

A Survey of the Prevalent Forms of Corruption in the Construction Industry in Botswana

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The Construction industry is contributing immensely towards social and economic developments around the world. However the industry is susceptible to corrupt practices because it involves substantial capital investments. Every phase of the construction process: planning and design, pre-qualification, tendering, project execution, operation and maintenance is attractive to corruption. The effects of corruption are quite substantial in terms of quality, time and cost of a project. The objective of this study was to identify the most prevalent form of corruption in the Construction industry in Botswana. The study was quantitative and conducted through literature review on the topics related to corruption in the Construction industry followed by questionnaire survey. A total of 81 questionnaires were distributed among the relevant employees of the Directorate of Building and Engineering Services (DBES), Southern District Council (SDC) and contracting organizations. Sixty properly filled questionnaires were returned giving a response rate of 74.07%. Cronbach's Alpha equals 0.939 for the entire questionnaire which indicates an excellent reliability of the entire questionnaire. Rank-order Analysis was performed to examine the professionals' perceptions of the most prevalent form of corruption in Botswana's construction industry. The results indicate that bribery in form of cash inducement, gifts, favors, and kickbacks rank highest ($R^2 = 0.65$) and constitute the most prevalent form of corruption in Botswana's construction industry.

Keywords: Corruption, Bribery, Construction Industry, Botswana.

Introduction

Botswana's economy has grown steadily over the years, from being one of the poorest to one of the most successful countries in sub-Saharan Africa. Olowu (1999) attributed the country's growth to the commitment of the political leadership to liberal/multiparty democracy or consensus politics and to sensible economic policies, rapid and sustainable economic growth and efficient central state. Botswana has never experienced military rule and there has been five yearly multiparty elections since 1966, when it became independent.

Botswana public service was perceived to be generally efficient and incorruptible until the early 1990s, when a number of major corruption scandals rocked the country's public service. This included illegal sale of public land, construction of high cost houses for sale which there was no prospective demands, and a loan from the National Development Bank by high-ranking persons that actually led the bank to ruin. Most of these scandals were revealed by independent public media, which led to official enquiries. The enquiries did not only establish the truth about the presence of corruption, but also led to the resignation of a number of Ministers and demonstrated the general pattern of corrupt activities in Botswana (Olowu, 1999). Botswana, as well as other developing countries, experienced theft and fraud perpetrated by public officials. Towler (2007) remarked that corruption of government officials abound at all levels of the public sector,

including theft of government funds at alarming rate. According to Good (1994), examples of corruption in Botswana include:

- One of the former ministers of Local Government and Housing, who was found to have used his position to benefit his friends.
- Construction of 407 high cost houses had been planned on hillside at Lobatse, though there was little or no market for such accommodation, for which the Botswana Housing Corporation paid P8.5M for professional service for the design of the project.
- In 1992, Spectra Botswana received P12M to build new Botswana Housing Corporation headquarters before the contract was finally cancelled. It was found that “the ultimate administrative responsibility,” was borne by one of the former Permanent Secretaries in the Ministry, who was also the Chairperson of Botswana Housing Corporation, while one of the former Ministers carried the political responsibility for the massive corruption.

According to Sunday Standard (2011), there was an alleged corruption at Botswana Development Corporation (BDC) regarding Glass Manufacturing project at Palapye. The project was a joint venture between BDC and Fengyue Glass Company. There was no formal tendering to identify or select the contractor. It was also discovered that the contractor did not have technical expertise or any experience on glass manufacturing. The company failed to raise equity as requested by BDC. The audit revealed that the contractors were overpaid and, in some instances, paid for supplies not delivered.

Transparency International persistently touts Botswana as a “regional highflyer,” because of its’ consistent number one spot in the corruption perception index (CPI) for the Sub-Saharan Africa. This has been a boost for government willingness to reduce or exterminate corruption. In a budget speech, it was clearly stated that the Transparency Internal CPI result for Botswana “needs to be nurtured and sustained by robust anti-corruption policies and strategies” (Botswana Government, 2010). This laudable ambition is yet to yield remarkable improvement in some affected sectors of the economy especially the construction industry where projects continue to fail as measured by cost and time overruns, abandonment and low quality work.

Girling (1997) stated that corruption does not actually disappear as the country develops, rather it takes a new dimension. The research aims to obtain a clear overview of the nature and level of corruption in the construction industry in Botswana with the objective of determining the most prevalent form of corrupt practices in the industry.

Literature Review

According to Sohail and Cavill (2008), the global construction market is worth around US\$ 3,200 billion yearly. This market represents 5-7% in developed countries and around 2-3% of GDP in lower income, developing countries. The construction industry has an international reputation for corruption, asset misappropriation and bribery. Transparency International’s Bribe Payer Index continually shows corruption to be greater in construction than any other sector of the economy.

The Construction Industry is the Most Corrupt

Figure 1 shows the result of a comparative survey carried out on many industries, including the construction industry (Kenny, 2007). It shows that the construction industry is the most corrupt on a scale from zero to ten. A low score indicates a high corruption rate, while a high score indicates a low corruption rate. The construction industry is ranked lowest, at a score of around 5.2 and is, thus, considered the most corrupt industry.

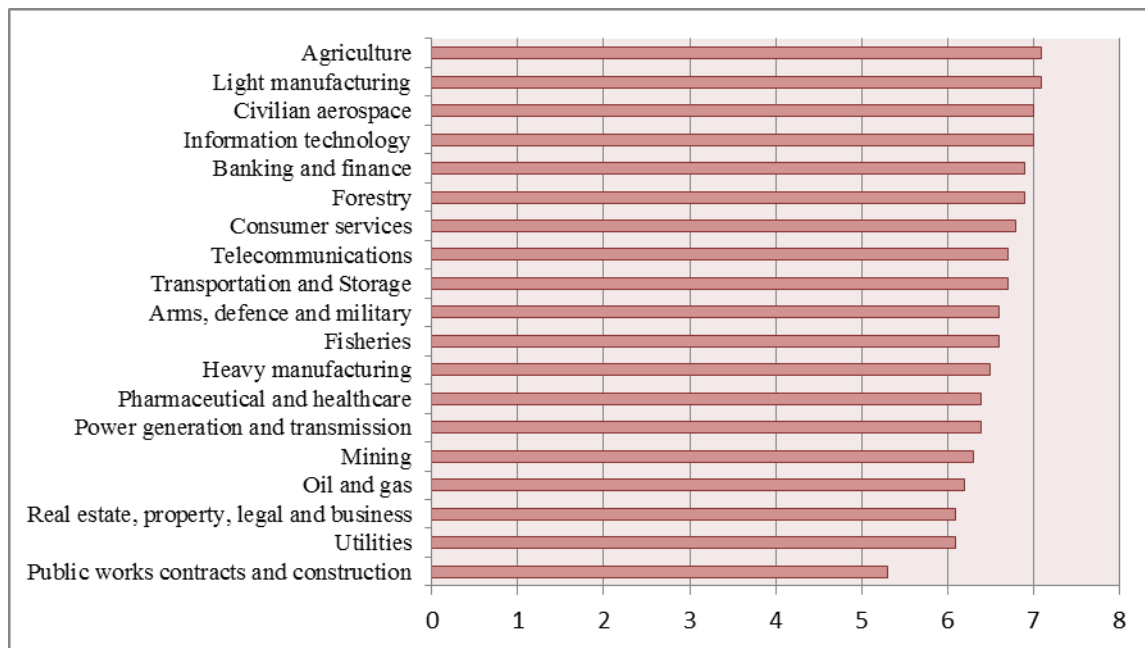


Figure 1: Transparency International's Perception of Corruption by Industry; from 0 (corrupt), to 10 (uncorrupt).

Dorn et al. (2008), suggests that corruption does not happen in a vacuum, but it involves a medium to thrive. That is, corruption takes place when public officials, entrusted with procurement collude with the third party (contractor) in pursuit of personal interest which traditionally involves bribes and other fraudulent practices. Soreide (2006) explained that procurement procedures do not guarantee a superior combination of price and quality. Procurement procedures behind large projects like the construction of a highway, a telecommunication network, etc., can be manipulated in several different ways. Furthermore, large infrastructure projects appear particularly prone to political intervention, addressing, for instance, regional or distributional considerations, unemployment and protection of domestic industry.

The procurement procedure/process occurs in three stages which are as follows:

- Preparatory stage: When procurement needs, budget and question of procedure are settled.
- Solicitation: Bidding and selection.
- Execution of the contract stage: Work is done and delivered.

Risks of Corruption in Different Stages of the Construction Industry

Preparatory Stage

Corruption may potentially take place at any stage of the stages of procurement process. Corruption opportunities arise as decision are made about whether and how the provision should be applied in the light of the needs of the procuring entity, the type and scale of work envisaged, the criteria to be met by successful bidders, the availability of potential bidder, the procedure to be followed and so on. Contractors may be involved in shaping the requirements, either through their previous work through helping the procuring entity to draw a specific contract. Decision made at this stage will decisively shape scope and terms of eventual contract. Such decisions include the choice of procedure, justifications for using open, negotiated, emergency procedure, the possibility of breaking down the work in to small packages and time frames, drawing up specifications and pricing of the work to be delivered .Corruption risks that may happen include improper involvement of contractors, fixing specifications or criteria so to unduly narrow the field, setting an unrealistically low price so as to discourage other bidders and the entering in to a negotiated bid with one favored contractor (Dorn et al. 2008). In the construction industry architects prepare drawings to suit their friends, information is leaked to quantity surveyors about an upcoming project through the evaluation of initial cost estimates and they also leak information to their colleagues in the construction sector who at bid tender period will have advantage over those who did not know the probable value or contract sum of the upcoming project. Officials plan in favor for high valued projects which may not address an immediate or long term socioeconomic problem; over designing and overpricing projects because of personal gains; and ignoring an unfavorable environmental impact assessment/planning proposal or approval (Osei Tutu et al. 2010).

Solicitation of Bids Stage

At this stage, there is evaluation of tenders and selection of best evaluated bidder. Decisions are made about suitability of specific bidder; checks should be made about suitability of specific bidder. Checks should be made to see if tenderers are independent and the selection criteria is done air manner in order to choose a successful tenderer (Dorn et al. 2008). Among the most corrupt practices issues faced by the construction industry is bias in tendering or unethical tendering practices (Ameh and Odusami, 2010). Zou (2006) stated that the uncompetitive tendering practices include inappropriateness of tender evaluation criteria, preferential treatment of tenderers, disclosure of baseline price of project and other confidential information and integrity of members of tender evaluation committees.

Contract Execution Stage

Once the contract has been agreed and signed, in principle, there may be further negotiations on details of scope and price. Depending on the procedure used, these negotiations may be financial and may be quite considerable. Prolongation or extension of contract may be agreed without further competition. There is high chance of “scope creep” at this stage, which either may be hidden in the tender but not anticipated by the procuring entity or alternatively may be engineered by the tender in order to obtain an extension. In certain circumstances the procuring

entity may prefer to issue another contract, rather to admit that things are going badly. In some cases, change of staff may mean that procuring entity do not understand that they are being manipulated, in other cases they may be conflicts of interest and corruption. At this stage project deliverables should be closely monitored in order to assess to what extent specifications are met (Dorn et al. 2008). Among the examples of corruption and unfair practices witnessed in South Africa, according to Bowen et al. (2012), were in terms of:

1. Materials – the contractor lies about materials used or uses inferior materials and loss of materials on site;
2. Professional dishonesty – poor practices by consultants; inexperience; blaming
 - a. Contractors for incompetence; deliberately increasing contractor cash flow through unmerited payment awards, and recommending friends for tender awards;
3. Documentation – poor and incomplete
4. Poor workmanship by contractors;

Cost of Corruption in Public Procurement Stage

The cost of public procurement is difficult to measure quantitatively due to the environment in which it takes place. Given the massive amount of money spent on public contracts, no one doubts that corruption in procurement has an immense impact on the effectiveness of government investments. Transparency International estimate that damage from corruption can represent an average of 10-25 % and in worst cases it represent as much as 50 % of a contract value. In Morocco, despite reforms to the procurement system, recent calculations by industry experts suggested that corruption still costs the country about 5 % of the value of each contract. In the Philippines business insiders have speculated that this cost may reach up to 50 % (Transparency International, 2010) and thereby inflates contracts cost by about 20-30 per cent (Mawenya, 2008) cited by Ameyah et al. (2012). Another survey reported that the cost of corruption is estimated at about US\$ 148 billion per annum in Africa (World Bank, 2003) cited Ameyah et al. (2012b).

Corruption in public procurement is not just about money, it cost lives. This happens when the execution of a construction contract is flawed leading to a building collapse. This has happened in both developing and developed countries. For example, the high death tolls as a result of the devastating earthquake in Turkey in 1998, India in 2001, China in 2008, Haiti in 2010 were partly blamed on alleged corruption in the construction industry in relation to public buildings, including schools and hospitals (Transparency International, 2010).

Corruption during Construction Project Life-Cycle

Corruption can happen at any stage of construction project life cycle as illustrated with examples in Appendix 1 (Sohail and Cavill, 2008). Strombom (2001) as cited by Sohail and Cavill (2006) argued that corruption generate immense opportunities for payoff with comparatively low risk of detection and punishment. This is a key problem in the construction industry, which is typically adversely affected by delays, disruption and changes leading to increased costs, these incidences of corruption can be obscured by other cost overruns meaning that corruption goes undetected. Pricewaterhouse Cooper (2003) found that the problem of corruption often comes to light as a

result of either whistle blowing or accident discovery and suggest that that construction companies tends towards the view that the value of the defrauded assets is often less than the costs of implementing a robust and effective risk management system.

There are many cases of uncovered corruption in the construction industry. The Deputy Mayor of Beijing in charge of urban development and Olympic projects was removed from his office in 2006 along with other Vice mayors because of corruption allegations. In the same year an audit of 21 highway Chinese high way construction with combined value of US\$ 605 million found that a third of the amount had been misappropriated by government officials (Sohail and Cavill, 2008).

In Botswana, a quantity surveyor employed by the Department of Building and Engineering Services appeared before court on charges of forgery and supplying false information to a person employed in the public service. This followed removal of the consultant's recommendation from his report and replacing it with her own thereby diverting over P11 million (USD1.1 million) tender to a company which was disqualified by the consultant (DCEC, 2006).

Corrupt Practices in International Construction

According to Azhar et al. (2011), published literature has indicated the presence of unethical conduct and corruption in the construction sector of both developed and developing countries. Here are some examples:

- Fails Management Institute (FMI) conducted a study for the Construction Management Association of America (CMAA) entitled "Survey of Construction Industry Ethical Practices" (Fails Management Institute, 2004). The study focused on the activities of construction project owners, architects, engineers, construction managers, general contractors, and subcontractors. The results were quite alarming. For instance, when respondents were asked whether they had personally experienced, encountered, or observed industry-related acts or transactions that they would consider unethical in the last 12 months, an overwhelming 84 percent said "yes." In addition, 34 percent indicated that they had encountered such acts "many times." A majority (63 percent) of survey respondents felt that the construction industry was tainted by the prevalence of unethical acts. Similarly, 61 percent of the respondents thought unethical behavior was affecting the cost of completing the projects.
- The Chartered Institute of Building (CIOB, 2006) conducted a survey to gather views on corruption within the UK construction industry. It was found that there was a great deal of variation in the way that respondents perceived the nature and extent of corruption. It was acknowledged, however, that 41% of those surveyed had been offered a bribe on at least one occasion.
- Hartley (2009) reported that within the Australian construction industry, anticompetitive practices especially related to workplace practices are common. These practices have included collusive bidding, lack of honesty and fairness in business relationships, and poor or non-existent occupational health and safety practices.
- A study by Ling and Hoang (2010) indicated widespread corruption in foreign funded public projects in Vietnam.

Reason Why Construction is Prone to Corruption

Rodriguez et al. (2005) highlighted that construction projects usually involve a large number of participants in a complex contractual structure. Construction projects structure can be very complex depending on the magnitude and type of the projects. The client is linked to source of finance (bank), project engineer, consultants, main contractor etc. The main contractor is linked to specialist sub-contractors and the sub-contractors are linked to suppliers.

The ‘main contractor’ is likely to be a private sector construction or engineering company, which may then subcontract key parts of the project according to its own guidelines for awarding contracts. Subcontractors may in turn sub-subcontract parts of their work, and sub-subcontractors may purchase equipment and materials from suppliers, or award further subcontracts. The following features of construction projects according to (Standbury, 2005) make them particularly prone to corruption (Appendix 1).

Methodology

There are many players involved in the construction industry in Botswana. They include professionals such as quantity surveyors, architects, project managers, engineers and procurement officers. The targeted population for this research therefore consists of the professionals employed by the Department of Building and Engineering Services (DBES), Southern District Council (SDC), and construction companies that were involved with DBES and SDC projects. DBES is the umbrella of construction project procurement in Botswana since it handles all mega-projects hence was selected to represent the client. Local authorities are also given fair amount of budget for implementation of small to medium projects and it is for this reason that SDC was also selected as a research subject. The construction companies targeted were those registered with PPADB, an organization responsible for registering and grading all companies dealing with project procurement in Botswana. These construction companies also ought to have been registered and engaged by DBES or SDC to procure construction projects. A pilot study was performed to test the adequacy and validity content of the survey instrument (questionnaire) and feasibility of its administration with a view to eliminating any ambiguities. It was discovered at this stage that some potential respondents mainly DBES and SDC were not willing to participate in the study despite the reassurance of confidentiality in the questionnaire. This was mainly due to the sensitiveness of the subject matter which is corruption. Some officers requested that permission should be sought from the chief executives of their organizations before responding to the questionnaire. Most of the participants did not want their identity known and were of the opinion that revealing their names would prompt investigations even though the problem was addressed by in the questionnaire by indicating that provision of name or identity is optional. The refusal to participate in the subject matter by a proportionate number of targeted employees was traced in part to the fact government officers in Botswana signed Oath of Secrecy, which stipulates in the Public Service Act, 26:01 and of the Penal Code Chapters 08:01 that “any information gained as a result of employment shall not be divulged except in the course of the duty or authorized by superior officer.” However some of employees were willing to participate in the survey inasmuch anonymity is observed.

By the nature of this research, survey questionnaire was the most suitable approach for collecting data. In the pilot study five questionnaires each was distributed at DBES and SDC. A questionnaire each was distributed in five Construction companies. A sizeable number of construction companies were also not willing to participate in the study. However five of the companies took the questionnaire. In total, only seven respondents filled the questionnaire and this was made of two DBES, three SDC and two construction company staff.

Due to lack of interest among large number of the targeted population and low questionnaire response rate during the pilot study it was deemed appropriate to resort to purposive sampling technique. Architects, quantity surveyors, engineers, project managers, engineers and procurement officers were purposefully sampled according to their experience in project execution and willingness to participate in the research and were issued with the questionnaire. A total of 81 respondents were issued with questionnaire and they consisted of 27 Department Buildings and Engineer Services employees, 27 Southern District Council employees and 27 employees of Construction companies. A total of sixty (60) respondents out of the targeted respondents comprising of seventeen (17) DBES twenty five (25) SDC employees, twenty five (25) SDC employees and eighteen (18) construction companies' employees participated in this study as shown in the Table 3.1. The response rate was high mainly because the participants were assured that their responses and personal details shall not be divulged to anyone considering the sensitivity of the subject matter.

Table 2

Sample Size (Legae, 2015)

Respondents		Number of Distributed Questionnaires	Number of Respondents	Response Rate (%)
Client	DBES employees	27	25	92.59
	SDC employees	27	17	62.96
	Contractor's employees	27	18	66.67
Total		81	60	74.07

The questionnaire was divided into two parts. Part A was the demographics of the respondents while part B was ranking the forms of corruption in the construction industry as encountered in literature and confirmed by the respondent professionals during the pilot study. Twenty of such forms of corruption were the subject of ranking as shown in Table 4. The strength of respondents' opinion was elicited by using 5 point Likert scales to show the frequency they thought each form of corruption occurred in the Botswana Construction Industry.

The questionnaire was made up of the following sections:

1. Section A contains general information of the respondents and their organization, such as the experience of the respondents, their position within their organization,
2. Section B contains information about perception of the nature and overall level of corruption and forms of corruption prevalent in the construction industry as extrapolated from the literature. Twenty factors as listed below were included in part B of the questionnaire for rating on the Likert scale of one (1) to five (5):

- Under bidding.
- Leaking of information to a preferred bidder.
- Employment of illegal workers.
- Negligence like late and short payments, poor quality and inadequate information, lack of supervision, lack of safety ethics, bad documentation unfair treatment of contractor
- Bribery inform of cash inducement, gift, favour and kickback to obtain contract.
- Inclusion of false extra cost to contract claim.
- Embezzlement.
- Collusion.
- Collusive between bidders for market sharing purposes
- Bid rigging.
- Production of fraudulent time sheets.
- Conflict of interest.
- Cover pricing.
- Bribery to obtain planning permit.
- Extortion.
- Bid shopping.
- Bribery to obtain planning.
- Production of fraudulent invoices.
- “Bid shopping”.
- Fraud.

The relative importance index (RII) is computed from the equation:

$$RII = \frac{\sum W}{A * N}$$

Where W is the weighting given to each factor by the respondents (ranging from 1 to 5), ‘A’ is the highest weight (i.e. 5 in this case), and N is the total number of respondents. The higher the value of RII, the more severe the factor on corruption.

Cronbach’s coefficient alpha

The Cronbach’s alpha (α) is used to measure the reliability of the questionnaire between each field and the mean of the whole fields of the questionnaire. Cronbach’s alpha (α) is a test reliability technique that requires only a single test administration to provide a unique estimate of the reliability for a given test. Cronbach’s alpha (α) is the average value of the reliability coefficients one would obtain for all possible combinations of items when split into two half-tests. It tells how accurate and precisely the measurement is made on a certain variable by a research instrument. The normal range of Cronbach’s coefficient alpha value is between 0.0 α and 1.0, and the higher values reflect a higher degree of internal consistency.

Cronbach's alpha, $\alpha = k [1 - (\sum s_i^2 / s_t^2)] / k - 1$.

K is the number of items in the questionnaires, s_i^2 is the overall variance of the questionnaires and s_t^2 is variance for i^{th} item in the questionnaires. Cronbach's Alpha equals 0.939 for the entire questionnaire which indicates an excellent reliability of the entire questionnaire. The spread of the respondent by percentage were 41.7% from the Local Authority, 28.3% from DBES and 30% from construction companies. Their demographic information in terms of experience, professional affiliation, and qualification are as shown in Figures 1a through c.

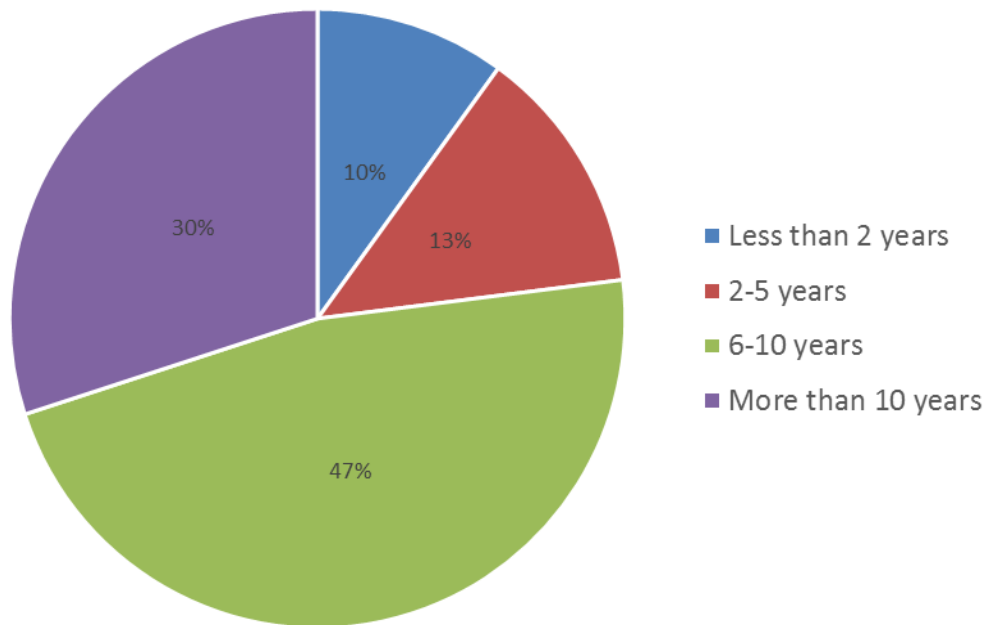


Figure 1a: Experience of Respondents in years.

From Figure 1a, about 30% of the respondents had more than 10 years experience in the built environment, 47% had six to 10 years' experience, 13% had two to five years' experience and only 10% had below two years' experience. It can be deduced from this figure that the respondents had enough years of experience in the built environment to be aware of corrupt practices in the sector.

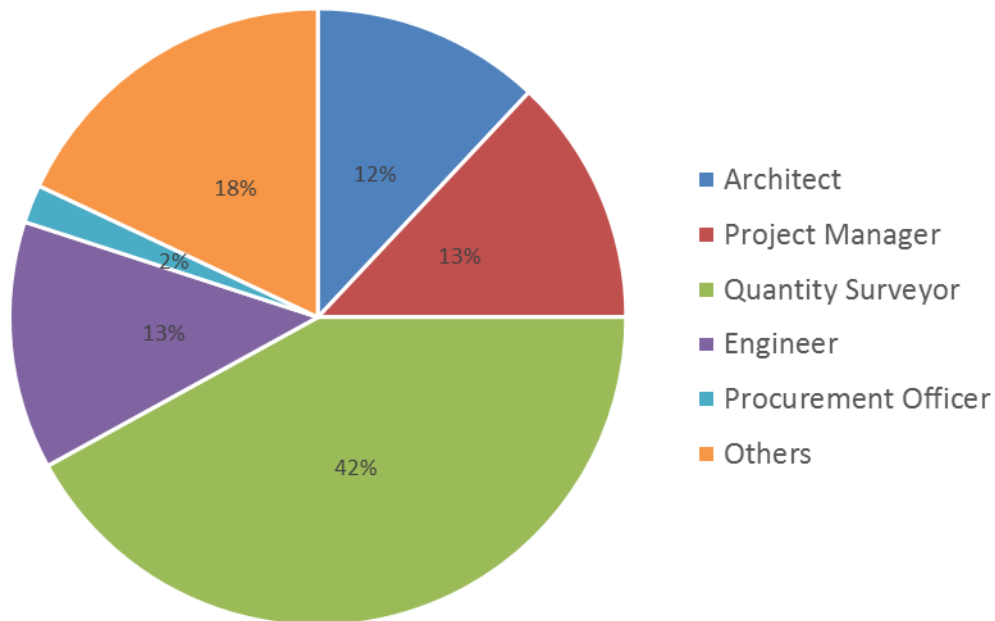


Figure 1b: Profession of Respondents.

Figure 1b shows that 82% of the respondents are personnel in the key areas of construction activities. They are made up of 42% quantity surveyors, 18% architects, 13% engineers and 2% procurement officers. The rest 18% are either accountants or economists providing services to the organizations. Therefore in addition to experience, the respondents are professionals capable of giving authentic information about transactions in the construction industry.

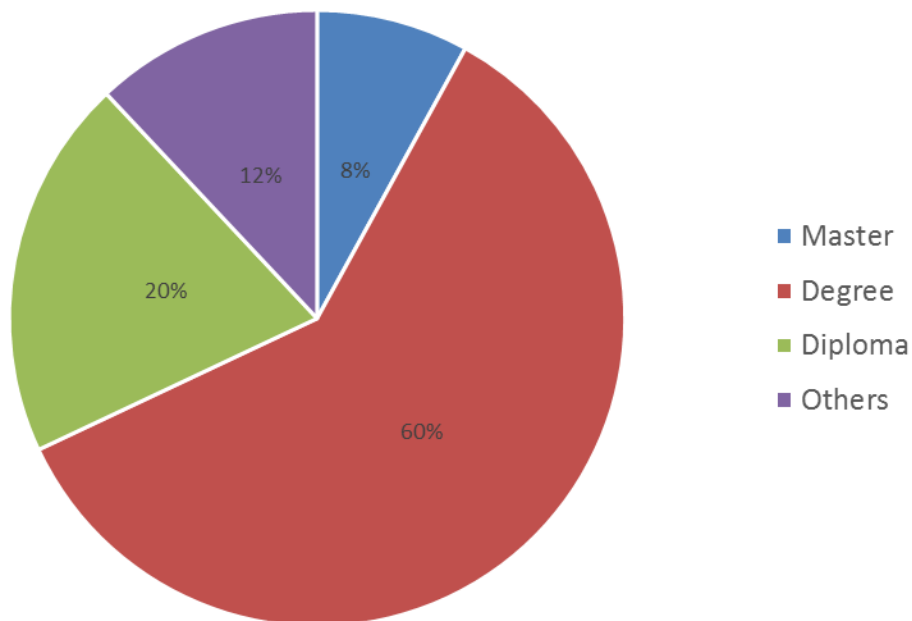


Figure 1c: Qualification of Respondents.

Figure 1c shows that 60% of the respondents have bachelor's degree while eight percent additional have master's degree. Twenty percent have higher diploma while 12% either have ordinary diploma or high school certificate. To a large extent the respondents have enough educational background to understand and discuss the affairs of the construction industry. With requisite background (education, experience, professionalism), it can be summarized that the respondents are competent enough to contribute to Corruption issues in the construction industry.

Earlier in the pilot study, all the respondents were of the opinion that corruption existed in one form or the other in Botswana's construction industry. Ranking the forms of corruption in part B of the questionnaire gave the result shown in Table 4.

From equation 1 the ranked result of the RII is shown in Table 4.

Table 4

RII for forms of corruption encountered in the construction industry.

How often have you encountered the following forms of corruption in the construction industry?	RII score	Rank
Bribery inform of cash inducement, gift, favor and kickback to obtain contract	0.65	1
Under bidding	0.64	2
Leaking of information to a preferred bidder	0.63	3
Employment of illegal workers	0.60	4
Negligence like late and short payments, poor quality and inadequate information, lack of supervision, lack of safety ethics, bad documentation unfair treatment of contractor	0.60	5
Conflict of interest	0.59	6
Collusion	0.59	7
Collusive between bidders for market sharing purposes	0.54	8
Bid rigging	0.54	9
Production of fraudulent time sheets	0.53	10
Inclusion of false extra cost to contract claim	0.53	11
Cover pricing	0.52	12
Bribery to obtain planning permit	0.51	13
Embezzlement	0.50	14
Production of fraudulent invoices	0.49	15
Bid shopping	0.49	16
Extortion	0.46	17
Change order games	0.43	18
Withdrawal of tender	0.42	19
Fraud like illogical request for time extension, theft of materials	0.40	20

The table showed that bribery in form of cash inducement, gifts, favor and kickback ranked number one with RII = 0.65, underbidding to obtain contract ranked second with RII = 0.64) while leaking information (RII = 0.63), ranked third. These are the most common form of corruption risk factors in the construction industry of Botswana from the point of view of the professionals from DBES, SDC and the contracting firms.

Conclusion

The objective of this study was to investigate the prevalent forms of corruption in the construction industry in Botswana in rank-order of their frequency of occurrence using Likert-type scale. Test of reliability of the questionnaire showed a Cronbach's Alpha of .939 for the entire questionnaire which indicates an excellent reliability of the entire questionnaire. The result suggests that all respondents believe that corruption is present in the construction industry in Botswana despite the country's highest rating on the Transparency International corruption perception index. The most frequent form of corruption is bribery which manifests itself as cash inducement, gift, favor and kickback to obtain contract. This was followed by underbidding to obtain the work and thirdly, leaking information to preferred bidder. These results are useful information to both the clients and the contractors at all stages of infrastructure projects.

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Appendices

Appendix 1: Examples of corruption in the different stages of infrastructure delivery

Stage of service delivery	Key stakeholders	Examples
Project selection	<ul style="list-style-type: none"> Public clients Private clients 	<ul style="list-style-type: none"> Corruption can negatively affect the selection of projects. For example, corruption can divert resources away from social sectors and toward major infrastructure projects. Corruption may also encourage the selection of uneconomical projects because of opportunities for financial kickbacks and political patronage.
Planning stages	<ul style="list-style-type: none"> Public clients Private clients Financiers Legal advisors 	<ul style="list-style-type: none"> Project used as vote winners/opportunities for personal gain not on basis of priority/availability of financial resources. Planning in favor of high value infrastructure, white elephant projects against the interest of the poor. Project requirements may be overstated or tailored to fit one specific bidder.
Inspection stages	<ul style="list-style-type: none"> Regulatory authorities 	<ul style="list-style-type: none"> Weak oversight and supervision mechanisms have been created that would prevent detection of fraud and corruption. Kickbacks can be given to persuade inspectors to turn a blind eye to slow implementation of projects, unfulfilled contract requirements, and other instances of malpractice.
Design	<ul style="list-style-type: none"> Design consultants Public clients Private clients 	<ul style="list-style-type: none"> Corrupt selection of consultants for feasibility studies, preparation of specifications/bid documents. Overdesigned and overpriced projects to increase potential corrupt earnings during implementation. Bribe for favorable environmental impact assessment/planning proposal/approval. Project design has been manipulated to benefit particular suppliers, consultants, contractors, and other private parties. The timing of the project has been altered to suit vested interests
Bid and contract signing stage	<ul style="list-style-type: none"> Contractors Subcontractors Suppliers 	<ul style="list-style-type: none"> Political parties levy large rents on international businesses in return for government contracts. Officials take percentages on government contracts. Officials receive excessive “hospitality” from government contractors and benefits in-kind. Kickbacks for construction and supply contracts. Lack of competitive/inequitable contract practices. Inappropriate bidding procedures; excessively short bidding time or insufficient or inadequate advertising of tender. Corrupt practice on the part of bidders _e.g. unjustified complaints, misleading bisect. Collusion among firms or between public officials and bidders. Bid rigging in construction contracts can be facilitated by corrupt project managers and quantity surveyors, people who are supposed to be policing contracts and making sure the clients get value for money. Compensation payments included in the tender price: when two firms collude, and one prices itself out of one of the jobs and receives a compensation payment from the other as a reward. Cash-plus contracts enable unscrupulous firms to inflate the value of the contract

Construction	<ul style="list-style-type: none"> Contractors Subcontractors Suppliers 	<ul style="list-style-type: none"> Changing subcontract party after receiving bribes. Cutting corners, ignoring rules, bypassing procedures. Payment for equipment, materials or services which were not supplied. The provision of equipment or goods of lower than specified quality; typical examples include lesser cement or steel reinforcements. Concealing substandard work. Bribe the relevant official to certify that the work was done according to specification. Unjustified complaints from contractors as a way to obtain unjustified contract price increases. Duplication of payments, alteration of invoices, lack of supporting records, ineligible payments, overbilling, misuse of funds, ie, for purposes other than those aligned to project needs, misappropriation of discounts from suppliers/contractors, unauthorized payments, etc. Unauthorized use of project property. Theft of materials, equipment, or services.
Service delivery	<ul style="list-style-type: none"> Public clients Private clients Contractors Subcontractors 	<ul style="list-style-type: none"> Ghost/absent workers. Siphoning off supplies to market. Favoritism in hiring/promotions. Use of contacts/money to get better/faster service or to prevent delays. Elite capture of infrastructure services
Maintenance and management stages	<ul style="list-style-type: none"> Public clients Private clients Contractors Subcontractors Suppliers 	<ul style="list-style-type: none"> Corruption in procurement of equipment and spare parts. Withholding needed approval/signatures of gifts/favours. Corruption increases costs meaning lack of resources for operation and management. Bribes to win operation and management contracts/personnel appointments. Lower standard of construction creates need for expensive repair and maintenance

Source: Sohail and Cavill (2008)

Appendix 2: Features of Construction projects that make them particularly prone to corruption.

1. Size of projects

1.1. While construction projects vary in scale, infrastructure projects in particular are often huge. The costs of dams, power stations, industrial plants and highways can run into billions of dollars. It is easier to hide large bribes and inflated claims in large projects than it is in small projects.

2. Uniqueness of projects

2.1. The fact that many major construction projects are one off makes costs difficult to compare, which in turn makes it easier to inflate costs or hide bribes.

3. Government involvement

3.1. Most infrastructure projects are government-owned. Even privatized projects require government approvals for planning or agreements to pay for end-product use. The industry tends to be heavily regulated at both national and local government level. Numerous permits are often required. Where there are insufficient controls on how government officials behave, their power combined with the structural and financial complexity of the projects makes it relatively easy for officials to extract bribes.

4. The number of contractual links

4.1. While there are numerous variations to the project structure outlined above, the contractual cascade could easily have more than 1,000 links, each depending on other contractual links in the chain. Every single link provides an opportunity for someone to pay a bribe in exchange for the award of a contract. In addition, work and services are exchanged for payment in relation to every contractual link. Every item of work and every payment provide further opportunities for bribes to be paid in return either for certifying too much work, certifying defective work, certifying extensions of time or paying more expeditiously.

5. The number of phases makes project oversight difficult

5.1. Projects normally have several different phases, each involving different management teams and requiring handovers of the completed phase to the contractors undertaking the next phase. For example, a power station project may have the following phases: demand determination, choice of type (hydroelectric, coal, oil, gas), design, excavation, foundations, civil works, building works, equipment manufacture, equipment erection, commissioning and operation. Even if a single contractor undertakes all the project's phases, it will normally subcontract different elements of the task to individual subcontractors, which creates difficulties in control and oversight.

6. The complexity of projects

6.1. Because of project complexity, the interrelationship between contractors and events is often uncertain. People working together on project frequently appear not to know, or to disagree upon, the reasons why something has gone wrong, or why costs overrun. This makes it easier to blame others and to claim payment, even when such claims are unjustified. Bribes and inflated claims can easily be hidden and blamed on other factors, such as poor design or mismanagement. Complexity also generates reasons to pay bribes since decisions on cause and effect and their cost consequences can have an enormous impact.

7. Lack of frequency of projects

7.1. Major projects come at irregular intervals. Winning these projects may be critical to the survival or profitability of contractors, which provides an incentive to contractors to bribe.

8. Work is concealed

8.1. Most components in construction end up being concealed by other components. Structural steel may be concealed by concrete, brickwork by plaster, engineering components in casings, and roof structures by cladding. The industry places an enormous dependence on the individuals who certify the correctness of the work done before it is concealed; once an item is concealed, it can be very costly or difficult to check if it was completed to the required standard. This cost and difficulty creates an incentive for contractors to do defective work or use inferior materials and to bribe the relevant official to certify that the work was done according to specification.

9. A culture of secrecy

9.1. There is no culture of transparency in the construction industry. Costs are kept secret even when it is public money that is being spent. Commercial confidentiality takes precedence over public interest. The routine inspection of books and records that might uncover malpractice does not normally occur.

10. Entrenched national interests

10.1. Local and national companies often have entrenched positions in their own market. These positions have often been cemented by bribery. International companies seeking to enter these markets may find it impossible to win work unless they pay a bribe.

11. No single organization governs the industry

11.1. Construction brings together a wide range of professions, trades and specialist contractors, leading to varying standards of

skill, integrity and oversight. The professions include architects, engineers, surveyors, accountants and lawyers; and the trades include machine operators, scaffolders, bricklayers, electricians and plumbers. Contractors' skills range from excavation to insulation and from generators to cooling systems. Each profession or trade may have a different professional association, with different codes of conduct and levels of enforcement of these codes. No single organization has overall responsibility.

12. Lack of due diligence

12.1. The scale of funds involved in major infrastructure projects places great influence in the financing bodies that determine whether a project goes ahead, and which companies win the contracts. Commercial banks and global or regional development banks provide most of the funds; while government sponsored export credit agencies may underwrite risky international projects. Their frequent lack of due diligence on participants in construction projects allows corruption to continue.

13. The cost of integrity

13.1. It is striking how many people working in the construction sector either accept the status quo, or makes no attempt to change it. Bribery and deceptive practices are so engrained that they are often accepted as the norm. Bribery is frequently a routine business cost that many companies expect to include in the contract price. The fact that so many businesses in construction routinely pay bribes or engage in deception makes it very costly for any one company to act with integrity since that company would risk losing out to its less scrupulous competitors. As a result, many companies find themselves in a vicious circle in which they engage in corruption, often reluctantly, as a defensive measure against the corrupt practices of other companies.

Source: Stansbury (2005).