

# Curbing Corruption in the Public Procurement Process in Ghana

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## Abstract

Public procurement is perceived to be susceptible to corruption from project inception to completion. There is ample evidence across the world that corruption hinders economic development; reduces social services; diverts investments in infrastructure and social services and impacts the poor disproportionately

The study assesses the perceptions of procurement professionals; specifically practicing quantity surveyors on the existence of corruption in the procurement process and also establishes the stages in the procurement process fraught with corrupt practices. A survey research design was employed and purposive sampling technique adopted. Descriptive statistics, relative importance index and one sample t-test were adopted in analyzing the data. This research results confirmed the perception that corruption exists in public procurement in Ghana. It also revealed that the public procurement law is contributing immensely in curbing corruption. The study further revealed that corruption is more prevalent at the tender evaluation stage of the procurement process.

**Keywords:** Corruption, Ghana, Public Procurement, Procurement processes, Susceptible.

## Introduction

Corruption is a global menace that affects corporate credibility and economic sustainability as well as personal security. There is a rising admission that corruption is prevalent within the construction industry and the procurement process in particular. There is ample evidence across the world that corruption hinders economic development; reduces social services; diverts investments in infrastructure and social services and impacts the poor disproportionately (Khrankin, 2007). Several studies have exposed considerable inefficiencies in the procurement process and concludes that value for money is not achieved in the procurement of public infrastructure as a result of corruption (Lengwiler and Wolfstetter, 2006; Mawenya, 2008, Shakantu, 2003). According to Vee and Skitmore (2003), there is evidence of corruption at all levels, including: proprietary information infringements and “stealing of drawings during the design stage; collusive bidding during the tendering stage, cash inducements (bribery) for over-valuing work performed during the site operations stage; negligence in the form of poor quality documents during production documentation stage and fraudulent conduct, such as covering up poor workmanship during site operations. Chiocha (2009) reported that the construction industry is consistently ranked as one of the most corrupt: the payment of large amount of money for the purposes of gaining or altering contracts and circumvent regulations.

A survey in 2002 indicated that procurement accounted for over 18% of the World’s GDP representing USD 5.8 trillion (Auriol, 2005) and an estimated USD 400 billion perceived to be exchanging hands through corruption in public sector procurement (Mawenya, 2008). Other reports also indicate that corruption in Sub-Saharan Africa is estimated around 70 per cent of public procurement contracts and thereby inflates contracts cost by about 20-30 per cent (Mawenya, 2008). Another survey reports that cost of corruption is estimated at about USD 148 billion per annum in Africa (World Bank, 2003).

Ghana is perceived as one of the most corrupt nations in the World, if the Transparency International’s (TI) surveys report in 2011 is used as the measuring rod. In the TI corruption perception index (CPI) for three consecutive years, Ghana ranked 62<sup>nd</sup>, 69<sup>th</sup> and 67<sup>th</sup> most corrupt nation in the world in the 2008, 2009 and 2010 respectively. This suggest that Ghana is not making any serious strides in the fight against corruption through the enactment of anti-corruption legislation.

These points to the fact that any positive development towards the reduction in corruption in the public procurement process would have a direct and significant impact on the overall economic situation of the country and consequently lead to savings on the already overstretched public purse (Mawenya, 2008). This gives credence to the growing interest in studies related to corruption and its associated practices in public

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procurement and hence makes this area relevant for further exploration. The aim of this paper therefore is to investigate the stages within the procurement process and to ascertain which stage of the procurement process is susceptible to corruption in Ghana. The study is relevant because it would improve transparency in the procurement process and also have positive impact on project delivery.

### Literature Review

The World Bank defines corruption in its procurement guidelines as the abuse of public entrusted power for personal gains. Economic literature on corruption tends to focus on bribery. Bribery certainly is a form of corruption, and corruption most often involves bribery. Bribery in relation to the award of contract is the most visible form of corruption in the procurement of building projects (Ameh and Odusami, 2010). Habtermicheal (2009) opined corruption as the misuse of entrusted power for private gains. Della Porta & Vannucci (1999) described corruption as the abuse of public resources for private gain, through a hidden transaction that involves the violation of some standards of behavior.

There is ample evidence around the globe that there is a strong relationship between corruption and economic development. According to the United Nations' report on investigation relating to corruption in procurement, it can be concluded that corruption is widespread around the globe (GPAC, 2004). Transparency International's report (2004), suggest that the forms, extent and effects on society differs from country to country and that no nations in the world is unaffected by this menace. Ameh and Odusani (2010), Khramkin (2007), Lamour (2006), Westring (1997), and other reports unanimously conclude that corruption hinders economic development; increases contract cost; reduces social services; diverts investments in infrastructure and social services and impacts the poor disproportionately. Corruption affects health and welfare when it touches the quality of construction, i.e. when buildings fail to meet safety requirements and specifications due to fraud in building materials and workmanship or as a result of bribery of public inspectors (Goldstock, 1990). Collusion of building inspectors bring the concept of monitoring into disrepute. According to Chiocha (2009) and Sangweni & Balia (1999), collusion and corruption impact negatively on the economy as a whole, on the well being of the industry and on its capacity to address development imperatives. Corruption alters the character of institutional performance in the context of administrative efficiency, undermines managerial efficiency and the redirection of resources from global policies to individual interests (Szeftel, 1998). Malawi Growth and Development Strategy (2006), opined that corruption retards economic growth and development by diverting resources from socio-economic development activities into coffers of a few. Corruption increases the cost of construction by undermining competition (Chiocha, 2009; Farren, 2003). Wraith and Simpkins (1997) observed that corruption is fundamentally destructive to public interest. Corruption according to Boeckmann (2003) have a corrosive impact on market opportunities and general business climate. It deters investment, curbs economic growth and sustainable development, distorts prices and undermines legal and judicial systems. These suggest that any effort whether small or huge directed towards the fight against this monster would be more than justified.

Corruption has been described to be difficult to define (Søreide, 2002; UNODC, 2004) but its effect cannot be underestimated. A report published by the Chartered Institute of Building (CIOB, 2006) in the United Kingdom construction industry indicates corruption to be soaring in many sectors of the U.K. construction industry. The extent of corruption in construction is magnified by the fact that both governments and the private sector initiate projects in this sector. For many centuries the construction industry has been criticised for its perceived systemic corrupt related activities and its inability to innovate ways to reduce the incidence of corruption in the construction processes. Corruption flourishes in virtually all phases of the industry and it is engaged in by participants at every level (Shakantu, 2006). Essentially, anyone who has taken the trouble to consider what goes on in the construction process, from project inception to project handover, knows that the process is prone to abuse (Gelléri and Csáki, 2003; Shakantu, 2006). Chiocha (2009) outlined features of construction process that makes it susceptible to corruption. The researcher suggested that the nature of construction projects where contracts tend to be huge, with only a few companies with financial and technical capability being available to implement them would naturally invite corruption. Robb (1996) reported that corruption is prevalent at the procurement planning and final account preparation stage which are susceptible to manipulation and fraudulent deals. According to Shakantu (2003), the separation of design from construction, competitive bidding and payment procedures of contractors are possibly susceptible to corrupt practices.

Public procurement is perceived to be susceptible to corruption from project inception to completion (Gelléri and Csáki, 2003; Shakantu, 2006). A study conducted by Symons (2000) in South Africa, identified huge corruption in public procurement sector. Some of the fraud identified include the submission of fictitious and exorbitant invoices for materials and labour as well as bribes in return for work and even prompt payment. In some cases

procurement officials were found to have connived with contractors and/or consultants to indulge in unethical practices. Shakantu (2006) also reported that; proprietary information infringements and stealing other peoples' drawings during the design stage; collusive bidding during the tendering stage; cash inducements (bribery) for over-valuing work performed during the site operations stage; negligence in the form of poor quality documents during production documentation stage; fraudulent conduct such as covering up poor workmanship during site operations are some of the corrupt practices going on in the procurement process. Proceedings of the National Conference for Cleaner Public Life (2003) identified several forms of corruption which include; influencing of the law-making process; forming of cartels by bidders; bribing of the decision makers in order to win bids; conflict of interest and massaging of the processes to favour a particular bidder. Corruption also manifest itself in various forms including; bribery, embezzlement, fraud, favoritism, extortion, conflict of interest, political bargains, abuse of discretion and abuse of power (Habtermicheal, 2009).

It is often said that, nothing happens in a vacuum. Corruption in the procurement process which has been acknowledged by several researchers would have some underpinning factors that precipitate this social canker. Camerer (2001) intimated that, unless the drivers of corruption are clearly identified, it is intricate to prioritize efficient anti-corruption measures, which would be able to address these causes in a bid to prevent it from happening. The causes of corruption could be grouped into economic, political, anthropological and social structures (Ekpo, Cited in Habtermicheal, 2009). It has been argued that low salaries of civil servants are catalyst to corruption (Wilson, 2004; Mensah et al., 2003). Delays in the delivery of public services and bad governance have been noted to be a fundamental cause of corruption (Morisset and Lumenga, 2002). Business organizations and their officials' influence public officials to make decisions that are more favourable to them than to the general body of the citizenry. Such influences may be monetary or non-monetary and can take the form of political campaign contributions, trips abroad, paying school fees for wards of public officials, or physical cash paid directly to the officials (Osei-Tutu et. al., 2009). It has also been argued that greed and the desire for wealth motivate those in authority to take advantage of their powerful positions. The passion to win contract at all cost stimulates suppliers, contractors and consultants to indulge in corrupt activities by paying bribes to procurement managers (Osei-Tutu et. al., 2009). Shakantu (2006) asserted that consultants such as architects, quantity surveyors, construction managers, management contractors and clerk of works normally have an idea of what the clients are paying for and ought to be the first line of defense for clients against corrupt practices. But, this he said, is always not the case as such consultants and professional advisers will remain silent even when corrupt practices are being conducted in projects that they are involved. A survey by Ameh and Odusami (2010), in Nigeria reported that quantity surveyors are perceived to be susceptible to corruption in the construction industry.

From the foregoing, it is quite imperative for every nation across the globe to strategies in the fight against corruption in all sectors of the economy, and more especially in the procurement process. To reduce corruption it is necessary to resolve the issues making the industry especially susceptible in the first instance and to investigate the issues advocated as possible solutions. It should be noted that professional advisers and consultants are the first line of attack as well as defense (Shakantu, 2006). Shakantu (2006) proffered some possible ways corruption could be tackled in South Africa. Among the findings are: implementation of ethical guidelines and policies; adoption of the World Economic Forum Anti-Corruption Principles; Public awareness campaigns for the Public Finance Management Act (PMFA); Enhancing operations of the Department of Public Works (DPW) Fraud Awareness unit; the CiDB benchmarks of industry best practice; adoption of performance specifications; punish offenders and convictions.

### **Research Approach**

To achieve the specific objective of the study which sought to identify the stages of the public procurement processes susceptible to corrupt practices and to identify ways to curb the menace of corruption in the procurement process and thereby improve the integrity of the procurement process and give meaning to the procurement Act, the study adopted the survey approach. Questionnaire was developed and administered to the Chartered Quantity Surveyors at the 6<sup>th</sup> Surveyor's week and Annual General Meeting held on the 24 – 26<sup>th</sup> of February, 2011 at the International Conference Centre, Accra, Ghana.

The sample was limited to Quantity Surveyors due to the fact that, Quantity surveyors are the cost manager's of the construction industry and are always privy to a lot of information especially where monies are involved. This group of professionals in the construction industry is also always deeply involved in the evaluation of bids and recommendation of bidders for award. It is against this background that the researchers restricted the sample to Quantity surveyors.

The data collected include; the prevalence of corruption in the procurement processes or otherwise, the

effectiveness of the public procurement law in curbing corruption, the stages of the procurement process which corruption is endemic. To ascertain the extent to which the various stages of the procurement process are susceptible to corruption a 6-point Likert scale from “Not susceptible” to “extremely susceptible” was used for the study.

Information obtained from the respondents who were mainly experts in project management/contract administration from academia, construction firms, consultancy firms and client organizations across the country was analyzed using descriptive statistics and relative importance index. The one sample t-test was used to determining the stages in the procurement processes that are susceptible to corruption.

The study was primarily based on responses of the selected professionals to the questionnaires which were fashioned to employ the standard statistical methods using the statistical package for social sciences (SPSS) software package. In most cases, a six-point Likert scale (0= not susceptible, 1= very low susceptible, 2= low susceptible, 3= susceptible, 4= highly susceptible and 5=extremely highly susceptible) was adopted where respondents were presented with a question and then requested to offer their responses with varying degrees of agreement or disagreement. This scale provided the respondents with the ability to grade their responses for each question, subsequently boosting the ability to analyse and make a meaningful conclusion.

In order to ascertain the order of criticality of the stages of the procurement process that are highly susceptible to corruption, the mean score of responses ( $\mu$ ) were calculated from six-point scale using the following formula:

$$\frac{\sum_{i=0}^5 i \cdot f_i}{\sum_{i=0}^5 f_i} = \mu \quad \text{----- (1)}$$

Where  $f_i$  is the frequency of score  $i$  for the factor concerned.

From the above method, mean score below 2.5 implies that the factor under consideration is not susceptible to corruption.

The mean and standard deviation of each factor are not reliable statistics to assess the overall rankings (Chan and Kumaraswamy, 1997). The relative ranking of the attributes is thus based on the Relative Importance Index (RII) which is evaluated using the following formula (Sambasivam and Soon 2007)

$$\text{Relative Importance Index (RII)} = \frac{\sum W_i}{A \times N} \quad \text{----- (2)}$$

Where  $W_i$  is the weight given to each attributes by the respondents within ranges from 0 to 5 using the same Likert scale as earlier,  $A$  is the highest weight and  $N$  is the total number of respondents.

The one sample t-test was used to determine whether the mean score of a factor is significantly different from the population mean,  $\mu=2.5$  (Ofori, et al., 2002; Tse, 2001). This was done with the aid of Statistical Package for Social Science, 17<sup>th</sup> Edition. The result is shown in table III.

### Data analysis, result and Discussion

The respondents to the questionnaire were Quantity Surveyors from consultancy firms, academia, construction firms, and client organizations across Ghana. All the respondents were practicing Quantity Surveyors and for that matter procurement practitioners. Table I shows a profile of the respondents used in the study. In total, 34 questionnaires were distributed and received with a response rate of 100%. This response rate was possible due to the relationship of the researchers with the respondents who were professional colleagues and the fact that they were all congregated at a common ground for their annual general meeting. The average experience of the respondents was about 10 years, with 20% having over 20 years.

Table I Summary of respondents’ profile

Field of work	Experience (years)		Category of Organization		
<b>Academia</b>	<b>17.6%</b>	<b>&lt; 5</b>	<b>11.8%</b>	<b>Public</b>	<b>70.6%</b>
<b>Consultancy</b>	<b>52.9%</b>	<b>5 – 10</b>	<b>50.0%</b>	<b>Private</b>	<b>29.4%</b>
<b>Contracting</b>	<b>14.7%</b>	<b>10 – 20</b>	<b>17.6%</b>		
<b>Others</b>	<b>14.7%</b>	<b>&gt; 20</b>	<b>20.6%</b>		

Table II shows the ranking of the stages in the procurement processes base on their relative importance calculated using Equation 1. The mean scores are also presented in the Table II alongside the RII scores. The highest RII score indicate the most critical stage of the procurement process where corruption is highly susceptible and the lowest indicate the stage where corruption is less prevalent.

### **Corruption in the Ghanaian Construction Industry**

Respondents were asked to indicate whether corruption is still prevalent in the construction industry in Ghana. The result shows that the incidence of corruption is still endemic in the construction industry despite the efforts by successive Government to curb corruption by enacting the public procurement law. This is evident in the high percentage (74%) of respondents who admitted that there is still high corruption in the public procurement process. A relatively low percentage of 12% answered in the negative whilst 14% could not decide whether corruption is still prevalent in the procurement process. Ironically, 68% were of the opinion that the public procurement law (Act 663) has been helpful in curbing corruption in the construction industry whilst 21% thought otherwise and 11% could not support any of these claims.

Twelve (12) stages within the procurement process were identified by the respondents as highly susceptible to corrupt practices. All the stages identified had their mean scores greater than the population mean ( $\mu=2.5$ ), indicating that they are all areas that corrupt officials exploit during the tendering process. All the stages identified were found to be statistically significant. Among all the stages in the procurement process, tender evaluation with RII = 0.606 was the highest ranked followed by beneficiary selection with RII =0.555, selection of procurement method with RII = 0.547, post qualification with RII = 0.544, sales of tender documents with RII=0.531, project monitoring with RII=0.515, pre-qualification with RII=0.509, certificate payment and vetting of certificate both with RII=0.503, certificate preparation and invitation to bid with RII =0.497 and final accounting and auditing stage with RII = 0.483. The aforementioned were further subjected to one sample t-test and were found to be statistically significant at 95% confidence interval (see Tables II & III).

From the analysis in Table II & III, tender evaluation stage of the procurement process is the most susceptible to corrupt practices and the evaluation panel as provided by the law should therefore be given a close monitoring to foil any attempt by unscrupulous bidders to bribe official at this stage. It is worth noting that a lot of things happen during this stage and evaluation panel are sometimes pressurized to disqualify the most competitive tender and rather recommend favorites of politicians or those in authority. Other times corrupt bidders pay their way through the evaluation team to use all foul means to disqualify other bidders to their advantage.



Table II: Result of RII of Stages in the Procurement Process

Stage of the Procurement Process	Mean	RII	Ranking
<b>PRE-TENDER STAGE</b>			
Procurement Plan	1.806	0.361	13
Beneficiary selection	2.774	0.555	2
Needs assessment	2.103	0.421	11
Selection of procurement method	2.733	0.547	3
<b>TENDERING STAGE</b>			
Advertisement	1.625	0.325	14
Sales if tender document	2.656	0.531	5
Tender Evaluation	3.226	0.606	1
Pre-qualification	2.625	0.509	7
Post-qualification	2.719	0.544	4
Invitation to bid	2.563	0.497	9
<b>CONTRACT AWARD STAGE</b>			
Notification of award	1.594	0.309	15
Contract signing stage	1.938	0.376	12
<b>CONTRACT EXECUTION STAGE</b>			
Preparation of certificate	2.563	0.497	9
Vetting of certificate	2.594	0.503	8
Payment of certificate	2.594	0.503	8
Project monitoring stage	2.656	0.515	6
<b>FINAL ACCOUNTING AND AUDITING</b>	<b>2.417</b>	<b>0.483</b>	<b>10</b>

Beneficiary selection from this study emerged as the second most susceptible stage of the procurement process which is prone to corruption. This stage is where those in authority decide where to locate what project. This is normally characterized by tribalism, nepotism, political expediency and corruption. In most cases, beneficiary communities are sometimes compelled to pay some monies to officers who have been entrusted with the responsibility of deciding where to locate various projects.

Selection of procurement method was identified in the study as the third most susceptible stage where corruption is prevalent. Part IV of the Public Procurement Act 2003, Act 663, outlines the various methods (competitive tendering, two-stage tendering, restricted tendering, single source procurement and request for quotation) and the conditions under which each procurement method should be used. Schedule 3 of the law also presents the thresholds (contract price)/conditions within which any of the above could be adopted. Some of these methods like single-source procurement and price quotation are malleable and can easily be influenced in favor of a particular bidder. Procurement entities and practitioners normally employ these methods (Ameyaw et. al, 2011) and thereby exposing the selection of procurement method to corruption.

Post-qualification which was forth highest in the ranking is deeply embedded in the tender evaluation process. This is the stage where all the bidders who have been considered to be substantially responsive are carried on to the next stage of the evaluation process for further assessment. At this stage the bidders' plant and equipment, key personnel, annual turnover, experience & qualification of staff and work experience are assessed to establish whether they meet the minimum requirement set for that particular tender. A highly compromised evaluation team is likely to gloss over a lot of these requirements and award the contract to an ill-equipped bidder. This could explain why most projects in Ghana records high time and cost overruns (Ameyaw, 2008) and also several rework due to poor quality of work.

Sales of tender document, is one of the critical stages in the procurement process where corruption is endemic which this study collaborates. Anvuur (2006) and Ameyaw et. al, (2011) reported that there are situations in

Ghana where a single contractor is allowed to purchase all the available tender documents for a particular contract and using “ghost” construction firms to prepare the other documents. This practice is a form of colluding tendering which has dire consequences on contract prices (Shakantu, 2006). In recent times, there has been a debate even on the floor of parliament of Ghana on the astronomical increase in the cost of educational infrastructure across the country and the Minister of Education was summoned to respond to these concerns. Robb (1996) and Zhuwakinyu (2003) argued that the uniqueness of each construction project makes costs comparison difficult, which in turn makes it easier to inflate costs or hide bribes.

Project monitoring is one of the major stages in project delivery that has been relegated by both clients and consultants alike, though both unanimously agree that, the level of monitoring/supervision will determine the quality of project the contractor delivers. It has been argued that with the current procurement process which emphasizes cost, there is the tendency for contractors to undercut and if not monitored closely, would do shoddy work in order to make up for the low markup.

Table III: Result of Significant Testing of Stages in the Procurement Process

Stages in the Procurement Process	95% Confidence Interval of the Difference					
	T	Df	Mean	Mean Difference	Lower	Upper
Procurement Plan	9.920	30	1.806	1.806	1.43	2.18
Beneficiary selection	15.093	30	2.774*	2.774	2.40	3.15
Needs-assessment	10.177	28	2.103	2.103	1.68	2.53
Selection of procurement method	11.948	29	2.733*	2.600	2.15	3.05
Advertisement	8.330	31	1.625	1.656	1.25	2.06
Sales of tender document	11.259	31	2.656*	2.656	2.18	3.14
Tender Evaluation	14.286	30	3.226*	3.226	2.76	3.69
Pre-qualification	12.042	32	2.625*	2.697	2.24	3.15
Post-qualification	13.603	31	2.719*	2.781	2.36	3.20
Invitation to bid	11.922	32	2.563*	2.636	2.19	3.09
Notification of award	7.438	32	2.719*	1.697	1.23	2.16
Contract signing stage	8.062	32	2.563*	2.030	1.52	2.54
Preparation of certificate	11.025	32	2.563*	2.758	2.25	3.27
Vetting of certificate	10.191	33	2.594*	2.618	2.10	3.14
Payment of certificate	11.751	31	2.594*	2.625	2.17	3.08
Project monitoring stage	13.587	32	2.656*	2.727	2.32	3.14
FINAL ACCOUNTING AND AUDITING	7.886	23	2.417	2.417	1.78	3.05

\*T-test indicates that the mean score is significantly above 2.50 at 5% level

With RII=0.515 and sixth ranked most susceptible to corruption, project monitoring should be considered very critical in the bid to unearth the stages in the procurement process where corruption is high.

Studies have shown that 50% of building failure cases in Nigeria is traceable to design faults (carelessness and negligence), 40% to (construction faults, professional incompetence and fraudulent practices), and 10% to product failures (Oyewande, 1992). It is therefore important that, project monitoring and supervision is taken seriously. Again, poor quality control or quality of work and technical in-competence has been attributed to corrupt practices in the procurement chain (Weißen, 1999; Robb, 1996; Fan et al., 2001).

Section 23 of the Act 663 provides for pre-qualification and how it should be applied in the procurement of goods and services. Pre-qualification ranked 7<sup>th</sup> with RII = 0.509 indicates that stakeholders in the procurement sector have encountered some corrupt activities at this stage.

Since corruption is largely related to parting away with money (Ameh and Odusami, 2010), it stands to reason that corruption will also be prevalent at the certificate preparation, vetting of certificate and certificate payment stages of the procurement process. From Table II, certificate payment and vetting of certificates were jointly ranked 8<sup>th</sup> with RII = 0.503 and preparation of certificate ranked 9<sup>th</sup> with RII =0.497. Corruption is perceived to be prevalent at the certificates preparation and/or vetting of valuation stages. It is not surprising that the quantity surveyors ranked as being overall the most susceptible to bribery since they are the cost expert who deals more with the financial aspect of the project than any (Ameh and Odusami, 2010). Fan et. al. (2001) and Ameh & Odusam (2010) opined that quantities/values of works are inflated in connivance with the contractor at the certificate preparation stages and the amount shared.

Among the most significant ethical issues the construction industry is confronted with is bias in tendering or corrupt tendering practices (Doran 2004; Vee and Skitmore 2003). The result ranked invitation to bid 9<sup>th</sup> with RII=0.497 and further analysis rendered same significant. Procurement practitioners and politicians hide behind emergencies to inflict gargantuan crimes against the state by opting for sole sourcing which gives them the opportunity to single handedly appoint their cronies with it attendant inflated figures to the disadvantage of the state.

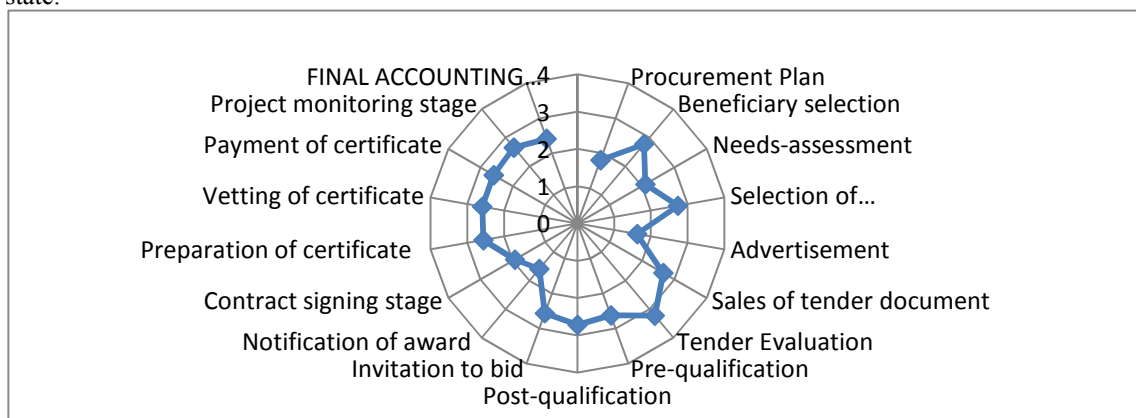


Fig. 1: Degree of susceptibility to corruption

Final accounting and auditing ranked 10<sup>th</sup> with RII=0.483 is perceived to be susceptible to corrupt practices. The results corroborates Robb (1996) finding that the final account preparation stage is predisposed to manipulation and fraudulent deals. It would therefore be suicidal for project stakeholders to think that once the project has been complete and handed over the issue of corruption is over. Figure 1 gives a graphical view of the stages in the procurement process that are highly susceptible to corruption using the mean scores.

## Conclusion

The result from the research revealed that although there has been various efforts to curb corruption with the introduction of the Public Procurement Law, Act 663, and other anticorruption initiatives, corruption still remains endemic in the construction procurement process. It was also revealed that stakeholders have come to appreciate the role played by the procurement Act in the fight against corruption. This suggests that, the procurement Act alone is incapable of making corruption unattractive.

The study also investigates the stages in the Ghanaian procurement process that are susceptible to corruption with a clear exposition on how corrupt officials and procurement practitioners exploit the system and how these practices affect project cost and delivery.

Seventeen (17) stages of the procurement process were analysed with twelve (12) identified as statistically significant areas where corruption is prevalent. Among these are (1) tender evaluation, (2) beneficiary selection, (3) choice of procurement method, (4) post qualification, and (5) sales of tender documents. Others are (6) project monitoring, (7) pre-qualification, (8) payment of certificate and vetting of certificate, (9) preparation of



certificate and invitation to bid and (10) final accounting and auditing. The findings of the study cannot be generalized due to the limited sample size. The data collection is still on-going to allow for further study in the area and the expanded data will be analysed using logistic regression analysis.

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