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Statistical Study on Types, Causes, Effects and Remedies of Corrupt Practices in Construction Industries in Nigeria

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ABSTRACT

The paper examined the issues of corruption in Nigeria by identifying the various corrupt and fraudulent practices that exist in Nigeria Construction Industry. It also examined the different job stages where corruption is common within the industry, involvement of professionals, obstacles to exposing corrupt practices, effects of corrupt practices and solutions to corrupt practices in the construction industry. A total of 1500 questionnaires were administered using a web-survey. Professionals in the industry and construction managers were respondents of the survey. A simple statistical tool such as mean, standard deviation and importance index were used to analyze the result. It was observed from the analysis that the major causes of corrupt practices center around the absence of punishment for corruption, economic recession, competitive bidding and loss of contract money due to change in government. The leading examples of corruption practiced in the construction industry are bribery, extortion and employment of unqualified or quacks. The obstacles faced by employees to reporting corrupt practices are fear of appointment termination imposed by the employer, awareness that the whistleblower is not well secured and lack of assurance in anticorruption agencies. The major effects of corrupt practices are poor quality construction of infrastructure and low economic returns. Remedies according to analysis were good and adequate supervision, use of standard materials, and involvement of professional builders in the construction process, proper soil investigation, and discipline of professionals if proven to be involved.

Keyword: *Corrupt practices, Construction, Industry.*

1.0 INTRODUCTION

Corrupt practices have been found to be a key and unrelenting stumbling block to construction industries that are trying to achieve sustainable social and financial growth. It has become a general debate among citizens because of its prevalence within various sectors thereby making the economy to crawl. In Nigeria today, corruption has eaten so deep into our system that it remains the greatest threat to the achievement of the desired growth [1-3]. The definition of corruption according to Advanced English Dictionary is the dishonest or fraudulent conduct by those in power typically for private gains. [3] defined corruption as receiving, asking for or giving any gratification to induce person to do a favour with a corrupt intent. It is important to note that other pertinent issues like bribery, fraud, fund misappropriation and the likes should be checked while addressing corruption.

In general, the concept of corruption in the society might not be well understood until these pertinent issues are mentioned. Bribery is the crime of giving someone money or something else of value often illegally to persuade that person to do something you want; fraud is wrongful or criminal deception intended to result in

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financial or personal gain while misappropriation of fund is the deceptive appropriation of fund or property entrusted to someone for a particular purpose [3].

In Nigeria, different anti-corruption agencies are being put in place to check the rate of corruption and fraud in both public and private sector, we have EFCC Act (economic and Financial crime commission), ACT No 1 200, Independent corrupt practice and other Related offences commission (ICPC) established and signed to land in 2000 [4-6]; money Laundering Act which communed on February 1995[6]. Also criminal code Act, CAP C38 chapter 12 [6-10] spells out different issues relating to corruption and Abuse of office. Government has been doing one thing or the other to checkmate the trend of corruption in the society this is reflected in the power given the two pronounced anti-corruption Agencies – EFCC and ICPC and their landmark achievements yet with these the trend of corruption and fraud still remain the vulnerable cancer eaten up our economy and cutting across every sectors of Nigeria both public and private including construction industry [10-13]..The study is targeted at compiling respondent's views on corruption within the Nigerian construction industry. It considered the types of corrupt practice commonly found and attitudes of professionals to corruption. The study also looked at the areas in which respondents believed that corrupt practice may likely take place. The aim of this research work is to assess the perception of different stakeholders' in the construction industry as to the cause{s}, effects and remedies of corrupt practices in Nigeria.

2.0 RESEARCH METHODOLOGY

A web-based selection survey was done to choose professionals who (a)are employees of the construction industry, (b) have director and other senior management level positions in the considered construction industries, (c) have up to 39 years working experience in the construction industry, and (d) have individual experience with corruption. The professionals working in different construction companies in the six (6) Geo-political zones of Nigeria were considered in this research. This is to ensure adequate coverage of professionals so as to get an insight to corrupt practices in various locations of Nigeria. Apart from the information obtained from the survey, other data were sought through relevant agencies on reported cases of corruption in construction industries. Different texts in the library, NBRRI newsletter, eBooks, journals, different magazines with subject matters related to the study were also consulted.

2.1 Corruption Index

Corruption Index or Importance Index=$\sum \frac{W}{H*N}$ ……Eqn.1

Where:
W = weight given to each factor by the respondents and ranges from 1 to 4, (where "1" is "not corrupt" and "4" is "highly corrupt"); H =highest weight (i.e. 4 in this case) and;
N =total number of respondents.

2.2 MEAN

Mean gives the average of a set of data. It could be grouped or ungrouped.

$\bar{X}=\frac{x_1+x_2+x_3+\cdots\ldots\ldots\ldots+x_n}{N}$ Eqn.2

2.3 STANDARD DEVIATION

Standard deviation (SD) describes how much a value is deviated from the mean. If SD is low then such value is close to the mean.

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$\sqrt{\frac{\sum f(x-\bar{x})}{N}}$ Eqn.3

Where,

F is the frequency

N is the total number in the set

x is each value in the set

$\bar{x}$=Mean value

3.0 RESULT PRESENTATION AND ANALYSIS

Table 3.1: Response rate with varying working experiences

Working experience	Frequency	Percentage
Less than 10 years	406	27.1%
10 – 19 years	568	37.9%
20 – 29 years	489	32.6%
30 – 39 years	37	2.4%
TOTAL	1500	100%

3.1 Analysis of the response rate with varying working experiences

Table 3.1 shows that 27.1% of the Respondents, most of who are professionals in the construction industry have less than 10 years of work experience and 37.9% have 10 to 19 years of experience. Furthermore, 32.6% of the Respondents have 20- 29 years of work experience, while 2.4% has 30- 39 years of experience. This shows that 72.9% of the respondents who are mainly professionals in the industry have more than 10 years of experience; meaning that they possess adequate years of cognate experience.

Table 3.2 and 3.3: Response rate of professionals and Geo-Political Zones

Professionals	Frequency	Percentage
Architects	250	16.7%
Builders	467	31.1%
Elect. Engineer	100	6.7%
Civil. Engineer	167	11.1%
Mech. Engineer	66	4.4%
Quantity surveyor	283	18.9%
Town planner	117	7.8%
Others	50	3.3%
TOTAL	1500	100%

Geo-political zones	Frequency	Percentage
North - East	118	7.9%
North – Central	317	21.1%
North – West	118	7.9%
South – West	395	26.3%
South – South	158	10.5%
South – East	394	26.3%
Total	1500	100%

3.2Analysis of the response rate of professionals and Geo-Political Zones

Table 3.2 shows that 16.7% of the Respondents Were Architects, 6.7% were Electrical engineers, 31.1% were builders, 4.4% were Mechanical engineers, 11.1% were Civil engineers, 18.9% were Quantity surveyors, 7.8% were town planners and 3.3% were other professions related to the construction environment. Thus, the respondents are capable of providing information for this study based on professional point of view. The high response rate for this survey is an indication that this is an issue of great concern to professionals of the industry. Table 3.3 shows that the respondents from North- East were 8%, North- Central were 21%, North- West were 8%, South- West were 26%, South- South were 11% and

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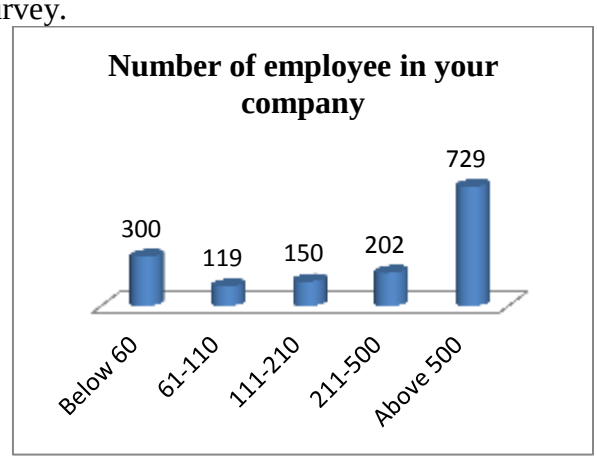
South- East were 26%. This shows that the all the geo-political zones in the country are well represented in the survey.



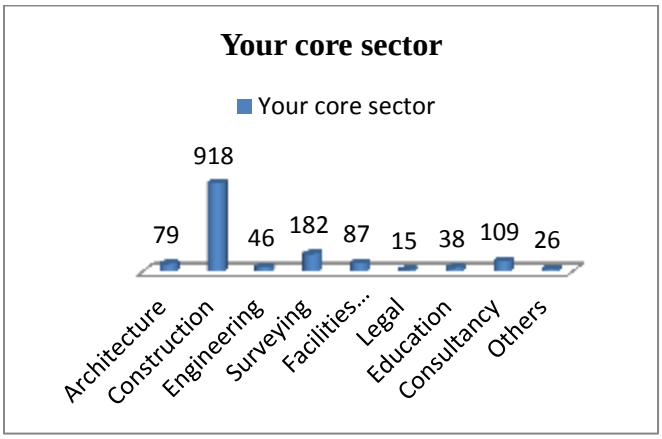
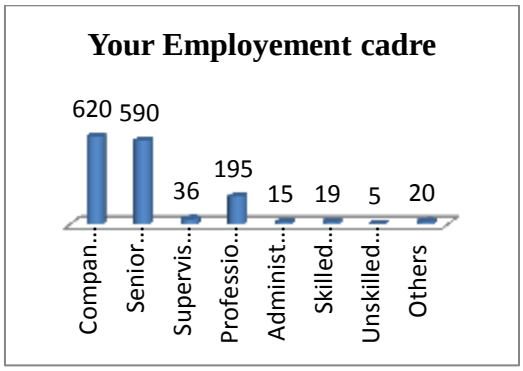


Figure 3.1 and 3.2: Number of employee and core sector

3.3 Analysis of the number of employee and core sector

Most of the respondents (729) are employees of large companies with more than 500 respondents as compared with other organization sizes. The response from such respondents will produce actual picture of corrupt practices in Nigeria as a whole. Figure 3.2 shows that respondents mostly earn a living in the construction sector with respondents totaling 918, which means they are capable of providing adequate information needed for this study



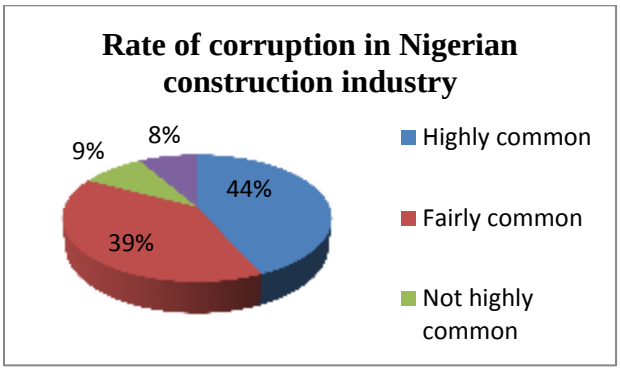


Figure 3.3 and 3.4: Your employment cadre and Rate of corruption

3.4 Analysis of professionals based on their employment cadre and rate of corruption

Figure 3.3 shows that respondents are mainly directors (620) and senior staffs (590) in the construction sector. This is an indication that the survey captures the required officials needed for this study. Figure 3.4 shows that the sample was fairly distributed between those who believed corruption was highly or fairly common and those who believed corruption was not highly common and not common. This validates the fact that corruption is prevalent in construction industries.

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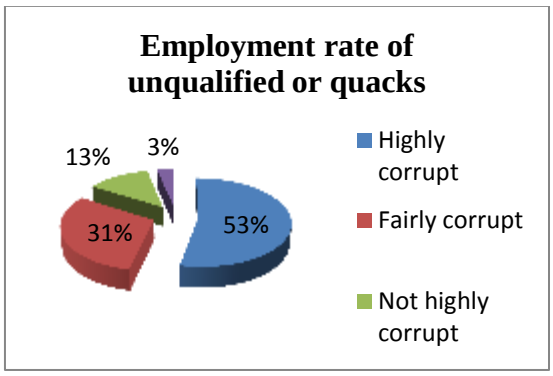


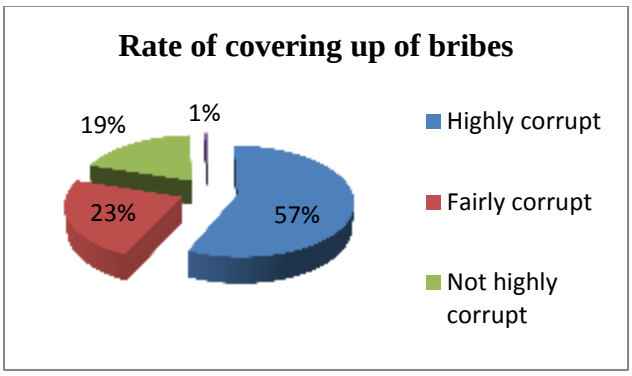
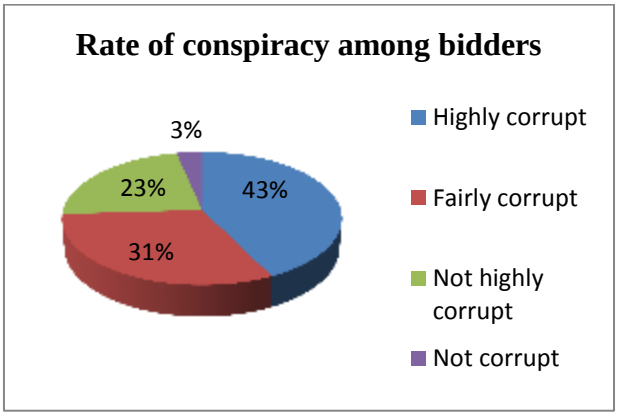


Figure 3.7 and 3.8: Employment rate of unqualified or quacks and Rate of covering up of bribes



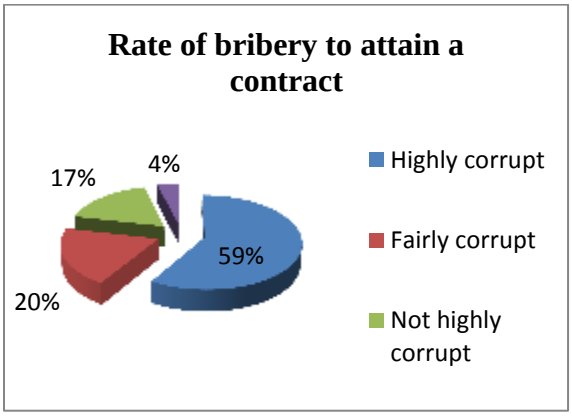
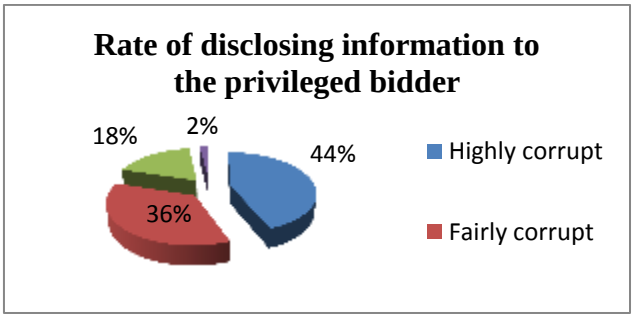


Figure 3.9 and 3.10: Rate of conspiracy among bidders and bribery to attain contract



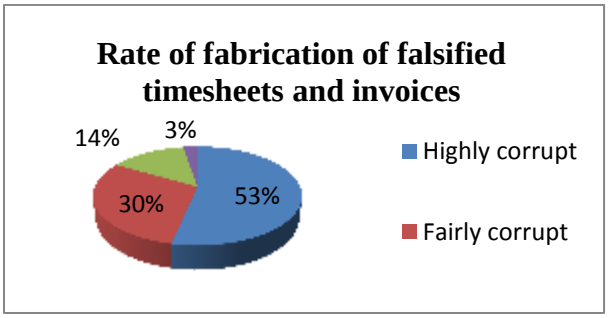
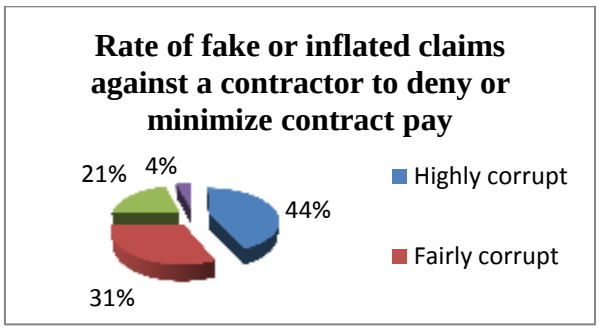


Figure 3.11 and 3.12: Rate of disclosing information to the privileged bidder and Rate of fabrication of falsified timesheets and invoices



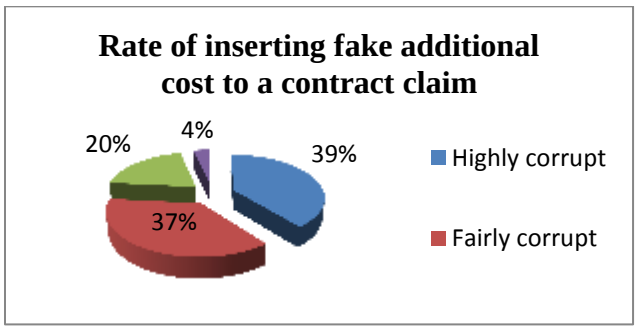


Figure 3.13 and 3.14: Rate of fake or inflated claims against a contractor to deny or minimize contract pay and Inserting fake additional cost to a contract claim

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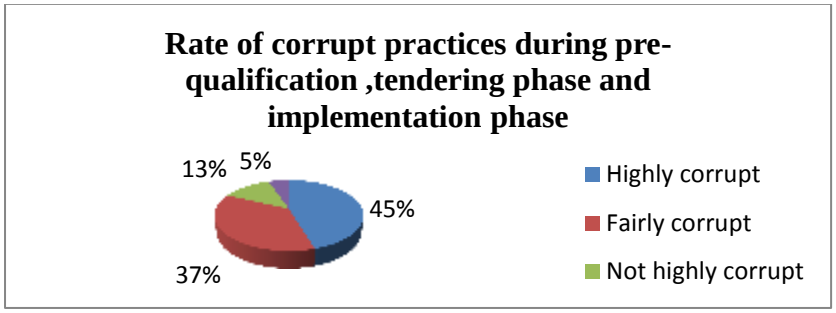

Figure 3.15 and 3.16: Rate of corrupt practices during pre-qualification, tendering phase and implementation phase

3.5 Analysis of Figures 3.7 to 3.16

It is obvious from Figures 3.7 to 3.16that most of the respondents admitted from their individual experiences that all the practices considered are highly corrupt. The most common practices found to be highly corrupt is the issue of bribery given to obtain a contract as seen in Figure 3.9 (59%) while inserting fake additional cost to a contract claim is more frequently seen as only fairly or not corrupt

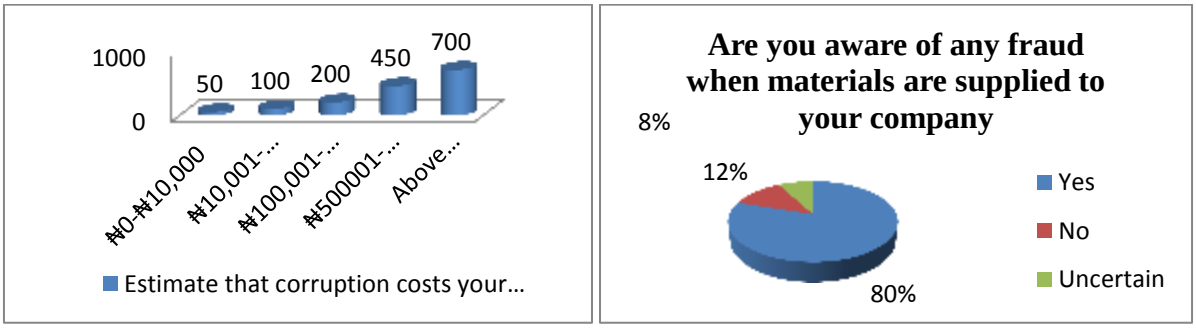

Figure 3.17 and 3.18: Estimate that corruption costs your company annually and Question on awareness of fraud

Figure 3.17shows the estimate that corruption costs companies annually. Companies were found to incur up to one million naira and above at the expense of corruption as obtained by 700 respondents. This problem can be traced to companies that folded up due to fraudulent activities. Figure 3.18 shows awareness of fraud when materials are supplied to the companies. A high number of respondents (80%) say they are aware of frauds that take place when materials are supplied.

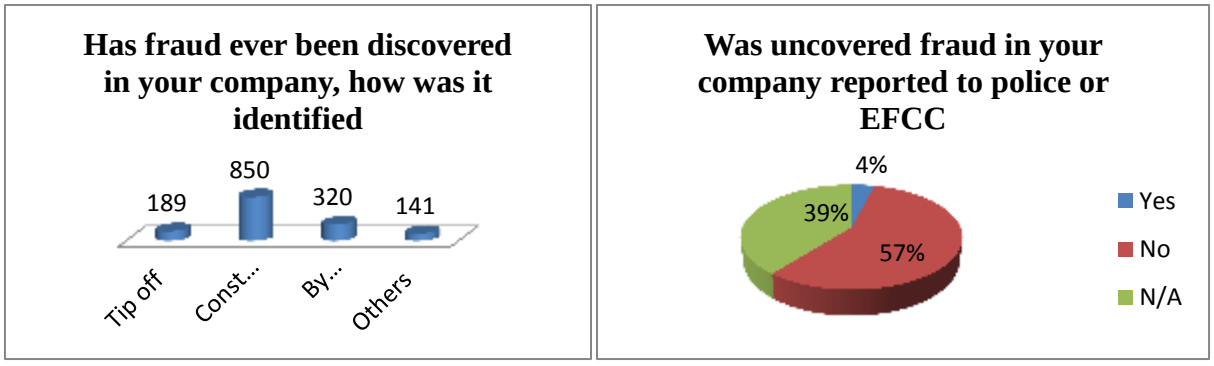

Figure 3.19 and 3.20: Question on how fraud was discovered and whether uncovered fraud was reported

Figure 3.19 shows how fraud was discovered and identified. Majority (850) of respondents stated that constant auditing is a major solution to discovering frauds in many organizations while the least is tip offs .Figure 3.20 shows whether uncovered fraud were reported to police or EFCC. Statistics show that majority never reported cases of fraud uncovered which may eventually cause more damage

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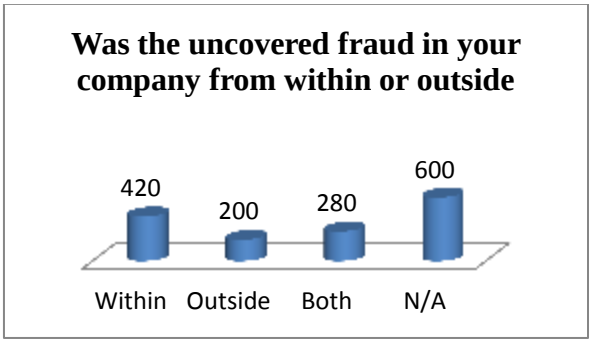

Figure 3.21 and 3.22: Question on whether uncovered fraud was from within or outside and whether an employee has been offered bribe

Figure 3.21shows whether uncovered fraud was from within or outside. Data obtained from the respondents show that majority were within the organizations. Figure 3.22 shows whether an employee has been offered bribe. Majority of the respondent acknowledged that they have never been offered bribe while up to 600 said they have been offered bribe more than once

Table 3.4: Different corrupt practices within the industry

Corrupt practice	Mean	Standard deviation	Importance index	rank
Bribery	3.88	1.34	0.85	1
Extortion	3.75	1.26	0.84	2
Employment of unqualified or quacks	3.59	1.19	0.82	3
Covering up of bribes	3.46	1.08	0.79	4
Conspiracy among bidders	3.25	0.87	0.74	5
Disclosing information to the privileged bidder	3.05	1.02	0.68	6
Fabrication of falsified timesheets and invoices	2.98	0.71	0.65	7
Fake or inflated claims against a contractor to deny or minimize contract pay	2.87	0.69	0.63	8
Inserting fake additional cost to a contract claim	2.76	0.67	0.60	9
Pre-qualification ,tendering phase and implementation phase	2.69	0.63	0.59	10

Table 3.4 shows different corrupt practices within the industry. Data obtained from respondents show that Employment of Bribery (importance index=0.85) takes the lead, followed by Extortion (importance index=0.84) and unqualified or quacks (importance index=0.82)

Table 3.5: Obstacles to exposing corrupt practices in an organization

Obstacles	Mean	Standard	Important index	rank

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		deviation		
Fear of appointment termination imposed by the employer	4.64	0.80	0.89	1
Awareness that the whistle blower is not well secured	4.61	0.76	0.86	2
Lack of assurance in anticorruption agencies cannot be trusted	4.37	0.78	0.78	3
Loyalty to organization as barrier to exposing unlawful activities	4.29	0.83	0.75	4
A mentality that it's a mere waste of time as nothing will likely be done	3.98	0.96	0.73	5

Table 3.5 shows obstacles faced in exposing corrupt practices in an organization. Data obtained from respondents show that Fear of appointment termination imposed by the employer (importance index=0.89) takes the lead, followed by Awareness that the whistle blower is not well secured (importance index=0.86) and Lack of assurance in anticorruption agencies cannot be trusted (importance index=0.78)

Table 3.6: Effects of corrupt practices on the construction industry

Effects of corrupt practices	Mean	Standard deviation	Important index	rank
Poor quality construction of infrastructure	4.69	0.88	0.91	1
Low economic returns	4.67	0.75	0.87	2
Retards economic growth and development	4.35	0.74	0.75	3
Discourages legitimate business investors	4.26	0.87	0.70	4
Increased cost of construction	3.96	0.92	0.65	5
Destroys public interest	3.81	0.91	0.60	6
Results in projects that are	3.74	0.82	0.58	7

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unreliable, dangerous and unnecessary				
Tendering uncertainty	3.69	0.83	0.55	8

Table 3.6 shows effects of corrupt practices on the construction industry. Data obtained from respondents show that Poor quality construction of infrastructure (importance index=0.91) takes the lead, followed by Low economic returns (importance index=0.87) Retards economic growth and development (importance index=0.75)

Table 3.7: Solutions to corrupt practices in the construction industry

Solutions to corrupt practices	Mean	Standard deviation	Important index	rank
Good leaders in government	4.67	0.82	0.86	1
Pay living wages to employees	4.64	0.79	0.82	2
Law and regulation enforcement	4.35	0.73	0.77	3
Strengthening the management and supervision of tendering process	4.27	0.81	0.75	4
Adequate supervision of officials involved in project procurement	3.98	0.91	0.73	5
Institution of regular and random checks	3.84	0.96	0.71	6
Supervision of process and work during the project life cycle	3.74	0.83	0.68	7
Accountability at every stage of the project	3.65	0.76	0.65	8
Ethical practices through organizational leadership should be enforced	3.57	0.71	0.61	10

4.0 CONCLUSION AND RECOMMENDATION

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This study considered issues of corrupt practices in construction industry using statistical analysis like mean, standard deviation and importance index. Up to 1500 professionals in the construction industry were interviewed through a web-based survey to choose professionals who (a)are employees of the construction industry, (b) have director and other senior management level positions in the considered construction industries, (c) have up to 39 years working experience in the construction industry, and (d) have individual experience with corruption. Responses from professionals produced the causes of corrupt practices, obstacles to reporting cases of corruption, effects and solutions. Other methods of investigating corruption should be studied and analyzed

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