

Determinants of Procurement Ethics Among Public Institutions in Ghana: An Empirical Study

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Abstract

If the public procurement function especially in Sub Saharan Africa (SSA) is ethically conducted, the obvious end result would be prudent use of state resources, transparency within the public procurement process and value for money in all government contracts. This has become pertinent since increasingly significant proportions of government expenditure in developing countries goes into public procurements. This study therefore sought to explore the determinants of procurement ethics among public institutions in the Upper East Region (UER) of Ghana. The study adopted a quantitative research approach using an interviewer-administered questionnaire to collect data from 210 practicing public procurement officials across selected public institutions. The Exploratory Factor Analysis (EFA) was employed as a factor reduction tool to filter out the factors that significantly influence ethical procurement practices among staff of public institutions. The study results showed that transparency, professionalism, integrity and political influence were the major determinants of ethical procurement practices in public institutions within the Upper East Region of Ghana. The study established that transparency, professionalism, integrity and political influence were the major determinants of ethical procurement practices within public institutions in the Upper East Region of Ghana. The findings of this study will serve as a guide for procurement professionals and managers to improve ethical procurement behavior. Training programmes should be tailored towards improving transparency, professionalism, integrity and minimize political influence.

Key words: Procurement ethics, public institutions, procurement process, determinants, Upper East Region, Ghana

Introduction

Public procurement of goods, works and services is a significant and essential component of government functionality involving vast sums of taxpayers' money.

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Globally, public procurement is a critical component of governance due to the motivation of addressing community requirements and aspirations through the supply of products, works and services (Agbodzakey & Upshaw, 2018). Governments, particularly those in developing nations, have realized that public procurement has enormous potential to address social and economic problems in Africa, increase productivity, foster innovation, and provide value for money. In the Developing nations, public procurement accounts for an average of 29% of all government spending and 12% of GDP, demonstrating its ability to assist a range of policy goals, including the promotion of innovation (Ogol & Moronge, 2019). The process of acquiring goods, works and services through the public procurement process is vulnerable due to issues of agency and moral behaviour which can result in concerns of abuse (Chidya, 2021). This drive to acquire goods and services for effective operations among public institutions is highly competitive and challenging. In order to enhance the proper use of public funds, government agencies are required by law to observe ethical procurement rules and guidelines such as transparency, honesty, fairness, accountability, anti-corruption, and confidentiality.

Procurement ethics involves the application of transparency, professionalism, impartiality, goodwill and exercise of due diligence in the conduct of public procurements and more importantly not indulging in unfair activities (Ebekozein, 2019).

Although ethical challenges in business management have always existed, the nature, shape, form and scope of such challenges have evolved over the years with most organisations viewing the concept of

business ethics as vital to achieving competitive advantage (Ngovi, 2019).

Several studies (Dza, 2018; Abeku, 2021; Awuah et al., 2022) including reports from Ghana's Auditors General (Auditor General report, 2018,2019 and 2020) have highlighted several procurement transgressions or breaches such as non-competitive tendering, improper disposal of unserviceable items, improper warehouse and store practices, failure to prepare scheduled annual procurement plans, use of wrong documentation, contract variations without recourse to the procurement Act among others.

Based on the aforementioned procurement infractions, Essel (2021) believes that greater ethical standards, in conjunction with adherence to procurement legal requirements, will put an end to bribery and corruption in government entities. Ackar (2020), further indicates that the non-adherence to ethical codes of conduct, fairness, transparency and integrity in the procurement process negatively influences on the level of ethical practices which in turn impacts on the overall productivity of public entities. Since the majority of procurement deficiencies highlighted above revolve around unethical practices, a research study is vital in this regard.

Statement of the problem

Globally, corruption and unethical practices during the acquisition of goods, services and works are blamed for financial leakages in the procurement processes of public institutions (Ogbu et al. 2018). In Ghana, procurement and stores irregularities discovered by the Auditor General accounted for 0.12% of total financial irregularities of the accounts of Ghana for the period ended 31st December, 2020. This same report highlighted irregularities such as the

procuring of goods and services without recourse to procurement committees, the deliberate splitting of procurement into lots in order to procure above an entity's threshold and the deliberate use of unauthorized receipts in the purchase of items (Auditor General Report, 2018). Should these procurement irregularities continuously persist, corruption and unethical procurement practices in the public sector will fester resulting in the loss of essential developmental funds (Ogol & Maronge, 2019). According to BouChabke & Haddad (2021), unethical procurement authorities are associated with corruption, extortion, fraud, and cronyism, all of which have a detrimental effect on the quality of services provided to citizens.

In view of the recurring procurement breaches, Abioro, (2021) suggests that improved ethical standards along with adherence to procurement laws and regulations will improve transparency, competition, and integrity of public procurements. Essel (2021), emphasizes further that irregularities resulting from unethical behavior by procurement officials are unquestionably a harmful occurrence that, if not properly controlled, might open up opportunities for theft and misappropriation of valuable public resources. An investigation into the determinants of ethical procurement practices is necessary given the severe effects that unethical behavior among procurement professionals have on public procurements. Despite several research on procurement ethics (Ogbu & Asuquo, 2019; Abouzeid, 2019; Mazibuko & Fourie, 2017 and Essel, 2021), unethical procurement practices continue to remain pervasive. An indication that previous studies may not have identified the important determinants or elements of ethical procurement that must be addressed. An Explorative Factor Analysis

(EFA) approach was used to examine the determinants of ethical procurement practices among public institutions within the Ghanaian context. This study therefore sought to explore the determinants of ethical procurement practices among public institutions in the Upper East Region of Ghana.

Literature Review

Theoretical review

The theoretical literature review examines management concepts and theories that are relevant to understanding the research study from a developing country's perspective.

Principal - Agent Theory

The principal-agent theory is critical in standardizing and ensuring proper management of administrative power in public institutions has been increasingly applied in the fields of politics and society (Chen, 2018). The principal-agent problem emerges when the agent and the principal have a conflict of interest, which often happens when the agent works purely in his or her own interests. When financial institutions have private information, they are motivated to utilize it to their benefit by engaging in activities that may not necessarily align with productivity and societal efficiency, or the principal's interests (Bon, 2021). The principal's difficulty is to ensure that the agent completes the specified work in an appropriate manner when it cannot necessarily monitor the agent's activities and the agent thus has an informational advantage with respect to its actions (Ramirez & Wood, 2019). Hence, it is expected that procurement professionals as well as all actors within the procurement chain of public institutions act in the best interest of these institutions by adhering to standard rules and regulations when

acquiring goods, works and services from suppliers.

Utilitarian Ethical Theory

Morality, according to Unilateralism, consists entirely in maximizing what is good for everybody. It also argues that moral decisions are simplified by providing a single dimension of rightness: value optimization (Savulescu et al., 2020). According to the influential moral theory of utilitarianism, rather than prioritizing personal gain, the ethical conduct is that which is anticipated to result in the greatest amount of good and value for the majority of people. It offers clear operationalizable principles which requires employees and staff of various institutions to act in a manner that benefits the entire organisation and customers (Savulescu et al., 2020). Utilitarianism therefore argues that decision-making processes should involve a consideration all of the effects of actions, both immediate and long-term as well as direct and indirect. As a result, it is important for employees and staff of public institutions to consider not just the personal advantage of their activities, but also the benefit to the general public who rely on such institutions for a variety of goods, works and services.

Empirical review

Procurement Ethics

Ethics are a collection of moral rules that determine what constitutes suitable and just behavior. Within a business context, ethical procurement refers to the practice of acquiring goods, services and works with transparency and impartiality and devoid of unfair activities (Abouzeid, 2019). The problem of procurement ethics is exacerbated by the fact that public procurement stakeholders are often underpaid, therefore management often turns a blind eye when suppliers come in

with gifts for favors. These are often viewed by management and procurement officers as a method of augmented compensation for the low pay (Weissman, 2019). Government institutions preside over commodities that are of value to citizens and as a result, it is expected that public officials manage these commodities in such a way that the savings realized from ethical public procurement practices free up additional resources (Ogunsanya et al., 2019).

The manifestation of unethical procurement practices by public officials mostly relate to uncompetitive bidding, inadequate contract management, and the awarding of bids to employees and their family members (Hashmi, 2020). Other indications of unethical procurement practices relate to the non-disclosure by suppliers, no supporting documents for procurement awards, using incorrect preferential point systems and thresholds. Unethical procurement practices are known to be more prevalent within the public sector as compared to the private sector (Ebekozien, 2019). Procurement officials in the public sector are expected to uphold the highest ethical behavior because they manage the flow of resources meant for national development (Siyal & Xin, 2020). (Mutangili, 2021), however indicates that the incidence of fraudulent practices and unethical conduct in all stages of procurement is higher in the public sector than in the private sector.

Concepts of Procurement Ethics

Writer (2021), offers eight ethical principles to help in decision-making and prevent unethical behavior among staff of public institutions.

Loyalty and Respect for Rules and Regulations: Ordinarily, officers take an oath to uphold the institution's regulations,

and operate in its best interests. They are expected refrain from allowing external pressures to affect any judgement call during the procurement process.

Transparency: Unless there are legislative limits in place, all information pertaining to procurement procedures should be made accessible to all parties involved, including the public at large. Tender notifications must include enough details to let the supplier know they can submit a proposal. Tender documents must be brief and include information on deadlines, assessment standards, and expectations.

Integrity: Employees must constantly uphold the institution's ethical code; they must not behave out of self-interest or with the intention of gaining personal advantage. Employees are also expected to report any instances of unethical behavior that they observe before, during or after the procurement process.

Unbiasedness: Bias toward particular vendors or colleagues should be avoided in order to ensure fairness in procurement operations. Modifications to any document or specification must be communicated to all vendors, and decisions should be made impartially.

Confidentiality: Financial and personal information should be kept private and not made public in any firm because its disclosure could jeopardize procurement operations. To ensure confidentiality of the procurement process, employees are frequently required to sign non-disclosure agreements.

Avoiding the Appearance of Impropropriety: Officers need to be aware of outside opinions about their actions that could be interpreted as having a conflict of interest. Irregularities in interaction should be detected and avoided beforehand

because assumptions alone could lead to significant disputes.

Due Diligence: Responsibilities should be performed with extreme caution in order to adhere to all corporate requirements and guidelines while eliminating inefficiencies.

Accountability: Any decisions made throughout the procurement process should be held accountable. Any violations of the institution's regulations should be examined and the necessary remedies taken.

Methodology

A descriptive research design was adopted in this study. The population of the study consisted of all staff of the various public institutions within the Bolgatanga Municipality of Ghana. A purposive sampling method was adopted for this study. The sample consisted of selected staff from various management levels of public institutions within the Bolgatanga Municipality of Ghana who participated in the annually organized Public Procurement Authority (PPA) workshop/training on best practices in ethical procurement. These public institutions were chosen because the majority of their operations centered around the procurement of public goods, works, and services. This was done to ensure that all areas concerned with procurement ethics were covered. From the sample size of two hundred and sixty-eight (268), two hundred and ten (210) responses were retrieved from employees of the selected public entities. A five-point Likert scale interviewer-administered questionnaire was used to gather the quantitative data for this study. The drop off pickup technique was adopted to distribute the questionnaire to procurement professionals at public institutions in the Upper East Region of Ghana. The variables adopted to examine the determinants of

ethical procurement practices in this research study included transparency, professionalism, integrity and political influence which were adopted from available literature. This study's definition of transparency included giving contractors, suppliers, service providers, and the general public access to information about the public procurement process unless there are legitimate and legal reasons to keep certain information private (Kenny & Crisman, 2016). According to Steinfeld (2017), professionalism entails relying on beliefs, principles, and efficient processes while adhering to an operating code of ethics throughout the procurement process. Integrity relates to a strong moral compass, being open to ethical issues, and maintaining high standards throughout the procurement process (Akaninyene & Mark, 2015). Political influence in procurement is described by Nuerter et al. (2018) as a situation where procurement decisions by procurement officers as well as awards are executed based on political preferences or benefits.

Census and Survey Processing System (CSPPro) version 7.4 was employed for data input, which was then exported to Statistical Package for Social Sciences (SPSS) version 23 and analyzed. The Exploratory Factor Analysis (EFA) was employed as a factor reduction tool to filter out the factors that significantly determined ethical procurement practices among staff of public institutions in Ghana.

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a multivariate method that seeks to identify as few erroneous constructs as possible that may instinctively explain the covariation observed among a group of measured variables. Specifically, EFA aids in the determination of the common

characteristics that account for the arrangement and pattern of the measured variables (Watkins, 2018). The EFA analysis is used to elicit information about the interrelationships between a set of variables (Ogunsanya et al., 2019). The assumption behind factor analysis is that all variables have some level of relationship. Determinants should be evaluated at the ordinal and the sample size for factor analysis ought to be large (Shrestha, 2021). There are several statistical methods that help researchers decide on the number of factors to be extracted, for example, the Kaiser criterion, the scree plot and parallel analysis (Prabhu, 2021). The Kaiser criterion for an eigenvalue greater than 1 is by default set in SPSS and was applied to this study. Factors with high loadings have an eigenvalue greater than 1.

Results and Discussion

The study targeted public institutions within the Bolgatanga Municipality of Ghana. Out of a total two hundred and sixty-eight (268) targeted respondents, two hundred and ten (210) responses were received, constituting a response rate of roughly 78%.

Biographic Data of Respondents

Table 1 presents details of the background of participants of this study. The data shows that out of 210 respondents successfully contacted, 67 (31.9%) belonged to the age group (31-35) years, 54 (25.7%) belonged to the age group (36-40) years, 42 (20%) were above 40 years, 35 (16.7%) belonged to the age group (26-30) years and finally 12 (5.7%) of respondents belonged to the age group (20-25) years. The data from Table 1 also indicates that 123 (59%) of respondents had a Bachelor's degree, 44 (21%) had a Diploma, 34 (16%) had a PhD and 4 (2%) had a certificate as educational qualifications for various programmes pursued at different

institutions of learning. Data from Table 1 further indicates that for working experience, 97 (46%) and 69 (33%) of the respondents have worked at their various institutions for a period between (16-20) years and (6-10) years respectively. An

indicator that respondents to this study have several years of procurement experience and therefore provided informed comments on the issues addressed in this study.

Table 1: Biographic Data of Respondents

Biographic Factors	Frequency	Percent (%)
Age of Respondents		
20-25 years	12	5.7
26-30 years	35	16.7
31-35 years	67	31.9
36-40 years	54	25.7
Above 40 years	42	20
TOTAL	210	100
Educational Qualification		
Certificate	4	2
Diploma	44	21
Bachelors	123	59
Masters	34	16
PhD	5	2
TOTAL	210	100
Working Experience		
1-5 years	10	5
6-10 years	69	33
11-15 years	22	10
16-20 years	97	46
Above 20 years	12	6
TOTAL	210	100

Source: Field Survey, 2023

Measures of Goodness of Fit

The results of the goodness of fit test for the Factor Analysis model is as presented in Table 2.

Cronbach's Alpha Reliability Coefficient	0.942
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.925
	Chi-Square 2719.719
Bartlett's Test of Sphericity	Degree of freedom 253
	p-value 0.000

Cronbach's alpha reliability coefficient was employed to examine the questionnaire's internal consistency. A coefficient value of 0.942 was determined, indicating that if the research questionnaire is used again in a similar environment, the results are almost 94% certain to be identical. The reliability coefficient is comparable with the findings of Adeniran (2019) study, which revealed that a range of 0.70 to 0.90 or above indicates good internal consistency of the research instrument. An Assessment of the Bartlett's Test also revealed a Chi-Square value of 2719.719, degree of freedom of 253 and a p-value of $0.00 < \alpha - \text{value of } 0.05$ which is highly significant at 5% level of confidence, confirming that the correlation matrix has significant correlations among some of the variables. Also, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy value of 0.925 indicates that the sampling is adequate (Shrestha, 2021) and Factor Analysis is appropriate for the empirical data.

Determinants of Procurement Ethics

Table 3 presents the eigenvalues and total variance explained. Principal component analysis was the type of factor analysis

extraction method used in this study. Before extraction, twenty-three components were identified within the data set. After extraction and rotation, there were four distinct linear components within the data set for the eigenvalue greater than one (1). The four factors extracted accounted for a combined 61.64% of the total variance. It is recommended that the fraction of total variation explained by the retained components be at least 50% (Hoque et al., 2018). The result as depicted in Table 3 below shows that 61.64% common variance shared by twenty-three variables can be accounted by four ethical procurement factors. The first ethical procurement factor explained 20.73% of the total variance with eigenvalue 10.351. The second ethical explained 19.03% of the total variance with eigenvalue 1.478. The third ethical factor explained 12.34% of variance with eigenvalue 1.323 while the fourth ethical procurement factor explained 9.53% of variance with eigenvalue 1.025.

Table 3: Eigenvalues (EV) and Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cum. %	Total	% of Variance	Cum. %	Total	% of Variance	Cum. %
1	10.351	45.003	45.003	10.351	45.003	45.003	4.767	20.727	20.727
2	1.478	6.428	51.431	1.478	6.428	51.431	4.376	19.027	39.754
3	1.323	5.752	57.183	1.323	5.752	57.183	2.843	12.359	52.113
4	1.025	4.457	61.64	1.025	4.457	61.64	2.191	9.527	61.64
5	0.878	3.817	65.456						
6	0.832	3.617	69.073						
7	0.699	3.04	72.113						
8	0.682	2.963	75.076						
9	0.626	2.72	77.796						
10	0.597	2.597	80.393						
11	0.549	2.385	82.778						
12	0.508	2.208	84.986						
13	0.471	2.049	87.035						
14	0.446	1.94	88.975						
15	0.37	1.61	90.585						
16	0.365	1.589	92.174						
17	0.346	1.506	93.68						
18	0.31	1.349	95.029						
19	0.277	1.206	96.235						
20	0.269	1.168	97.403						
21	0.236	1.026	98.429						
22	0.21	0.912	99.341						
23	0.152	0.659	100						

Extraction Method: Principal Component Analysis. Cum. means Cumulative

Using a cut-off value of 0.6 (Awang et al., 2018) as a baseline for this study and performing a Varimax Rotated factor

loading with Kaiser Normalization, the retained items are presented in the rotated matrix in Table 4 below.

Table 4: Suppressed Rotated Factor Loading

Variables	Factor			
	1	2	3	4
All suppliers subjected to the same standards of evaluation/selection in the procurement process			0.651	
Procurement staffs are discouraged from accepting any form of inducement from suppliers (gifts/meals etc)				
Ethical code of conduct is upheld by procurement staff				
Procurement process is often devoid of any political interference				0.855
Final procurement decisions taken in this institution are devoid of political pressure/interference				0.791
Procurements are competitively based with the award going to the lowest responsive and responsible bidder			0.759	
All stages of the public procurement process in this institution are conducted by well qualified procurement professionals				
All competitive bids in this institution are supervised by qualified professionals				
Procurement officers are experienced in the implementation of the procurement laws		0.648		
Procurement officials understand the rules and regulations pertaining to the procurement process in this organization		0.768		
Procurement officers strictly adhere to the code of ethics used in this company		0.720		
Procurement officers interpret the procurement rules fairly to all competing suppliers		0.760		
Procurement officers in this institution avail bidding related information equally to all bidders				
Data on tender participants is treated confidentially				

Table 4 continued

Variables	Factor			
	1	2	3	4
Only authorized officials in this institution are allowed access to some confidential procurement documentation.				
Procurement procedures in this institution allows for secure transmission of documents.				
Procurement documentation in this institution is properly archived/stored after the close of process.				
All public procurement activities in this institution are conducted openly				
Encouragement of stakeholder participation in all public procurement processes	0.745			
All suppliers bidding for contracts in this institution have access to the same procurement information				
Procurement officials held liable when information is unevenly distributed to suppliers	0.723			
Leakage of confidential information from this intuition to suppliers are quickly investigated and culprits sanctioned	0.670			
Existence of institutional public procurement ethics policy	0.685			

Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization, Rotation converged in 6 iterations.

Table 4 presents the results of the Varimax Rotation with Kaiser Normalization for factor loadings suppressed at 0.6. From the results, four measured variables (*Encouragement of stakeholder participation in all public procurement processes, Procurement officials held liable when information is unevenly distributed to suppliers, Leakage of confidential information from this intuition to suppliers are quickly investigated and culprits sanctioned and Existence of institutional public procurement ethics policy*) loaded high on Factor 1. These measured

variables on Factor 1 are related to "Transparency."

Four measured variables (*Procurement officers are experienced in the implementation of the procurement laws, Procurement officials understand the rules and regulations pertaining to the procurement process in this organization, Procurement officers strictly adhere to the code of ethics used in this company and Procurement officers interpret the procurement rules fairly to all competing suppliers*) scored highly on Factor 2,

and a close examination of the variables reveals "*Professionalism*."

An evaluation of Factor 3 with measured variables (*All suppliers subjected to the same standards of evaluation/selection in the procurement process and Procurements are competitively based with the award going to the lowest responsive and responsible bidder*) that are heavily weighted on it can be considered to depict "*Integrity*." Factor 4 also had two measured variables (*Procurement process is often devoid of any political interference and Final procurement decisions taken in this institution are devoid of political pressure/interference*) loading high on it. These two measured variables represent "*Political Influence*".

The exploratory factor analysis uncovered four major determinants of ethical procurement: *transparency, professionalism, integrity, and political influence*. According to respondents, these four determinants influence ethical procurement practices in public institutions in Ghana. The findings of this study are supported by Essel (2021), who discovered that "*Transparency*" and "*Integrity*" were key determinants of ethical procurement practices among public institutions in Tanzania. Phakiti (2018), further emphasizes that promoting ethical procurement practices such as transparency, integrity, and professionalism improves compliance with procurement regulations in public institutions.

Conclusion

The determinants of ethical procurement practices among public institutions in the Upper East Region of Ghana was examined in this research study. The study established that transparency, professionalism, integrity and political influence were the major determinants of ethical procurement practices among public procurement professionals in the Upper East Region of Ghana.

Implications of findings

The findings of this study will serve as a guide for administrators and managers of public institutions when procuring goods, works, and services for public development. In an effort to improve procurement personnel's ethical behavior, a deliberate focus should be placed on transparency, professionalism, integrity, and political influence. These four determinants have the potential to improve ethical procurement behavior significantly. Furthermore, the conclusions of this study emphasise both the Principal Agent and the Unitarian theories used in this research study. Hence, the implementation of ethical principles such as transparency, integrity and professionalism by procurement professionals enhances the overall performance of public institutions by guaranteeing cost-effective procurements and significant cost savings.

Finally, by identifying the determinants of procurement ethics in public institutions, the current study adds to the body of knowledge on ethical procurement practices. This would be useful information for further study in an effort to enhance ethical behavior when the procurement function is being carried out.

Limitations of the Study

The study was limited to public institutions, similar studies could be conducted to include institutions in the private sector as well. Other factors that may influence the practice of ethical procurement in both public and private institutions across the country should be investigated in future research. From a methodological perspective, it would be possible for future studies to compare the factors that influence procurement ethics in public and private entities.

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