7	6	8	1
Were signatures and check books and check printers protected from unauthorized personnel?	4	14	15	1	0
Did Accounts payable duties envelop the maintenance of a paired report of receivables, invoices and purchase orders in tandem before each payment?	12	18	3	0	1
Were approved supporting documents corresponding to each check written provided before issuance and distribution?	5	11	10	8	0
Were duplicate payments avoided through the use of "paid" stamps or special markers?	9	7	6	12	0
Were expenses prepaid only when this approach to procurement is the only way to secure the goods or services at a discounted price, per se?	4	14	15	1	0
Was there an active list of unpaid invoices for goods and services that have been procured by the ECG?	5	14	9	4	2
Total	366			26	

4.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

4.1 Discussion

The existing procurement regulations at the ECG present what could be a decent set of rules to guide the processes and activities of procurement. However, failure to enforce this system effectively has left ECG's procurement to be highly non-compliant. As described in chapter 3, the response lower categories on the ordinal scale; never, occasionally and not sure were put together to form a response class for non-compliance and on the other hand, often and always formed the class for compliance.

Chapter 3 showed that compliance levels were just low in the ranks of ECG; about 15.9%. Non-compliance complements this score by recording an alarming 84.1%. This level of compliance is unacceptable by any standard, no matter how it is justified. A key informant reported that the benefits of non-compliance go to feed the greed of many people in the procurement process. Procurement processes have been owned or possessed by some powerful and influential people who are insulated from the repercussions of poor compliance or, in some cases, non-compliance. Another key informant said "non-compliance has been institutionalized and therefore hard to be isolated and addressed properly".

4.2 Conclusion

The economic cost of the procurement non-compliance levels observed in the ranks of ECG point to the misallocation or, in some cases, the total loss of resources that could have helped to address the concerns of customers. The end user suffers more because the burden of recovering ECG's lost resources eventually falls on the final consumer through increased tariffs and poor service quality. Being the only national provider for electric energy, the economic cost of poor procurement compliance is multiplied by the size of Ghana's population; and nationwide crisis ("dumsor" which means black out/power off in the local slang). The real cost of ECG's compliance levels are beyond the scope of this research; however, they do exist and can be itemized, analyzed and evaluated to see the effect sizes and the best ways to redress the issue of poor procurement compliance levels.

Although ECG had a comprehensive procurement policy in place, execution of the policies was poor mostly because the central body with the requisite expertise to control the procurement proceedings of ECG felt stifled in its abilities and directives on many fronts. A task force will to enforce a strict adherence to procurement was feeble on the account of the many individual beneficiaries of poor procurement systems as observed in ECG.

Assigning procurement duties to specific individuals was hardly part of the operational systems observed in the ranks of ECG. A situation where roles were properly defined and the individuals or groups given the requisite tools and authorization to carry out their responsibilities would have helped ECG to realize better procurement practices and its attendant results.

The legal structure that protects ECG from the effects of poor procurement are in place and, for all intents and purposes, it is comparable to any decent set of legal and disciplinary international procurement practices and protection documents. However, the case of ECG shows an enervated

system of implementation and disciplinary action for individuals and groups who flout the stipulations of these legal and disciplinary regulations.

Lack of training and retraining in ECG was largely visible in the engineering and customer services departments, according to the reports of the key informants contacted for this report. This poor revision of knowledge, best practices and modern systems took its toll on the ECG in its execution of procurement duties.

Additionally, it was observed that the absence of an independent and noticeable procurement auditing system allowed procurement officers to operate without strict adherence to the stipulated guidelines for procurement practices in ECG.

4.3 Recommendations

The study recommended that there is the need to improve compliance levels in the ranks of ECG is very imperative. It would be necessary to strategically work at improving compliance levels through professional procurement training, monitoring of processes for adherences to established policies and standard operating procedures including independent auditing. This process may be slow, drastic and painful; heads may have to roll, reshuffles in leadership and management and forensic audits are needed to prune the past procurement activities that were out of line.

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