

THE IMPACT OF CORRUPTION ON SUSTAINABLE ECONOMIC GROWTH AND DEVELOPMENT IN BUILDING CONSTRUCTION INDUSTRY IN NIGERIA

**(A CASE STUDY OF SELECTED BUILDING CONSTRUCTION INDUSTRY IN KWARA
STATE)**

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF STUDY

Over the last three decades the most single cankerworm that has eaten deep into the fabrics of our society is corruption. This has so deep-rooted and pervaded the nation that it has now appeared to have become a permanent characteristic of the Nigerian polity. It has become completely institutionalized, entered into the realm of culture and the value system; it is now a norm and no longer an eccentricity. Our children are born into it, fed with it, grew up in it, socialize with it, live with it, and possibly die in it. This is substantiated in the many corruption cases being investigated by the EFCC and ICPC on high-ranking government officials - former governors, cronies of the party in power, politicians, and representatives of corporate organization as well as top business tycoons. Corruption has coexisted with human society for a long-time and remains as one of the problems confronting and starring both developed and developing economies with varying degrees in different countries and with overwhelming consequences on political and socio-economic development.

Unethical behavior on the part of business corporations has raised great concern among scholars and business executives (Jannat et al., 2022; Rees et al., 2022). As a result, the litany of firms engaged in unethical practices has become the thematic preoccupation of business ethics literature (Antunez et al., 2023; Zaal et al., 2019). Corruption is recognized as the most dominant unethical practice of firms, their leaders, and their employees. Corruption breeds inequality and imposes extra costs on firms and societies (Everett et al., 2006; Hauser, 2019), and, in recent years, many governments, organizations, religious groups, scholars, and civil societies in both developed and developing countries have been actively involved in studying and fighting it (Snyman, 2022). Specifically, much of the research on business ethics is concerned with corrupt behavior and the drivers of corrupt practices (Orudzheva et al., 2020).

From the foregoing, one can infer that there is no consensus on the meaning of the term “corruption” but there is indicator of behaviors that might be adjusted as corrupt as these elements portrayed such conduct as corruptible tendencies. (Adeyemo 2015: Iyanda, 2010).

Business ethics literature has provided useful insights regarding the drivers of corruption and impacts on business and society. Examples of common drivers include societal inequality (Hudson et al., 2022), organizational drivers (Yap et al., 2022), cultural factors (Hu et al., 2023), and political causes of corruption (Khieu et al., 2023). In addition, prior studies

have explored how various internal and external factors may trigger corrupt conduct (Ren et al., 2022). Examples include psychological antecedents of corrupt behavior (Hauser, 2019), firm formality (Vu et al., 2023), and contractors' motivation for rule violation in projects (Liu et al., 2023).

Inuwa et al. (2015) observed that in the Nigerian construction industry, most project fail as a result of the menace of corrupt related activities on the part of the project professionals whom the management and the responsible rest o. the Nigerian construction industry is extremely vulnerable to corruptible erosion due to the structure and nature of the industry which make it imperative for construction professionals to exhibit some high level of unethical conducts (Oyewole et al., 2011). They further submitted in their work that the international community viewd corruption and other unethical activities as common occurrences at all staged of the ranked Nigeria as the 2nd, 3rd, 6th, 18th, 37th, 38th, 36th, 31st, 27th, 25th, 27th, 26th, 28th, 27th, 26th, and 25th most corrupt nation in the world in 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 and 2020 respectively.

The nature of the Nigeria construction industry can be adduced to be the reason for the outright act of corrupt practices being experience in every segment of the industry. It is disorganized and uncontrolled, and thus lacks a clear-cut distinction between the contractors as some of them are merely in business too make profit solely. The construction industry is adjudged to be the industry that co-ordinate the various professionals in the successful delivery of its responsibilities in the recent past, but this has now been seriously eroded by corruptible tendencies which undermines the advantage of teamwork, trust, commitment and competence.

The effect of corruptible tendencies in the industry cannot be over emphasized as it has led to incessant collapse of building in Nigeria and its attendant/associated loss of life, loss of properties, and injuries to the survivors of such collapse building which has invariably become a recurrin decimal to the extent that the council for regulation of engineering practice in Nigeria (COREN) recently advocate for a death penalty for owners of collapse buildings (Adewole et al., 2014). They further stressed that the incidence of building collapse is as a result of the use of sub-standard materials and /or inappropriate quality of material usage (e.g lower quantity of cement and reinforcements). Furthermore, the socio-economic and political habit of Nigeria also participate into the incessant collapse of building by way of “cutting corners on the part of the client or contractor”, owner constructor syndrome, building cost minimization/control and corruptible within the industry.

Thorough empirical evidence between investment and economic growth in Nigeria exist yet such in the relationship between corruption and economic growth and development is lacking hence the choice of this topic. The main objective of this study is to examine the impact of corruption on sustainable economic growth and development in Nigeria. Specifically, the study will examine the cause and effect of corruption in Nigeria: the factors impeding the effort of government in fighting corruption: and the strategies to be adopted to combat corruption and attendant consequence of systemic corruption on national economy.

1.2 STATEMENT OF THE RESEARCH PROBLE

According to Ayangade et al. (2015), there has been an increase of abuse of public procurement system in Nigeria that has culminated into loss of huge sum of money and other recourses. They further stated that the country may have also has lost billions of naira in the past largely due to the abuse of procedure, contract inflation, lack of transparency, lack of competency-based competition which are fundamental ingredients in the award of government contracts. Like cancer, Basheka (2017) contend that corruption strike all the nooks and crannies of society by rendering the cultural, political, and economic sectors unproductive and useless. As opined by Ameh and Ogundare (2013), the Nigeria government on assumption of office in 1999 found that the approach in conducting government business was nothing to write home about. It gets to a point where public services rules, financial regulation and the basic norms of public services were left in the lurch, either due to professional negligence or selfish motives. The findings of the government after series of investigations revealed that Nigeria was loosen a whopping over forty (40) billion naira on the average prior to 1999 annually as a result of various kind of manipulations in the procedures of awarding public contracts. The outcomes from this unwholesome act necessitated this research work with view to changing this ugly trend reverse all grey areas often overlooked by the major stakeholders, service provider and government while also joining in the fight against this monster called corruption with a view to nipping it in bud where necessary. Though, empirical evidence between investment and economic growth in Nigeria exist yet such in the relationship between corruption and economic growth and development is lacking hence the choice of this topic. The main objective of this study is to examine the impact of corruption on sustainable economic growth and development in Nigeria.

1.3 RESEARCH QUESTION

1. What are the causes of corruption in the Nigeria building construction?
2. What are the effect of corruption on sustainable economic growth and development in building construction industry in Nigeria?
3. What are the strategies/policies to be adopted to combat corruption in the building construction industry in Nigeria?

1.3 AIM OF THE STUDY

The main aim of this research work is to investigate the impact of corruption on sustainable economic growth and development in building construction industry.

1.4 OBJECTIVES OF THE STUDY

1. To identify the causes of corruption in the Nigeria building construction.
2. To examine the effect of corruption on sustainable economic growth and development in building construction industry in Nigeria.
3. To determine the strategies/policies to be adopted to combat corruption in the building construction industry in Nigeria.

1.5 SIGNIFICANT OF THE STUDY

The significant of this study is to present the definition of corruption, types, and its political, social, cultural, and administrative consequences. This study is carryout, using a documentary and library method in 2018. In this study, definitions and various categories of corruption, the general outlook of the concept of corruption and its various types and its consequences from different aspect and relying on social health is discussed.

1.7 SCOPE AND LIMITATION

This research will be based on the construction industry in Nigeria. The target group are both building and civil engineering contractor, the built environment professionals, civil servants, politicians, and many interested stakeholders in the construction industry.

Due to time and financial constraint, this project work will be limited to Ilorin metropolis, kwara state.

CHAPTER TWO LITERATURE REVIEW

Introduction

Corruptible tendencies in Nigeria date back to the pre-colonial era. The pre-independence scam of the African Continental Bank (ACB) in 1944, for instance, was based on the allegations of questionable practices in the public sector that gave rise to the establishment of the first commission of enquiry on corruption set up to probe allegations of misconduct and corruption levelled against the government at that time (Ishola and Ajayiobode, 2013). Corruption-related cases were peculiar to the various regions at the pre-independence era. NewsWatch (2010) reported that the first republic politicians used their privileged positions to serve ethnic and personal interests.

Corruption Defined

Osisioma (2012) explicitly defined “corruption in an act of an official or fiduciary who unlawfully and wrongfully uses his station or character to procure some benefit for himself or for another person, contrary to duty and the rights of others. It is the giving and receiving of something of value (e.g. money, sex, gifts, etc.), whether demanded or not, to influence the receiver’s action favourably towards the giver.”

Olawale and Garuba's (2015) paper "Corruption and Sustainable Development in Nigeria: Mapping the Path Forward" provide essential insights into the complex effects of corruption on sustainable development efforts.

Also, policy-oriented papers such as the World Bank's assessment of "Corruption in Nigeria: Analysis of Bribery and Public Trust" carefully examine the complicated policy consequences of corruption on efforts towards sustainable development. These assessments are supplemented by case studies, such as Adeleke and Olatunji's (2019) study on "Corruption and Environmental Sustainability: Examining Oil Pollution in the Niger Delta Region," which provide concrete examples of how corruption stifles sustainable development efforts.

Nature of Construction Industry in Nigeria

The construction industry in Nigeria accounts for about 70% of the nation's fixed capital formation and 14.8% gross domestic product (GDP). Iwuya et al (2015) reports that the construction industry in Nigeria employs approximately 4 million people, which represents approximately 25% of the nation's workforce and the largest employer of construction labour in Africa. This achievement according to Iwuya et al (2015) is an indication of the importance of the sector to the nation's economy. Despite this feat, the industry is still bedevilled with corrupt related practices which make the industry extremely prone to ethical erosions as a result of the heterogeneous nature of the industry (Isa, 2013; Oyewobi et al, 2011).

Angbogo and Shawkat (2011) averred that there is no sector that bears the risk of corruption more than the procurement sector in Nigeria. They further stated that the award of contracts by the different arms of governments in Nigeria was solely characterized by corruption, a situation that has portrayed the image of the country in bad light. PM World Journal Corruption and Construction Projects in Nigeria.

Oyewobi et al (2011) further reported that the construction industry globally today is being built on the needs of its inhabitants the world over by providing airports to conquer distance, provide shelter, roads, bridges and harness energy by constructing power stations for industrial development, while also creating public spaces for tourist attraction and relaxation centres. Furthermore, the industry metamorphosed from satisfying only these basic needs largely as a result of the processes and environment in which the direct stake holders within the industry involved in production related activities that has increasingly become more sophisticated and challenging. Hence, Oyedele (2013) threw much light on the segmentation of the industry. He stated that the construction industry can be divided into three segments, which includes:

1. Construction of building-by-building contractors or general contractors. These contractors are said to build residential, industrial, commercial and other buildings.
2. The second segment or category, as described in the words of Oyedele (2013) in the heavy and civil engineering construction contractors who engage in the building of sewers (underground conduit for carrying out waste water and drainage), road highways, bridges, tunnels and other projects.

3. The third segment include specialty trade contractors who perform specialized activities relating to construction such as carpentry, painting, plumbing, tiling and mechanical and electrical works. As well as those that lease heavy earth moving equipment plant and machines. From the reports of both Oyedele (2013) and Oyewobi et al. (2011), the list is very broad in the industry as pointed out in their reports as all engineering and construction activities are inclusive.

2.1 Causes of Corruption in the Nigerian Building Construction Industry

1. Personal greed
2. Decline of personal ethical sensitivity
3. No sense of service when working in public or private institutions
4. Cultural environments that condone corruption
5. Low awareness or lack of courage to denounce corrupt behavior
6. Regulations and inefficient controls
7. Slow judicial process

Oyedele (2013) rather stressed on the unorganized nature of the industry resulting from the complex and uncoordinated structure. As a matter of fact, it is not organized such that it is controlled. It was further reported that there is no clear distinction between contractors and some of them are just in the business of construction to make profit solely in spite of the nature of the type of work involved. Usman et al (2013) furthered more on the fact that in the Nigerian construction industry, most construction projects fail as a result of corruption on the part of the construction personnel whom the management and responsibility of the construction rests solely on.

It is even more worrisome today that the industry is filled with quacks, mediocre, political contractors who lacked the technical expertise to execute the project and also no clear knowledge of the construction process and management (Oyedele, 2013). It was noted that the use of quacks and technicians instead of professionals whose technical and managerial capabilities are not in doubt and have upheld their professional ethics is one of the reasons for some of the structural failures noticed. As a matter of fact, Oyedele (2013) further stressed that the life span of construction projects in Nigeria is unpredictable, and it is limited due to shoddy workmanship associated with the abandonment of projects all over the nation largely due to issues bordering on improper planning as well as bribery and corruption.

The nature of the construction industry as well as the manner in which infrastructure services are constructed creates structural vulnerabilities that can encourage corruptible tendencies. PM World Journal Corruption and Construction Projects in Nigeria.

Hawkins (2013) further argues that corruption in public, infrastructure, and other areas of public service provision is linked to weak governance, both in policy, legal and regulatory systems as well as in institutional capacity. Oyewobi et al (2011) in their study, gave a list of manifestations of corruptible tendencies in the industry to include: declaration of pre-qualification processes that are not followed, use of connection in hiring the unqualified, and that the builders may collude together where a contractor submits a fraudulent application where the contractor makes false claims on the profile and asset declaration. The tender process itself is corrupted by allowing people who are unknown in certain quirts by either the consultant or client to win the contract. All these are liable to occur during pre-tender stage.

According to Aninghogu and Shawkia (2011), corruption in relation to construction can manifest in two major areas: these lie in the provision and management of financing for a project and during the execution of the project, and stems from the planning and design, prequalification and tendering, project execution and completion phases.

2.2 Effect of corruption on sustainable economic growth and development in building construction industry

Hawkins (2013) in his work cited certain features as key to corruptible tendencies to include: size of the project is a key element and ample opportunity to perpetrate corruptible tendencies; size of the project leads to cost in budget. Large infrastructure works gives opportunities for bribery, government involvement in infrastructure creates avenues for officials to solicit bribes for contract award, number of project phases makes oversight difficult; project complexity create opportunities to submit unjustified claims or inflate payments, contracts come seasonal creating pressure to win new contractors, work is concealed such as physical component makes defective components to be used without strong supervision; culture of secrecy a common practice due to lack of transparency, entrenched interest by companies often centred on bribery in the market place and other related features (Hawkins, 2013).

Anigbogu and Shwarka (2011) and Adeyemo (2015) stressed on the factors that makes the Nigerian construction industry prone to corruption to include:

- Complex contractual structure: Large participants linked together in a complex contractual structure creates room for corrupt practices.
- Diversity of skills: This linking in labor intensive with diverse skills and awareness which could create room for corruptible practices.
- Different project phases: Fragmented nature of the stages involved in construction projects sometimes makes the job of oversight more difficult and less effective.
- Size of project: Large projects make it easier to conceal bribes and inflate claims than in small projects.
- Uniqueness of projects makes it difficult to compare costs.
- Complexity of the project makes it easier to blame other parties or factors.
- The concealment of cost: some item of works by other items and the enormous dependence on persons certifying the correctness of the work creates avenues for corruption.
- Lack of transparency in the industry.
- The extent of government involvement makes it relatively easy for uncontrolled government officials to receive bribes unnoticed from the contractors.
- There is absence of or minimal monitoring by public building professionals whose integrity and skills are depended upon by the procuring entities.

Akinsola and Omotayo (2013) on the other hand, identified corruptible tendencies in Nigeria and the UK to include: cover pricing, bribe to obtain planning permission, employment of illegal workers, concealment of bribes, collusion between bidders, bribery to obtain a contract, leaking of information to a preferential bidder, production of fraudulent invoices, false or exaggerated claims against contractor in order to contain or reduce payment, inclusion of false extra cost as a contract claim, bribes from the building contract to site with operation and maintenance contract.

According to Al-Sweity (2013), the following corruptible practices are those that emerge during procurement and they include: bid shopping, under bidding, over billing, bid rigging—individuals or organizations undertaking work without adequate qualifications/certifications, etc. Other reported cases of corruptible tendencies during the tendering stage includes; contractors accepting bribes in the form of money in order not to

tender for contract they have been invited to tender for; agreement by a contractor to withdraw an offer he has made in exchange for money or other benefits, etc. After the award of the contract, the followings were noted as corruptible tendencies; illogical request for time extension, theft of materials, fraud in the preparation of the daily reports for the purpose of compensation later, etc (Al-Sweity, 2013; Nawaz & Ikram, 2013).

Hawkins (2013) explicitly stressed that considerable risk is involved in corruption which could be caused by remote sites, challenging terrain or poor security. It was further submitted that to reduce or minimize the presence of a project (bill of quantities) should be based on the rates and quantities of materials inclusive of contractor's profit, not on guesswork. Hawkins (2013) further stated that this depicts a lack of transparency in the form of a disguise as a result of make-up of prices on how infrastructure projects are usually priced.

These risks include; weak enforcement of professional standards, contracts are rarely completed on budget, contractors submit exaggerated claims and or bundle claims together into a final account; manipulation of the bill of quantities, problems with poor quality construction; contractors recouping cost through variation orders having under bid for the contract; weak institutional capacity to supervise the project long periods between submission and settlement of project payment certificates; difficulties on burdening the sum as a result of remoteness or insecurity of construction site/project, limited suppliers and expensive means of transporting materials amongst others.

Idise (2011) also marshaled out factors that engender corrupt practices in less developed nations, including Nigeria. Some of the factors are included: inequality in the distribution of wealth, conflict between changing moral codes, the weakness of social and government/enforcement mechanisms; political office as the primary means of gaining access to wealth, and the absence of a strong sense of national community (Idise, 2011).

Gates (2014) submitted that combining a high-risk industry with high-risk jurisdictions and additional risk factors such as the need to use and interact with intermediaries and government officials, could be very damaging. It is a blow to avoid bribery and corruption in the construction industry as a whole. Hence, government should therefore, not only be alive to the high-risk posed by bribery and corruption within the industry, but have the increasing "will" to bring to book those who are involved in corrupt building practices. In view of this, Gates (2014) gave a summary of risks factors that precipitate into corruptible tendencies in the

construction industry in USA, UK and China. They include; permits, licenses and the regulatory environment; procurement, kickbacks to main and subcontractors; cost-cutting on building materials; cartel behaviour; facilitation payments; tender processes and interaction with government officials; third party intermediaries and unlawful subcontracting; joint venture arrangements. Corruptible tendencies commonly found in the industry according to (Oyewobi et al., 2011; Akinsola & Omotayo, 2013; Al-Sweity, 2013) includes: bribery to win a contract, costly

2. Strategies/Policies to be adopted to combat corruption in building construction industry

It is pertinent that corruptible tendencies in the construction industry have eaten deep into the fabric of the industry. Hence there is the need to mitigate corruptible tendencies by improving on transparency amongst participants (stakeholders involved) and on-site supervision capacity. Hawkins (2013) in his words states the following as ways of curtailing corruption in the industry:

- I. Separate profit and labour cost from the rates for materials and equipment in the bills of quantities. This provides greater transparency of contractors' costs.
- II. Enforce payment periods to reduce the work of petty corruption.
- III. Opt for new forms of contracts that promote fair allocation of risk and open book accounting based on actual cost.
- IV. Explore the use of project bank accounts whereby all contractors, subcontractors and supervising consultants are paid from a single bank account held in trust. This provides the donor and procuring entity with transparency of payments.
- V. Separate the role of the supervising engineer by appointing a project manager to administer the contracts and a supervisor to decide upon technical issues. This avoids potential conflict of interest and collusion whereby the supervising engineer is responsible for finding solutions to issues which arise on the contract (often of their own making) and for determining contractors' entitlement for additional time and cost for implementing the solution.
- VI. Consider training community monitors to observe the progress and quality of the project.

Transparency International in 2006 recommends the following instruments in fighting corruptible tendencies within the pharmaceutical industry and this could as well be adapted for the construction industry as stated by Oyewobi et al. (2011):

- Transparency
- Codes of conduct
- Whistle blower protection
- Reduction incentives for corruption
- Conflict of interest rules
- Integrity pacts and debarment
- Rigorous prosecution

Ossaïoma (2012) on his own part expressed measures for combating fraud and corruption in general terms to include:

1. Statutory enactment, social mobilization, institutional arrangement
2. Ethical resolution
3. Budget monitoring and price intelligence unit otherwise known as due process established
4. Establishment of anti-graft agencies

Although these measures are general, they may also be applicable to the construction sector as well. Some human ailments could require many doses of medicine to be treated. Similarly, the menace of corruption, which has eaten deep into the fabric of Nigeria, would require all the necessary antidotes effectively combined to control it. In other words, no single-handed remedy will achieve it; and the problem cannot be solved—corruption has been ingrained into the fabric of the.

Corruption in the construction industry is considered as the misappropriation of delegated authority at the expense of a construction project (Le et al. 2014, Shan et al. 2016). It occurs when corrupt professionals within the industry effect a negative decision to engage in corruption. The corruption professionals are classified into the categories of the demand side and the supply side (Boyd and Padilla 2019). Another class of parties within the industry known as the condoners. The condoners are referred to the class of professionals or workers in the industry who indirectly affect the incidence of corrupt practices by remaining silent or not

bothering about and on other occasions, they feel reluctant to report any incidence or case of corruption. And as the result of this and many other reasons, the construction industry is branded as the most corrupt sector in the world (Transparency international 2012). The evolvement of corruption has also laundering clientelism, ghosting, patronage, bid rigging, etc. (Stansbury 2009, Bowen et al. 2012 Zhang et al. 2017)

These from exist today due to causative measures that were either not tackled nor thoroughly tackled (Le et al. 2014). Corruption is said to be responsible for breeding cynicism, dents societal values, demeans those involved, hinders decision making, degrades the quality of projects hence reducing the lifespan of buildings, depriving most inhabitants of quality living and most importantly resulting in the loss human lives and properties among other devastating and damaging effects.

Other reason: while attempt at curbing corruption still failed in Nigeria hinges on the fact of the entrenched and institutionalized phenomenon of the country, the failure of law enforcement agencies/workforce, constitutional constraints (i.e some provisions of our constitution seem to give immunity to some set of people), and attitude of defense lawyers using delay tactics to stall, or forestall trials, thus resulting in congestion and slow pace of our court proceedings.

2.3.1. THE ENVIRONMENTAL EFFECTS OF CONSTRUCTION IN THE INDUSTRY

Griffith (2015) describes the major adversarial effects of the construction industry upon the environment as follows:

- ❖ Existing site dereliction
- ❖ Land misuse (causing erosion and desertification)
- ❖ Misuse of natural resourcesEnergy consumption
- ❖ Habitat destruction (disregard for conservation and wild life)
- ❖ Air emission (pollutions)
- ❖ Comfort disturbance
- ❖ Health and safety impairment
- ❖ Misuse of water resources
- ❖ Ecosystem dereliction

Peter (1993) said that on site construction practices result in a number of health and comfort disturbances to individuals living and working in an environment surrounding and construction project. Thus:

- Noise of construction operations and equipment
- Dust from processing and traffic
- Nuisance (or temporary dwellings, construction traffic and road droppings)
- Hazardous contamination (e.g. toxic wastes)
- Other visual disturbance (sign, advertising boards etc.)
- Endangerment to health and safety of public in general or health and safety of work people.

Implementation of environmental assessment system is imperative in high profile projects, by those who act in the capacity of developers, clients, the consultants, contractors, sub-contractors and suppliers who serve such client.

Leslie (2020) said that, all resources input to the total construction process have an important part to play in the environment management framework. This position is upheld in referenced and statutory legislation that states considerable and clear obligation for environment for environmental assessment upon these construction professionals' cases below:

Environmental assessment systems are essential for: The developers and client organizations who should ensure environmental efficacy of the project they develop and procure.

Design consultants: Who should ensure design considerations are compatible with communities/environmental needs.

Contractors: Who should ensure environmental management of the project at the work place and within its surrounding environs.

Suppliers: Who should ensure the environmental soundness of their materials components and products used in the construction process during manufacture and delivery.

2.3.2. PROFESSIONALS INVOLVED IN THE CONSTRUCTION INDUSTRY

Stoner and Charles (2010) describe the various professionals involved in any construction work and in each they all play or exercise one role or the other in the assessment of environmental impact as follows:

CLIENT

The client, which is referred to is the financier of the construction work and the employer of the members of construction team because they are responsible to him. This is a party who enters into agreement with the contractor to execute a contract. He initiates the decision to construct and therefore is responsible for the payment for the work properly executed and certified in Architect's certificate. The client (which may be an individual, group of persons, government or other organization on whose behalf a contract project is taken.

THE ARCHITECT

The architect is concern with effective utilization of site and design of well laid-out of functional contract. He translates the client needs into a building form, and then relates them in a form of drawings. The architect acts as an agent and technical adviser to the client and prepares all contract particulars, including the designs. He subsequently selects a contractor for the clients' approval, supervises the work, certifies payment to the contractor, decides how provisional sums are to be spent, secures the remedying of defects at the defects liability period and certifies the final account.

THE QUANTITY SURVEYOR

The quantity surveyor is often referred to as the "building/construction economist" or the "construction cost consultant" both the descriptions reflecting the financial aspect of its role. A quantity surveyor is a man who has received a thorough and several practical trainings in all matters relating to building, training quite as extensive in it, in a way as that of the architect. His primary function is the preparation of bill of quantity. Although, cost advise in all its forms is now becoming increasingly. As soon as the architect has finished the drawing of a building, it is necessary that the builder who are to be limited to tender for work should reach supply with an accurate and complete document called a "bill of quantity" which describe

in details the quantity size and description of all various materials and workmanship required in each work selections.

Therefore, it is obvious that the Quantity Surveyor must not only possess a full kind edge of the materials and workmanship which he is called upon to measure, but also, must be able to grab clearly the intentions of the architect as delineated of the drawings. He must know all the stages through which work has to pass before it is finished and of course, he must have in mind the details coupled with an aptitude, a link for figures and other methods.

THEENGINEERS

No exact definition can be given on the term “engineer.” It sometimes used to describe a person who undertakes to carry an engineering and constructional work. They are usually employed on large projects such as road construction, construction of bridges, rails etc., as advice on specialized work. They prepare designs and specification for the specialist work, obtain quotations and submit a report to the Architect, and subsequently supervise the site.

THECONTRACTOR

The contractor undertakes to construct and complete a construction project in accordance with the contract documents. This generally required to proceed regularly and diligently with the work and to complete it by a specified date otherwise he may be liable for the payment of liquidated damages. He is paid for all work executed on the site. Construction contracts are normally carried out under a mutual binding contract enter into by the contractor and the client.

2.3.3 CONSTRUCTION THROUGH ENVIRONMENTAL ASSESSMENT AND MANAGEMENT

The rapid expansion of infrastructure by both government and the private sector has triggered off construction activities and fuelled demand in many key sectors like cement, steel, paints and chemicals, glass, timber and earth moving equipment and machinery (Jacobsson & Wilson, 2012). These have been predominantly in the areas of petrol, chemicals, power, waste management and large building developments. In Nigeria, the term formal application is an understatement as construction sector is yet to come to terms with environmental management, notwithstanding FEPA/FEA decrees in 1988/1992 requiring environmental assessment of potential development projects. It should prostrate better environmental actions for using

finished products and leads to alternative accuracy in construction which both save time and cost effective.

2.3.4 ENVIRONMENTAL MANAGEMENT INPUTS TO THE CONSTRUCTION PROCESS IN THE INDUSTRY

Halliday (2017) said that, the client's main initial task is to accurately translate those environmental aspects identified in the development process and which are important to the client, into an effective project brief from which a basis of ideas can be generated for the design phase. The lead/design consultant working in concert with other consultants would then translate the clients' environmental needs within the project situation from and function during the design phase.

Finally, the main contractor leading the sub-contractor and suppliers would show empathy for environmental inputs prior to the design and translate design concepts into physical building works which will evidence environmental sympathy on site activities as regards effects on project environs and the populace.

O'Brien and Zilly (2010) said that environmental assessment must be considered as project priority along with other project determinants of time, cost and quality. To achieve this, environmental assessment will feature in the tendering process in form of the written project specification and contract documentation. And the environmental control mechanisms should be adequately priced and incorporated in the tender bid. This is holistically done; environmental management practices will not be encouraged in the project process phase.

2.3.5 THE DESIGN PHASE

Design phase is divided into two distinct but related elements and they are listed below;

- Scheme design
- Detail design

Both have significant but differing environmental requirement to satisfy. He defines scheme design as the consideration of developing construction from, addressing such projects as position, layout, shape size and material constituents, that is, those aspects that make the product aesthetically and rationally acceptable.

According to him, detail design is the consideration of analogy and structure to create the build from, addressing such aspects as components, materials and assembly process i.e. aspects as components, materials and the assembly process i.e. those aspects that give the product performance and make it acceptable.

2.3.6 SCHEME DESIGN

Scheme design is synonymous with environmental influence on the construction process. This is because it takes into account a number of fundamental but significant in.

Siting: The location of the development both in terms of its natural orientation and with regard to its environs and access. Assign design responsibility to appointed advisors. Environmental management will accommodate specialists' input and therefore, the client is likely to retain the environmental consultant appointed for development and briefing.

Orientation: The size and position of the development in relation to the overall expanse of the construction site.

Natural and built environment: The existence of features and man-made structures in the surrounding environs.

Topography: The relationship of external and internal form in relation to desires style and layout for use. And he said that principal aim of scheme design is to take those expectation and requirements specified in the client's brief and relate them directly to the project situation.

In translating the brief in to scheme design, the principal task is the scheme design with respect to environmental orientation and assessment which are:

- ✓ Translate brief into a technical specification for materials, product, component and construction process which include provision for environmental aspects determined in briefing.
- ✓ Ensure that environmental needs and expectations of the client and the communities are met, that the design solution in sets with technical and layout requirements and come within an acceptable cost range.

- ✓ Ensure that the design solution is constructible, fit for its intended purpose, has desired levels, of durability, reliability and maintainability and in so doing, meets all environmental criteria.
- ✓ Assign design responsibility to appointed advisor. Environmental management will accommodate specialist input and therefore the client is likely to retain the environmental consultant appointed for development and briefing.

2.3.7 DESIGN CONSULTANT ACTION DURING SCHEME DESIGN

The design makes significant contribution to environmental management in the scheme design as highlighted as follows:

1. Actively translating the client's documentation which include the required environment consideration.
2. Maintaining on-going reviews of the scheme design process to ensure any environmental weakness are averted before the final scheme design is presented.
3. Systematically, considering the project requirements in relation to the significant environmental aspect identified before and during the process.
4. In scheme design study, consolidate the information on potential environmental impact identified during the assessment and the brief with information derive from a detailed environmental site survey.
5. In scheme design review, ensure periodic review to assess, on an on-going basis the scheme design to pick up any deficiencies left over from the briefing phase.
6. In finalizing the scheme design ensures that all environmental aspect has developed within the scheme design for transfer to the detail design phase.

2.3.8 DETAIL DESIGN

Nick (2011) said that the scheme design is concerned with developing construction form in relation to its environmental situation, detail design focuses upon the technological aspect of the form.

Detail design is mainly concerned with the determination of structure, materials and fabric elements and is encompassed in the following aspects as stated by him:

1. The physical properties of the construction elements that make up the project.

2. The construction or assembly implications of the above.
3. The conditions of use given the environment both outside and inside the project.

He however stated the principal aim of the detail design as:

1. Translate the scheme (outline) design specification into detail and workable design concepts.
2. Ensure that the above are developed with due regard to environmental orientation of the project described in the brief.
3. In achieving the above, to ensure that these aspects are incorporated where appropriately in the final design and reflected in documentation which goes out to tender.

2.3.9 DESIGNERS ACTION DURING DETAIL DESIGN

Ledgerwood (2012) explain the various action to be perform by the designer in scheme design and said the designer should undertake the following when considering environmental resources such as “green” material (eco-specifying), energy requirement (eco-architecture), waste management, pollution control, health and safety.

- Develop the environmental ideas generated in the scheme design towards fully detailed design.
- Investigate "green" or eco-design and construction approach as an integral aspect of the design task.
- Ensure that detail design leads to comprehensive and complete project documentation, specifications and drawings incorporating specified environmental performance criteria.
- Consider all statutory legislative requirements relating to environmental management in construction (health and safety, pollution and land use etc.)
- Evaluate eco-materials and component for potential inclusion in the final design.
- Consider value for money and balance environmental management with other project priorities.
- Control the various interface within the design process i.e. client, designer, designer/environmental consultant.

Environmental management in detail design thus devolves around the designer activity seeking to explore an environmental positive option and packaging these efficiently to aid implementation in the construction phase.

2.3.10 CONSTRUCTION PHASE AND CONTRACT ADMINISTRATION

The construction phase of construction project is generally concern with contract administration and therefore environmental management during this phase is chiefly the responsibility of the contractor overseen by the client's head consultant and other appointed representatives, as said by Ngoka (2017). The construction phases a very significant role in environmental management and hence should not lose the opportunity to bring together the environmental decisions of the client and the community through the physical construction work on site. The primary aim of contractor's environmental control is to consider systems concepts in construction mechanism. Hence, his six organizational structures of environmental management systems must provide the formal procedure under which the environmental protection measures demanded by the client can be achieved. Difficulties may arise if environmental information provided to the contractor is the specification and contract documentation lacks clarity. Also inadequate in practical site environmental management could result from poor communication, inadequate interpretation of requirements and lack of environmental knowledge or simply intransigence of the work done.

The contractor must initiate strategies that clearly identifies where the potential environmental problems of the project are, how they will be managed and who is responsible for their management.

These require the consideration of practical measures at pre-construction and during the construction phase.

2.3.11 CONTRACTOR PRACTICAL ENVIRONMENTAL CONTROL MEASURES

Oxley and Poskitt (2018) said that environmental assessment in contract administration may commence with contractor's pre-construction environmental appraisal to identify and appraise the potential environmental effects of site activity. This of course builds on the tender-site investigation earlier undertaken by the contractor.

Next, as said by Oxley and Poskitt is environmental mini-audition during site possession assessing site tours the potential for environmental effects of site activity in the work practice such as:

- Atmospheric emissions
- Discharges and spillages
- Waste management
- Handling of hazardous substances
- Discharges to water
- Health and safety aspects etc.

This two-stage process of environmental identification/Appraisal and Familiarization Site Survey (ESS) and it naturally leads to effective implementation of environmental management system itself on site.

Finally environmental management and control, concerned with implementing the necessary control mechanisms to ensure all the potential environmental effects are prevented or when they do occur to 'manage' them as already specified in the management system.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter will discuss the approach by which this study will be under taken. It details, the method chosen for selecting the sample size, sources of data used and how information will be collected from these sources. It also describes how questionnaires designed will be distributed and how information gathered will be analyzed and presented for discussions and deductions.

3.2 POPULATION OF STUDY

The populations of this research is any construction work which is executed within any geographical region of Nigeria most especially Kwara State. The project population consists of the firm of consultant Quantity Surveyors, Architects, Builders and Engineers. While the construction project is any building work ranging from dwelling houses, to high-rise building, shopping complexes, and office accommodation among others, without discriminating the type of client.

3.3 SAMPLE SIZE

The entire study covers investigate the impact of corruption on sustainable economic growth and development in building construction industry, a case study of selected building construction industry in Kwara state. A total of thirty (30) questionnaires sends out on survey comprising of 3 questionnaires to each of the ten identified stratum of construction site that made up the study population of large and medium contracting organization in Kwara

3.4 RESEARCH DESIGN

The type of research that will be carried out is descriptive using survey method and the reason for using this type of method is because the research is not experimental.

3.5 SAMPLING SIZE AND SAMPLING PROCEDURE

The sampling frame of the study comprised of registered and prominent construction industry, developers in Kwara State which consist of Architect building, quantity surveyor, developer, civil engineer particularly concerned with the mass housing.

3.6 METHOD OF DATA COLLECTION

The method of data collection for this research is basically on two sources which are primary and secondary source.

Primary source: The primary data obtained through questionnaire, interview and project document research the respondents include Architect, Engineering Builders and Quantity surveyors on various construction site.

Secondary mean: In the secondary means, works of previous researchers on the topic will be reviewed. This will be by consulting textbooks, journal, newspaper etc. that previously deal with research topic method of data analysis

3.7 RESEARCH INSTRUMENT

The research solely administered the distribution and collection of the questionnaires. The result obtain were extracted and tabulated for the purpose of analysis.

3.8 METHOD OF DATA ANALYSIS

The method of data analysis to be used for this study is basically the Kruskal Wallis process. While the tables were used to represent the data collected through questionnaires. The various sampling data for this research work were analyzed using the computer software known as SPSS (Statistical Package for Social Sciences) and the Kruskal Wallis analysis of the output were utilized.

3.9 OPERATIONALIZATION OR MEASUREMENT OF VARIABLE

Testing the effect of several population using the Kruskal-Wallis H test

If we fear that the normality and/or equal variances assumption for one-way ANOVA do not hold, we can use a nonparametric approach to compare several populations. One such approach is the KRUKAL-WALLIS H TEST, which compares the locations of three or more population by using independent random samples obtained by using a completely randomized experimental design.

In general, supposed we wish to use KRUKAL-WALLIS H TEST this is to compare the locations of p populations by using p independent samples of observations randomly selected from these populations. We first rank all of the observations in the p samples from smallest to largest. If n_i denotes the number of observations in the i th sample, we are ranking a total of $n = (n_1 + n_2 + \dots + n_p)$ observations. Furthermore, we assign tied observations the average of the consecutive ranks that would otherwise be assigned to the tied observations. Next, we calculate the sum of the ranks of the observations in each sample. Letting T_i denote the rank sum for i th sample, we obtain the rank sums $T_1, T_2, \dots, T_p$.

TEST STATISTICS

$$H = 12 / [n(n+1)] \sum (T_i^2 / n_i) - 3(n+1) \quad | \quad i=1 \text{ to } p$$

3.10 CONSTRAINTS IN DATA COLLECTION

During the course of collecting valuable data for the project, the following were encountered. The respondents complain of lack of sufficient time for the completion of questionnaire. Most of the respondents merely provide skeletal information due to non-completion of the questionnaire as required and financial constraints, which prevented the researcher from visiting as many firms as possible.

CHAPTER FOUR

4.0 Introduction

4.1 Data Analysis and Presentation

This chapter discussed data received from questionnaires. These data were analyzed using SPSS analysis. The analysis was presented in three main sections. The first section discussed detail of the background of the respondents, the second discussed the main findings acquired from the research questionnaire which was based on the research question. While the final section presents the discussion and the synthesis of main findings in relation to correlation between findings and relationship with the literature findings. Fifty-five (100) questionnaires were distributed, which fifty were administered to and returned.

4.2 Background of the Respondents

Table 4.2.1: Educational background of respondent

Option	Frequency	Percentage
Hnd/Bsc	15	30%
Ond/Nce	8	16%
O'level	12	24%
Msc/PGD	15	30%
Total	50	100%

In Table 4.2.1, the majority of the respondents have an Hnd/Bsc or Msc/PGD educational background, each accounting for 30% of the total respondents. O'level and Ond/Nce backgrounds are represented by 24% and 16% of the respondents, respectively.

Table 4.2.2: Which of the following project participants are you?

Option	Frequency	Percentage
Project Manager	8	16%
Project Engineer	10	20%
Architect	5	10%
Quantity Surveyor	15	30%
Builder	12	24%
Total	50	100%

Table 4.2.2 reveals that Quantity Surveyors are the most common project participants, accounting for 30% of the respondents, followed by Builders (24%), Project Engineers (20%), Project Managers (16%), and Architects (10%).

Table 4.2.3: Which of the following organizations do you work?

Option	Frequency	Percentage
Construction Firms	10	20%
Consultants	12	24%
Real Estate Firms	8	16%
Architectural Firms	7	14%
Geotechnical Firms	5	10%
Others	8	16%
Total	50	100%

Table 4.2.3 shows that the respondents work in various organizations, with Consultants and Construction Firms being the most common, each representing 24% and 20% of the respondents, respectively. Other organizations include Real Estate Firms (16%), Architectural Firms (14%), Geotechnical Firms (10%), and others (16%).

Table 4.2.4: Which of the following types of project do you manage?

Option	Frequency	Percentage
Residential Building Project	9	18%
Commercial Building Project	10	20%
Industrial Building Project	8	16%
All of the above	18	36%
Others	5	10%
Total	50	100%

In Table 4.2.4, the respondents manage different types of projects, with "All of the above" being the most common response, accounting for 36% of the respondents. Commercial Building Projects and Residential Building Projects are managed by 20% and 18% of the respondents, respectively. Other project types include Industrial Building Projects (16%) and others (10%).

Table 4.2.5: What is the size of the project managed by you?

Option	Frequency	Percentage
Small Project	12	24%
Medium Project	15	30%
Large Project	8	16%
All of the above	10	20%
Others	5	10%
Total	50	100%

Table 4.2.5 indicates that the project sizes managed by the respondents vary, with Medium Projects being the most common (30%), followed by Small Projects (24%) and Large Projects (16%). Additionally, 20% of the respondents manage projects of all sizes.

Table 4.2.6: How familiar are you with construction project in construction industry?

Option	Frequency	Percentage
Very Low	6	12%
Low	10	20%
Average	12	24%
High	8	16%
Very High	14	28%
Total	50	100%

In Table 4.2.6, respondents' familiarity with construction project in the construction industry shows a range of responses. The highest percentage of respondents (28%) reported being "Very High" in familiarity, followed by "Average" (24%), "Low" (20%), "High" (16%), and "Very Low" (12%).

4.3 Data Analysis of research Question

Table 4.3.1: Identify the causes of corruption in the Nigeria building construction.

Identify the causes of corruption in the Nigeria building construction	5	4	3	2	1	Total	Mean	RII	Rank
Personal greed	19	12	8	4	7	50	3.64	0.73	1
Decline of personal ethical sensitivity	17	12	6	10	5	50	3.52	0.70	3
No sense of service when working in public or private institution	17	7	11	6	9	50	3.34	0.67	4
Cultural environments that condone corruption	14	5	9	10	12	50	2.98	0.60	7
Low awareness or lack of courage to denounce corrupt behavior	17	10	11	7	5	50	3.54	0.71	2
Regulation and inefficient control	19	7	5	6	13	50	3.26	0.65	5
Slow judicial process	12	9	8	12	9	50	3.06	0.61	6

Source: Researcher's Field Work 2025

Table 4.3.1 presents the causes of corruption in the Nigeria building construction. The mean values and Rank Importance Index (RII) are used to analyze and rank the importance of each role.

The role with the highest mean value is " Personal greed" with a mean of 3.64, indicating that it is considered the most important management practice by the respondents. It is followed closely by " Low awareness or lack of courage to denounce corrupt behavior " with a mean of 3.54, and " Decline of personal ethical sensitivity" with a mean of 3.52, ranked third, It is followed closely by “No sense of service when working in public or private institution” with a mean of 3.34, It is followed closely by “Regulation and inefficient control” with a mean of 3.26, It is followed by “Slow judicial process” with the mean of 3.06 and “Cultural environments that condone corruption” with the mean of 2.98, respectively.

The RII values further confirm the ranking. " Personal greed " has the highest RII of 0.73, indicating its high importance. " " Low awareness or lack of courage to denounce corrupt behavior " has an RII of 0.71, “Decline of personal ethical sensitivity " has an RII of 0.70, “No sense of service when working in public or private institution " has an RII of 0.67, " Regulation and inefficient control" has an RII of 0.65, " Slow judicial process" has an RII of 0.61, Implement a Safety Program. On the other hand, " Cultural environments that condone corruption " has a lower mean (2.98) and RII (0.61),

Table 4.3.2: effect of corruption on sustainable economic growth and development in building construction industry in Nigeria.

The effect of corruption on sustainable economic growth and development in building construction industry in Nigeria	5	4	3	2	1	Total	Mean	RII	Rank
Weak supervision	20	10	8	5	7	50	3.62	0.72	1
Lack of transparency	14	9	12	7	8	50	3.28	0.66	4
Abandon project	14	12	7	11	6	50	3.34	0.67	3
Poor delivery of project.	14	10	6	9	11	50	3.14	0.63	5
Bid rigging	12	6	11	12	9	50	3.00	0.60	7
False extra cost.	18	8	9	9	6	50	3.46	0.69	2
Manipulation of bill of quantities	13	12	10	5	10	50	3.26	0.65	6

Source: Researcher's Field Work 2025

Table 4.3.2 presents the effect of corruption on sustainable economic growth and development in building construction industry in Nigeria. The mean values and Rank Importance Index (RII) are used to analyze and rank the challenges based on their perceived significance.

The challenge with the highest mean value and RII is " Weak supervision " with a mean of 3.62 and an RII of 0.72, indicating that it is considered the most effective challenge by the respondents. It is followed by " False extra cost." with a mean of 3.46 and an RII of 0.69, ranked second in terms of effect, followed by "Abandon project" with the mean of 3.34 an RII of 0.67, ranked third in terms of effect, followed by "Lack of transparency" with the mean of 3.28 an RII of 0.66, followed by "Poor delivery of project" with the mean of 3.26 an RII of 0.65, followed by "Manipulation of bill of quantities" with the mean of 3.14 an RII of 0.63, and "Bid rigging" with the mean of 3.00 and RII of 0.60, respectively.

Table 4.3.3: strategies/policies to be adopted to combat corruption in the building construction industry in Nigeria

strategies/policies to be adopted to combat corruption in the building construction industry in Nigeria	5	4	3	2	1	Mean	RII	Rank
Transparency	17	7	5	8	13	3.16	0.63	2
Statutory enactment	11	7	12	9	11	2.96	0.59	5
Ethical resolution	9	10	11	12	8	3.00	0.60	4
Budget monitoring and price intelligence unit.	12	12	10	7	9	3.22	0.64	1
Establishment of anti-graft agencies	9	14	8	9	10	3.06	0.61	3

Source: Researcher's Field Work 2025

Table 4.3.3 strategies/policies to be adopted to combat corruption in the building construction industry in Nigeria, along with their mean values, Rank Importance Index (RII), and rankings. "Budget monitoring and price intelligence unit." This strategic has the highest mean value of 3.22, indicating its significance." Transparency" This strategic measure received a mean value of 3.16, "Establishment of anti-graft agencies" with the mean of 3.06. followed by "Ethical resolution" With a mean value of 3.00, this strategic measure holds moderate significance. Followed by "tatutory enactment" with the mean of 2.96 respectively.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 CONCLUSION

In view of the analysis and the result obtained, it can be concluded as follows:

Corruption has consequences such as waste of national resources, weakening incentives, preventing competition growth, increasing transaction cost, poverty, poor health, low life expectancy, unequal distribution of income and wealth, inappropriate use of domestic and foreign resources and lack of possibility in regard of political, social, economic in society. It is therefore recommended to adopt efficient strategies to combat with corruption and prevent its spreads.

5.2 RECOMMENDATION

It is worthwhile to notice that prudent forecast and preparation for all types of cost overrun element is of paramount importance. Most of these cost overruns are caused by:

1. Separate profit and labor cost from the rate for material and equipment in the bills of quantities. This provides greater transparency of contractor's cost
2. Enforce payment period to reduce the work of petty corruption
3. opt for new forms of contract that promote fair allocation of risk and open accounting based on actual cost
4. explore the use project bank account whereby all the contractors, sub-contractors, consultants are paid from single bank account held in trust. This provides the donor and procuring entity with transparency of payment
5. consider training community monitors to observe the progress and quality of the project