ETHICAL BEHAVIOUR OF NIGERIAN BUILDING INDUSTRY PROFESSIONALS IN THE PROCUREMENT OF BUILDING PROJECTS

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CERTIFICATION

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DECLARATION

I DECLARE THAT THE INTELLECTUAL CONTENT OF THIS THESIS TITLED **ETHICAL BEHAVIOUR OF NIGERIAN BUILDING INDUSTRY PROFESSIONALS IN THE PROCUREMENT OF BUILDING PROJECTS** REPRESENTS MY ORIGINAL WORK IN THE DEPARTMENT OF BUILDING, UNIVERSITY OF LAGOS, AND IT HAS NOT BEEN ACCEPTED IN ANY PREVIOUS APPLICATION FOR A HIGHER DEGREE.

I AUTHORISE THE UNIVERSITY OF LAGOS TO LEND IT TO OTHER INSTITUTIONS OR INDIVIDUALS FOR THE PURPOSE OF SCHOLARLY RESEARCH.

OKO JOHN AMEH
November, 2008

DEDICATION

This thesis is dedicated to:

Almighty God, the source of all wisdom and knowledge.

My late aunt: Prof. (Mrs) Cathy Onyeka Ameh-Anegbe

My wife: Betty

My sons: Edowo and Agbenu

My daughter: Theodora

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ABSTRACT

Following the growing consensus within and outside the building industry that corruption and other unethical practices are endemic in the building industry, coupled with scarce empirical academic research on professional ethics in the Nigerian building industry, there is need to examine the ethical behaviour and ideology of the professionals involved in the procurement chain. Consequently, the study sets out to unravel the ethical behaviour of the Nigerian building industry professionals in the procurement of building projects as well as the nature and prevalence of the ethical impropriety obtainable at various stages in the building projects procurement chain. One hundred and ninety two professionals were sampled from 108 construction organisations comprising 55 consultancy organisations, 35 contracting organisations and 18 client organisations in selected Nigerian major cities. Survey and correlational research designs were employed. Descriptive statistics was used in analysing the data while the hypotheses were tested using one way analysis of variance, Chi-Square, Kruskal -Wallis tests and Mann-Whitney U test at 0.05 levels of significance. The results indicate that award of contracts by professionals based on social ties and personal interests top the list of twenty-two most prevalent ethical impropriety in the industry. Dominant ethical ideology of building industry professionals is situationism; Quantity surveyors were perceived as the most susceptible to bribery; greed and inordinate desire for materialism top the list of eighteen factors identified as reasons for professional ethical impropriety. Finally and expectedly, ethical impropriety generally has no favourable impact on project performance. The tests of the hypotheses led to the conclusion that there is no statistically significant difference in the ethical ideology of different categories of construction professionals, no significant difference in the degree of susceptibility of professional groups in the building industry to bribery and significant association exist between ethical impropriety and project performance. Major contributions of this research to the existing body of knowledge include the identification of twenty-two forms of impropriety of the Nigerian building industry professionals, thereby providing information on curtailing such ethical impropriety. The identification of situationism as the dominant ethical ideology of the Nigerian building industry professionals would be of interest to policy makers, and intra professional ethical comparison, which is a bold step and necessary benchmark for resolving ethical issues in the construction industry. The study recommends among others, adoption of electronic-tendering (e-tendering) to avoid bias in tendering evaluation, adequate and prompt payment for professional services to prevent professionals from depending on contractors and sub-contractors. The clients should ensure that discretionary powers of quantity surveyors in the procurement of building projects are limited or subjected to third party verification. Finally, further enquiry is needed to explore the types of measures that might help curb unethical practices in the procurement of building projects.

CHAPTER ONE
GENERAL INTRODUCTION

1.1 Background of the study

Two essential elements required for a profession to command public confidence are professional knowledge and ethical conduct (Chalkley, 1995). Ignoring ethics can have significant impact on the quality of workmanship, cost of re-construction and general public perception of the profession. It is important for building industry professionals to observe a high level of professional ethics because failure in design, construction or maintenance has the potential to cause significant injuries, deaths or illness amongst those who live, work or pass through buildings (Chalkley, 1995). Financial losses due to inflation of contract sum, bribery and corruption in the procurement process, and litigation cost are additional effects of ethical impropriety.

Corrupt practices are prevalent at every phase in building construction projects, during planning and design, in the award of contracts, during the construction process, and post construction stage including maintenance of completed projects. Corrupt practice is a widespread problem in procurement all over the world. Corruption in the building industry involves, to some degree, a vast range of stakeholders. The list of these includes multinationals, national and local construction companies, consultancy firms, suppliers, artisans and labourers, a range of intermediaries, users as well as politicians, and all grades of civil servants. Recently, the World Bank estimated the volume of bribes exchanging hands for public sector procurement alone to roughly US$200 billion per year (Kaufmann, 2005 in Lengwiler and Wolfstetter, 2006).

Many features of the building industry present enormous opportunities for corruption to flourish. First is the size of building projects where contracts tend to be huge in monetary value and yet the companies with financial and technical capability to implement them are few (Shakantu, 2003). Secondly, the uniqueness of many projects makes costs difficult to compare, which in turn makes it easier to inflate costs or hide bribe (Robb, 1996, Zhuwakinyu, 2003). Furthermore, the facts that the government is the major client, even privatised projects require government approval, which involve numerous permits and there are insufficient controls on the behaviour of government officials.

There is the issue of concealed nature of large proportion of building works. This makes it costly or difficult to verify bad workmanship or inferior materials after the completion of the work. For example, foundation, which may cost between 10-15% of the total building cost, is concealed within the ground, Structural steel works are concealed within the concrete, electrical and mechanical fittings are concealed beneath the wall.

Finally, building projects usually involve a large number of participants in a complex contractual structure. These include architects and engineers who set the technical parameters of building projects, the quantity surveyors who prepare preliminary cost advice and estimate, the builders or main contractor who may sub-contract key parts of the project to specialists' sub-contractors. Others are the suppliers who provide equipment and materials and the artisans or workers (skilled and unskilled) involved in the production of buildings.

Some activities in construction procedures have been from experience, identified as the problem areas of corruption. These include administrative approval, detailed estimate and setting project technical parameters, preparation of tender documents, invitation and opening of tenders, tender scrutiny and award of works, works agreement, payment to contractors, site records and quality in construction (Central Vigilance Commission, 2002).

Corruption and other ethical lapses are believed by the international community to be common at all levels of the Nigerian workforce based on the recent consecutive rankings of the Transparency International. Nigeria was ranked the second, third, sixth, eighteenth and thirty seventh most corrupt nation in the world in 2003, 2004, 2005, 2006 and 2007 respectively by the Transparency International (Corruption Perceptions Index, 2003-2007). Corruption Perception Index (CPI) uses acceptance of bribes and abuse of office by elite politicians and government officials to gain personal benefits as a yardstick to determine the rank of a country. Transparency International (2001) also ranked the construction industry as the industry most likely to include bribes in transactions. The professionals in the Nigerian building industry are not immune from this national trend in ethical erosion. This is because there are evidences that suggest that the ethical behaviour of Nigerian building professionals may give cause for concern.

Studies have shown that 50% of building failure cases in Nigeria is attributable to design faults (carelessness and negligence), 40% to construction faults (professional incompetence and fraudulent practices) and 10% to product failures (Oyewande, 1992). Studies conducted by the Nigerian Institute of Quantity Surveyors (NIQS) indicate that not more than 40% of the budgeted costs are incurred in most of the construction contracts awarded by the government (Federal, state and local). The balance of about 60% end up partly on unnecessary administrative expenses and the rest probably in local and foreign account of individuals (Adetola, 2007).

Kolawole (2001) classified the unethical practices common to the Nigerian construction industry into 'professional misconduct' and 'professional negligence'. Professional ethical lapses often lead to project abandonment, capital flight and huge economic loss in the form of additional cost of projects that runs between 40 and 60 percent of awarded contract sum. Such additional cost may be due to rework, contractual claims, litigation cost etc. In extreme cases, ethical lapses might lead to the collapse of buildings: a very common feature in Nigeria, especially in Lagos metropolis. Some of the collapses regrettably led to both financial and human losses. Carelessness and greed on the part of construction professionals are responsible for about 37% of these collapses and 22% are traceable to design faults (Chinwokwu, 2000 and Windapo, 2006). These and other emerging issues indicate that there is a growing demand for good ethical practice and that any advancement in the building industry is dependent on the implementation and policing of ethical guidelines and policies of professional bodies and public procurement agencies.

Ethical behaviour of construction professionals is a topical issue in developed countries. Fan, Ho and Ng (2001a) studied the perception of members of the Hong Kong Institute of Surveyors (HKIS) regarding the ethical standard of professional quantity surveyors and the important constituents affecting ethical decision- making in Hong Kong. Vee and Skitmore (2003) conducted research on construction professionals' view on professional ethics in Australia. Poon (2006) carried out a study of UK construction professionals' view on professional ethics. In Nigeria, Alutu (2006) examined the complications unethical practices in the upstream oil and gas industries brought into project management. Alutu (2007) investigated prospective engineers view on unethical practices in the Nigerian construction industry. Recently, issues bordering on contract fraud and corruption in the Nigerian construction industry were the topics of discourse in a two-day workshop (NIQS, 2007).

The cost of carrying out construction work is higher and construction output is poorer in Nigeria compared to other developing nations (Adetola, 2007). The negative impact of contract fraud, corruption and other ethical impropriety in the building industry on the socio-economic growth of Nigeria, coupled with scarce empirical academic research on professional ethics in the Nigerian building industry warrant the study of the ethical behaviour of core building industry professionals in the procurement of building projects.

1.2 Statement of the research problem

There is a growing consensus within and outside the building industry, that corruption and other unethical practices are endemic in the building industry. Report has shown that the cost of building projects in Nigeria is higher and the quality lower compared to other developing nations. Report has shown that the total budgeted costs incurred in most of the contracts awarded by the government are about 40%. There is evidence, which suggests that the poor technical performance in the building industry in Nigeria is attributable to ethical lapses among construction professionals (Oyewande, 1992; Chinwokwu, 2000 and Windapo, 2006). This is made manifest by the frequent need for maintenance of public buildings and structural and services failures, which in extreme cases resulted in building collapse. Construction professionals' ethical orientation, ideology and values may have impact on the performance of projects. Curbing or managing corruption, fraudulent or unprofessional conduct in the procurement of building projects is undoubtedly a critical social problem. There is a need to address the issue of professional ethical impropriety with a view to achieving improved construction project performance in terms of completing projects on time, within budgeted cost and quality standard. To achieve this, first, an in-depth understanding of the nature of professionals' ethical impropriety, prevalence of such impropriety, possible reasons for professionals' ethical lapses, professionals' ethical ideology and perceived ethical behaviour as well as factors that contribute to unethical behaviour in the building industry is needful. These are the issues addressed by this research.

1.3 Research questions

This research provided answers to the following research questions:

1 what are the nature of ethical impropriety at various stages of project procurement?

2 is there any difference in the perceptions of professional or organisational groups in the Nigerian building industry on the prevalence of ethical impropriety?

3 what are the factors affecting ethical behaviour of professionals?

4 are there differences in the ethical ideology of professional groups in the Nigerian building industry?

5 is there any difference in the bribe perception index of professional groups in the Nigerian building industry?

6 what is the impact of ethical impropriety on project outcome?

1.4 Aim and objectives of the study

The aim of the study is to examine ethical behaviour of Nigerian Building Industry professionals' in the procurement of building projects.

The objectives of the study are to:

1. identify the nature of ethical impropriety at various stages in the procurement of building projects.
2. assess the prevalence of identified ethical impropriety at various phases in the procurement of building projects.
3. investigate professionals' perception of factors affecting ethical behaviour in the building industry.

4. determine the dominant ethical ideology of core building industry professionals involved in the procurement of building projects.
5. identify the professional groups in the building industry most susceptible to bribery.
6. examine the impact of ethical impropriety on project performance

1.5 Research hypotheses

The hypotheses postulated for the study are:

H1 There is no significant difference in the perception of professional groups in the building industry on the prevalence of ethical impropriety

H2 There is no significant difference in the perception of organisational groups in the building industry on the prevalence of ethical impropriety

H3 There is no significant difference in ethical ideology of professional groups in the building industry

H4 There is no association between ethical influence factors and professionals' ethical ideology

H5 There is no significant difference in the bribe perception index of professional groups in the building industry.

H6 There is no significant impact of professionals' ethical impropriety on Project performance.

1.6 Significance of the study

This research will be of benefit in complementing government efforts in fighting corruption in Nigeria, particularly in the procurement of building projects. It has the potential of making significant contribution to the body of knowledge on ethics by creating awareness of the nature of ethical impropriety, their prevalence, factors affecting ethical behaviour among others in the Nigerian building industry.

The findings will assist policy makers in formulating measures that will lead to reduction in the cost of public projects, reduce capital flight, lower level of corruption in the award of contracts and in the management of building projects. It will also assist policy makers in making policies that will encourage the growth of building contracting firms and hence create jobs.

The identification of factors affecting ethical behaviour of building industry professionals will assist the government, private organisations and professional institutions to manage ethical lapses in the building industry proactively by eliminating factors that could predispose individuals to fraud.

Finally, it will provide suggestions for enforcing ethical behaviour in the industry that will lead to other benefits such as: increased professionals' pride in and loyalty to the industry; increased customer satisfaction and loyalty; increased community goodwill; increased productivity and construction project performance; less misconduct; and legal protection for construction organisations just to mention but a few.

1.7 Scope and limitation of the study

This research cannot pretend to address everything within the domain of study; as such, the boundaries of knowledge of the study need to be stated. Generally, the study covers the identification of the nature of ethical impropriety, their prevalence and ethical ideology of building industry professionals. The investigation is limited to the core professionals in the procurement of building projects such as the Architects, Builders, Structural Engineers, Quantity Surveyors and Building Services Engineers (Mechanical and Electrical Engineers) engaged in client (public and private) organisations; consultancy and construction contracting organisations. Other building industry professionals such as Estate surveyors and valuers, Town planners and Land surveyors may also be prone to unethical conduct in their professional practice, however, excluded from the study because they are not often involved in the procurement of building projects. Estate surveyors and valuers are involved only when the project is of commercial value. Town planners' roles in building procurement are limited to the approval of the design and are involved only on large estate development. Land surveyors are involved before the project conception stage, especially in making geodetic survey and boundary adjustments. Any of these professionals may be involved only when they

are acting as the project manager. Ethical behaviour of other professionals in the construction industry such as the civil engineers, mining engineers, etc is not part of this study.

1.8 Definition of key operational terms

Key operational terms defined in this study to avoid ambiguity are bribe, building industry, building professionals, ethics, ethical behaviour and project procurement.

Bribe: This involves anything of value solicited, bestowed or offered to induce or influence the receiver's conduct in the discharge of public duty. It may be money, good, right in action, property, and privilege. Others include emolument, object of value, advantage or promise.

Building Industry: The building industry is a sector of the construction industry. The construction industry comprises two major areas of activities: building and civil engineering. They are complementary to each other, yet operate in different areas. However, there is no absolute division as many building projects involve civil engineering and vice versa. Many medium and large contractors carry out work of both building and civil engineering nature. Building industry deals with the planning, design, construction and management of the man-made and natural environment. The scope of activities in the building industry covers but is not limited to design, construction and management of residential, industrial, institutional and commercial buildings.

Building Professionals: Ray, Hornibrook, Skitmore and Zarkada-Fraser (1999), defined professional as a group of people organised to serve a body of specialised knowledge in the interest of society. Building professionals therefore are experts and authorities in the built environment who possess a large body of knowledge derived from extensive academic study. The core professionals involved in the procurement of building projects include the architects, builders, structural engineers, quantity surveyors and building services engineers (mechanical and electrical engineers).

Ethics: Ethics is the study and understanding of morality, moral principles, and the moral decision making process (Masserly, 1994 in Fan *et al*, (2001a). Ethics as far as this study is concerned refers to well based standards of right and wrong that prescribe what humans ought to do, usually in terms of rights, obligations, benefits to society, fairness, or specific virtues.

Ethical Behaviour: Conduct in relation to professional ethics according to Banks (1998) tends to mean behaviour or action: how one consciously behaves or acts. Ethical behaviour in the context of this study therefore includes professionals' conducts that could be judged as either corrupt or not; fraudulent or not; or conform to the organisational moral and professional guiding principles or not.

Project Procurement: This refers to the systematic process in which a client acquires a construction product from a contractor. The processes involves several steps including: identification of needs, documentation of client briefs, design of project,

advertises contract or invitation to pre-qualify contractors, invite tenders, evaluate tenders and select preferred bidder, award contract and manage contract.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The problem that faces any professional community is one of ethical quality control. The discretionary decision-making behaviour of construction professionals and ethical impropriety, not only have tremendous social consequences, particularly in the realm of health, safety, and welfare of the public but environmental and economic consequences on a nation as well. Reasons for the increasing societal concern about ethics in the construction industry are many. The focus of this study is to identify the nature and prevalence of ethical impropriety in the Nigerian building industry. The review of existing literature relating to this topic include the emergence of the concept of ethics, morals ethics and business ethics, factors affecting ethical behaviour decision, ethics in the construction industry, characteristics of the Nigerian building industry, Nigerian building industry professional code of conduct, corruption in construction and construction project procurement and project performance.

2.2 The emergence of the concept of ethics.

Consensus is that primitive tribes did not really need ethics for cohesive groups; tribal law was sufficient regulation to teach tribal members how to behave. Tribes had to survive in the hash condition of primitive life, where hasty, foolish or selfish behaviour of one person could lead to extinction of the tribe; this limited the opinion of behaviour of tribal members. However, as civilization developed and agriculture created abundance, people began to live beyond the confines of tribal groups. This means that the required

more universal methods of regulation than their tribal law could provide. This marked the genesis of ethics (Geocities, cited in Naude, 2004).

Ethics enabled people or tribal members to carry tribal codes 'inside them' when they left the tribe. Therefore, as tribal life diversified, people could adhere to original teaching even after they travelled outside their own groups (Geocities cited in Naude, 2004).

Another account of the emergence of ethics is that ethics did not really begin until the age of agriculture. Humans like all higher animals, faced choices for millions of years. Initially, the choices were resolved by reflex with the strongest reflex taking precedence. Later, humans sublimated choice by reflex to choice by learned behaviour, to give choice broader possibilities. Choice was then achieved through tribal codes, controlled by social regulation. Tribal codes were the behavioural regulating mechanism of all Stone Age people, and are so even today. However, with the advent of agriculture, this 'naturally evolved' system was thrown into 'chaoses. Agriculture supported such a large population that tribes broke up, and tribal customs became diversified and then subsumed into larger social structures which meant that tribal members started to travel outside the confines of their group. Kropotkin's (cited in Naude,2004) view is similar to the views discussed above. He explained that the most primitive people developed their own mode of social life and evolved their own carefully preserved custom and traditions, their own conceptions about what is good and bad, what is not to be done and what is proper in different situations. In short, they evolved their morality, their own ethics.

Every society throughout history has devised for its members ethical codes. These are systems of teachings, conveyed as reinforced learning of how a society expects its members to behave (Geocities, cited in Naude, 2004). Teaching and reinforcement of

ethics begins in childhood. Teaching is by example, discipline, religion or moral tales while reinforcement is done by granting affection for good behaviour and reprimands for bad behaviour. For adults, teaching continues as religious or ethical doctrine, while reinforcement is in the form of punishments and rewards in the workplace, in sport and so on. Rewards refer to things like praise, honour, privilege and acclamation. Punishment involved reprimand, deprivation of freedom, wealth or in extreme cases, deprivation of life. Whether they exist as laws, rules, teaching or norms, the ethical codes of society instruct people how to behave (Geocities, cited in Naude, 2004).

In today's business world, the impact of unethical behaviour is quite different from what it was in primitive times. It might be said that only in extreme cases could the foolish or selfish behaviour of a person lead to the extinction of a civilization, as it could in primitive times. However, unethical behaviour has and continues to cause huge economic waste, poor infrastructural development and poverty in most developing and developed economies. According to Greenberge (cited in Naude, 2004), nearly every employee might be willing to steal from an employer under certain circumstances, unless the company makes clear that theft is unethical.

2.3 Morals, ethics and business ethics

The meaning of "ethics" is uncertain and the views many people have about ethics differs. It is important to distinguish the meaning of terms, which are associated with the concept of ethics. To this end, it is necessary to look at the meaning of morals.

2.3.1 Morals

The word 'morals' originated from the Latin word *mores*, as 'ethics' emanated from the word ethos meaning "customary behaviour" (Sulaiman, 2000). According to Kidder and Bracy (2001), the term 'moral' is commonly used in two distinct ways:

- it defines those areas of concern that considers questions of right and wrong.
- it is used to determine what is good, right or just.

Toffler (1986) describes moral as "....relating to principles of right and wrong or arising from one's conscience or a sense of good and evil". Google (n.d) defines moral as "personal standards or rules of conduct that guides an individual toward making judgements about permissible behaviour with regard to basic human values. One factor common to most of these definitions focused on certain key concepts like regulating behaviour or interaction according to what known to be right or good.

2.3.2 Ethics

Various definitions given for ethics include the philosophical study of moral values and rules. Google (n.d). Navran, (2001) defined ethics as "behaviours that tells people how to act in ways that meet the standard our values sets for us". According to Toffler (1986), ethics are "rules and standard that govern behaviours". Ruud (2001) sees ethics as an abstract system of accepted beliefs that control behaviour. Hosmer (1994) asserts that managers confuse ethics, morals and values. Whereas ethics remain the same and do not differ among people, cultures or countries, morals and values do. Moral standards of society and value judgments held by individuals are often the basis of decisions involving

moral considerations. Hosmer (1994) distinguishes between ethics, morals and values as presented in Table 2.1.

Table 2.1: Distinction between Ethics, Morals and Values

Ethical Principles	Moral Standards	Value Judgements
Ethics is the study of what is good or right in human beings.	Moral standards represent the expectations of society and the means by which managers judge their actions	Value judgements are subjective evaluations of what managers think is important
Ethics is a way of thinking about morality in a logical and systematic manner	Managers turn to moral standards of behaviour in decision making	Value judgements are the way managers intuitively feel about right or wrong
Ethical principles do not differ between people and remain the same	√Moral standards vary with individuals and by culture, country and time	Value judgements can be thought of as priorities or preferences and are variable
Ethical principles are the foundation of moral philosophy	Moral standards are subjective gauges of conduct, and are the way managers bring intuitive feelings about right or good into decision making	Managers use value judgements when they must decide what is right or wrong
Ethical principles are the fundamental rules by which moral standards and value judgements can be examined.	Moral standards are not objective, consistent nor timeless as are ethical principles.	Value judgements are used along with moral standards when confronted with a complex managerial dilemma
Managers can examine standards of behaviour and choice of goals by using the fundamental logic of ethical principles of analysis		

Source: summarised from Hosmer, L. T. (1994:23).

Comparative analysis drawn from Table 2.1 suggests that individual should use ethical principles as a basis of analysis and not rely solely on morals and values.

2.3.3 Business ethics

Business ethics is a division of professional ethics, focusing on the special area of commerce and the profession of business. It seeks the right answer to the question "how should I act in my capacity as a commercial agent or professional merchant, manager, marketer, advertiser, executive and even consumer?" Unlike economics and other major disciplines that look at business, business ethics does not assume that there are innate motives driving one to maximize profits or utilities or long-term self-interest. Barkhuysen and Rossoun (2000) assert that business ethics studies the ethical dimensions of economic activity as manifested on three different levels: macro, meso and micro levels. According to them, on the macro level, the morality of economic systems is the focus, while on the meso level, the moral obligation of business towards other stakeholders and institutions are the focus. Moreover, on the micro level, the ethical dimensions of intra-organisational behaviour and decision-making are the focus. Business ethics, as any other look at human morality, takes it that we are all capable of doing the right or the wrong thing and that one isn't naturally inclined either way -- it's up to us which we will choose. According to Byron (1977) in Fan, Ho and Ng (2001a), the concept of ethics in business has the following layers of meaning: a commonsense grasp of ethics; a philosophical appreciation; an etymological layer; and the notion of religious ethics. Dwivedi (1997) states that our relationship with others, both individually and collectively, and our understanding of the nature and destiny of humanity is based on ethical ideology. There are person-to-person, person to group, group to person, and group-to-group ethical relationships. The one on one relationship, referred to as personal ethics while the others are categorised as social ethics. Business ethics is viewed both as a social and personal discipline. All business ethics must take cognizance of the social consequences.

Construction ethics falls under the definition of business ethics since it involves the supply of goods and services.

2.4 Ethical behaviour influence factors

An assumption underlying most ethics research is that individuals' ethical frameworks remain stable across settings. However, several researchers have posited that ethical behavior may be influenced by situational factors such as ethical climate (Victor and Cullen, 1988), one's immediate job context, organizational culture, and work characteristics (Trevino, 1986), the influence of peers (Zey-Ferrell and Ferrell, 1982), supervisors (Arlow and Ulrich , 1988), and reward systems (Jansen and Von Glinow, 1985), as well as organizational size and level (Ford and Richardson, 1994). Evidence suggests that the influence of situational factors on individuals ethical behaviour matters. The following factors have been identified by different scholars as having effect on whether an individual behave ethically or unethically

2.4.1 Code of ethics

One of the more common suggestions for dealing with ethical lapses in business and the professions is the development of a code of ethics. All professions in the construction industry have a code of ethics. Griffin (1993) posits that a code of ethics is a formal statement of what values and ethical standards guide individuals and organisations. The aim of code of ethics according to De Klerk and Kruger (1995) is for controlling human behaviour within a specific milieu by means of man's cognitive power and rationality. Code of ethics in addition, determines the values that to be pursued consciously and as a matter of choice. Nigro (1970) is of the view that a code of ethics is a statement of

acceptable behaviour for public representatives and public servants. Fox and Meyer (1995) advocate that a code of ethics lays down acceptable standards of conduct and moral behaviour and in the case of public representatives and public servants, such a code may be proclaimed in statutes or contained in regulations and rules of legislative and executive institutions. The definition of 'code of ethics' adopted for this study is a modified version of the one given by Nigro (1970) and that is "a code of ethics is a written statement of acceptable standard of conduct and moral behaviour that serves as a guide for individual in a social or professional group".

Professional practice in construction is an activity that affects the professional, other professionals, the profession, the client, society and environment. These also are areas of concern in construction ethics that the professional codes of ethics provide guidance related to making ethical decisions. Codes of professional ethics serve several purposes:

i. to provide ethical guidance for the professionals themselves
ii. to furnish a set of principles against which the conduct of professionals may be measured
iii. to provide the public with a clear statement of the ethical considerations that should shape the behaviour of the professionals themselves.

There is a divide between Scholars and practitioners on the value of codes of ethics in influencing behaviour of public representatives and public servants (Rosen, 1982). Though these studies cover public representatives and public servants, they are equally applicable to business and professional life. The bases for the arguments for and against codes of ethics are:

Codes of ethics provide the routine points of reference for what constitute ethical conduct for public representatives and public servants (Cooper, 1990).

Codes of ethics founded on core values enshrined in political constitutions serve to promote awareness of the larger context of societal needs and a sense of purpose in an individual's life (Dwivedi, 1997, Cooper, 1990).

Starling (1993) asserts that questions arising outside the code's view may find an individual in conflict with other loyalties (such as a particular client or geographical region, political leader and social class)

Wording of codes leave large areas of interpretation and judgment in concrete situations. If codes are two general, they may be ineffective as guides to action. If specific enough to serve as a guide to action, they might be so numerous, so detailed, as to be unworkable on a day-to-day basis (Cooper 1990, Starling, 1993).

Codes of ethics are regarded as "legislating morality". The argument is that if people do not have it in their hearts to adhere to high ethical standards, no such code of ethics will reform them (Nigro, 1970).

Codes of ethics although they may seem external, they operate on the thoughts and feelings of the individual, opening new vistas of action and objective, creating warmth of personal association in an institution (Nigro, 1970, Dwivedi, 1997).

The principal concerns about codes of ethics for professionals are, firstly, cynics argue that codes of ethics are mere window dressing and are designed more for public relations than for altering conduct (Kultgen, 1982 in Jamal and Bowie, 1995). Secondly, critics

argue that the codes are self-serving and only protect the economic interests of the profession than they are for protecting the public from unethical conduct (Bayles and Kultgen, 1982; Ladd, 1980 in Jamal and Bowie, 1995). Ladd (1991) argues that ethics should be open-ended and reflective, and that relying on a code of ethics is to confuse ethics with law. He further asserts that it is mistaken to assume that there is a special ethics for professionals, which is separate from the ethics of ordinary human beings within a moral society. Professionals, he suggests, have no special rights or duties separate from their rights and duties as moral persons, and therefore codes of ethics are pointless and possibly pernicious. A different sort of attack on the usefulness of codes of ethics comes from Luegenbiehl (1983:p.138) who says:

> *The adoption of a code is significant for the professionalisation of an occupational group, because it is one of the external hallmarks testifying to the claim that the group recognises an obligation to society, which transcends mere economic self-interest.*

While acknowledging the fact that codes of ethics do have some sociological value, he believes that ultimately codes of ethics create moral problems rather than helping to resolve them. Luegenbiehl (1983) notes that practicing professionals rarely turn to their codes of ethics for guidance, and that the guidelines within the codes sometimes seem internally inconsistent. He also voices a concern similar to Ladd's (1991) - namely, that implementation of a code of ethics may be in conflict with the moral autonomy we expect of individuals. In response to Luegenbiehl's (1983) criticisms, Harris, Pritchard and Rabins (1995) argue that all three of Luegenbiehl's (1983) criticisms can be surmounted. He suggests that though most practising professionals do not routinely consult their codes of ethics, it does not follow that they do not know about or care about the contents of their codes. Further, the fact that codes of ethics sometimes seem internally inconsistent

can be addressed by understanding codes of ethics not as recipes for decision-making, but as expressions of ethical considerations to bear in mind. They further said that code of ethics for professionals should be viewed as an ethical framework rather than as specific solutions to problems.

Davis (1991) makes a strong positive case for professional codes of ethics. Davis (1991) argues that codes of ethics should be understood as conventions between professionals. Davis (1991:154) writes,

> *The code is to protect each professional from certain pressures (for example, the pressure to cut corners to save money) by making it reasonably likely...that most other members of the profession will not take advantage of her good conduct. A code protects members of a profession from certain consequences of competition. A code is a solution to a coordination problem.*

Davis (1991) goes on to suggest that having a code of ethics allows an engineer to object to pressure to produce substandard work not merely as an ordinary moral agent, but *as a professional*. Engineers (or doctors, or clergy, etc.) can say, "As a professional, I cannot ethically put business concerns ahead of professional ethics." Davis (1991:166) gives four reasons why professionals should support their profession's code:

> *First...supporting it will help protect them and those they care about from being injured by what other engineers do. Second, supporting the code will also help assure each engineer a working environment in which it will be easier than it would otherwise be to resist pressure to do much that the engineers would rather not do. Third, engineers should support their profession's code because supporting it helps make their profession a practice of which they need not feel...embarrassment, shame, or guilt. And fourth, one has an obligation of fairness to do his part...in generating these benefits for all engineers*

Harris *et al.* (1995:p.35) summarize Stephen Unger's analysis of the possible functions of a code of ethics:

> *First, it can serve as a collective recognition by members of a profession of its responsibilities. Second, it can help create an environment in which ethical behaviour is the norm. Third, it can serve as a guide or reminder in specific*

situations...Fourth, the process of developing and modifying a code of ethics can be valuable for a profession. Fifth, a code can serve as an educational tool, providing a focal point for discussion in classes and professional meetings. Finally, a code can indicate to others that the profession is seriously concerned with responsible, professional conduct

In a study, Cleek, and Leonard (1998) carried out an empirical investigation on whether code of ethics are effective in promoting ethical decision-making behaviour. The study utilizes data obtained with fifteen-item questionnaire administered to 150 business students at a large public University. Seven of the items in the questionnaire were scenario on the topic of ethical behaviour. The conclusion drawn from the result of the study is that codes of ethics do no affect ethical decision-making behaviour. The study also indicate that the factors of gender, age, work status, grade level, familiarity with the term "code of Ethics" and opinion on the importance of ethics for success in an organization did not influence decision patterns significantly

2.4.2 Personal values

There is a growing body of empirical literature examining values and ethics. Numerous authors have argued that personal values play an important role in influencing the behaviour of managers (Christensen *et al.*, 1987 and Gilbert, 1988 in Fritzsche, 1995). If that holds for managers, then one would expect personal value to influence the ethical behaviour of construction professionals.

Values may be defined in a number of ways including: "A value is a belief upon which a man acts by preference" (Allport, 1963 in Fritzsche, 1991). "A value is an enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence"

(Rokeach, 1973in Connor and Becker, 2003). A value is "A normative belief about proper standards of conduct and preferred or desired results" (Nystrom, 1990 in Connor and Becker, 2003). While definitions differ, there seem to be a consensus that value influences behaviour.

In explaining the role of values in ethics, Kreitner (1995) cited in Connor and Becker, (2003) mentions that an instrumental value is an enduring belief that a certain way of behaving is appropriate in all situations and a terminal value, in contrast, is an enduring belief that a certain end-state of existence is worth striving for and attaining.

Fritzsche (1995)'s study examines the relationship between personal values and the ethical dimension of decision-making. The significance of this study is that if specific values (acceptable mode of conduct) can be identified, which are linked to ethical behaviour, they would provide powerful tools for managers who want to maintain high standard of ethical behaviour in their organization. Such values, which are associated with ethical behaviour, are used to screen potential employees, during the hiring and selection process. He postulated two hypotheses to aid the study as follows:

i. The instrumental values (responsible, honest and broad mind) are associated with ethical decision- making.

ii. The terminal values (self-respect, family security and freedom) will be associated with ethical decision-making.

2.4.3 Rewards and punishment

Jansen and Von Glinow (1985) explore the linkage between the organizational reward system and the extent to which employees behave "unethically" contrary to the assumption that individuals are opportunistic, that is, they focus on furthering their own interest over the organisation's. The authors' argue that organization reward systems exert pressures on individuals to behave unethically. This is because organization actors seek information concerning what activities are rewarded, and then seek to perform (or at least pretend to perform) those activities often, to the virtual exclusion of activities not rewarded. This reward system, is viewed as the structural source of ethical ambivalence. The significance of the study is that the concept of ethical ambivalence directs attention to characteristics of ethically enabling and disabling reward systems and the norms and counter norms that such systems shape and maintain. They cited as example an organizational norm of "cost effectiveness and staying within the operating budget" which is socially desirable and the counter norms "spend it or burn it" which capture the well-known reward system that bases future allocations on past spending habits. They suggest action strategy useful for redesigning the reward systems that fail to signal the importance of dominant norms and allow counter norm-driven behaviour to be rewarded.

2.4.4 Organisational culture

The organisation has the potential to make an ethical person act unethically or an unethical person act ethically. However, research findings suggests that the "ability to see and respond ethically may be related more to attributes of corporate culture than to attribute of individual employees" (Chen, Sawyer and Williams, 1997). Bailey,

Schermerhern, Hunt and Orsbon (1991) buttressing this point assert that individuals are likely to behave according to the group norms even though this may go against what they would do outside of the group setting. The organisation therefore is a very powerful influence, which has the potential to make an ethical person act unethically or an unethical person behave ethically.

Previous international research (Independent Commission Against Corruption, ICAC, 1998) has found the ethical tone of an organisation to be an integral part of an organisations functioning. For example, organisational culture and ethics research have shown that the ethical tone of an organisation impacts upon:

i. efficiency and effectiveness.
ii. Decision – making processes
iii. Staff commitment and job satisfaction.
iv. Staff stress
v. Staff turnover.

Falkenbery and Herremans (1995) explore the influence of the formal and informal organisational control systems on ethical behaviour. The objective of the study was to examine the interaction between the formal and informal systems of organisations, and the impact of the interaction on encouraging ethical or unethical behaviour and/or poor decisions.

The authors identified formal system of behavioural control as the written procedures and policy that direct behaviour to achieve the organization's goals, and/or detect/determine misconduct. Elements of the formal system include organizational goals, budgets, reward criteria, performance appraisal standards, and codes of ethics. In contrast to the formal system, they view the informal system as comprised common values, beliefs and

traditions that direct the behaviour of group members. Group members through a subtle reading of signals relay by supervisors and co-workers learn these values. They further divide the system into congruent and incongruent based on the interaction between the formal and informal systems. When the values and norms of the informal system reinforce behaviours that support the formally identified organization values and goads, the system is congruent, when pressure within the informal system encourages behaviours that do not aligned with the formally stated value and goals, the systems are incongruent. They postulated three hypotheses:

i. The informal system is the dominant source of control in the resolution of ethical issue.

ii. Incongruence between the formal and informal systems will occur when an organisation's formal goals/policies include ethical concerns, while the value and norms within the informal system are dominated by concern for the bottom line or economic criteria.

iii. Incongruence between the formal and informal systems is more likely when senior management demonstrates behaviour inconsistent with the formally stated goals and policies of the organization.

Data were gathered through small discussion groups, with three or four professionals/managers in a group. Five-discussion group, with 17 participants were held. Each group structured include individuals from different industries and various sizes of organization. Questions concerning: (a.)What factors led to unethical behaviour and (b) what encourages ethical behaviour in an organisation, were initiated by the investigator.

The findings indicate that the informal system within organisations is the dominant influence on behaviour when ethical issues are resolved. This conclusion supports the first hypothesis.

The research further revealed that the formal policies and procedure are important behaviour guides. A strong informal system is not sufficient to ensure ethical decisions or behaviours. The implication of this finding is that congruence between the formal and informal system is the strongest assurance for ethical culture. The finding equally supported the second hypothesis while the third hypothesis, was partially supported in that role models were perceived as the dominant influence in the formal system.

2.4.5 Gender

Substantial evidence from research on gender difference suggests that men and women may differ on outcome and process- based dimensions. For example, female managers tend to focus more heavily than male managers on procedural issues such as positive interactions with subordinates, sharing information, and consensus building (Loden, 1985; Powell, 1993; Rosener, 1990 in Schminke *et al.*, 2003). Women also tend to avoid competitive (outcome-based) strategies when forming coalitions, opting instead for collaborative, accommodating (procedural-based) approaches (Bond and Vinacke, 1961; Vinacke, 1959 in Schminke et al , 2003). Finally, women exhibit higher process-oriented work attitudes such as commitment to job (Powell, 1993), exhibit lower outcome-oriented needs such as need for achievement (Williams and Best, 1990 in Schminke *et al.*, 2003; Lefkowitz, 1994), and are generally less concerned with certain work outcomes

such as pay (Donnell and Hall, 1980; Schuler, 1975 in Schminke *et al.*, 2003). This process and outcome based differences between men and women lead to the conclusion that men are more utilitarian and women to be more formalist (Schminke, Maureen and Miles, 2003). Formalism (often associated with Kantian ethics) and utilitarianism (often associated with Bentham and Mills) are roughly synonymous with deontology and teleology (Brady, 1990), identified by Kohlberg (1984, p. 579) as "the two major ethical principles.

2.4.6 Age

Historically, it is believed that older people are more ethical than the younger people are. This supports the common assumption that "older is wiser," meaning that age advances mental, emotional, social and moral maturity (Glenn, 1992 in Sikula and costa, 1994). Several recent studies found similar relationship between age and ethics. Serwinek (1992 cited in Sikula and costa, 1994) found that for two of four indices, age difference did indeed explain variance in ethical viewpoints. Burnett and Karson (1987) cited in Sikula and costa, 1994; Posner and Schmidt (1984) and Arlow (1991) found that older people become more conservative in their ethical viewpoint. Older workers tend to have somewhat more adamant opinion about what should constitute acceptable behaviour (Brenner, 1988). In what appear to be a complete departure from earlier studies, Sikula and Costa (1994) found younger college students in the United States to be more ethical than their older counterparts. This, they attributed to better training in ethical values at school in the 90s as compared to the 80s as well as youthful idealism.

There were several reasons postulated as a major explanation of why a person's age is a significant predictor of ethical values. Mudrick (1989) in Sikula and costa, (1994) traced it to larger, continuous exposure to tradition and custom. Wood, Longerecker, McKinney and More (1988) in Sikula and costa, (1994) believed it is because older people have had more opportunity to see the consequences of unethical behaviour.

2.4.7 Religion

Very little sociological research on the extent or type of influence of religion in the marketplace, the business world, or the economy has been conducted (Davidson and Caddell, 1994). Despite the need for solid empirical evidence about the matter, the possible influence of religion in business and on the job remains largely uncharted sociological research. One research study found some influence of religiosity on viewing work as a calling (Davidson and Caddell, 1994), while other studies have found that religiosity leads to greater dedication to and satisfaction in work (e.g., Connecticut Mutual Life Report on American Values 1981:163 in Sikkink, 2000). Another study showed surprisingly strong religiously inspired views of work, and, more specifically, found that religious fundamentalists think that their religious beliefs and values have a strong impact on their work lives—even more so than on their choice of political candidates (Tamney and Johnson, 1985 in Sikkink, 2000). It also showed that people tend to see this connection as shaping interpersonal relations at work, such as "kindness" and honesty toward co-workers. Nevertheless, this study was based on samples from a single city in Indiana, and did not investigate actual work behaviours. Sikkink (2000) found that the differentiation of religion and economic spheres has not completely severed the relationship between religion and the workplace, contrary to the findings of most extant

research. In a study of Conservative Protestant, he observed that a grand narrative links morality and ethics to individualistic ethical behaviour in the workplace. He asserts that within the symbolic framework of Conservative Protestantism, business life is perceived as the realm of relativistic and self-interested individual action. The symbolic tension that Conservative Protestants construct between this secular economic sphere, and a sacred order where personal relationships, and moral absolutes reign, does not lead to walling off faith from the workplace. Instead, it leads to renewed efforts by Conservative Protestants to take a stand in the workplace for moral absolutes, for what they see as a proper emphasis on interpersonal relationships over economic gain and individual advantage, and for self-sacrificial action. For Conservative Protestants seeking to set examples that they see as witnessing to the grand, sacred narrative of their subculture, the workplace is a prime mission field. He concluded that secularisation does not lead to the elimination of religion in the world of work, but tends to constrain its expression into individualistic ethical decision-making and conduct, which arises, out of the distinctive religious subculture of Conservative Protestantism. Conservative Protestants continue to take their faith to work, but in a way that seems to leave intact broader forms of institutional secularization.

2.4.8 Ethical ideology

Ethical ideologies, is explained as a set of beliefs, values and attitudes, which may influence an individual's judgment and decision-making when faced with difficult situations and ethical dilemmas. Differences in moral philosophy or ethical ideology are

contending with differences in ethical judgments (Schlenker and Forsyth, 1977; Forsyth, 1980, 1992).

Schlenker and Forsyth (1977) suggest that individual variations in personal moral philosophies can be described most parsimoniously by taking into account the degree to which an individual is relativistic and/or idealistic. Relativism describes the extent to which individuals reject universal moral rules or principles. Idealism on the other hand, describes individual's attitudes toward the consequences of an action and the effect of the action on the welfare of others. Highly idealistic individuals believe in moral absolutes and rely on universal moral principles or laws to evaluate the ethics of an action (Forsyth, 1992). To describe extremes, some individuals idealistically assume that desirable consequences can always be obtained with the 'right' action and those with less idealistic orientation admit that undesirable consequences will often be mixed in desirable ones (Forsyth, 1980).

Forsyth's taxonomy indicates that individuals may adopt one of four different approaches to making ethical judgments: situationism, absolutism, subjectivism and exceptionism. The situationists distrust the absolute moral principles and argue that each situation needs to be examined individually. The subjectivists on the other hand are high on relativism and low on idealism. They reject the idea of universal ethical principles and believe moral decisions are based on individualistic judgments and negative consequences do not necessarily make any action immoral.

On the non-relativistic / low relativistic side of the typology are absolutists and exceptionists. Absolutists tend to rejects the use of consequences of an action as basis for moral evaluation and appeals to natural law or rationality to determine ethical judgments. Exceptionists on the other hand are low on relativism and low on idealism. They endorse the statement that morality of an action depends upon the consequences produced by it.

Inclusion in one of these groups is determined by whether a person espouses idealistic or non-idealistic values and believes moral rules are universal or relative (Forsyth, 1980). It also suggests that relativists and idealists both can be either low or high in relativism and idealism.

Each one of the four approaches draws from a specific school of thought in philosophy of ethics. For example, the high relativism groups—the situationists and subjectivists—are individuals who endorse an ideology related to ethical skepticism (Forsyth, 1980). Skeptics believe that morality can be viewed in different ways and all kinds of skepticism criticize proponents of specific ethical principles. Ethical egoism, for example, is a skeptical ethical philosophy in which a pragmatic approach is taken to evaluate actions. On the non-relativistic/low relativistic side of the typology are absolutists and exceptionists. Absolutists tend to agree with statements that are consistent with a general approach to moral philosophy known as deontology (Forsyth, 1980). A deontological system is based on the rules and principles, which govern decisions (Hartman, 1998). This ethical philosophy rejects the use of consequences of an action as basis for moral evaluation and appeals to natural law or rationality to determine ethical judgments. The

statements endorsed by exceptionists are more compatible with teleological ethical philosophy (Forsyth, 1980). The teleological approach proposes that the morality of an action depends upon the consequences produced by it. One is ethically bound to act in a way that produces 'good' for the greatest number, which is best represented by the utilitarian concept of greatest good for the greatest number.

		Relativism	
		High relativism	**Low relativism**
Idealism	**High idealism**	**Situationist** Rejects moral rules; advocates individualistic analysis of each act in each situation; relativistic *Justice concepts*	**Absolutist** Assumes that the best possible outcomes can always be achieved by Following universal moral rules *Norm, Rights & Rule concepts*
	Low idealism	**Subjectivist** Appraisals based on personal values and perspective rather than universal moral principles; relativistic *Egoism concepts*	**Exceptionist** Moral absolutes guide judgments but pragmatically open to exceptions to these standards; utilitarian *Categorical imperative & utilitarian concepts*

Figure 2.1: Taxonomy of ethical ideologies
Source: Modified from Forsyth (1980:176)

Figure 2.1 indicates Forsyth's taxonomy of ethical ideologies along with a brief description of the characteristics of individuals within each category. This

conceptualization is based on philosophical theories of deontology, teleology and ethical skepticism (Schlenker and Forsyth, 1977; Forsyth, 1980).

The connection between building professionals ethical behaviour and ethical ideology is significant in understanding the value held by professionals as well as providing a basis for altering behaviour in a more ethical direction in the best interest of society where the situation warrant. Similar studies have been conducted among marketing managers in America (Fritzsche and Becker, 1984) and India (Monga, 2000). One of the objectives of this study is to extend the work done based on Forsyth's taxonomy of ethical ideologies to professionals in the Nigerian building industry.

2.5 Ethics and the construction industry.

Earlier research on ethics in the construction industry focused on the activities of quantity surveying professionals. Ray *et al.* (1999) ascertain the extent to which ethical behaviour in tendering is supported and practiced in Australia. The result of the survey indicated that most companies support the use of codes of tendering, defend the right of withdrawal of tenders, disapprove bid shopping, cover pricing and union involvement in the tendering process, and support the "principal" right to know what is included in a tender as well as the self–regulation of the tendering code. The findings also reveal that most companies have developed and follow idiosyncratic ethical guidelines that are independent of and often contrary to nationally prescribed codes. They suggest that a code of practice framework for tendering process should be developed and empirically tested.

Jackson (2001) assessed the perceptions of experienced construction contractors regarding the "frequency" and "seriousness" of ethnical transgression within the construction industry. The result indicates that improper or questionable bidding practices, misrepresentation of completed work or value of work, poor quality control or poor quality of work and technical incompetence or misrepresentation of competence are the most frequently occurring ethical transgressions. The finding further revealed that alcohol or drug abuse, improper or questionable bidding practices, failure to protect public health, safety or welfare and poor quality control or quality of work are the four most serious ethical transgressions.

Fan *et al.* (2001a) investigated quantity surveyors' ethical behaviour in the construction industry in Hong Kong. Their studies indicate that the two groups of professional quantity surveyors involved in the study generally favour the ethical theory of justice by advocating fair process and equitable distribution of benefits and burdens among project stakeholders. The finding also indicates that younger quantity surveyors attach great importance to the interest of their employers, clients and themselves, while older and more experienced quantity surveyors believed that the interests of the public are more important in decision-making. The limitation of Fan *et al*'s (2001a) study is that it only covers quantity surveyors. In addition, factors that affect professionals' ethical behaviour was not covered and the impact of the quantity surveyors' ethical behaviour on project performance was not examined. This knowledge gap is covered in the present study.

In a cross – profession comparison between the members of the Hong Kong Institute of Quantity Surveyors and those of the Hong Kong Society of Accountants regarding perception toward professional ethics, Fan, Ho and Ng. (2001b) observed difference in professional ethics conceptions both within and between professions. They attributed this to differences in background and industrial training of professionals. A follow up study undertaken by Ho and NG (2003) on the effect of quantity surveyors background variables and ethical training on their ethical behaviour using a case free situation and using snowball sampling technique indicates salient discrepancies in ethical perception of professional quantity surveyor of different ages, membership levels and work experience. The result further shows that the moderating effect of background variables are contingent upon the specific ethical perception concerned. In addition, it was found that the more experienced and higher educated quantity surveyors held more optimistic view concerning recent decline in ethical standard and are more willing to sacrifice its self–interest when facing ethical dilemma.

Vee and Skitmore (2003) assessed the perception of project managers, architect and building contractors concerning a range of ethical issues surrounding construction industry activities in Australia. The survey revealed that contractors are rated the most unethical on all areas with the exception of negligence, where architects are rated higher, and almost the same level as the client in dishonest and unfair conduct. Furthermore, most respondents subscribed to a professional code of ethics, majority consider good ethical practice to be an important organizational goal. There were also unanimous agreement among respondents that business ethics should be driven or governed by

"personal ethics" while maintaining a balance between client requirements and the impact on the public. The limitation of Vee and Skitmore's (2003) study is that the findings were based on a small survey of 31 project managers, architects and building contractors practising in a major Australian conurbation.

Poon (2003) proposed an investigation into the relationship between surveyor's professional ethics and construction project performance with a view to improving construction project performance through improved ethical management of surveyors. This proposal came in view of increased criticism of construction project for under – achievement and this she perceived are as a result of poor performance by construction professionals. Part of this study adopt Poon (2003) proposal by examining the relationship between professional ethical impropriety and project performance.

Fan (2003) reviewed ethics in engineering and carried out a comparative analysis of step by step procedure outlined in several ethical decision making models with a view to identifying the key factors for engineers to consider when faced with ethical dilemma and also the important steps necessary in making ethical decision. The findings reveal that assessing potential consequences and effects of actions, determining the problem and ethical issues, and reviewing legal requirements and code of ethics are the three critical steps in handling ethical dilemma. The study further shows that legal requirements, duty and obligation towards own organization and professional code of conduct are the key factors influencing ethical decision-making. It also found that the three key stake holders affecting decision – making are the own-self, public and the employer. A contrary view

was presented by Poon (2004) in a study of ethical decision-making factors, surveyors ranked professional environment comprising professional code of conduct, maintenance of professional status and professional value, the most important factor when they face ethical dilemma followed by government/legal environment, social environment comprising, peer groups and family, ranked the least in influencing ethical decision making.

Williamson, Wilson, Skitmore and Runeson (2004) considered the nature of unacceptable client behaviour in competitive tendering, based on theoretical, legislative and moral considerations. Malpractices were identified through reported abuses, and a case study illustrated some of these practices and the difficulty faced by those wanting to resist them. The authors concluded by suggesting that a practical solution may be found by requiring clients to make a more direct contribution to tendering costs.

Doran (2004) reported an on-line survey conducted by FMI, a consulting company in America in conjunction with Construction Management Association of America (CMAA) to gauge ethical practices and concerns in the construction industry. The survey highlights five most critical ethical issues faced by the industry. These are bid shopping, charge order games, payment games, unreliable contractors and claims games. The study proposed stiffer penalties for those caught in unethical or illegal act, an industry-wide code of ethics, the necessity of placing more emphasis on social responsibility in award criteria and more training on ethics.

In a recent survey of UK surveyor's ethical behaviour, Poon (2006) found that decrease in ethical standard for the past ten years was attributed to social factors, such as changing work environment and the changing belief of the surveyors. The study also rated the clients as the most important party when resolving ethical dilemma. The study also reveals that surveyors place priority on maintaining fairness, organizational interest, public interest and self-interest in that order when facing ethical dilemma.

Alutu and Yalaju (2006) examined unethical practices in the Nigerian upstream oil and gas industries and its implication for project management. The result of a questionnaire survey administered among engineers, technologists, contractors, quantity surveyors, architects and accounting/management practitioners revealed that corruption and other unethical practices are prevalent among oil and gas companies, contractors and host communities. This is in spite of the fact that organisational values in relation to business ethics, due process, transparency and code of conduct is institutionalised in the oil and gas companies and are well communicated to the employees of those companies. The result also shows that contractors, bribe to influence award of contract in their favour; form cartels to determine who gets what among themselves in all contracts; do not conform to specification standards; use inferior materials for project execution. The result also indicate that oil and gas companies are not transparent in the management of joint venture funds; do not protect the environment in which they operate and stir inter-communal conflict. Individuals and host communities vandalised oil facilities to cause spillage, extort moneys from companies through harassments, kidnapping of company workers and sponsorship of festivals. The study found that these unethical practices have

negative impact on project management in terms of project duration, cost, safety and quality of projects. Alutu's (2007) survey of prospective engineers' viewpoint on unethical practices in Nigerian construction industry indicate that contractors obtain vital information on a contract by paying agreed sums of money to contract officials representing the client. The study also indicates that contractors often include bribe in tender or risk loosing the contract. The result also shows that contract officers (engineers, quantity surveyors, etc) have stake on the jobs they are advising, subcontract works to multiple vendors and winning a contract is depended on how well in advance a bidder negotiate for the kickbacks.

Bowen, Pearl and Akintoye (2007) assessed the perception of construction professionals regarding ethical issues facing South African construction profession. This study replicated earlier study in Australia by Vee and Skitmore (2003). The study revealed that noticeable breaches in professional responsibilities include, conflict of interest, divulging of confidential and propriety information, and environmental damage. The study emphasised the need to balance professional obligation to client and public in order to achieve impact on business success, profit, professional integrity and morality. Bowen, Akintoye, Pearl and Edwards (2007) in an opinion survey of South African construction professionals revealed that contractors are the most prone to unethical conduct. Unethical conduct by contractors in the South African construction industry include, collusive tendering in the form of cover pricing and bid cutting, bribery in the form of payments and gifts. Other unethical practices revealed include negligence arising mainly from poor

documentation and poor workmanship, unfair tendering practices as well as over-claiming and/or withholding payment for service delivery.

2.6 Nigerian building industry professionals' code of ethical conduct.

Professional codes of practice/conduct are contracts entered into by members of the organisations – usually, professional institutions, which form the legally enforceable requirement for the behaviour of members. Clearly, those who are not members of the organisation are not affected by the content directly. Stewart (1995 in Fellows, Liu and Storey, 2004) noted that such codes lay down rules for conduct and 'does not teach morality, ethics or values, unless they are used in a positive manner as a basis for teaching principles, they will in daily practice be no more than guideline for action'.

The codes of ethics for professionals in the Nigerian building industry are referred to by various names, according to the predilections of professional bodies. The code of conduct for the core building industry professionals in Nigeria involved in the procurement of building projects are analysed and discussed in the following sections.

i. Code of conduct for professional builders (Nigerian Institute of Building)
ii. Code of engineering conduct [for all engineering disciplines affiliated to Nigerian Society of Engineers (NSE)]
iii. Nigerian Institute of Quantity Surveyors code of professional conduct
iv. Code of conduct for Nigerian Institute of Architects (NIA)

The form of these documents varies greatly both in length and content. Generally, codes of ethics are supposed to contain all or some of the following:

(a) Ethical principles: These provide general statements underpinning the approach to professional work, for example respect for autonomy of client and promotion of welfare.

(b) Ethical rule: This involves some 'Dos' and 'Don'ts', for example: the need to protect all confidential information, the need not to offer or solicit any form of financial inducement to secure appointment or render service.

(c) Practice principles: These provide general statements about how to achieve what will result to the good of the professional body, client and the public, for example: the issue of professional scale of fees.

(d) Practice rules: These involve very specific guidance relating to professional practice, for example: advertising should not be a self-laudatory language or claim superiority.

The content of the codes by subject matter for each of the professional institute is presented below:

2.6.1 Code of conduct for professional builders

The content of the code of conduct for professional builders is quite broad and lengthy. It contains eight clauses covering both ethical principles and rules for standard practice for members in consultancy services and in contracting.

Clause 1 contains general ethical rules such as avoiding proprietary information infringement, avoiding conflict of interest, shunning undertaking professional services for which one knowingly lack sufficient professional or technical competence by virtue of training.

Clause 2 contains general practice rules for members in consultancy services

Clause 3 contains general practice rules for members in contracting.

Clause 4 contains issues relating to the use of distinguishing letters and self-description.

Clause 5 contains practice rules relating to the use of institute logo on boards.

Clause 6 contains practice rules concerning the use of Council of Registered Builders of Nigeria (CORBON) stamp or seal.

Clause 7 contain practice rules pertaining to continuous professional development and Clause 8 contains practice rules pertaining to advertisement of professional services.

The content of code of conduct for professional builders is deficient in issues concerning fees and commissions, copyright and plagiarism, procedure in ethical breaches as well as relationship with other professions.

2.6.2 Code of engineering conduct

The code of engineering conduct was issued in 1977 and has not been reviewed since then. The content of the code of engineering conduct comprise mainly ethical rules and some practice principles or rules. The major ethical rules considered in the code are issues pertaining to conflict of interest. The ethical principles in the code of conduct include honesty and integrity. Practice principle or rule considered concerns

advertisement of engineering services and engineering work in a foreign land. Some statements in the code require further clarification, for example, "it is considered unprofessional for an engineer to accept remuneration for services rendered other than from his client or employer".

The content of the code of engineering conduct is inadequate as so many vital part of ethical rule and practice rules were omitted. These include rules regarding personal responsibility for work, responsibility to employer/client, responsibility to profession, public safety, health and welfare as well as issues bordering on professional competence and knowledge.

2.6.3 Nigerian Institute of Quantity Surveyors (NIQS) code of professional conduct

Nigerian Institute of Quantity Surveyors code of professional conduct was revised in October, 2000. It is a booklet of 58 pages. The contents comprise 16 rules of conduct under six main sections namely: professional obligations, disciplinary powers and procedures, reinstatement provision, designations, failure to pay moneys due, furnish documents to the institute, services and notice of documents. Each regulation is followed by a commentary that offers additional tools to assist members in determining how the rules may be applied in a given set of circumstances. The content of the various rules are presented below:

Section one: professional obligation. This section contains seven rules. Rule one is a general practice rule which borders on ensuring honesty, probity and professional

propriety in all professional dealings with respect to commissioning and engagement of professional services; fees and commissions; participation in professional work upon which another practitioner was previously engaged. Rule two, concern conduct of professional activities or business such as advertisement of professional services; production of professional brochures; letters and published articles, public speaking, lectures, radio and television appearance. Rule three, covers members responsibility to the client in issues of conflict of interest, impartiality and independence in professional judgment. Rule four are rules regarding firms/companies practice such as names, registration and practice style. Rule five, covers professional indemnity insurance regulations covering work undertaken within Nigeria. Rule six, covers rules relating to continuous professional development (CPD). Rule seven, refers to members responsibility for any contravention of the code of conduct or rules committed by their firms or members of staff of such firm.

Section 2: concerns disciplinary powers and procedures. This section covers rules 8, 9 and 10. Rule 8 is on disciplinary powers vested on the institute to reprimand, suspend or expel a member found to contravene any of their rules. Rule 9 is on the procedure for instituting disciplinary action on a member and rule 10 covers rules regarding constitution of the professional conduct panels, disciplinary boards and appeal boards, procedure for investigating complaint and allegations against a member and penalties.

Section 3: covers reinstatement provision: rule 11 which falls under this section is on the powers of the council to reinstate or expel a member.

Section 4: covers professional designations. The various designations of professional members as well as registered firm is covered under rule 12.

Section 5: this section, covered rule 13, which deal with failure of any member to pay appropriate due or furnish document to the institute.

Section six covers rule 14, 15 and 16 governing services of notices and document to any member of the Institute.

The content of the Nigerian institute of Quantity Surveyors code of conduct is deficient in issues of copyright and plagiarism, and in matters covering health and safety practice. Another major flaw of these codes of conduct is that tendering ethics was omitted.

2.6.4 Code of conduct for Nigerian Institute of Architects (NIA)

The code of conduct for Nigerian Institute of Architects was first published in 1970. The current edition after amendment was republished in 1985. It is a booklet of 11 pages. The contents comprise three articles namely: professional obligations and remuneration, professional integrity and general ethics. Under each of the articles are clauses containing specific injections and sub-clauses, which explain particular applications of the various articles and clauses. The content of the various articles are presented below:

Article one: professional obligations and remunerations. This article contains eight clauses. 1.1, 1.2 and 1.8 concern fineness and faithfulness in discharging architectural duties. 1.3, 1.4 and 1.5 covers professional propriety in all professional dealings with respect to commissioning and engagement of professional services; fees and commissions, 1.6 the status of the head of an architectural office/firm. Sub-section 1.7 concern obligations relating to sub-commissioning part of any architectural work.

Article two: professional integrity. This article contains nine clauses and two sub-clauses. The first clause (2.1) deals with issues concerning professional integrity and the need to uphold the credibility of the profession. Articles 2.2, 2.3, 2.4, 2.7 and the sub-clauses deal with conflict of interest; 2.5 deals with the condition of engagement of co-partner in an architectural firm. Articles2.6, 2.9, and the attached sub-clauses cover bribe and commissions in the course of delivering professional services. Article 2.8 covers professional obligations toward their colleagues.

Article three: this article deals with general ethics and cover issues relating to competitions, 3.1- 3.55; supplanting other architects, 3.6-3.8; advertisement, 3.9 and associated sub-clauses; architectural certificates, 3.10; company letterheads, 3.11; professional supervision of architects, 3.12; abuse of office, 3.13; general comportment, 3.14; copyright, 3.15; participation in N.I.A. activities, 3.16 and 3.17 covers oaths of the Institute.

The content of the Nigerian Institute of Architects code of conduct is deficient in issues regarding confidentiality of information, technical competence and continuous professional development. Other areas of deficiencies include matters covering health and safety practice, and tendering ethics for members in contracting.

Similarities and differences in the content of the code of professional conduct for the core building industry professionals involved in the procurement of building projects is presented in Table 2.2

Table 2.2: Summary of Nigerian code of professional conduct content by subject matter

Content of Code by Subject Matter	Nigerian Institute of Architect	Nigerian Institute of Building	Nigerian Institute of Quantity Surveyor	Nigerian Society of Engineers
Integrity	√	√	√	√
Confidentiality of information	X	√	√	X
Conflict of interest	√	√	√	√
Technical competence	X	√	√	X
Promotion of the profession	√	√	√	√
Fees and commission	√	X	√	√
Advertising	√	√	√	√
Copyright/plagiarism	√	X	X	X
Continuous professional development	X	√	√	X
Procedure in Ethical breaches	X	X	√	X
Relationship with other professionals	√	√	√	√
Relationship with other professions	X	X	√	X
Cross border practice	X	√	√	√
Professional practice/indemnity insurance cover	X	√	√	X
Distinguishing letter of membership/description	√	√	√	X
Institute logo/letter head	√	√	√	X
Use of stamp and seals	X	√	√	X
Health and safety practice	X	√	X	X
Consideration for Public interest	X	√	√	√

√: provided for in the code
x: not provided for in the code

Source: Nigerian Institute of Architect (1985). Code of Conduct for Nigerian Institute of Architects
Nigerian Institute of Building (1989). Code of Conduct for Professional Builders
Nigerian Society of Engineers (1979). Code of Engineering Conduct
Nigerian Institute of Quantity Surveyors (2000). Nigerian Institute of Quantity Surveyors Code of Professional Conduct

Generally, all the codes adequately cover ethical issues such as professional integrity, conflict of interest and advertisement of professional services. However, NIA and NSE codes of professional ethics are deficient in issues regarding confidentiality of information, technical competence and continuous professional development. All the professions' codes except NIA are deficient in issues of copyright and plagiarism; all except NIQS are deficient in matters regarding procedure in professional breaches and relationship with other profession and all but NIOB in matters covering health and safety practice. Another major flaw of these codes of conduct for professionals is that tendering ethics for members in contracting was omitted. Detailed descriptions of some of the rules are needful.

Deficiencies observed in the professional code of ethics of the various built environment professionals in South Africa according to Pearl *et al.* (2004) included the promotion of health standard, safety, environmental protection and the maintenance of a sustainable built and natural environment.

The critical issue apart from the observed deficiencies in the written codes is that of implementation and enforcement of sanctions attached to breaches of any section of a code. Mechanisms for the detection and independent investigation of wrongdoing such as corruption are a necessary part of an ethics infrastructure. It is necessary to have reliable procedures and resources for monitoring, reporting and investigating breaches of professional rules, as well as commensurate administrative or disciplinary sanctions to discourage misconduct.

2.7 Content analysis of code of professional ethics

A content analysis of the ethical rules in the code of professional conduct for building industry professionals is presented below:

2.7.1 Fairness and integrity

Honesty, integrity, competence, devotion to service and dedication to enhancing the quality of life are cornerstones of professional responsibility. Within this framework, professionals should be objective and truthful and include all pertinent information in professional reports, statements and testimonies. Professionals' are expected to objectively represent their clients, employers, associates and themselves consistent with their qualifications and professional experience. This tenet means more than avoidance of misrepresentation: it implies disclosure of all relevant information and issues, especially when giving advice or working as an expert witness. Similarly, fairness, honesty and accuracy in professional advertising are expected. Sharp practices such as pricing item meant for multiple-use as though for single use thereby defrauding the client; covering up measured bill items not executed by the contractor for financial gain; construction with poor or inappropriate materials not included in the specification are considered unethical and a direct violation of this canon.

2.7.2 Confidentiality of information

A professional is not expected to divulge confidential information to third parties without the express or implicit authorisation of their client or employer, unless required to do so by law. Unreserved communication between the practitioner and the client or employer is

essential to effective delivery of professional services. It is expected that this confidentiality will be maintained and even survive the professional commission that required it, continuing indefinitely after contracts or relationships end.

In addition, professionals are expected not to disclose confidential information for their own benefit or the benefit of a third party or to the disadvantage of their employer or client. A professional by this canon is expected not to apply any information or expertise gained in previous positions in former employment, which is considered propriety or regarded as "trade secrets," in another employment in direct competition with the former employing organisation.

2.7.3 Conflict of interest

A professional should avoid a situation in which he/she has a private or personal interest sufficient to appear to influence the objective exercise of his/her official duties. Typical conflict of interest cases include:

Self-dealing. The use of ones official position to secure a contract for self or a private consulting company.

Accepting benefits. These include, a bribe and other substantial (non token) gifts.

Using employer's property for private advantage. These include using software licensed to ones employer for private consulting, stealing office supplies etc.

Outside employment. An example would be setting up a business on the side that is in direct competition with ones employer.

Influence peddling. Here, a professional solicits benefits in exchange for using his/her influence to unfairly advanced the interest of another party.

2.7.4 Protection of the public and the environment

The leading concerns of professionals are the safety, health and welfare of the public, and protection of the environment. All other requirements are subordinate to these overriding tenets of the profession. Satisfying these obligations, which extend to the work environment of professionals, often depends on individual professional judgements and assessments of risk. Professionals must therefore ensure that their works conform to accepted professional practices, standards, and applicable canons, judged "safe" by their peers. The public consists of all users of the professional's service – clients, employees, and the general community. Example of real ethical situation under these cannon may include storage of construction materials/waste products off site, inadequate perimeter fencing on construction site and inadequate protection of the public from construction debris.

2.7.5 Competence and knowledge

Professional competence comprises efficiency (in doing a task economically), sufficiency (in providing a full service to a client) and capacity (which is the ability or capability to undertake the commission). Professionals are expected to offer services and advise on, or undertake, professional assignments only in areas in which they are competent to practise by virtue of their training and experience. The fact that someone, whose major is, say, architecture, studied a particular course (design of concrete structures for example) at

undergraduate level is not a licence for that individual to practise the design of concrete structures. It is expected that the services of a specialist or expert be secured whenever necessary. Where the required knowledge is not available, the professional must inform all parties involved that the activity will be experimental. This requirement is more than simply 'duty of care'. It requires honest dealing with one's client or employer, and with oneself. For this reason, professionals must remain abreast of developments and knowledge in their areas of practise through participation in Continuing Professional Development (CPD) and education. Besides maintaining their own competence, professional are obliged to contribute to knowledge in their areas of practise. They are expected to facilitate the professional development of their subordinates and colleagues within the framework of their practise.

Non-adherence to the above ethical rules and practise principle leads to practises that could be termed unethical, unethical conduct or ethical transgressions. This portends harmful consequences to the final product of construction in the form of high cost of construction, and low quality standard, which in extreme cases may lead to collapse of structures. Others include degradation of the environment and harm to the public. This consequently tarnishes the image of the building profession.

2.8 Corruption in construction

Recent survey conducted by the Chartered Institute Of Building (CIOB, 2006) within the UK construction industry revealed corruption to be high in many areas of the UK construction industry. The survey, which consists of 1,404 respondents who work in a variety of sector within the industry indicates that many respondents (41%) had had

direct experience of corruption. Prior to this survey, the CIOB conducted an online poll in which 335 construction professionals were asked on what scale corruption exists in the UK construction industry; 41% thought it was 'widespread', 37% believed it was 'occasional',18% voted that it was 'rare' while 4% of respondents felt it was non-existent. The scale of corruption in construction is magnified by the fact that both governments (public works) and the private sector initiate projects in this sector.

2.8.1 Definition of corruption

The most often cited definition of corruption is the one used by the World Bank in its procurement guidelines: "The abuse of public (entrusted) power for private benefit" (Tanzi, 1998). The private benefit in this case is most often a bribe in the form of an illicit money or payment in-kind. Bribe involves anything of value solicited, bestowed or offered to induce or influence the receiver's conduct in the discharge of public or legal duty. It may be money, good, right in action, property, privilege, emolument, object of value, advantage or promise. Rose-Ackerman (1999) classified bribery into four main groups according to their nature: Market-clearing bribes, bribes as incentives for officials, bribes to reduce costs and bribes permitting crime. She posits that negative externalities associated with each of these have harmful effects on economic performance. Economic literature on corruption tends to focus on bribery. Bribery certainly is a form of corruption, and corruption most often involves bribery. Bribery in relation to the award of contract is the most visible form of corruption in the procurement of building projects. Chan and Armstrong (1999) assert that managers in Canada indicated that the most frequently cited ethical problem was gift, favour and entertainment; however, the most

important ethical problem was large-scale bribery. Wong and Beckman (1992) noted that in many developing countries, bribery was an accepted (and even expected) way of doing business. Bribe taking or giving is not restricted to developing countries alone. According to the United Nations 1997 World Development Report, 15% of all companies in industrialised countries have to pay bribes to win or retain business. In Asia, the figure rises to 40% and for former Soviet Union countries, the figure is 60% (Rogge, 2003).

Farrell, Fraedrich and Ferrell (2002) identified key factors thought to influence bribe taking. These included, low public-sector salaries, immunity of public officials, secrecy in government and worsening public procurement practises top the list of factors.

Recent empirical research has shown a strong relationship between the pervasiveness of corruption and poor development performance in developing countries. Mauro (1995) in his study found that corruption index has a significant negative impact on investment and growth. The impact on investment is said to be robust to the inclusion of other control variables, while the impact on growth is not.

Brunetti, Kisunko and Weder (1997) constructed an indicator measuring "the credibility of rules", one component of which is perceived corruption. In regression of growth and investment rates on the corruption subcomponent, they find that the impact of corruption on investment is negative and significant. The impact on growth is insignificant. The seemingly stronger impact of corruption on investment than on growth in both cases may be due to the use of indicators measuring the perceived rather than the true level of corruption. This is because investment decisions are usually based on profit opportunity perceptions, one aspect of which is corruption perception.

2.8.2 Estimating the cost of corruption

It is virtually impossible to try to quantify the financial cost of corruption, since payments of bribes are not publicly recorded. No one knows exactly how much money is being misappropriated by corrupt officials annually. Besides, bribes do not take only monetary form: favours, services, presents/gifts and so on are just as common. The social costs of corruption are even less quantifiable. No one knows how much the loss of an energetic entrepreneur or an acclaimed scientist costs a country. Moreover, any estimated social costs in Naira or dollars would be inadequate to the task of measuring the human tragedy behind poverty, illiteracy, or inadequate medical care, which result from corruption.

2.8.3 Indices for measuring corruption.

Quantifications of the level of corruption at a country level are sometimes classified as "objective" or "subjective" (e.g. Kaufmann, Kraay and Zoido-Lobatón, 1999). The objective quantifications are based on objectively verifiable information, such as the number of corruption charges in a given year, or the number of Internet search-engine hits on corruption in a particular country (Tanzi, 1998). Corruption charges between two countries may depend more on differences in judiciary efficiency than on the level of corruption per se. Moreover, the change in the number of hits to the search engine query "corruption Nigeria" from one year to the next may reflect the media attention given to particularly scandalous instances of corruption, or even the growth of the internet, more than the change in corruption levels. Subjective measures on the other hand are based on surveys or polls in which individuals are asked to assess the level of corruption. Survey

respondents are typically a panel of country or region experts, a random sample of locals, or business people.

Subjective measures may be further classified into two: perception and experience measures. The features of each and the problems associated with them are discussed below.

2.8.3.1 Perception-based indicators

Much of the recent empirical research on corruption has focused on one or more perception-based measures of corruption. These are based on surveys or polls asking respondents how they perceive the level of corruption in a country. They are typically valid and trustworthy, but may not be accurate and are often imprecise. First, the use of perception indices raises concern about perception biases. Second, due to the aggregate nature of the data, it tells us little about the relationship between corruption and individual agents (i.e., an aggregation problem). Most importantly, macro- determinants cannot, by definition, explain the within country variation in corruption. Specifically, firms facing similar institutions and policies may still end up paying different amounts in bribes (for the same set of services received).

There are several problems associated with the accuracy of perception-based indices. First, it is likely that perceptions of general corruption in a country lag the actual level, resulting in low sensitivity to policy changes. It is also a problem that perception indices may be endogenous. For instance, media coverage of published corruption rankings may influence people's perception of corruption in the country. In addition, perceived

corruption may "overweight" well-publicised corruption scandals compared to colloquial cases of bribery ("headline bias"). This is true even if the respondents have significant personal exposure to corruption. For instance, in constructing their Bribe Payers' Index, Transparency International asked business leaders what their main sources of information on corruption, unfair competition and anticorruption treaties were. "The press media" was the preferred response, chosen by 79% of respondents. "Personal experience" was only third at 59%.

2.8.3.2 Experience-based indicators

This class of corruption indicators is based on subjective experiences with corruption. Their validity and precision will depend on the question asked, and their trustworthiness and accuracy on the implementation of the survey. In general, experience-based indicators seem to offer the greatest potential for comparability. It avoids some of the problems associated with perception-based indicators. Experience does not lag true corruption level the way perception does, and it is unbiased by "the headline effect". Nevertheless, like perception-based indicators, experience-based indicators are sometimes hampered by imprecise questions. Answers to questions like, "On a scale from 1 to 10, how often have you had to bribe public officials?" will depend on individual judgements of what "often" means as well as on the frequency of bribery. But asking about people's own experiences should increase accuracy compared to perception-based indicators.

2.8.3.3 Relationship between perception and actual behaviour

The non public nature of (un)ethical behavior suggests that accurate information about individuals' behavior may not be available. Some researchers have proposed that a more promising path in assessing ethical behaviour may involve exploring perceptions rather than actual behaviour (Ambrose and Schminke, 1999). Therefore, while perception surveys do not constitute an actual measure of behaviour, they offer an indication of how a person may behave in the real sense because perceptions are based on facts. Thus, perceptions is used when assessing appropriate behavior, after all, we know that individuals do not respond to reality, but rather to their perceptions of reality, what they believe others think and what they believe others will do (Levine, 1936 in Schminke *et al.* 2003). In spite of the inaccuracy in the use of perception measure of corruption, Ketefian (1981) asserts that perception indices are the best predictor of ethical behaviour.

2.8.4 Consequences of corruption

The consequences of corruption on any nation can be considered from the political, economic, environmental and social point of view.

Political: Corruption constitutes a major obstacle to democracy and the rule of law. In a democratic system, offices and institutions lose their legitimacy when they are misused for private advantage. Though this is harmful in the established democracy, it is even more so in newly emerging ones. Accountable political leadership may not develop in a corrupt climate.

Economic: Corruption also increases public deficits, as contracts are not let to the lowest bidders and the frequent insertion of additional clauses inflates the initial project costs.

Mauro (1997) shows that corruption steers public expenditure towards areas that will facilitate corrupt transactions – typically, spending on defence rather than on education.

Social: It also totally distorts programmes to combat poverty. It renders international aid much less effective by diverting growing amounts from their intended purposes, such as infrastructure, programmes to combat poverty or reconstruction from earthquakes and civil wars. Corruption leads to the depletion of national wealth. It is often responsible for the funnelling of scarce public resources to uneconomic high-profile projects, such as dams, power plants, pipelines and refineries, at the expense of less spectacular but more necessary infrastructure projects such as schools, hospitals and roads, or the supply of power and water to rural areas. Corruption lowers the quality of services provided and goods bought by administrations. Corruption of the enforcement apparatus (army, police and the courts) allows organised crime to extend its predatory activities of the private sector. It can even enable a symbiosis between organised crime and politicians that further encourages the abuse of power

Environmental: Corruption lead to poor allocation of public resources by government because it tilts the composition of public spending towards projects that make it easier to collect on bribes, at the expense of priority programmes. Corruption reduces investment and therefore growth. Mauro (1995) shows a negative correlation between corruption and the rate of investment and between corruption and the growth rate in 67 countries in 1960-85.

2.9 Anti-corruption initiatives

Many organisations are collaborating internationally with other organisations with a view to preventing corruption. The following are some of such global initiatives, which both impact on the infrastructure sector and have an international impact:

1. Transparency International (TI) is the world's largest non-governmental anti-corruption organisation, with chapters in over 90 countries. TI's project "Preventing Corruption on Construction Projects" aims to raise awareness of corruption in the sector, to develop anti-corruption tools, and to promote the implementation of anti-corruption actions.

The Project Anti-Corruption System (PACS) is an integrated and comprehensive system designed by Transparency International (TI) to assist in the prevention of corruption on construction projects. It uses a variety of measures, which affect all project phases, on all major participants, and at a number of contractual levels. PACS comprises:

- The PACS Standards: These recommend anti-corruption measures, which should be used on construction projects.

- The PACS Templates: These provide the tools by which the measures recommended in the PACS Standards may be implemented.

There is ten Project Anti Corruption System (PACS) standards, each of which deals with a separate anti-corruption measure. Each standard is summarised as follows:

PS 1: **Independent assessment**: Independent scrutiny of the project owner, the funders, the main contractor, consultants, major sub-contractors and all other major project players is essential if corruption is to be limited on a construction

project. Consequently, PACS provides for the appointment of an independent assessor whose duty is to detect and report corruption for the duration of the project. In the case of large and complex project, an independent assessor may be appointed specifically for that project. For smaller projects, an independent assessor may be appointed to monitor a number of projects. The independent assessor should be nominated by an independent and reputable institution. On public sector project, a separate body (for example, a regulatory authority) could appoint and pay the independent assessor. On private sector projects, the project owner could appoint and pay the independent assessor. The independent assessor should be someone who has detailed experience and knowledge of the construction industry, and a working knowledge of the law of bribery and fraud and of how corruption can occur on construction project.

PS 2: **Pre-contract disclosure of information**: The provision of information at an early stage in the project process in relation to the main project players may help to reveal and so minimize the risk of corruption. consequently, PACS provides that, at tender stage, the project owner and each applicant for a major contract should provide each other with relevant information (for example in relation to their principal shareholders, officers, financial status, agents, joint venture partners, major sub-contractors, criminal convictions and debarment). This information should be verified as accurate by the relevant chief executive and chief financial officer. It should also be reviewed by the independent assessor.

PS 3: **Contractual anti-corruption commitments**: Anti-corruption obligation should be clear and have contractual effect. Consequently, PACS provides that

the project owner and each applicant major contract should provide anti-corruption contractual commitments to each other, which expressly cover the main types of corruption. Remedies should be specified in the event of breach of these commitments. Contractors should also exchange equivalent anti-corruption undertakings with their joint venture companies, major sub-contractors and agents.

PS 4: **Government anti-corruption commitments**: Extortion by government officials can cause loss and delay to the project and to contractors and consultants. Consequently, PACS provides that relevant government departments should provide an anti-corruption commitment whereby the department agrees to take steps to minimize extortion by its officers, to appoint a senior manager who will receive complaints of extortion, and to publicise a list of fees and time-scales, which should properly apply to government procedure. This commitment and list of fees and time-scales should be published on the project website.

PS 5: **Transparency:** Greater transparency of project details may significantly reduce the risk of corruption. Consequently, PACS provides that at the outset of the project, the project owner should set up a project website and disclose project information on the website on a regular basis and in an easily accessible and comprehensible form. The web site should be maintained and updated for the duration of the project. The independent assessor should be under a duty to check the accuracy of the information disclosed. As the information is accessible by the public and other project participants, corruption is more likely to be discovered.

PS 6: **Raising awareness**: Significant corruption on a project may be carried out by the staff of the project participants. Individuals therefore should be aware of what constitute corruption and of the risks of personal involvement in corruption. consequently, PACS provides that each organisation should:

- Post up anti-corruption rules at all project and site offices so that they may be seen by all relevant staff. These should specify and prohibit corrupt acts, and stress the risk of criminal and civil liability and dismissal from employment in the event of involvement in corruption.
- Provide or arrange anti-corruption training for relevant staff.
- Established a gifts and entertainment policy and require staff to record such benefits given or received on a register.

PS 7: **Funder involvement:** Corruption in terms of financing can significantly increase the cost of projects. In addition, corruption on a project could be reduced if funders more actively monitored the way in which their funds are used. Consequently, PACS, provides that funders should be engaged in the anti-corruption process. Details of the funding terms and conditions, and any changes to these, should be published on the project web site. This would help to reduce the risk of corruption in the funding terms, as the public and competitors would be able to identify unusual features in the funding arrangements. The independent assessor should make regular reports to the funders on his activities, and report any suspected corruption to them. As a result, funders should be able to take or encourage active steps to deal with any suspected corruption before it takes place, or to investigate and prosecute corruption where it has taken place.

PS 8: **Compliance programme**: PACS provides that the project owner, each major contractor and each major sub-contractor should take all reasonable steps to ensure compliance and its management and staff with PACS standard. In particular, it should nominate a manager who is responsible for ensuring compliance. This manager can combine this responsibility with other functions.

PS 9: **Reporting**: It is essential that safe and effective systems for reporting corruption be set up on these projects. PACS provides for reporting in a number of ways:

- By the public: On the project website, members of the public should be provided with the contact details of the independent assessor to whom they may make reports of suspected corruption in connection with the project.
- By the project staff: The project staff should be provided with the contact details of the independent assessor to whom they may report corruption. Each organization should also set up an internal system for reporting corruption.
- By the independent assessor: The independent assessor should be under a duty both to receive reports from the public and project staff and to investigate those reports. He should also be under a duty to report suspicion of corruption to the project owner, the funders other project participants, relevant professional associations and the criminal authorities.

PS 10: **Enforcement**: If corruption is to be deterred, there must be a real threat of enforcement, and all relevant individuals must be made aware of this threat. PACS provides that there should be remedies and penalties for corruption in

relation to the project, which can be enforced by the major project participants. These remedies and penalties may be statutory and/or contractual. They should apply from the outset of each party's involvement in the project. They should include employment penalties, qualification from tender, termination of contract, withdrawal from tender or contract, and financial remedies. Each major project participant should be informed in writing of all remedies and penalties (including criminal, professional, commercial, contractual and employment) that may apply in relation to corruption on the project. The provisions for raising awareness (PS 6) and reporting (PS 9) increase the opportunity for enforcement

2 International federation of consulting engineers FIDIC is the international umbrella association representing the national associations of consulting engineering firms in 74 countries, which in turn represent 35,000 consulting engineering firms. FIDIC co-operates with other organisations internationally with a view to eliminating corruption. FIDIC has developed Business Integrity Management System (BIMS) for supply-side procurement and Government Procurement Integrity Management System (GPIMS) for public demand-side procurement.

FIDIC's guidelines specify that a firm's IMS should include a code of conduct, an integrity policy, an adequate organizational structure, the specification of responsibilities and training programmes, corruption-free procedures for all of the firm's substantial processes, and the development of resources, manuals, forms, checklists and records that facilitate integrity management. These components and their interactions constitute a practical system of prevention, detection and sanction of corrupt practices.

In Nigeria however, one of such anti-corruption initiative is the Budget Monitoring and Price Intelligence Unit (BMPIU). The mission of The Budget Monitoring and Price Intelligence Unit (BMPIU) established in 2003 is "To use Due Process Mechanism to establish Transparent, Competitive and Fair Procurement System, which is integrity driven, encourages spending within budget and ensures speedy delivery of projects, while achieving value for money without sacrificing quality and standards for the Federal government of Nigeria."

For realisation of the BMPIU objectives, the government put in place the regulatory functions for regulating standards. This including the enforcement of harmonised bidding and tender documents, certification functions for certifying federal-wide procurements in two categories: resident due process team certification (projects with a threshold of between N1.0 million and N50 million) and full due process certification (Projects above N50 million at various stages). Monitoring functions to supervise the implementation of established procurement policies, and training and advisory functions to co-ordinate relevant training programmes (Ezekwesili, 2005). The documents to be forwarded to BMPIU as requirements for due process review as outlined by Ezekwesili (2005) include: project policy file, evidence of advertisement as appropriate, tender returns, tender evaluation report, contract award letter and agreement, original contract bills of quantities (if any) and contract drawings (if any). Other documents are, financial summary and statements, progress reports, variation requests and variation orders arising and interim valuation and certificates.

2.10 Project procurement.

Procurement has been defined as the way in which a client or purchaser obtain construction work and services from a contractor (Goodchild and Chamberlain, 1999). Project procurement as applied to the construction industry according to Mohsini and Davidson (1987), Hutchinson and Putt (1992), Frank (1990) is described as the acquisition of new buildings or space within buildings either by direct buying, renting or leasing from the open market, or by designing and building the facility to meet specification. Hibberd (1991), McDermoth (1999), Davidson (1998) described project procurement in terms of the product of the transaction i.e. acquisition of building. Savido and Konchar (1998) described procurement system as a set of relationships, roles and responsibilities of project team members and the sequence of activities required for the development of capital project. This definition is also supported by Love, Skitmore and Earl (1998) who described procurement system as 'an organizational system that assigned specific responsibilities and authorities to people and organizations, and defines the relationship of the various elements in the construction of a project'. Love *et al* (1998) created two distinctions (client-led and contractor-led approaches) based on who assumes the responsibilities for design and architectural work. Contractor led design involves the contractor undertaking the work under a single design and build contract, with the implication that the building provided will be of a standardised or semi-standardised type (Frank, 1993). Client led approach gives the main responsibilities for design to the housing association or client organisation and may be pursued through either a design build building contract, if the contractor retains responsibilities for detailed design work or a so-called 'traditional' or \conventional' contract, with one or

more bills of quantities. In recent decades, the industry has developed in an ad hoc manner, a range of procurement strategies besides the traditional process (Design Bid Build and Design Build). Construction Industry Institute (2001) outlined twelve distinct project delivery systems or procurement options.

2.10.1 Performance evaluation of procurement systems.

Several researchers have used project performance as the basis for evaluating or comparing the performance of procurement systems (Naoum, 1991, Ling and Chan 2002, Thomas *et al* (2002), Ogunsanmi and Bamisile (1997) evaluated and compared the performances (cost, time and quality) of the various procurement options. They observed that design bid build was not only time consuming in terms of design and construction but also unsuitable for complex projects that require advanced management skills. Ling et al (2004) and Oyefeko (1985) highlighted the appropriateness of some procurement options in a particular project scenario.

2.11 Construction project performance

The literature on project management offers a variety of definitions, which have classically included the three characteristics of a common objective, a set of activities that are complex enough to need managing and a definite period. Munns and Bjeirmi (1996) considered a project as the achievement of a specified objective, which involves a series of activities and tasks that consume resources. The Oxford Dictionary defined performance as how well or badly something works. In other words, performance is a measure of the success or failure of something.

Odusami (2001) observed that construction project performance is loosely often referred to as either project outcome or project success (or failure). The concept of project success has remained ambiguously defined in the construction industry. It is a concept, which means different thing to different people because of varying perceptions. Each industry, project team or individual has a definition of success. Parfitt and Sanvido (1993) consider success as an intangible perceptive feeling, a measuring criterion that varies with management expectations and varies among persons and with the phases of project. Actually, owners, designers, consultants, contractors, as well as sub-contractors have their own project objectives and criteria for measuring success. For example, architect may view aesthetics or functionality as the main criterion rather than building cost. Definition of project success may change according to project type, sizes and sophistication, project participants and experience of owners etc.

2.11.1 Project success criteria

Far fewer articles identified in the literature review address the concept of success criteria. Three basic criteria often associated with project success are time, cost and quality. Atkinson (1999) identified these three criteria as the 'iron triangle'. Apart from these three basic criteria, Pinto and Pinto (1991) advocate that measures for project success should also include project psychosocial outcomes – the satisfaction of interpersonal relations with project team members. Kometa *et al.* (1995) used a comprehensive approach to assess project success. These criteria included safety, economy, running/maintenance cost, time and flexibility to users. Songer and Molenaar (1997) assert that a project is successful when, on budget, on schedule, conforms to users

expectations, meets specifications, quality workmanship and minimize construction aggravation are achieved. Kumaraswamy and Thorpe (1996) included a variety of criteria in their study of project evaluation. These included meeting budget, schedule, quality of workmanship, client and project manager's satisfaction, transfer of technology, friendliness of environments, health and safety. Freeman and Beale (1992) identified seven main criteria for measuring the success of projects; five of them are more frequently used than others. They are technical performance, efficiency of expectation, managerial and organizational implications (mainly customer satisfaction), personal growth and manufacturability and business performance. Ashley, Jaselskis and Lurie, (1987) measured success for construction projects using six criteria: budget performance, schedule performance, client satisfaction, functionality, contractor satisfaction, and project management team satisfaction. Tan (1996) identified three criteria of success for technology transfer projects: overall performance, recipient satisfaction, and satisfaction with the transfer process. Another study based on the review of 14 published papers covering the topic of measuring project success identified seven common criteria of success: technical performance, efficiency of project execution, managerial and organizational expectations, personal growth, project termination, technical innovativeness, and manufacturability and business performance (Freeman and Beale 1992).

Some authors have stated that when measuring success one must make a distinction between project success and the success of the project management effort, as the two, although related, may be very different (De Wit 1986). These authors have also

emphasized the fact that project success is a subjective measurement that can change over time and depends on who is evaluating the project (Morris and Hough 1987; Pinto and Kharabanda 1996). A highly successful project for one stakeholder may be a total disaster for another stakeholder. Based on project execution measurements of cost and schedule, a given project may appear to be a complete failure because its completion was years behind schedule and its final design and construction costs were well over the authorized budget. However, the project may surpass other project goals to such an extent that years after completion it is viewed as a tremendous success and the problems during execution are long forgotten. The performance variables this study addressed are in terms of meeting technical specifications (quality), budget goals, time goals, participant's satisfaction and client satisfaction.

2.12 Summary

One of the major problems plaguing the construction industry is unethical practices of the industry professionals. Unethical practices, which are a worldwide problem, are found in every phase of building construction projects. The forms it takes varies and may include, bribery, extortion, fraud, deception, collusion, cartels, abuse of power, negligence, etc. This has adversely affected the overall performance of projects in terms of completing projects on time, within budgeted cost and quality standard.

Studies have identified the frequency of occurrence and seriousness of unethical practices within the industry. Critical ethical issues facing the industry have also been investigated. Ethical concepts and decision-making consideration of professionals as well

as the effect of background education and training on professionals' ethical behaviour have been examined. Studies are on-going in various countries to unravel the problem of professionals' unethical behaviour and its impact on both the economy and the industry.

Existing literature on professional ethics are based on perception, which may not be accurate and are often imprecise. The sample size in most of the studies is small. Most of the studies are carried out in developed economies, with little contributions from countries with low ethical ratings by transparency international. The gap in literature that is filled in this study include, professional ethical behaviour focusing on building procurement process, examining root causes of professionals' ethical behaviour and the impact of unethical practices on project outcome. Attempts are made to examine intra-profession ethical rating as well as identifying the dominant ethical ideology of building industry professionals.

CHAPTER THREE

THEORETICAL FRAMEWORK AND CONCEPTUAL MODEL

3.1 Theoretical framework

Individuals adopt a set of philosophical assumptions as a basis for making ethical decisions. Various philosophies related to utilitarianism, rights and justice explain how individuals create ethical standards. Philosophy divides assumptions about ethics into two, namely the teleological and the deontological approaches. These two approaches differ in terms of the ways they understand what constitute ethical behaviour (Johnson, 2003).

Johnson (2003) succinctly explains the various ethical principles upon which the theory of ethics is based. These are teleological approach also known as consequentialism determines the moral worth of behaviour totally by the (anticipated) consequences. This suggests a cost benefit view, perhaps invoking the judgmental criterion of "the greatest good for the greatest number". Three examples of the teleological approach to ethics are egoism, utilitarianism and altruism.

Egoism focuses on self-interest. This ethical principle justifies something done to further an individual's own welfare. Two forms of egoism exist, psychological egoism and ethical egoism. On the one hand, psychological egoism—a descriptive theory of human behaviour—holds that people are innately self-centred and routinely act to advance their interests. Ethical egoism, on the other hand, is a normative perspective that holds that people ought to act exclusively in their self-interest. This view posits that a person is

obligated only to enhance his or her own long-term welfare and that commitments to others are not binding and should be reneged on if they cease to be advantageous to the individual (Beauchamp and Bowie, 2004 in Jones, Felps, and Bigley 2007).Thus, egoism concerns pursuit of self-interest and can be related to common business criteria (notably, profit maximization). Asking the following question can best sum up the principle: Does the action benefit me, as an individual, in any way?

The principle of utilitarianism, based on the work of Hume (1740/2000), Bentham (1789/1996), and Mill (1863/1998) in Jones, Felps, and Bigley (2007) embodies the notion of operating in the public interest rather than for personal benefit. The principle extracted from this theory determines an action to be right if it maximises benefits over costs for all involved, everyone counting equal. Utilitarianism takes two forms: act utilitarianism and rule utilitarianism. Act utilitarianism involves maximizing benefits relative to costs for the discrete decision in question. Rule utilitarianism involves following rules established in order to achieve the greatest net positive consequences over time.

The principle extracted from Altruism determines an action to be right if it maximises the benefits of some, even at the cost to oneself, i.e. that man has no right to exist for his own sake, that service to others is the only justification of his existence, and that self-sacrifice is his highest moral duty, virtue, and value.

The deontological approach stresses the methods or intention involved in a particular behaviour. According to a deontological framework, actions are essentially right or

wrong regardless of the consequences they produce. Ethical action maybe deduced from a duty (pluralism) or a basic human right (contractarianism) but it never depends on its projected outcome. Basic rights include life, liberty and the pursuit of happiness, which are natural, universal, equal, and inalienable. Duties and obligations classified under several categories include duties to God, oneself, and others.

3.2 Conceptual model

A conceptual model was developed to guide the thinking of the researcher in this study. In developing the conceptual model, previous models developed by other researchers in related studies were reviewed.

3.2.1 A review of previous models by other researchers

Ethical behaviour models that have emerged from earlier research efforts are the products of researchers in psychology or psychology-based discipline, including organizational behaviour and marketing. Among the empirical contributions to date are the works of Ferrell and Gresham (1985), Trevino (1986), Hunt and Vitell (1986), Stead, Worrell and Stead (1990) and Jones (1991).

The theoretical models of Ferrell and Gresham (1985), explain how individual factors (knowledge, values, beliefs, attitude and intention); significant others in the organization setting (diffential association and role set configuration) and opportunity for action (professional codes, corporate policy and reward/punishment) influence the likelihood of ethical actions by individual decision makers resulting in ethical/unethical decision making dilemma. This model provides a sound basis for the development of the model for this study since it demonstrates that multifaceted factors influence individual

decision-making and consequent ethical behaviour. Figure 3.1 is a schematic model of Ferrell and Gresham (1985).

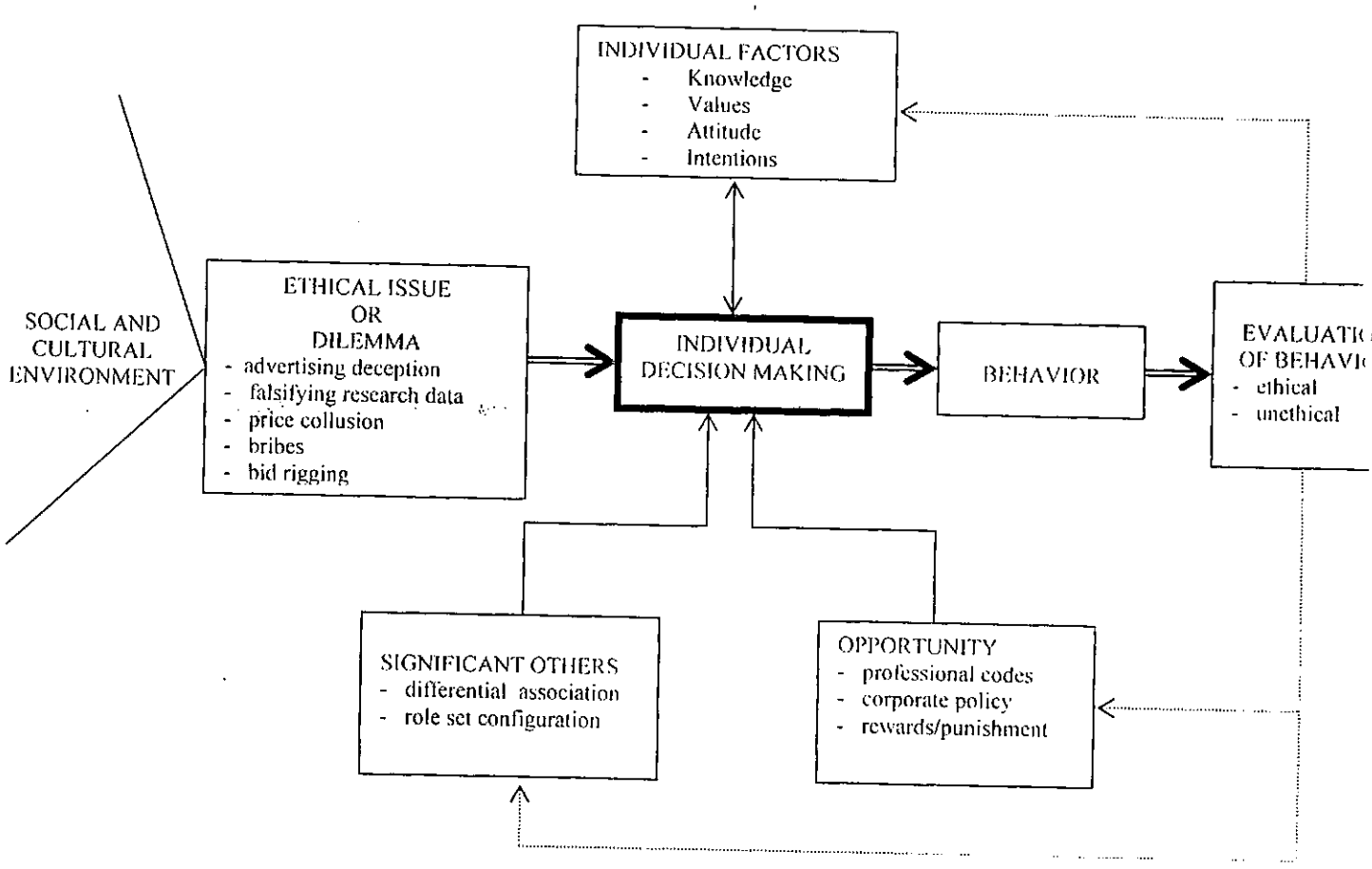


Figure 3.1: A contingency model of ethical decision making in marketing organisation
Source: Ferrell and Gresham (1985:89)

Trevino's (1986) model posits that ethical decision-making in organizations is explained by the interaction of individual and situation components. The model begins with the existence of an ethical dilemma and proceeds to a cognations stage where moral judgments made are then moderated by individual factors (Ego strength, Field dependence and Locus of control) and situational factors (Immediate job context,

Organisation culture and Characteristic of the work) are proposed to influence/moderate the cognition behaviour relationship. Moral judgment, thus moderated, influences the likelihood of ethical or unethical behaviour. This model is useful for the model developed for this study as it follow the same pattern. However, Trevino's (1986) model lack factors such as personal ethical philosophy and ethical ideology, which influence individual moral decisions in the cognition stage. Figure 3.2.shows Trevino's (1986).

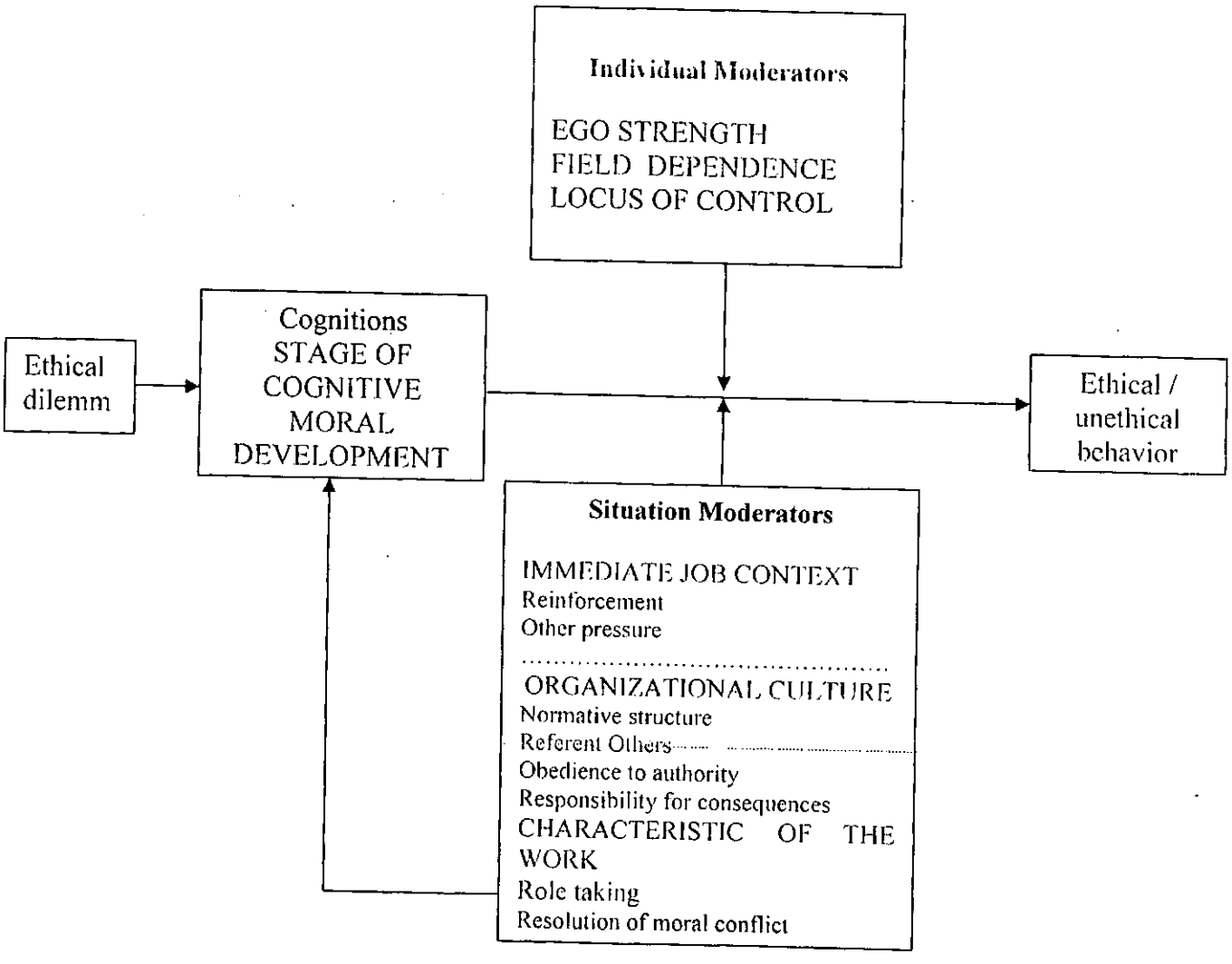


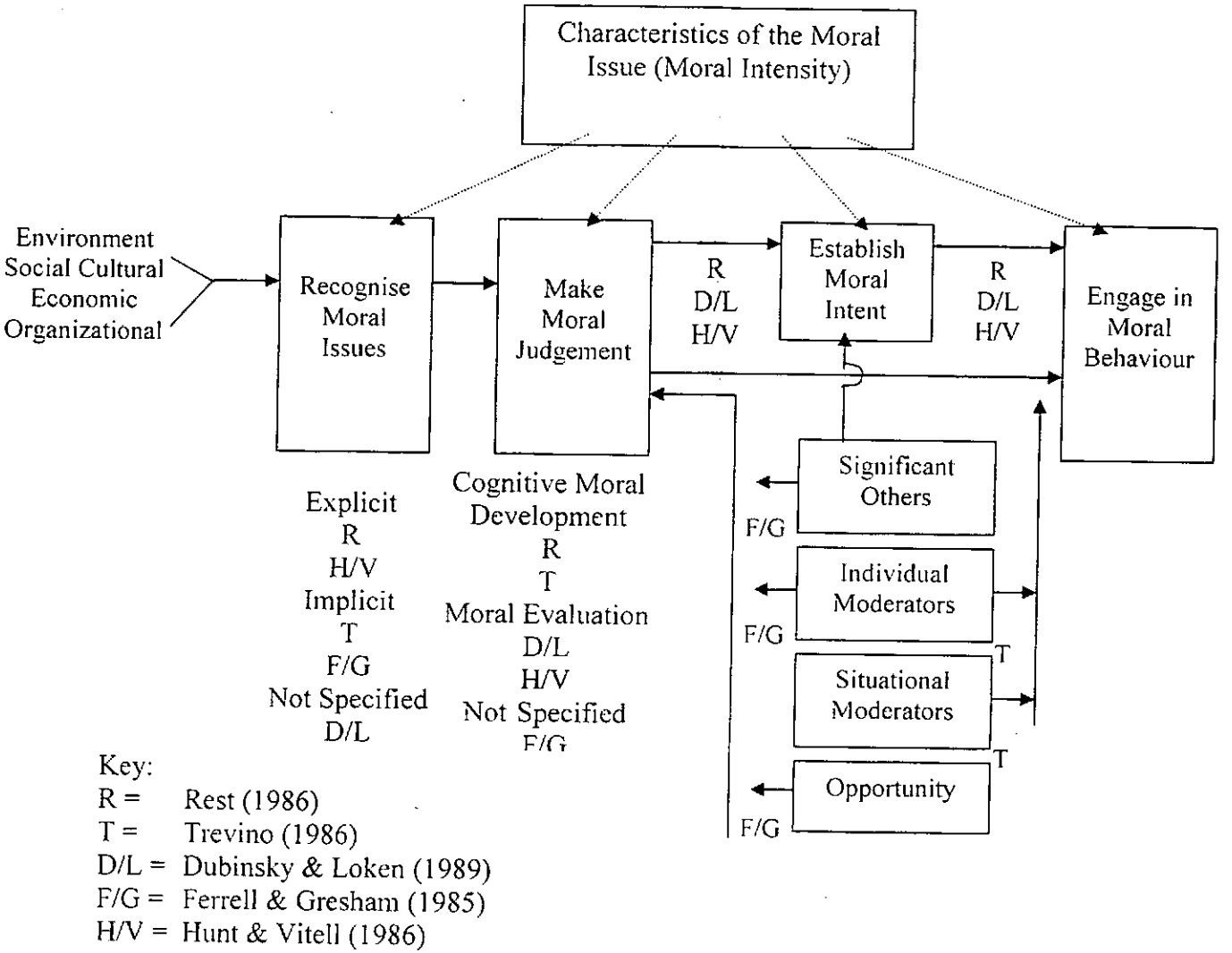
Figure 3.2: Interactionist model of ethical decision making in organizations
Source: Trevino (1986:603)

Cleek and Leonard's (1998) interactionist model describes these factors (individual factors, ethical philosophy, ethical decision ideology, external forces and organizational factors) that impact upon ethical decision-making behaviour in organization. This model does not consider project characteristics and project environment. These would have made the model suitable to the building industry. The proposed research conceptual model will adopt ethical ideology, personal factors and ethical philosophy considered in this model.

Hunt and Vitall's (1986) model incorporates two basic types of ethical philosophies, Deontological and Teleological, as precursors leading to ethical behaviour. Environmental factors (cultural, industrial, and organizational) and personal experiences affect perceptions of the existence of an ethical problem, alternatives, and consequences. In turn, these perceptions along with deontological norms and evaluation of consequences, lead to both deontological and teleological evaluations, which in turn, lead to ethical judgments. Judgment affects intentions, which along with situational constraints affect behaviour. This model has been in part useful in developing the present research model.

A rough synthesis of existing models presented in Figure 3.3 is useful for assessing the collective strengths and weaknesses of the five models. Ethical issues emerge from the environment, which typically includes economic, social, cultural, and organisational factors (Ferrell and Gresham, 1985; Hunt and Vitell, 1986). Four of the five models contain some form of moral judgment stage. These are, cognitive moral development (Rest, 1986 and Trevino, 1986) and moral evaluation-teleological and deontological (Hunt and Vitell, 1986 and Dubinsky and Loken, 1989). Thereafter, moral intent is

established (Rest, 1986; Hunt and Vitell, 1986 and Dubinsky and Loken, 1989) before engaging in ethical behaviour. Trevino (1986) and Ferrell and Gresham (1985) postulated a direct transition from the moral judgment phase to moral behaviour.



Key:
R = Rest (1986)
T = Trevino (1986)
D/L = Dubinsky & Loken (1989)
F/G = Ferrell & Gresham (1985)
H/V = Hunt & Vitell (1986)

Figure 3.3: Synthesis of ethical decision – making models
Source: Jones (1991:370)

Fritzsche (1991) proposed a model of decision-making incorporating ethical values (Figure 3.4). According to the author, the primary focus and contribution of the model is to help in the understanding of the role ethics play in the decision process. The model begins with the individual decision maker by considering a set of personal values held by the decision maker. This is hinged on the premise that individuals or committees make business decisions; hence, ethics of business in reality are the ethics of the individuals making up the business. The actual behaviour is influenced by the culture of the organization comprising organizational climate and organizational goals as well as other stakeholders outside the organization (stakeholders, regulating bodies etc) followed by a cognition stage of resolving managerial problems (strategic or tactical) with an ethical component. The decision alternatives are then evaluated base on decision dimension (economic, political, technological, social or ethical issues). Decisions, which survive the phased heuristic decision process, are then implemented.

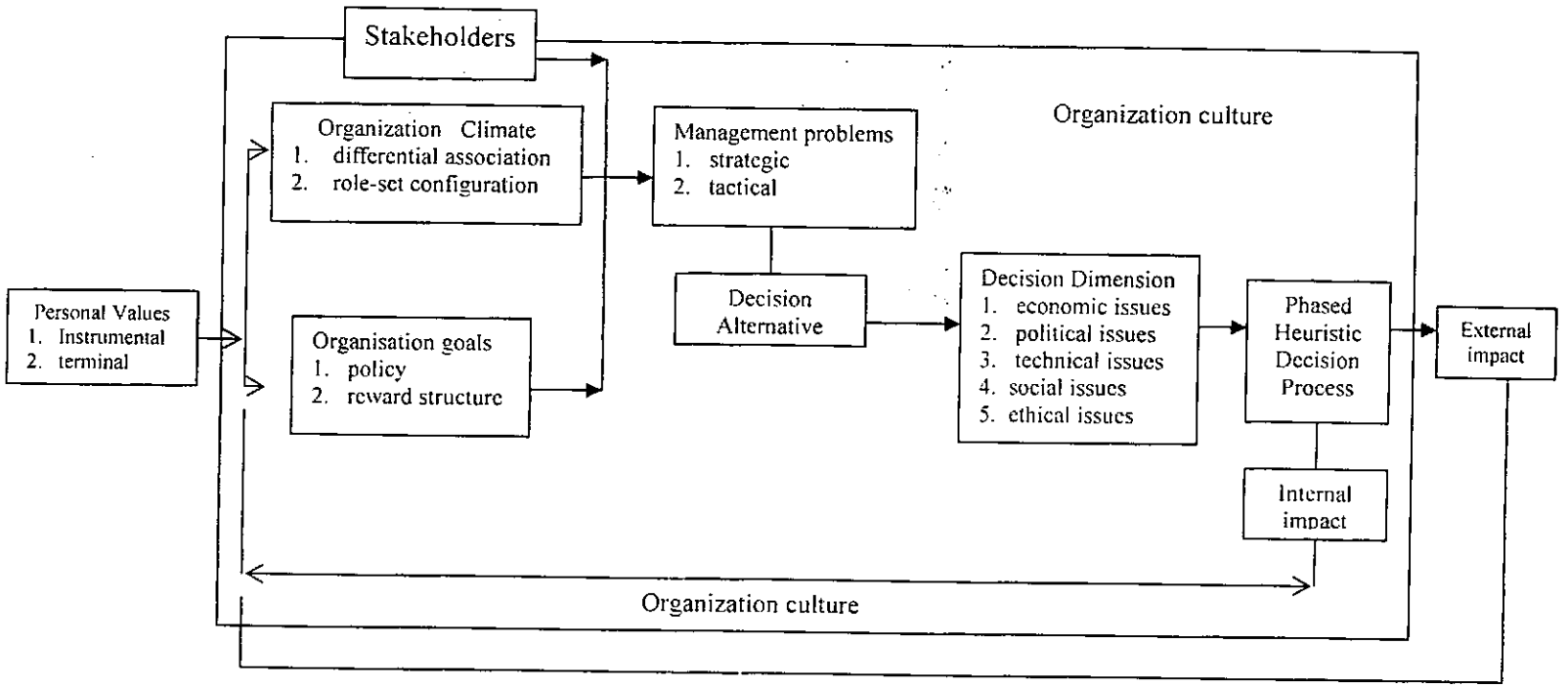


Figure 3.4: A model of decision – making incorporating ethical values
Source: Fritzsche (1991:843)

Jones (1991) proposed an issue-contingent model of ethical decision making in organization. The model is a modification of the four components model for individual ethical decision-making and behaviour proposed by Rest (1986). The major contribution of this model is the inclusion of moral intensity, which the author believes, will affect the recognition of moral issues, moral judgment, established moral intent and the final moral behaviour. Organizational mediating factors (group dynamics, authority factors, socialization process) also affect the individual established moral intent and the actual behaviour. The model lacks factors such as personal ethical philosophy and ethical ideology, which influence individual moral decisions in the cognition stage as well as variables like project procurement goal for determining ethical behaviour in the building industry. Detail of the model is as shown in Figure 3.5.

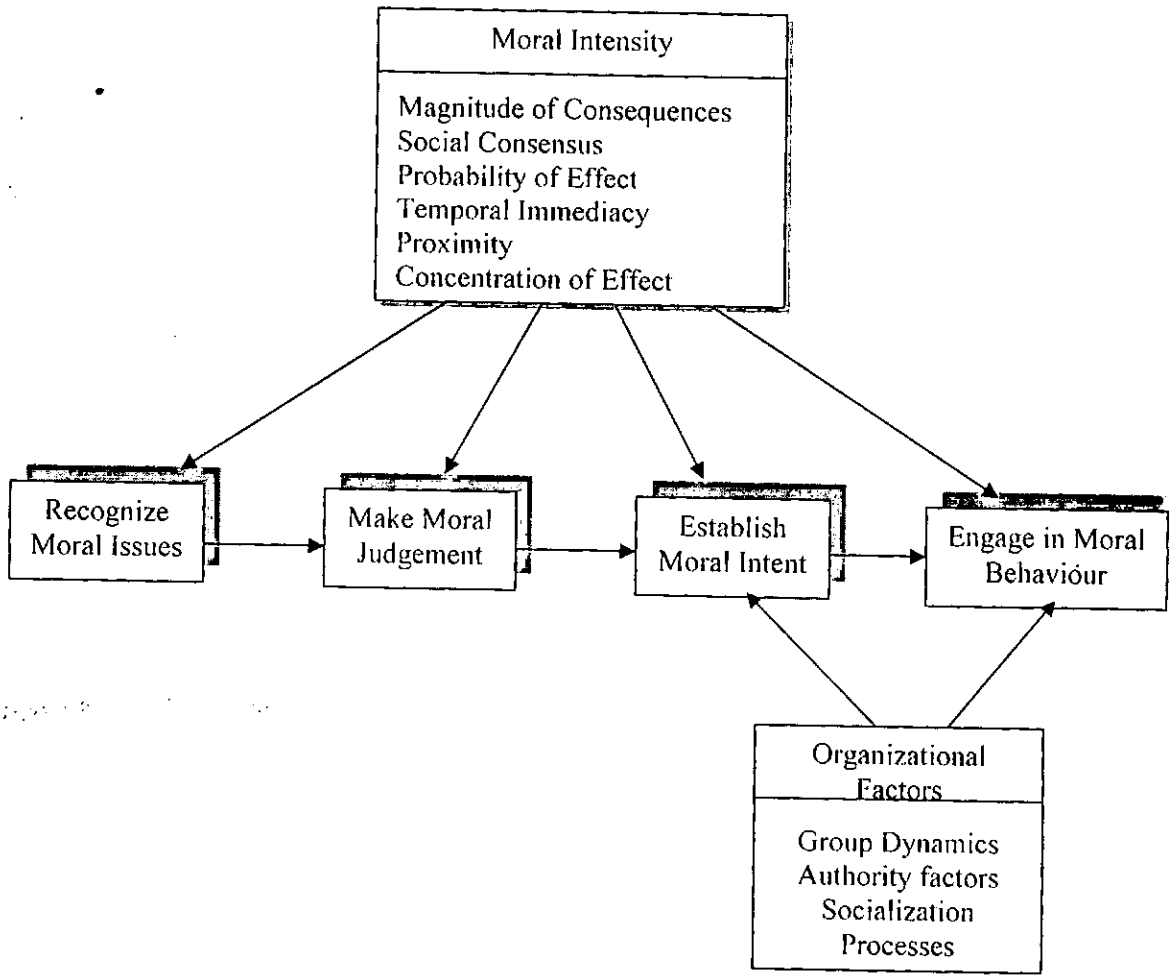


Figure 3.5: An issue- contingent model of ethical decision making in organisations
Source: Jones (1991:379)

Stead *et al.* (1990) model has two important identifiable phases. The first phase reflects the relationship between the individual factors and the development of a person's ethical philosophy and decision-making ideology. The second phase entails organisational factors (which are affected by external forces) that influence the person's ethical belief system. These interactions eventually lead to either ethical or unethical behaviour occurring in organisations. Stead *et al*'s (1990) model provides the platform for the development of this research conceptual model.

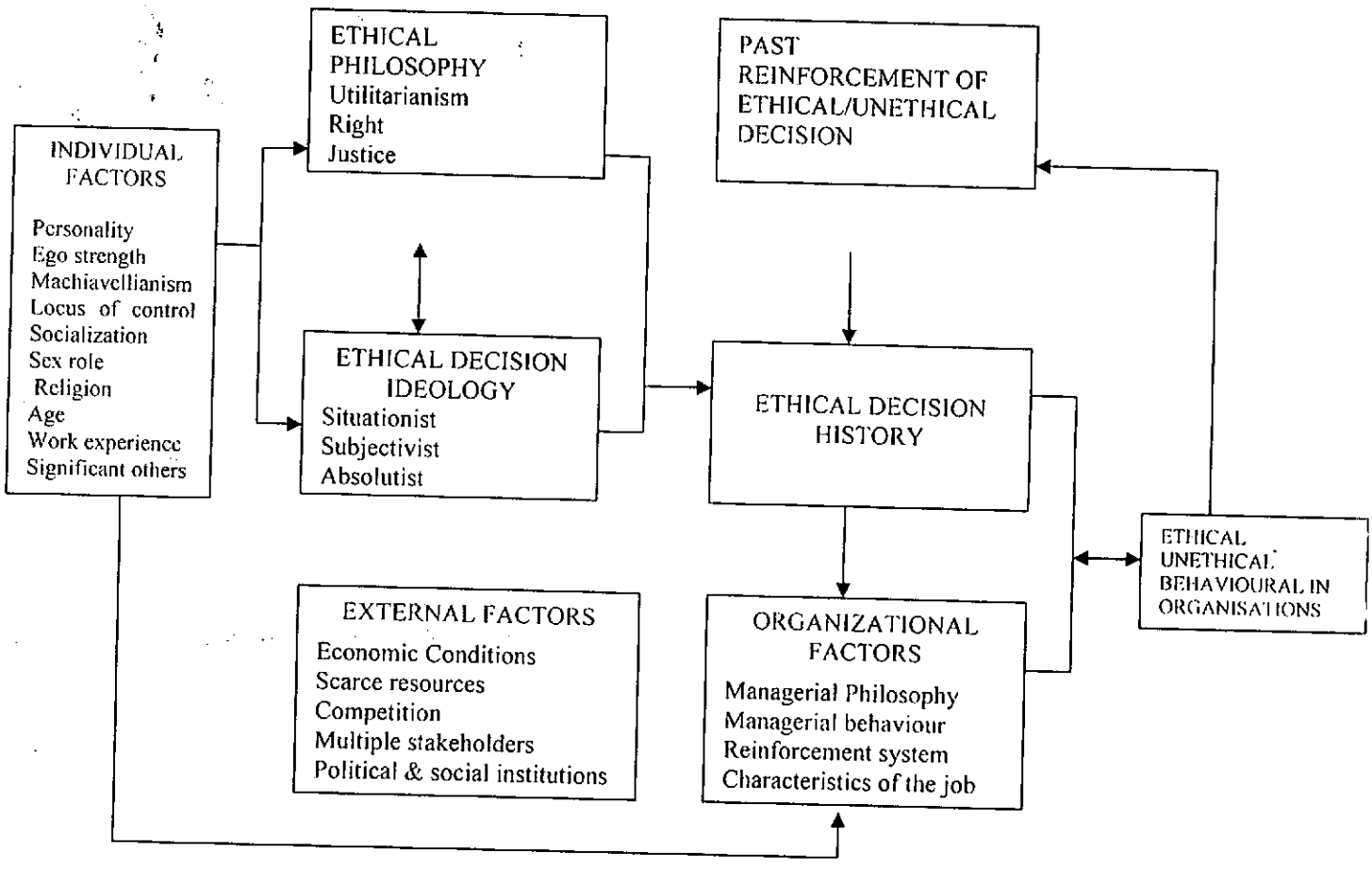


Figure 3.6: An integrative model for understanding ethical behaviour in business organisation.
Source: Stead *et al* 1990 in Cleek and Leonard (1998:621).

3.2.2 The study conceptual model

The conceptual model developed for this study is as shown in Figure 3.7. This model is based on input from Treveno's (1986) interactionist model of ethical decision making in organizations and Stead *et al's* (1990) integrative model for understanding ethical behaviour in business organisation. These models are the products of researchers in psychology or psychology-based disciplines and do not consider the impact of (un)ethical behaviour on performance indicators (procurement goals). The conceptual model (Figure

3.7) developed for this study has four important phases. The first phase consists of a moral agent recognising the existence of ethical issues or dilemma, which could emerge from the project environment. The second phase is the cognition phase where the individual reacts to an ethical dilemma with ethical judgment determined by his or her cognitive moral development stage. The individual moral development stage determines the individual's opinion or thinking about how right or wrong, an issue is in a particular situation. The third phase comprises moderating variables such as personal factors, organisational factors, and influence of stakeholders as well as project characteristics. These four variables are proposed to influence the likelihood of an individual's acting on cognition of what is right or wrong. Individuals may use a set of philosophical assumptions (ethical philosophy and ethical ideology) as a basis for making ethical decisions. The forth phase is the outcome of the decision (ethical or unethical) on procurement goals (in terms of completing projects on time, within budgeted cost and quality standard). Ethical philosophy and or ethical ideology is the primary independent variable with ethical behaviour and the project environment as the dependent variable. The interaction of personal factors, situational factors, project characteristics and organisational factors as moderating variables induce change in the relationship between the independent and the dependent variables.

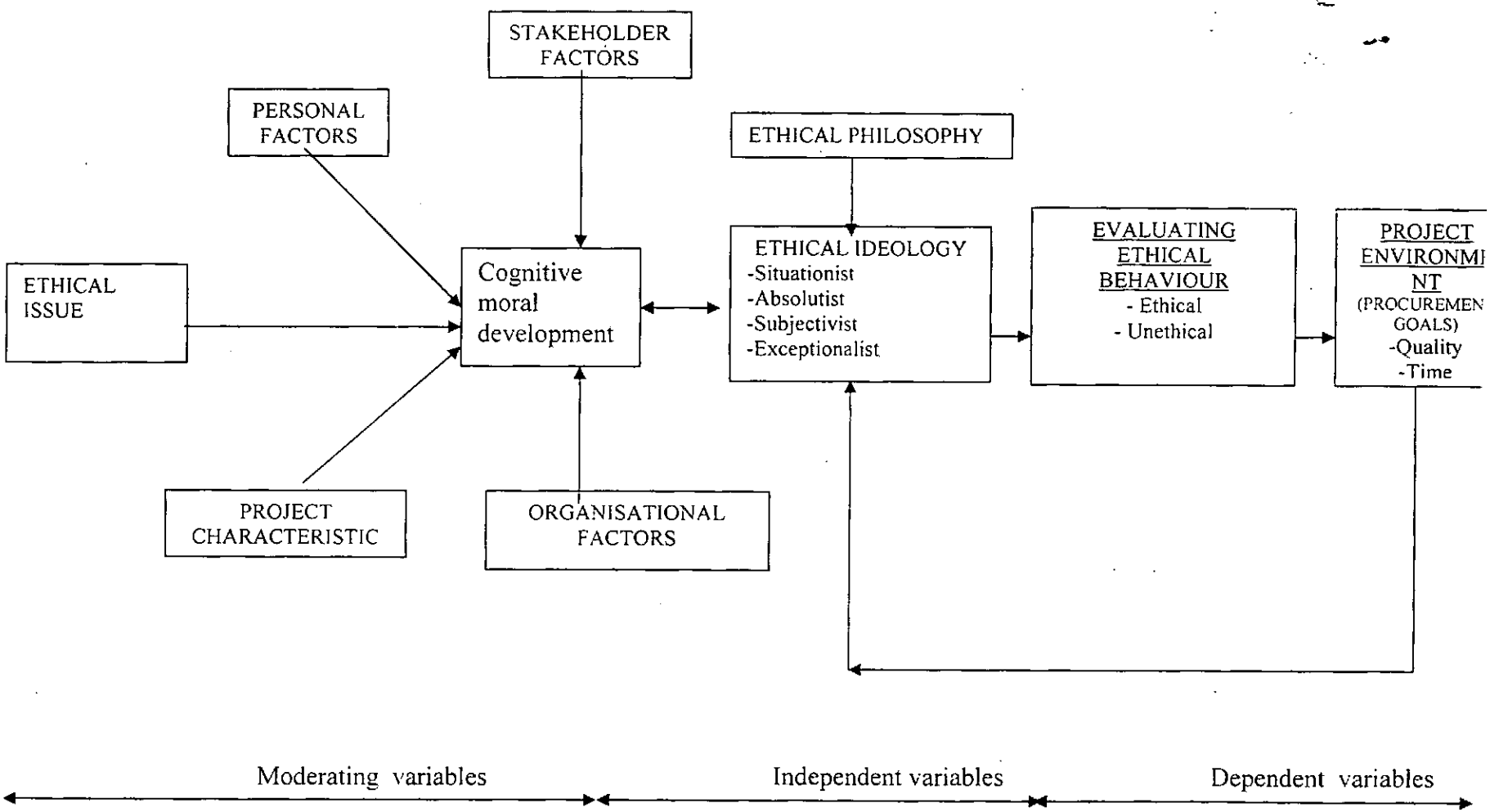


Figure 3.7: Research conceptual model

3.2.3 Research variables

Independent Variables

(Ethical ideology)

V1 Situationist
V2 Absolutist
V3 Subjectivist
V4 Exceptionist

(Ethical philosophy)

V5 Teleological ethics
V6 Deontological ethics

Moderating Variables

(Personal factors)

V7 Sex
V8 Religion
V9 Personal value
V10 Managerial level

(Organisational factors)

V11 Organisational culture
V12 Organisational reward system
V13 Peer pressure
V14 Time pressure

(Stakeholders factor)

V15 Regulating bodies
V16 Client type

(Project characteristics)

V17 Procurement type
V18 Project complexity
V19 Project size

Dependent Variable

(Procurement goal)

V20 Time certainty
V21 Cost certainty
V22 Project size

Figure 3.8: Research variables

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter is on the methodology employed for data collection and analysis in order to achieve the research objectives. This chapter includes the research area, the study population, the research design employed, the sample size and sampling procedure, types of data required and the instruments adopted for data collection. It also aimed at providing evidence that appropriate procedures were followed to achieve reliability and validity of the research instrument. The section also discusses the research variables and their measurements as well as the statistical instrument used for data analysis.

4.2 Research design

This study investigates ethical behaviour of professionals in the Nigerian building industry in the procurement of building projects. The research design adopted for this study can be regarded as multi-methods, comprising both quantitative and qualitative research. Survey design, case study design, correlational design and causal comparative design were considered and found to be suitable research design. However, survey and correlational design were considered appropriate for this study because the study involves exploratory, descriptive data measurement and causal study. In addition, because of the large sample size involved (building professionals) and the need to generalise the research findings.

4.3 The research area

This study was directed at construction professionals currently practising in selected Nigerian major cities. These cities were Abuja, Kano, Lagos and PortHarcourt. The justification for choosing these cities are, they are major cities located in 4 out of 6 geopolitical zones in Nigeria and the number of consultancy firms registered with professional institutions in these cities are higher in comparison to other cities. Also, these cities have high level of construction workload and high incidences of building collapse from record. Finally, because of high cost of living, there is high tendency for professionals to engage in unethical behaviour

4.4 The study population

The population for this study comprises core building industry professionals in the procurement of building projects. These include architects, builders/construction managers, structural engineers, quantity surveyors, and services engineers (electrical and mechanical engineers). The sampled population was drawn from professionals in three categories of construction organisations. In the first category, professionals were those in 55 consultancy organisations selected from the lists of registered consultancy firms with professional institutions. These comprise 16 architectural firms, 6 project management firms, 20 quantity-surveying firms, 10 structural engineering firms and 3 building services firms in private consultancy. This represents 27% of registered consultancy firms in the research area. The second category included building professionals who either were owners or employed in 35 construction-contracting organisations selected from the lists of contractors accredited by Nigerian Institute of Building (NIOB) as published in

the register of contractors (2003). This represents 22 % of NIOB accredited contractors in the research areas. The third category included building professionals who are employees in 18 public sector client organisation in the research areas. Client organisations comprise governmental departments, parastatals and agencies. Construction professionals in civil, oil and gas and heavy engineering organizations equally face similar ethical challenges, however, this study excludes professionals in this category.

4.5 Sampling frame

The lists of registered consulting firms in the respective professional institutions were used due to unavailability of a single directory or data base for all construction professionals in the different organisations (consultancy, contracting and client organisations) in the research areas from which accurate sampling size could be developed. This comprised consultancy firms registered with Nigerian Institute of Architects (NIA), Nigerian Institute of Building (NIOB), Nigerian Institute of Quantity Surveyors (NIQS), and Nigerian Institute of Structural Engineers (NISE). Furthermore, data relating to contractors were sourced from the lists of contractors accredited by Nigerian Institute of Building (NIOB) as published in the register of contractors (2003).

4.6 Sample size.

Deciding on a sample for a study is one of the crucial stages of the research process and stands to influence generalisation or external validity. Sampling as defined by Merriam (1998) is the selection of a research site, time, people and events in a field research. According to Le Compte and Preissle (1993), sampling has to do with representation of

individuals and subsets making up the population group from which results can be generalised.

A theoretical sample size, which serves as a guide to determining the actual sample size, was determined using the following formula by Kish (1965) in Shash and Abdul-Hadi (1992) in equation (1):

$$n = n' / (1 + n' / N) \qquad (1)$$

Where n = sample size, $n' = S^2 / V^2$, N = total population, V = standard error of sampling distribution = 0.05, S = the maximum standard deviation in the population element (total error = 0.1 at a confidence level of 95%), $S^2 = (P)(1 - P) = (0.5)(0.5) = 0.25$.

P = the population elements that belong to the defined class.

Table 4.1 shows the population of the three categories of construction organisations in the research area and the sample size.

Table 4.1: Population and sample size of respondents in the three organisational groups.

Construction organisation	Population in research area	Questionnaire responses			
		Total administered	Returned	Unreturned	Percentage of population covered
Client	18	200	102	98	100
Consultancy	198	100	55	45	27
Contracting	162	50	35	15	22
Total	378	350	192	158	

The variation in the number of administered questionnaire as shown in Table 3.1 is based on the population of respondents in client, consultancy, contracting organisations in the research areas.

4.7 Sampling technique

Data for professionals in consultancy firms and contracting organisations in the building industry were obtained by probabilistic sampling technique while data for client organisation were obtained by non-probabilistic sampling technique. Firstly, the population was stratified based on organisational types (client, consultancy and contracting organisations) in the industry for the purpose of comparing and contrasting different subset of the population's ethical behaviour. Snowball sampling technique was adopted for professionals in client's organisations because of the unavailability of a sampling frame from which accurate sample size could be drawn. The questionnaire was administered on the respondents through the heads of departments/units.

A simple random sampling technique was adopted for professionals in consultancy and contracting organisations based on registration lists of consultancy firms obtained from the professional institutes of the sampled professional groups. Furthermore, the population was stratified according to their operational base within the research areas (Abuja, Kano, Lagos, and PortHarcourt cities), thereafter, the questionnaire was administered on each organisation by a simple random sampling of the population within each city in the research area using random numbers.

4.8 Data collection instruments

Data for the study were obtained through a combination of opinion-based questionnaire survey and interview due to the quantitative nature of the research, The interview with construction professionals elicited information (through Critical Incident Technique (CIT)) with respect to ethical issues in the building industry. Stauss (1993) cited in De Saram, Ahmed and Anson, (2004) stated that the CIT is essentially a means of assembling and classifying stories or "critical incidents" employing content analysis, and that Flanagan originally developed this method in 1954 to identify requirements for effective job performance. He defined an incident as "any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act". In addition, it is considered critical "if it makes a 'significant' contribution, either positively or negatively, to the general aim of the activity." Thus, the CIT focuses on events that have been "seen to lead to success or failure or in the case of this research, ethical or unethical in accomplishing a task" (Stauss, 1993 in De Saram *et al.* 2004).

The questions were developed through a review of literature on ethical behaviour among construction and marketing professionals. The closed ended questionnaire method with a set number of responses as determined by the researcher was adopted for this study. Respondents were also to specify where their opinions differ from the opinion provided by the researcher. The questionnaire contained nine items on demographic information such as the respondent's gender, age, educational level, industry experience, professional membership grade, managerial position, organisational type in the industry, professional

discipline, and religion. The questionnaire also sought the opinion of respondents regarding the magnitude/frequency of ethical impropriety amongst professionals with respect to 22 items identified from critical incident survey as sharp practises within the construction industry, using five items Likert type scale ranging from very frequent, frequent, sometimes, seldom and never.

The questionnaire also contained Ethics Position Questionnaire (EPQ), which are a 20 attitude statements developed by Forsyth (1980) to measure ethical ideologies and moral philosophy held by individuals. The first ten form a subscale to measure idealism and the next ten, measure relativism. Respondents were asked to indicate the degree of agreement or disagreement on a 4-point Likert type scale. Respondent's perception of 18 factors established as variables influencing ethical behaviour was included to measure possible causes of unethical conduct in professional practice. Others include degree of professional group's susceptibility to bribery and assessment of professionals' ethical behaviour using triangulation in research.

The research strategy adopted to overcome the problem of bias in data collection is "triangulation". Triangulation involves the use of multiple research methods and or measures of a phenomenon (Black, 1993 in Love, Holt and Li, 2002). It is also a means of validation and testing of research outcomes in it (Nesan, 1997 in Love *et al.* 2002). Triangulation is a means of representation based on the logic that one can move closer to obtaining a truer picture, if one can take multiple measurements, using multiple methods, or at multiple levels of analysis (Gersick, 1991 in Love et *al.* 2002). The method adopted in this study is interdisciplinary triangulation where data concerning the architect were

obtained from the other professionals, and vice versa. On the other hand, data about professionals in consultancy organisation were obtained from those in contracting and in client organisation as well, while data concerning those in contracting were obtained from those in client organisation and consultancy organisation and so on. In all, 192 questionnaires out of the 350 copies administered to the selected subjects were retrieved. This represents 55% of the total questionnaire administered.

Major constraints encountered in data collection were unavailability of current/updated directory of registered construction consultancy outfits/organisations from professional institutes, non-existence of many of the consultancy firms listed in the directory and poor response rates from respondents and some respondents' unwillingness to provide answer to some of the issues raised in the questionnaire. The issue of unavailability of current directory of registered professional consultancy firm were overcome by supplementing some of the list with that obtained from recent Archibult compendium and institute magazines.

4.9 Definition and measurement of research variables

Section A: Demographic information

Gender: This variable is to test the existence of relationship between construction professionals' gender and ethical ideology on the one hand and the relationship between professional gender and propensity to behave unethically. Two major categories are male which was assigned numeral 1 and female, which was assigned 2.

Age: This variable is to test the existence of relationship between the construction professionals' age and their ethical ideology. Five categories were selected to measure

the range of the construction professionals' age in years as at last birthday. Those under 21 years were assigned numeral 1, those between 21 and 30 years were assigned 2, those between 31 and 40 years were assigned 3, those between 41 and 50 years were assigned 4 while those over 50 years were assigned 5.

Educational level of respondent: This variable is to test for association between educational background of the construction professional and their ethical ideology. Those with Ordinary National Diploma (OND) were assigned 1, those with Higher National Diploma (HND) were assigned 2, those with bachelors degree were assigned 3, those with Postgraduate Diploma (PGD) were assigned 4, those with Masters degree were assigned 5, those with Doctorate degree were assigned 6, while others (professional degrees/certificate) were grouped under others and assigned 7.

Organisation type: This variable is to test the existence of relationship between professionals' organisation type within the construction industry and their ethical ideology, in other words, whether the organisational climate or culture influences their ethical ideology. Six organisational types were identified. Those in the public sector were assigned 1, those in private developing organisation were assigned 2, those in consultancy organisation were assigned 3, those in contractor organisation were assigned 4, and those in corporate organisation were assigned 5 while others organisation not listed were grouped under 6.

Managerial position: This variable was designed to test the relationship between professional's managerial level and propensity to behave unethically. Those professionals at the top managerial levels were assigned 1; those at the middle management level were assigned 2 while those at the lower/junior management level were assigned 3.

Industry experience: This variable represents the cumulative number of years that the professional spent in the construction industry. It is aimed at testing the association between experience within the industry and propensity to behave unethically. Those with less than 5 years industry experience were assigned 1, between 5 and 10 years were assigned 2, between 11 and 20 years were assigned 3, between 21 and 30 years were assigned 4, between 31 and 40 years were assigned 5, while over 40 years industry experience were assigned 6.

Professional discipline. This variable represents professional core background. It is aimed at measuring the variation in the perception of ethical impropriety between professional groups, identify which profession is prone or susceptible to corruption and in addition, test for variation in the ethical ideology of different professional group. Architecture was assigned 1, building – 2, civil/structural engineering – 3, quantity surveying – 4, mechanical engineering – 5, electrical engineering – 6 and others not classified – 7.

Professional membership status: This variable indicates the professional membership status of the respondent. It is to test the association between professionals' grade of membership and propensity to behave ethically. A professional belong to a body responsible for the regulation of the practice of that discipline. Construction Professional bodies in Nigeria include Nigerian Institute of Architects (NIA), Nigerian Institute of Building (NIOB), Nigerian Institute of Quantity Surveyors (NIQS), and Nigerian Society of Engineers (NSE) with various divisions such as civil division etc. The non-members of any of these bodies was assigned 1, students members – 2, graduate members – 3, corporate members – 4 and fellows were assigned 5.

Religion: This variable is to test the association between professionals' religious persuasions and religious influence on ones attitude during professional practise

Section B: Ethics specifics

Ethical impropriety: This variable measures the magnitude/frequency of ethical impropriety amongst professionals with respect to 22 items identified from critical incident survey as ethical impropriety within the construction industry. The aim of this variable is to test the prevalence of ethical impropriety in the industry. Five item Likert type scale ranging from Very frequent – 5, Frequent – 4, Sometimes – 3, Seldom – 2 and Never – 1 was used.

Religious influence: This variable attempts to measure the extent professional's ethical decision behaviour at work or project environment are influenced by their religious persuasion. Those whose ethical decisions are greatly influenced by religion were assigned 4, those whose decisions are mildly influenced by religion were assigned 3, somehow were assigned 2, and not at all were assigned 1.

Ethical standard: This variable sought to compare the ethical standard of construction professionals before and after 1999. Using 1999 as the base year, ethical standard that is on the increase were given 3, no difference in ethical standard were given 2, while declining ethical standard were given 1.

Ethical violation: This variable sets out to assess how often construction professionals engage in unethical conduct. First, it sought to find out how frequent professionals observed ethical violation by their project team members. Very often was given 4, Often was given 3, Rarely was given 2 and Never was given 1. Secondly, they were asked to

indicate the perceived percentage of their team members engaged in unethical conduct identified earlier by critical incident survey. Those who fall under 0 to 10% were assigned numeral 1, those between 11 and 20% were given 2, those between 21 and 30% were given 3, those between 31 and 40% were given 4 while those over 40% were given 5. Thirdly, they were asked to self-confess how often they succumb to unethical conduct. Very often was given 5, Often was given 4, Sometimes was given 3, Rarely was given 2 and Never was given 1. Furthermore, the research sought to find out how frequent professionals observed bribery incidence in the construction industry. Very often was given 5, Often was given 4, Sometimes was given 3, Rarely was given 2 and Never was given 1. Finally, respondents were asked to indicate the more common form of bribery in the construction industry. Financial was assigned 1 and non-financial was assigned 2.

Degree of susceptibility to bribery: This question was designed to measure which of the building industry professional groups is most susceptibility to receiving bribes/gratification. This was categorised into highly susceptible (given numeral 4), susceptible (given numeral 3), moderately susceptible (given numeral 2) and not susceptible (given numeral 1).

Mode of exchange of bribe: This research sought to find out the frequency of directional flow of bribe and gratification between parties to a building contract (client, consultant, and contractor) using 5-point Likert type scale: Very frequent – 5, Frequent – 4, Sometimes – 3, Seldom – 2 and Never – 1.

Factors influencing ethical behaviour: This variable, which consists of 18 factors believed to influence ethical behaviour, was included to measure possible causes of ethical impropriety in professional practice. They were requested to indicate their degree

of agreement by ticking Strongly agree (given 4), Agree (given 3), Disagree assigned 2 and Strongly disagree (given 1) with each of the factors.

Priority: This variable measures construction professional's priority when faced with ethical decision. They were asked to rank from 1-6 (without repeating any number) in order of their priority of consideration, factors that may influence their ethical position. Factors identified are self, client/employer/company, boss/supervisor, project team member, family members and public.

Impact of ethical impropriety on project performance: Respondents were to assess using any of their recent or past projects. The level of impact (or effect) of each ethical impropriety on performance criteria was determined by placing a number between 1and 7 in each box provided, where 1 = Extremely negative impact; 2 = Negative impact; 3 = Slightly negative impact; 4 = No impact; 5 = Slightly positive impact; 6 = Positive impact; 7= Extremely positive impact. Performance criteria considered are, compliance to design and specification (degree of compliance to architectural, structural & services specifications), cost performance (cost certainty (not exceeding project budget goals), time performance (time certainty (not exceeding project duration), effective and efficient communication and overall client satisfaction.

Ethical ideology: This variable consists of ethics position questionnaire developed by Forsyth (1980) to measure ethical ideologies and moral philosophy held by individuals. It comprises 20 attitude statements of which the first ten form a subscale to measure idealism and the next ten, measure relativism. Respondents were asked to indicate the degree of agreement or disagreement on a 4-point Likert scale were Strongly agree (given 4), Agree (given 3), Disagree (given 2) and Strongly disagree (given 1).

4.10 Pilot study

The aim of the pilot study was to identify some potential methodological problems, test the reliability of the research instrument and other problems that could hinder the external validity of the study. The pilot study was carried out in Lagos among a random sample of professionals from client, consultancy and contracting organisations. The pilot study involved three stages. The first stage involved interviews (critical incident analysis) with professionals with respect to the forms of unethical conduct in professional practice. A purposive sample of five professionals each were selected from the core building industry professions often involved in project procurement. The second stage was questionnaire administered to Master of Project Management (MPM) students of the University of Lagos and finally purposive questionnaire survey to 36 consultants and professionals in Lagos State Ministry of Housing to assemble professionals' opinion on the prevalence of identified ethical impropriety and other issues associated with practise.

4.11 Validity and reliability of research instruments

4.11.1 Validity

The research supervisor and two Senior Lecturers in the Department of Building, University of Lagos, did the validity of the content of the research instrument used for this study. Further validation of the content was by some of the respondents in the pilot study conducted among Master of Project Management students of the University of Lagos and practising building industry professionals in Lagos. After the necessary amendments, the final instrument was considered adequate.

4.11.2 Reliability

The Ethics Position Questionnaire (EPQ) developed by Forsyth (1980) has demonstrated acceptable level of internal consistency (Schlenker and Forsyth, 1977; Forsyth, 1980) and has been used in a variety of studies, such as Singhapadi and Vitell (1994), Barnett, Bass and Brawn, (1994), Rawwea and Patzer (1995) and Bass, Barnett and Brown (1999). The Cronbach's Alpha coefficient for idealism scale as reported was 0.683 and 0.825 for the relativism scale. The idealism scale had a Cronbach's Alpha of 0.60 while the relativism scale had a Cronbach's Alpha of 0.82 in the current study. The original scale uses a 9-point Likert type scale but in this study, for simplicity, a 4-point Likert scale ranging from, Strongly agree (4), Agree (3), Disagree (2) and Strongly disagree (1), was used.

4.12 Data analysis

Descriptive statistics of simple percentages, mean, pie chart and bar charts were used in presenting the data collected. Inferential statistics adopted for testing the stated hypotheses included: one-way analysis of variance (ANOVA), t -test statistics, Kruskal - Wallis test and Mann-Whitney U test of significance at 95% confidence interval.

CHAPTER FIVE

RESULTS AND DISCUSSION

5.1 Introduction

This chapter presents the results obtained from the descriptive and inferential analyses of the data gathered for this study. The hypotheses stated earlier were tested using appropriate statistical tools with a view to accepting or rejecting them. The results of other findings were also discussed.

5.2 Presentation of results

From the biographical information of the respondents presented in Table 5.1, the male respondents constitute 86% of the entire population while the female make up the remaining 14%. This agrees with the finding that construction is a predominantly mail dominated profession. A very insignificant proportion of the population are below 21 years old. Those between 21 – 30 years old are 13%, those between 31-40 years old are 34%, those between 41-50 years old are 42% and those above 50 years old are 11%. This shows that majority of the respondents (76%) falls between 31-50 years old. In terms of educational qualification of the respondents, three percent of the respondents are holders of the Ordinary National Diploma (OND), 20% are holders of the Higher National Diploma (HND), 26% are bachelor degree holders and 39% are master's degree holders. This implies that majority of the respondents have adequate educational background. In terms of professionals' work experience in the industry, 10% have less than 5 years experience, 23% have between 6-10 years experience, 33% have between 11-20 years experience, 27% have between 31-40 years experience while a few have above 40 years experience in the industry. This suggests that information provided by the respondents

pertaining ethical issues in the industry could be relied on. On professional affiliation of respondents, 22% are architects, 25% are builders/construction managers, 24% are structural engineers, 22% are quantity surveyors and seven percent are building services engineers. Fifty three percent of the respondents are in client organisations, 29% are in consultancy organisation while the remaining 18 are in contractors' organisations. In terms of' managerial positions of the respondents, those in top managerial position are 44%, 47% are in middle managerial position and insignificant proportion are in junior managerial position. This suggest that majority of the respondents are involved in decision making with respect to project procurement. In terms of professional membership status, 31% are graduate members of their respective professional institutions while 54% are corporate members and few (5%) are fellows of their respective professional institute. This suggest that overwhelming majority of the surveyed respondents (85%) belong to one or more professional association, which have a code of conduct that provides guidelines for business and professional behaviour and ethics.

Table 5.1: Biographical information of all respondents

Category	Classification	N = 192 Frequency	Percentage	Cumulative percentage
Gender	Male	166	86	86
	Female	26	14	100
Age	<21 years	1	0	0
	21-30 years	25	13	14
	31-40 years	65	34	47
	41- 50 years	80	42	89
	>50 years	21	11	100
Educational qualification	OND	6	3	3
	HND	38	20	23
	Bachelors	50	26	49
	PGD	19	10	59
	Masters	75	39	98
	Doctorate	4	2	100
Organization type	Client organisation	102	53	53
	Consultancy organisation	55	27	82
	Contractor organisation	35	18	100
Managerial position	Top	84	44	44
	Middle	104	54	98
	Junior	4	2	100
Industry experience	Less than 5 years	20	10	10
	6- 10 years	45	23	33
	11 – 20 years	64	33	66
	21 –30 years	52	27	93
	31 – 40 years	9	5	98
	Over 40 years	2	1	99
Professional affiliate	Architecture	41	22	22
	Building/construction management	47	25	47
	Civil/structural. Engineering.	45	24	71
	Quantity surveying	40	21	93
	Building Services Engineering	13	7	100
Professional membership status	Non-member	12	6	6
	Student	9	4	10
	Graduate	58	31	41
	Corporate	102	54	95
	Fellow	9	5	100
Religion	Christianity	147	77	77
	Islam	39	20	97
	Traditional	1	0	97
	Others	5	3	100

Descriptive analysis and discussion of the results are presented below.

5.2.1 Nature of ethical impropriety in the Nigerian building industry.

Ethical improprieties that constitute major challenges to professionals in the Nigerian building industry were identified through Critical Incident Technique (CIT). The roles building professionals play in aiding/abetting corruption, contract fraud and other ethical impropriety at the various stages of building procurement based on the critical incident survey are summarised below.

5.2.1.1 Design and project documentation stage

Professionals' expertise is very essential at the early stage of a project. They are involved at the planning stage in setting the project technical parameters, preliminary cost estimate and then advise the client on the choice of contractors. These functions involved a significant degree of judgment and discretion, which are often abused for personal gain. The most common ethical impropriety at the design and preliminary cost estimation stage include:

(i) Over design: Professionals (structural engineer, electrical and mechanical engineers) may over-specify the quantity of components of a project, structural steel for example. Sometimes with the knowledge of the contractor (pre-arranged winner of the contract), these components are under-priced by the contractor who latter gets the contract (because the bids are lower compared to the other competitors). However, during the execution, less than the specified quantity of components (but adequate for safety and performances) are incorporated in the project and the cost of the design excess is shared between the contractor and the consultant. If however, the design excess is detected by

the client, during valuation, the excess is under valued and the contractors pocket the difference and give the professional a bribe.

(ii) Inadequate quality communication: Sometimes, design quality is not properly communicated to the site team. Ambiguity deliberately included in the design documents by the professional (architect or engineer) creates enormous opportunities for corruption. Statements such as "... to architect or engineer satisfaction" are subjective and often misinterpreted on site. Sometimes, vital aspects of the design are deliberately omitted from the document to create design variation during construction. The contractor prices these variations very high and the professional gets a bribe.

(iii) Deceptive designs: Most projects require approval, which are usually controlled by the regulatory agencies. Design professionals often make double design documents – one for approval purposes and the other for construction. This is meant to avert development levies and other fees charged by the government. The fees are based on the volume of work, floor and wall area in the proposed project. The one eventually used for construction often fall short of planning regulations and construction standards.

(iv) Bias design to restrict competition. In some instance, a design professional that undertake the design for a client may design the project to favour a specific technology that he knows only one or a few contractors or suppliers can provide thereby restricting competition among other contractors or suppliers usually in exchange for a bribe or future patronage from such contractor/supplier.

(v) Over measurement of quantities: This is applicable to both new works and maintenance or re-construction works. Most times, the quantities of various trade items are over measured in the bill of quantities. For example, instead of 50m^3 of concrete, the

professional may specify 70m³. Instead of 20m² of 3mm thick bituminous felt, he may specify 20m² of 5mm thick bituminous felt. The additional cost of this deliberate quantity might run to millions of naira because the cost of materials and labour as well as the contractors mark up (percentage profit) will be considered in building up the rates. For example, 50kg bags of cement required for additional 20m³ at ratio 1:3:6 will be N80 bags at N1, 300 = 136,000 Naira. This is often shared between the professionals and the contractor on pre-agreed percentage.

(vi) Cost inflation: Some projects involved demolition, renovation or conversion work, which involves measurement of various spot items. Sometimes, professionals inflate the labour cost or the cost of such spot item. The contractor gets the money and give a bribe to the professional

5.2.1.2 Pre-qualification of contractors, tendering procedure and award of contract stage.

The common ethical impropriety at the pre-qualification of contractors, tendering procedure and award of contract stage include entry barriers, revealing privileged information, accepting gifts and other unethical practices.

i. Entry barriers: In most public sector procurement of building projects, firms are required to undergo pre-qualification before bidding in tender. Criteria for pre-qualification may include adequacy of firm's resources (professionals in the contractors' full time employment, plant/equipment ownership), technical experience in similar projects, claim history and so on). Sometimes, such pre-qualification

requirements are used by professionals to erect entry barriers to favour one firm at the expense of the others in exchange for a bribe. Sometimes, professionals write favourable reports on firm's claim of competence and experience without actually verifying such claims usually in exchange for a bribe.

ii. Revealing privileged information: Sometimes, privileged information is revealed by professionals to competing tenderers for a fee. Such information may include the list of firms competing for a particular contract and their mark up, revealing detail of other competitors' priced tender to favourite contractors so that they can reduce their bid and win the contract.

iii. Accepting gifts and entertainment: Gift-giving is part of African culture. In some parts of the world especially in Africa, gifts are used to build or restore relationships. However, the motives for some costly gifts and or entertainment in the procurement process are quite clear, that is to bribe. Sometimes, professionals indirectly solicit for gifts or are offered gift and or entertainment for ulterior motives by contractors.

iv. Other unethical practices at the tendering and award of contract stage include:

a. Accepting tender after closing date

b. Allowing a contractor to submit more than one tender with different company names.

c. Bias in tendering evaluation in favour of desired contractor.

5.2.1.3 Building construction and final account stage

Common ethical impropriety at the production and final account stage include:

i. Over measurement of variation: It is rare for a contract to be completed in precisely the same form as originally agreed. Changes to the initial design or construction method may be necessitated by error in the original design, intervening circumstances such as unknown ground condition and client's decision to change the requirement after the start of the project. These changes are usually reflected as variation (or change order) to the contract document. Since design and material variation are subject to re-measurement and the quantity surveyors have to determine a fair rate for the new item in the variation, sometime, extra rates, over and above the 'fair rate' are added in connivance with the contractor who gets the money and give the professional a bribe.

ii. Wilful oversight: Sometimes, professionals ignore bill of quantity items not executed by the contractor for a bribe. In some cases, cheaper substitute materials (which may or may not adversely affect the safety and performance of the project) are allowed by the professionals in exchange for a bribe. When a contractor deliberately reduce the quantity of materials on site or where specifications are not strictly adhered to, it is obvious that professionals ignored it after a bribe has changed hand.

iii. Falsification of documents: Sometimes, the planned project time has to be "crashed" (reduced) because the client wants to take possession of the project earlier than planned. At such times, labour and plants/equipment have to work longer hours and the cost of this "crashed" period is estimated on a day work basis. The values of day work account are sometimes inflated by professionals.

5.2.2 Level of unethical practices within the Nigerian building industry

Respondents were asked to compare the level of unethical conduct within the building industry before and after 1999 by indicating 'on the increase', 'on the decline' and 'no difference'. The year 1999 is significant in the history of Nigeria because it marked the year of transition from military rule to democratic governance.

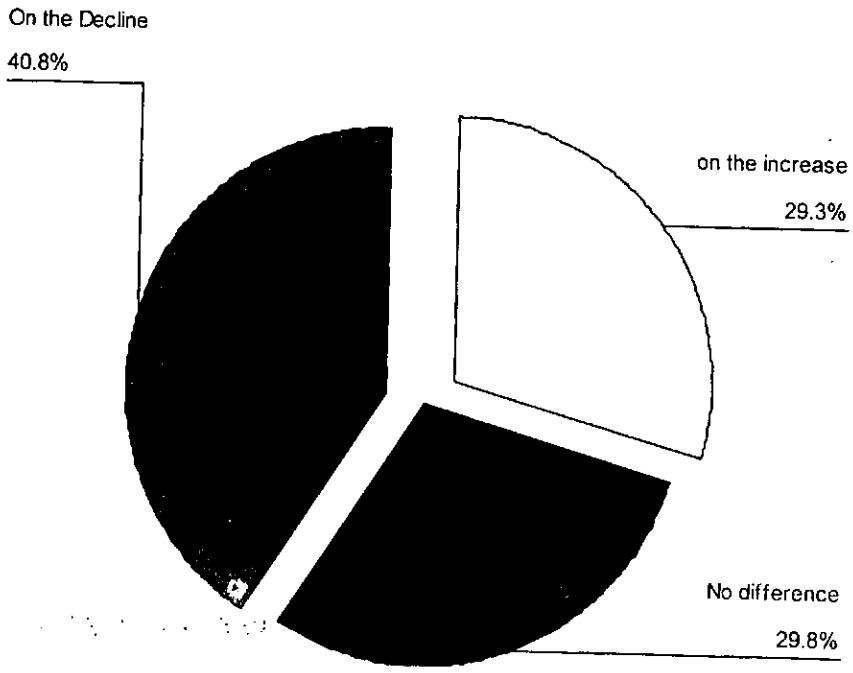


Figure 5.1: Perception of level of unethical conduct within the building industry before and after 1999

During the military rule (pre-1999), there was no separation of power between the legislative arm and the executive arm of government. The discretionary power of military administrators in exercising both executive and legislative powers hinders transparency of the procurement process. The result indicates that there is a sharp divide in the opinion of respondents regarding the level of unethical practice within the Nigerian building industry before and after 1999. About 41 % of the respondents as shown in Figure 5.1 hold the view that the level of unethical practices has decline since 1999 (post military era).

Further comparative analysis between the demographic variables of the respondents indicates that there is no variation in the perception of professionals regarding the level of

unethical practices within the building industry. The F-statistics for (age, educational level, organization type, management position, industry experience, profession and professional membership status) are 1.058, 0.642, 2.790, 0.183, 0.077, 0.276 and 0.415 respectively. This means that there is no difference in respondent's opinion on the level of unethical practices in the industry.

This finding may be connected with the remarkable improvement in public procurement system in the country since the establishment of the Budget Monitoring and Price Intelligence Unit (BMPIU), popularly called 'Due Process Office'. The BMPIU was designed to act as the clearing-house for all government contracts and procurement of goods and services. The primary aim of the unit is to prevent corruption arising from the processes involved in procurement of capital and minor capital projects as well as associated goods and services. Other anti-corruption agencies established by Chief Olusegun Obasanjo led government between May, 1999 and May, 2007 include the Independent Corrupt Practices and other related offences Commission (ICPC) and the Economic and Financial Crimes Commission (EFCC). Part of the reasons for granting Nigeria debt forgiveness by the Paris Club is the commendable renewed drive to curb corruption at all levels in the country and for transparency in government affairs.

About 29% of the respondents perceived that unethical practices are on the increase since 1999. About 30% opined that there is no difference in the level of unethical practices between the two eras. The obvious reason for these responses might be the frequent negative report on the mass media and the shocking revelation from the on-going national

assembly probe of national power project between May 1999 and May 2007. Besides, the fact that not all public contracts pass through the due process (e.g. Ministry of Defence contracts) and the fact that the due process office (BMPIU) is yet to extend the public procurement reforms to all states and local government areas in the country (which both shares about 52% of the resource from the federation account).

The result is similar to what was obtained by Fan *et al*'s (2001a) where a very slight decline in ethical standard was reported by senior members of Hong Kong quantity surveying professional institute and moderate decline by junior members and younger age group. On the contrary, Ssegawa and Abueng (2006) reported that contractors perceived that the level of unethical behaviour in Botswana construction industry was below acceptable level. A similar study by Pearl, Bowen, Makanjee, Akintoye, and Evans, (2005) also reported an increase of 32% in collusive tendering practice in the last ten year (1994-2004) with only 4% (all contractors) are of the opinion that the practice has decreased within the same period in South Africa.

5.2.3 Pressure faced by professionals to engage in unethical conduct

Respondents were asked to indicate whether they have experienced any pressure to act unethically during professional practice and to indicate the extent of pressure they face to act unethically on the job. The result is presented Table 5.2

Table 5.2: Pressure to engage in unethical conduct

Profession	N	Mean	Rank
Builder/Construction Manager	47	2.57	1
Architect	40	2.45	2
Quantity Surveyor	40	2.40	3
Structural Engineer	45	2.18	4
Services Engineer	13	2.31	5
Total	191	2.38	

Table 5.2 shows that, the Builder/Construction Manager faces the greatest pressure to act unethically on the job, followed by the architect and lastly, the services engineer. In Nigeria, before the passage of the bill on National Building Code and the subsequent public presentation of the National Building Code in February 2007, there was no restriction on which of the building professionals is qualified to undertake building production management services. On a typical construction site, any of the building professionals may undertake professional services related to building production, hence all unethical practices associated with contracting organisations is not limited to the builder or construction manager charged with the responsibilities of building production management in the recently approved National Building Code.

Pressure to act unethically may be self-imposed, from the project team members, the public office holders, politicians or the main contractor or specialist sub-contractors. The builder who is often referred to as the contractor (because he is mostly engaged in the contractor's team) may be under pressure to bribe, indulge in other unethical tendering practices to win the contract for the survival of his business. Further analysis revealed that 15.6% of the respondents were greatly under pressure to act unethically on the job, 57.7% faces slight pressure while 22.6% have never been under any pressure to behave unethically.

Respondents at the middle managerial level feel the greatest pressure to engage in unethical conduct. The unethical practices of ones colleagues and superior may put one under intense pressure to act unethically. The result is consistent with Chan *et al's* (1987) study, which indicates that individual behaviour within the organisation is most likely according to group norm or corporate culture. Bailey *et al.* (1991) buttressed this by asserting that individuals are likely to behave according to the group norms even though this may go against what they would do outside of the group setting. Halbesleben (2002) cited in Halbesleben, Buckley and Sauer (2004) assert that pluralistic ignorance and its associated feelings of deviance behaviour lead a person to internalise the misperceived group norm. This suggests that individual think, "if you can't beat them, join them" and simply adopt the group norm. This is because orders given by the superior officer have to be carried out by the sub-ordinates irrespective of the ethical implications. The activities of public office holders and politician can contribute to the pressure on professionals to indulge on ethical impropriety. This is evident in cases were the builder knows that the contract has been awarded for a certain amount but is required to deliver the same product at an amount far below the awarded figure.

5.2.4 Self- assessment of ethical impropriety

Table 5.3 presents a self-confessed appraisal of professional's ethical retrogression.

Table 5.3: Self- assessment of ethical impropriety of professionals

Frequency of involvement	Number of respondents	Percentage
Very often	3	2
Often	13	6
Sometimes	45	24
Rarely	78	41
Never	52	27
Total	191	100

The result presented in Table 5.3 shows that only two percent of building industry professionals are regularly involved in ethical impropriety, 24% admitted been occasionally involved in unethical conduct, 41% admitted that they are involved occasionally and the remaining 27% denied ever been involved in any act connected to unethical conduct. This is expected, as with any study of deviant behaviour, which uses a self-report questionnaire approach, underreporting due to social desirability is a concern (Edwards 1957 cited in Harding, Passow, Carpenter and Finelli., 2003). This is in spite of the fact that respondent's names were not required in the survey questionnaire.

5.3 Prevalence of ethical impropriety in the procurement of building project

Descriptive data and analysis of the prevalence of each identified ethical impropriety in the procurement of building project as perceived by professionals in the various construction organizations (client organizations, consultancy organizations and contractor organizations) are presented in Table 5.4. Corruption and other ethical lapses may take place at any stage in the procurement of building projects. The extent of corruption is magnified by the monetary value or size of project and the complexity of the project.

Table 5.4: Prevalence of ethical impropriety in the building industry ranked by organisation types based on procurement phase.

Ethical impropriety	Client org. N = 102		Consultancy org. N = 55		Contractor org. N = 35		Overall	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Design and Contract documentation stage								
Making undue allowance for provisional & prime cost sum in bills	3.18	1	2.76	1	3.04	1	3.09	1
Poor communication of quality standard to site personnel	2.91	3	2.72	2	2.88	3	3.03	2
Inflating quantities of measured items in bills	3.03	2	2.65	3	2.90	2	2.89	3
Intentionally withholding production information which result in variation	2.55	4	2.22	4	2.40	4	2.29	4
Tampering with tender figure in favour of desired contractors	2.48	5	2.11	5	2.34	5	2.26	5
Contractor pre qualification								
Non adherence to pre-qualification guidelines	3.51	1	3.16	1	3.42	1	3.57	1
Bias in recommendation of contractor during pre –qualification	3.25	2	2.91	2	3.12	2	3.09	2
Writing favourable report on contractors' claim of competence without verification	3.25	2	2.73	3	3.02	3	2.83	3
Tendering procedure and award of contract stage								
Awarding contract to friends/acquaintances/companies in which they hold interest	3.52	1	3.17	1	3.45	1	3.66	1
Award of contract to unqualified contractor based on relationship	3.08	4	2.42	5	2.88	3	3.06	2
Bias in tender evaluation in favour of desired contractor	3.16	3	2.64	2	2.97	2	2.97	3
Requesting and accepting gratification before awarding contract	2.86	5	2.50	3	2.76	5	2.86	4
Allowing a contractor to submit more than one tender with different company names	3.21	2	2.28	7	2.86	4	2.76	5
Accepting tender after closing date	2.57	7	2.30	6	2.52	7	2.69	6
Revealing estimates to desired contractor	2.79	6	2.45	4	2.67	6	2.63	7
Building construction and final account stage								
Inflating prices of items of fluctuations	3.05	1	2.69	1	2.91	1	2.83	1
Over measurement of day works, variation etc	2.90	2	2.65	2	2.79	2	2.69	2
Indirectly requesting for gratification before carrying out professional duties	2.40	5	2.17	4	2.36	5	2.54	3
Concealing bill item not executed by contractors	2.73	3	2.24	3	2.54	3	2.46	4
Turning blind eyes on defective workmanship	2.55	4	2.06	5	2.37	4	2.31	5
Approving or allowing poor quality/inappropriate materials	2.31	6	2.04	6	2.19	6	2.09	6

Table 5.5: Order of prevalence of ethical impropriety in the procurement of building project.

Ethical impropriety	Very frequent	Frequent	Sometimes	Seldom	Never	N	Mean	Rank
Award of contract to friends/company in which professionals hold interest	32	81	34	26	17	190	3.45	1
Non adherence to pre-qualification guidelines in favour of a desired contractor	30	67	61	22	12	192	3.42	2
Bias in recommendation of contractors during prequalification	29	47	59	30	26	191	3.12	3
Making undue allowance for provisional/prime cost sum	15	54	64	36	20	189	3.04	4
Writing favourable report on contractors without verification	12	59	64	35	22	192	3.02	5
Bias in tendering evaluation in favour of desired contractor/supplier	6	65	62	31	26	190	2.97	6
Inflating prices of items of fluctuations	8	47	78	23	34	190	2.91	7
Inflating quantities of measured bill item	18	45	61	33	34	191	2.90	8
Award of contract to unqualified contractor based on relationship	19	47	56	31	38	191	2.88	9
Poor communication of quality standard to site personnel	11	42	68	49	19	189	2.88	9
Allowing more than one tender submission	15	47	54	39	32	187	2.86	11
Over measuring of day works etc	5	41	81	33	29	189	2.79	12
Requesting and accepting gratifications before award of contract	16	41	56	33	43	189	2.76	13
Inflation of quantities during re-measurement of provisional quantities	3	48	68	27	46	191	2.67	14
Revealing estimates to desired contractors	11	32	68	44	37	192	2.67	14
Concealing bill item not executed by contractors	9	28	67	40	47	191	2.54	16
Accepting tender after closing date	7	25	60	65	33	190	2.52	17
Intentionally withholding production information which result in variation	1	27	60	59	41	188	2.40	18
Turning blind eye on defective work/bad workmanship	7	19	63	50	52	191	2.37	19
Indirectly requesting for graft before carrying out professional services	7	31	46	47	60	191	2.36	20
Tampering with tender figure	4	24	55	56	51	190	2.34	21
Approving or allowing poor quality/inappropriate materials	2	21	56	46	67	192	2.19	22

The results presented in Table 5.4 and table 5.5 indicate that award of contract to friends/company in which professionals hold interest, non- adherence to pre-qualification guidelines in favour of a desired contractor, making undue allowance for provisional/prime cost sum top the list of the most prevalent ethical impropriety identified in the industry. Others include bias in recommendation of contractors during prequalification and writing favourable report on contractors without verification. The result also indicate that non adherence to pre-qualification guidelines in favour of a desired contractor, inflating quantities of measured bill item, inflation of quantities during re-measurement of provisional quantities, tampering with tender figures and approving or allowing poor quality/inappropriate materials are significant at $p<0.05$. This result is consistent with the observation of Koleosho and Gamu (2005) that construction contracts are awarded in Nigeria based on family and social ties. Four out of five of the most prevalent ethical impropriety fall under contractor prequalification, tendering and contract award stage. Professionals in the three different organisations ranked inflating prices of items of fluctuations, awarding contract to friends/acquaintances/companies in which they hold interest, bias in recommendation of contractor during pre–qualification and making undue allowance for provisional and prime cost sum in bills equally.

Alutu (2007) assert that tender prices are often inflated to take care of gratification and kickbacks to contract officers and that contract officers have stake on the jobs they are advising on among others. The result is also in agreement with earlier research conducted in Botswana where tenders evaluation top the list of 12 areas where unethical practice is often encountered (Ssegawa and Abueng, 2006). Non-transparent tender evaluation can

lead to award of contract to a favoured bidder and all other issues such as non-adherence to pre-qualification guidelines in favour of a desired contractor, bias in recommendation of contractors during prequalification, and writing favourable report on contractors without verification are related to tender evaluation. Similarly, Oliver, London and Everingham (2006) reported that lack of transparency in the tender process, cost of tender and poor quality documentation feature strongly among the more significant concern related to ethical behaviour in construction procurement in Australia. Pearl, *et al* (2005) study of professionals' ethics in South Africa indicates that conflict of interest and confidential information infringement are the major areas where professionals' ethical improprieties are commonly witnessed. Vee and Skitmore (2003) described 'professional responsibilities' as been a grey area which may represent unethical practice under certain circumstances.

CIOB (2006) presented a contrary view. A survey of 1,404 respondents across variety of sectors within the UK construction industry indicates that corrupt practices during prequalification and tendering phase and project execution phase were perceived as not very common. Corruption in the operation and maintenance (cost construction) phase was more often viewed as not very common or not at all common. The limitation of CIOB (2006) survey, however, is that there are clear indications of degrees of tolerance to some practices that some would regard as corrupt. For example, practices involving bribes or the concealment of a bribe were most commonly considered very corrupt whereas cover pricing and leaking of information to a preferential bidder was more often seen as only moderately or not very corrupt.

5.3.1 Differences in the perception of organisational groups on the prevalence of ethical impropriety in the industry.

The first hypothesis states, "There is no significant difference in the perceptions of different categories of organisational groups regarding the prevalence of ethical impropriety in the building industry." Table 5.6 shows the result of Kruskal Wallis analysis of the perception of prevalence of ethical impropriety between organisational groups in the building industry. The result indicate that the null hypothesis was rejected for organisational groups with respect to writing favourable report on contractors' claim of competence without verification, bias in tendering evaluation in favour of desired contractor/supplier, turning blind eye on defective work/bad workmanship and concealing bill item not executed by contractors at $p < 0.05$ level of significance.

Table 5.6: Kruskal-Wallis test of significant difference of prevalence of ethical impropriety between organizational types in the building industry.

Ethical impropriety	Organisational group				
	Chi-square χ^2	DF	p-value	Level of Significance	Decision
Non adherence to pre-qualification guidelines in favour of a desired contractor	4.890	2	0.087	Not significant	Accepted H_0
Writing favourable report on contractors' claim of competence without verification	8.525	2	0.014*	Significant	Rejected H_0
Bias in recommendation of contractor during prequalification	2.973	2	0.226	Not significant	Accepted H_0
Making undue allowance for provisional & prime cost sum in bills	5.820	2	0.054	Not significant	Accepted H_0
Inflating quantities of measured items in bills	3.817	2	0.148	Not significant	Accepted H_0
Revealing estimates to desired contractor	4.216	2	0.121	Not significant	Accepted H_0
Tampering with tender figure in favour of desired contractors	5.441	2	0.066	Not significant	Accepted H_0
Accepting tender after closing date	3.113	2	0.211	Not significant	Accepted H_0
Allowing a contractor to submit more than one tender with different company names	21.193	2	0.000***	Significant	Rejected H_0
Bias in tendering evaluation in favour of desired contractor/supplier	8.081	2	0.018*	Significant	Rejected H_0
Awarding contract to friends/acquaintances/companies in which they hold interest	4.328	2	0.115	Not significant	Accepted H_0
Award of contract to unqualified contractor based on relationship	10.660	2	0.005**	Significant	Rejected H_0
Requesting and accepting gratifications before award of contract	3.196	2	0.202	Not significant	Accepted H_0
Poor communication of quality standard to site personnel	2.036	2	0.361	Not significant	Accepted H_0
Intentionally withholding production information which result in variation	5.231	2	0.073	Not significant	Accepted H_0
Over measuring of day works etc	2.336	2	0.311	Not significant	Accepted H_0
Inflating prices of items of fluctuations	2.656	2	0.265	Not significant	Accepted H_0
Inflating quantities of measured bill item	4.408	2	0.110	Not significant	Accepted H_0
Turning blind eye on defective work/bad workmanship	7.621	2	0.022*	Significant	Rejected H_0
Approving or allowing poor quality/inappropriate materials	3.095	2	0.213	Not significant	Accepted H_0
Concealing bill item not executed by contractors	7.087	2	0.029*	Significant	Rejected H_0
Indirectly requesting for gratification before carrying out professional duties	2.628	2	0.269	Not significant	Accepted H_0

'*' Means it is significant at * $p<0.05$, ** $p<0.01$, *** $p<0.001$
H_0 Means null hypothesis

The result of Table 5.6 also shows that the null hypothesis was rejected for award of contract to unqualified contractors based on relationship at $p<0.01$ level of significance.

The null hypothesis was also rejected for allowing a contractor to submit more than one tender with different company names at $p<0.001$ level of significance. The implication of this finding is that there is no significant difference in the perception of the organisational groups regarding the prevalence of the issues mentioned above in the building industry.

5.3.2 Differences in the perception of professional groups on the prevalence of ethical impropriety in the industry

The second hypothesis states, "There is no significant difference in the perceptions of different categories of professional groups regarding the prevalence of ethical impropriety in the building industry." Table 5.7 shows the result of Kruskal Wallis analysis of the perception of prevalence of ethical impropriety between professional groups in the building industry. From Table 4.7, opinion of professional groups pertaining the prevalence of ethical impropriety in the procurement of building projects were shown to have statistical significant difference ($p<0.05$). These are; non-adherence to pre-qualification guidelines in favour of a desired contractor, inflating quantities of measured items in bills, award of contract to unqualified contractor based on relationship, requesting and accepting gratifications before award of contract, inflating quantities of measured bill item, and approving or allowing poor quality/inappropriate materials. Hence, the null hypothesis was rejected for those variables.

Table 5.7: Kruskal-Wallis test of significant difference of prevalence of ethical impropriety between professional groups in the building industry.

Ethical impropriety	Professional groups				
	Chi-square χ^2	DF	p-values	Level of Significance	Decision
Non adherence to pre-qualification guidelines in favour of a desired contractor	11.763	5	0.038*	Significant	Rejected H_0
Writing favourable report on contractors' claim of competence without verification	16.720	5	0.005**	Significant	Rejected H_0
Bias in recommendation of contractor during prequalification	27.380	5	0.000***	Significant	Rejected H_0
Making undue allowance for provisional & prime cost sum in bills	17.898	5	0.003**	Significant	Rejected H_0
Inflating quantities of measured items in bills	13.805	5	0.017*	Significant	Rejected H_0
Revealing estimates to desired contractor	18.024	5	0.003**	Significant	Rejected H_0
Tampering with tender figure in favour of desired contractors	20.132	5	0.001**	Significant	Rejected H_0
Accepting tender after closing date	8.400	5	0.136	Not significant	Accepted H_0
Allowing a contractor to submit more than one tender with different company names	9.362	5	0.095	Not significant	Accepted H_0
Bias in tendering evaluation in favour of desired contractor/supplier	25.913	5	0.000***	Significant	Rejected H_0
Awarding contract to friends/acquaintances/companies in which they hold interest	16.954	5	0.005**	Significant	Rejected H_0
Award of contract to unqualified contractor based on relationship	14.895	5	0.011*	Significant	Rejected H_0
Requesting and accepting gratifications before award of contract	12.544	5	0.028*	Significant	Rejected H_0
Poor communication of quality standard to site personnel	16.728	5	0.005**	Significant	Rejected H_0
Intentionally withholding production information which result in variation	6.356	5	0.273	Not significant	Accepted H_0
Over measuring of day works etc	6.877	5	0.230	Not significant	Accepted H_0
Inflating prices of items of fluctuations	15.215	5	0.009**	Significant	Rejected H_0
Inflating quantities of measured bill item	12.887	5	0.024*	Significant	Rejected H_0
Turning blind eye on defective work/bad workmanship	7.711	5	0.173	Not significant	Accepted H_0
Approving or allowing poor quality/inappropriate materials	11.225	5	0.047*	Significant	Rejected H_0
Concealing bill item not executed by contractors	4.511	5	0.478	Not significant	Accepted H_0
Indirectly requesting for gratification before carrying out professional duties	9.216	5	0.101	Not significant	Accepted H_0

'*' Means it is significant at * $p<0.05$, ** $p<0.01$, *** $p<0.001$
H_0 Means null hypothesis

Similarly, opinions pertaining to writing favourable report on contractors' claim of competence without verification; making undue allowance for provisional and prime cost sum in bills; revealing estimates to desired contractor, tampering with tender figure in favour of desired contractors were shown to have statistical significant difference ($p<0.01$). Others include awarding contract to friends/acquaintances/companies in which they hold interest; Poor communication of quality standard to site personnel; and inflating prices of items of fluctuations. Hence, the null hypothesis was rejected for those variables. Furthermore, Bias in tendering evaluation in favour of desired

contractor/supplier and bias in recommendation of contractor during prequalification were also rejected at $p<0.001$ level of significance. The implication of this finding is that there is no significant difference in the perception of the respective professional groups regarding the prevalence of the issues mentioned above in the building industry.

5.4 Ethical behaviour of Nigerian building industry professionals

5.4.1 Violation of professional code of ethics by project team members.

The respondents were asked to indicate how frequent they observed ethical violation or unethical conduct among project team members in the building industry.

Table 5.8: Violation of code of ethics by project team members

Profession	Number of respondents	Mean	Rank
Quantity Surveyor	40	2.85	1
Builder/ construction manager	47	2.85	1
Architect	41	2.73	3
Services Engineer	13	2.69	4
Structural Engineer	45	2.62	5

The result presented in Table 5.8 indicates that virtually all of the building industry professionals involved in the procurement of building projects have witnessed ethical violation among their project team members or colleagues. It is interesting to note that the quantity surveyor and the builder ranked the same (mean = 2.85). Independent sample T-test for equality of mean show that $F = 3.549$, P value = 0.063. $P< 0.05$ hence there is no statistically significant difference between the two mean.

In South Africa, Bowen, Pearl and Akintoye (2007) reported that 78% of the respondents in their study experienced one form of breach of professional responsibility or another.

Interestingly, builders/construction managers and quantity surveyors have observed significantly greater (mean = 2.85 respectively) violations of professionals' ethical responsibilities than the other professions. In South African study, quantity surveyor experienced greater violations in professional responsibility and this was attributed to their greater contact with both upstream (clients and other consultants) and downstream (contractors, suppliers, subcontractors) participant in the construction supply chain (Bowen, Pearl and Akintoye, 2007). There is a saying "if you can not beat them, join them" meaning that project team members can be influenced by the negative attitude of other colleagues. The ethical behaviour of a professional will likely be influenced if other project team members are involved in unethical conduct and more so if such team members are superior or senior colleagues. This finding is highly disturbing and may account for the high cost of construction contract, high level of frequent maintenance works required and infrastructural decay because of shoddy jobs. This has consequently resulted in failed structures in extreme cases. The nature of ethical violation common to each of the building professional groups includes:

The architect who often serves as the leader of the building or project team depending on the nature of the project is usually commissioned to design the building and supervise its construction. He is also involved in the process of selection of various professionals for consultancy jobs and sub-contracting. Unnecessary rush, over design, inadequate detailing on the part of the architect often results in variation at latter stages of project implementation. The architect sometimes offer a fee to client's representatives in order to secure their selection, display favouritism in project operatives selection, connive with

contractor to defraud the client through variation/change order just to mention but a few. At the end, neither the architect nor other project team members can guarantee the expected quality or safety of the structure been erected.

The quantity surveyor predetermines the contractual sum during the tendering process. He is also involved in bid evaluation, and sometimes carrying out interim valuation of project for stage payment, valuation of variation in design/specification and determining fare rates for item of fluctuations among other duties in the procurement of building project. Poorly prepared bills of quantities and over measurement of quantities of cost significant item in bills is a common practice among quantity surveyors as the cost economist. Improper cost control may lead to loss of project funds. The consequence of such action is project abandonment or poor quality of the final product.

The structural engineers and the services engineers (electrical and mechanical services) are involved at the design stage and in supervision. Structural Engineer sometimes over design and because of the concealed nature of most components (structural steel, electrical conduit and mechanical fittings), the material quantities are reduced during execution and in connivance with other project contractor, cost of the excess is pocketed.

The builder who is mainly in the contractors' team is one of the most important parties to a building contract and normally has full control of all operations on site. He is usually involved in the process of sub-contracting, material acquisition and employment of artisans and unskilled labour. Deliberate non-adherence to design specification, purchase

of inferior materials at inflated prices, employment of unqualified sub-contractors, kick-back demand from sub-contractors and underpaying workforce which is common among builders can have a multiplier effect on the cost and quality of the project.

5.4.2 Professionals ethical ideology.

Ethics position questionnaire (EPQ) developed by Forsyth (1980) was used, to measure ethical ideologies and moral philosophy held by sampled building industry professionals. It is well accepted that moral philosophy or ethical ideology influences an individual's reasoning about moral issues and consequent behaviour (Fritzsche and Becker, 1984). Forsyth's taxonomy indicates that individuals may adopt one of four different approaches to making ethical judgments: situationism, absolutism, subjectivism and exceptionism. The maximum score an individual can attain for either idealism or relativism subscale is 40. A scale of between 28 and 40, i.e. 70% and above is considered high for both idealism and relativism while any score below 20, i.e. 50% is considered low for both subscales. An individual that is both high in idealism and relativism is considered a situationist, while an absolutist is one with high score in idealism and low score in relativism. The analysis of the result is presented in Table 5.9

Table 5.9: Ethical ideology of professionals involved in the procurement of building projects.

Profession	N	IDEALISM		RELATIVISM		ETHICAL POSITION			
		High	Low	High	Low	SITUATIONIST		ABSOLUTIST	
		Percentage		Percentage		N	%	N	%
Architect	39	100	0	74	26	29	74	10	26
Builder/Construction Manager	42	100	0	79	21	33	79	9	21
Quantity Surveyor	38	100	0	82	18	31	82	7	18
Structural Engineers	44	100	0	73	27	32	73	12	27
Services engineers	13	100	0	100	0	11	85	2	15
Total	176	100	0	77	23	136	77	40	23

Table 5.9 presents the ethical ideology of all respondents according to Forsyth's taxonomy. The result indicates that overwhelming majority of the respondents 77% were found to be situationist (high score in both idealism and relativism) while only 23% were absolutist (high scores in idealism and low scores in relativism). Further analysis within the high idealism category revealed that the entire respondents (100%) had over 70% score of idealism between 28 and 40.

A situationist is an individual who endorse an ideology related to moral philosophy known as ethical skepticism. An idealistic skepticism according to Fletcher 1966 (in Forsyth, 1980) focused on "a contextual appropriateness – not the 'good' or the 'right' but the 'fitting'" with all action based on 'agape' or love of others. Situational factors that can exert tremendous influence on professional ethical behaviour in Nigeria are many. These include: delay in paying professionals fees as at when due, request for a bribe by government official from professionals before their professional fees are processed for payment, attitude of public office holders in corruptly enriching themselves through inflated contract figure just to mention but a few. These may be a justification to engage in unethical practises.

The absolutists on the other hand agree with statements that are consistent with a general approach to moral philosophy known as deontology. Moral absolutist is of the belief that all of morality consists in inflexible axiomatic principles, which must be followed exactly. This ethical perspective implies that any professionals' proposed course of action (which adversely affects the project quality, cost and time) that is not widely acceptable

or that cannot be will as a universal law that applies to all professionals in all situations at all times is unethical.

A handful of studies have used Forsyth (1980) EPQ in Asia. Singhapakdi, Vitell and Leelakulthanit (1994) found Thai managers to be high in moral idealism. Davis, Johnson and Ohmer (1998) found Indonesian MBA students to score high on relativism, while US respondents scored high on idealism. Lee and Sirgy (1999) found Korean managers were higher on idealism than US managers were. Relativism was not significantly different between the two groups. Redfern (2005) found Chinese managers in highly industrialised region to be high on both the idealism and relativism dimension.

Researchers have found that idealists are more likely to recognise morally questionable behaviours as ethical issues (Bowes-Sperry and Powel, 1999 in Henle *et al.* 2005) and have greater perceptions of moral intensity, which refers to the extent that a situation is perceived as having an ethical component (Singhapakdi, 1999). In addition, idealists perceive the importance of ethics in achieving organisational effectiveness (Singhapakdi, Kraft, Vitell and Rallapalli, 1995) and are more likely to exhibit higher levels of honesty and integrity (Vitell *et al.*1993) as well as perceived ethics and social responsibility as more important than less idealistic individuals (Singhapakdi, *et al.* 1995).

5.4.3 Differences in ethical ideology of professional groups in the industry

The third hypothesis states, "There is no significant difference in the ethical ideologies of different categories of building professionals." One-way analysis of variance (F-test) was

used to test for the significance of difference in the ethical ideology of different professional groups as presented in Table 5.10 and Table 5.11.

Table 5.10: Nigerian building industry professional group's ethical ideology

Building profession	N	Mean	Std. Deviation	Std. Error
Architecture	39	1.51	0.885	0.142
Building	42	1.43	0.831	0.128
Structural Engineering	44	1.55	0.901	0.136
Quantity Surveying	38	1.31	0.741	0.120
Building Services Engineering	13	1.31	0.751	0.208
Total	176	1.44	0.834	0.063

Table 5.11: ANOVA for professionals' ethical ideology

	Sum of Squares	DF	Mean Square	F-statistics	p-value	Level of Significance	Decision
Between Groups	1.298	3	0.433	0.607	0.611	NS	Accepted H_0
Within Groups	111.266	159	0.722				
Total		162					

NS= Not significant at $p<0.05$

Table 5.10 presents the descriptive statistics. The result of one way analysis of variance (ANOVA) presented in Table 5.11 indicates that there is no statistically significant difference in the ethical ideology of different categories of building industry professionals. Hence, the null hypothesis is accepted.

5.5 Factors affecting professionals' ethical impropriety

Respondents were asked to indicate their degree of agreement of 18 factors believed to influence ethical behaviour by ticking Strongly agree (assigned 4), Agree (assigned 3), Disagree (assigned 2) and Strongly disagree (assigned 1). The result was analysed using the mean item score and the ranking. Tables 5.12 to 4.13 and figures 5.2 and 5.3 present results relevant to objective four.

Table 5.12: Factors affecting professionals' ethical impropriety in the building industry.

Ethical impropriety influence factors	N	MIS	Ranking
Greed	191	3.41	1
Deterioration of societal values	190	3.30	2
Lack of patriotism	189	3.19	3
Inadequate remuneration for professionals services	191	3.18	4
Profit motives (minimise cost & maximise profit)	191	3.12	5
Fear of uncertainty	191	2.90	6
Need to meet family needs	192	2.84	7
Lack of commitment of professionals/consultants	191	2.84	7
Delay in payment from client	184	2.79	9
Poor/bad project leadership	191	2.78	10
Little recognition for achievement	187	2.66	11
Job pressure	190	2.66	11
Unreasonable demands from clients/his agent	191	2.62	13
Prolonged project duration	189	2.61	14
Bureaucratic process	190	2.61	14
Pressure from project team members	187	2.58	16
Incompetence of contractors/builders	190	2.57	17
Office burden	190	2.53	18

N = Population, MIS = Mean item score

Understanding the underlying causes of certain behaviour is central to improving ethical behaviour in the industry. Results presented in Table 5.12 indicate that greed or inordinate desire for materialism, deterioration in societal values, inadequate remuneration for services rendered, lack of patriotism/attitude to government project and overriding profit motives were ranked top five causes of professionals' ethical lapses in the Nigerian building industry. These five factors were also the first five reasons given in the earlier pilot study conducted among building professionals in public service (Ameh and Odusami, 2005). Alutu and Udhawuve (2005) found that economic pressure followed by societal practice, stakeholder's interest in contract and organisational practice contributed most to unethical practices in Nigeria. This is expected because in Nigeria,

public display of ill-gotten wealth in the form of exotic cars, extravagant housing development, expensive birthday parties and burial ceremonies, to mention but a few by public office holders give one an ambivalent attitude. It also erode one's sense of patriotism towards government projects hence the slogan "national cake" which depicts ones disposition towards government projects. The feeling is that, 'I am getting my own share of what belong to all of us'. The promulgation of Decree No11 of 1976 (Public Officers Protection Against False Accusation) by the then General Olusegun Obasanjo administration, which is still in force under 'public Officers (Special Provisions) Act Cap 381 of 1984 provided cover and immunity for corrupt public servants. Thus, deter members of the public from blowing the whistle on such public figures while in the office. In many cases, chief executive of governmental departments and political office holders award construction contracts to either contractors who are in fact their agents, political 'god fathers' (who facilitated their appointment into such positions). Sometimes, contracts are awarded to reputable multinational construction companies at a highly inflated cost far in excess of the actual project cost and in return, the politicians are given a percentage, which varies from 10 – 30 percent of the approved project cost or other benefits in kind which may include sponsoring their political campaigns. This attitude of public officers lowers societal values to the extent that hard work, honesty, fairness, integrity and other virtues are relegated to the background given way to unfair conducts, unethical business practices, frauds, 'get rich quickly syndrome' and other social vices.

5.5.1 Important constituents affecting ethical decision behaviour

Professionals were asked to rank six parties (self, client, superior, project team members, family and public) in order of their priority of consideration when making ethical decision. The result of the analysis is presented in Table 5.13.

Table 5.13: Professionals' priority in ethics decision behaviour

PROFESSION / PRIORITY	Architect	Rank	Builder	Rank	Structural Engineer	Rank	Quantity Surveyor	Rank	Building Services Engineer	Rank	Overall Mean scores	Rank
Family	4.32	**2**	4.44	**1**	4.07	**2**	4.26	**1**	4.17	**2**	4.27	**1**
Project team members	3.78	**3**	3.70	**3**	4.24	**1**	3.39	**4**	5.00	**1**	3.90	**2**
General public	4.44	**1**	3.19	**5**	3.86	**3**	4.08	**2**	2.83	**4**	3.80	**3**
Boss/Superior	3.20	**4**	3.30	**4**	3.62	**4**	3.59	**3**	3.54	**3**	3.45	**4**
Self	2.78	**5**	3.81	**2**	2.40	**6**	2.87	**5**	2.77	**5**	2.94	**5**
Client/Employer	2.34	**6**	2.23	**6**	2.83	**5**	2.85	**6**	2.42	**6**	2.52	**6**

Table 5.13 shows that building professionals ranked family first and client/employer last in terms of their priority of consideration when making ethical decisions. The architects group ranked general public first and self last, the builder and quantity surveyor groups ranked family first and client/employer last, structural engineer and services engineers ranked Project team member first and client/employer last. The low priority given to client/employer by the builders, quantity surveyors and engineers when making ethical decision is a violation of the code of professional practice as one of its core issues is to 'secure client interest. This also explains the reason for the 'not high' ethical standard of the building industry. Furthermore, the high priority given to self or family members by the builder and quantity surveyor groups indicate that most professionals in these groups are predominantly 'egoist'. Egoism is a term derived from the Latin word 'ego' that means "I". It means making one self the centre of all one's actions, which is

concentrating on oneself or one's interest without regards for other people. Egoism is in-fact, selfishness that manifests itself in callous disregard for the common good or interest of others. Egocentrism can drive people into greed, always looking for the slightest opportunity to 'grab' money whether by fair or foul means. The more a person allows him/her self to be ruled by self-interest, the less moral.

The result of the current study is different from the finding of Fan *et al.* (2001a). In their study of Hong Kong quantity surveyors, the importance of the parties in descending order is employer, self, client, superior, family, colleague and public. In a similar study among UK surveyors, Poon (2004a) reported that client was ranked first, followed by family and superior last.

5.5.2 Influence of religion on ethical behaviour of respondents

This variable attempt to measure the extent professional's ethical decision behaviour at work or project environment are influenced by their religious persuasion.

Table 5.14: Influence of religion on ethical behaviour of respondents

Profession	N	Mean
Architects	41	2.63
Builder/Construction managers	47	2.30
Structural Engineers	45	2.49
Quantity Surveyors	40	2.75
Building Services Engineers	13	2.38
Total	192	

The result indicates that quantity surveyors and architects attitude to work are mildly influenced by their religion, while structural engineers, builders/construction managers and building services engineers' attitude to work are somehow influenced by religion.

5.5.3: Extent of professionals' familiarity with code of conduct

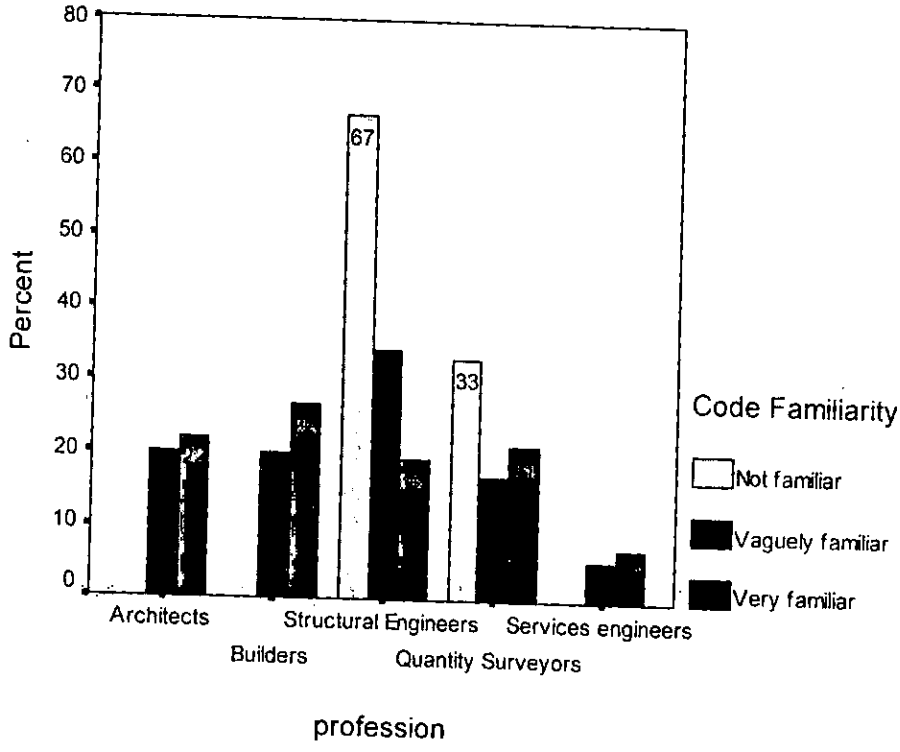


Figure 5.2: Extent of familiarity with Code of professional conduct

Respondents were asked to indicate the extent of familiarity with the code of professional conduct of their respective professions. The result presented in a bar chart (Figure 5.2) indicates that 67% of structural engineers and 33% of quantity surveyors are not familiar with the professional code of conduct of their respective profession. Twenty percent of architect and builders respectively, 34% of structural engineers and 17% of quantity surveyors are vaguely familiar with the code of professional conduct of their respective profession.

5.5.4 Association between ethical influence factors and professionals' ethical ideology

The forth hypothesis states, "There is no association between ethical influence factors and professionals' ethical ideology." Mann-Whitney U test was used to test for association between ethical influence factors and ethical ideology of professionals as shown in Table 5.15.

Table 5.15: Mann-Whitney U test between ethical influence factor and ethical ideology

Demographic variables	Mann-Whitney U	Wilcoxon W	Z	P<0.05	Level of significance	Decision
Gender	2152.500	10027.500	-1.076	0.282	NS	Rejected H_0
Age	2130.500	10005.500	-0.774	0.439	NS	Rejected H_0
Educational level	2066.000	9941.000	-1.030	0.303	NS	Rejected H_0
Management position	2227.500	2930.500	-0.388	0.698	NS	Rejected H_0
Industry experience	2241.000	2944.000	-0.297	0.767	NS	Rejected H_0
Religion	2160.000	10035.000	-0.833	0.405	NS	Rejected H_0

NS= Not significant at $p<0.05$

Mann-Whitney U Test indicate that there is no association between any of the ethical influence factors and ethical ideology and hence the null hypothesis is accepted. It is well accepted that moral philosophy or ethical ideology (beliefs, values and attitudes) influences an individuals reasoning about moral issues and consequent behaviour. The practical implication of this finding is that there is no association or connection between individual beliefs or attitudes toward decision making and demographic factors such as gender, age, education, religious persuasion that is said to influence ethical behaviour.

5.5.5 Sanctions for breach of professional ethics

Table 5.16 presents findings on the numbers of professionals in the various professional institutes who were sanctioned for breach of professional ethics.

Table 5.16: Number of professionals sanctioned for breaching professional ethical rules

Professional Misconduct	Sanctions	1998-2002 (5 years)				2003-2007 (5 years)				TOTAL
		QSRBN	CORBON	COREN	ARCON	QSRBN	CORBON	COREN	ARCON	
UNFAIR PROFESSIONAL CONDUCT	Warning		-	NA	NA	-	-	NA	NA	
• Bribery	Suspension	-	1	NA	NA	-	-	NA	NA	
• Corrupt practises	Withdrawal of licence	-	-	NA	NA	-	-	NA	NA	
• Financial misappropriation										
• Others	Others	1	-	NA	NA	-	-	NA	NA	
CONFLICT OF INTEREST	Warning	-	-	NA	NA	-	-	NA	NA	
• securing contract for self or relatives with ones official position	Suspension	-	-	NA	NA	-	-	NA	NA	
• direct competition with ones employer	Withdrawal of licence	-	-	NA	NA	-	-	NA	NA	
• Others	Others	-	-	NA	NA	-	-	NA	NA	
CONFIDENTIAL INFORMATION INFRINGEMENT	Warning	-	-	NA	NA	-	-	NA	NA	
* Divulging trade secret to third party	Suspension	-	-	NA	NA	-	-	NA	NA	
• using employers confidential information for self benefit	Withdrawal of licence	-	-	NA	NA	-	-	NA	NA	
• Others	Others	-	-	NA	NA	-	-	NA	NA	
PROFESSIONAL INCOMPETENCE	Warning	-	-	NA	NA	-	-	NA	NA	
• Dishonest dealing with client	Suspension	-	-	NA	NA	-	-	NA	NA	
• Undertaking work for which they lack the expertise	Withdrawal of licence	-	-	NA	NA	-	-	NA	NA	
• Negligence & carelessness										
• Others.	Others	1	-	NA	NA	-	-	NA	NA	

Source: QSRBN- Quantity Surveying Registration Board of Nigeria.
CORBON- Council of Registered Builders of Nigeria.
COREN- Council for the Regulation of Engineering in Nigeria.
ARCON- Architect Registration Council of Nigeria.
NA - information not available

Archival information regarding breach of professional ethics in the practice of building professions in the past 10 years indicate that not much has been done in terms of discipline and sanction of erring professionals despite the endemic nature of ethical impropriety. The data presented in Table 5.16 shows that only two cases of professional ethical breaches were brought before the Quantity Surveying Registration Board of Nigeria. One was a case of financial misappropriation in 1994 in which the member was asked to make refunds. The second case, which is on carelessness and professional negligence, is ongoing and decision is yet to be reached. One case of unfair professional practice was brought before the Council of Registered Builders of Nigeria (CORBON) 1998. The member after investigation was placed on suspension. This calls for a separate body, independent of the professional bodies, which should be responsible for receiving petitions, investigating and sanctioning erring members.

5.5.6: Extent of clarity of code of conduct contents

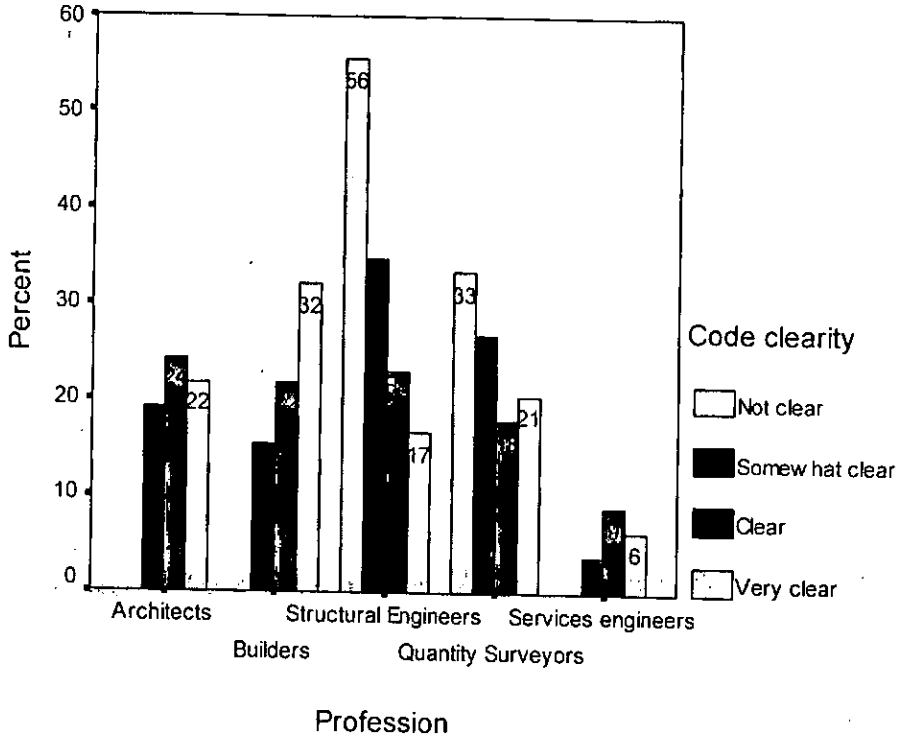


Figure 5.3: Extent of clarity of professional code of conduct content

The result of Figure 5.3 indicates that 56% of structural engineers and 33% of quantity surveyors said the content of their professional code of conduct is not clear. When codes of conduct subject matters leave large areas of interpretation and judgment, then it no longer serve as a guide or reminder in specific situations.

5.6 Professionals' perception of bribery in the building industry

5.6.1 Forms of bribery in the building industry

Respondents were asked to indicate the more common form of bribery in the building industry. Descriptive analysis of the result is presented Table 5.17.

Table 5.17: Common forms of bribery in the building industry

Forms of bribery	Number of respondents	Percentage	Rank
Financial	174	91	1
Non-financial	18	9	2
Total	192	100	

Table 5.17 presents the two major forms of bribery in the building industry. Overwhelming majority 91% of the respondents says financial form of bribery is more common while a small proportion of the population (9%) says non-financial bribe is more common. Financial bribes are often in the form of direct payment to the recipients or his agent or payment made through political parties of the recipients or payment and or unsolicited gifts to a close relative (friend, spouse, children etc) of the recipients. It may also come in the form of payment from the contractor or his representative to the consultants to ignore the project quality specifications in exchange for cheaper materials whose quantity may not adversely affect the structural stability of the product, or to inflate value of interim valuation or design variation/additional works. Those in the junior to middle level managerial positions are often the target/recipient of financial bribes. Non-financial bribe, which may be in the form of a promised future contract, gifts, sponsoring of birthday party and or entertainments or an 'all expenses paid' holiday abroad, usually has a higher monetary value in comparison to the financial bribe. A non-financial bribe which is common among the top public office holders (e.g. Directors, Ministers, State Governors, Vice Chancellors, the President, e.g.) is considered less common. This is because these categories of public office holders will not accept financial bribe for security reasons. In either case, the bribe may be received directly or indirectly. Such bribes usually are from the consultant either to the client or his agent to secure their continuous patronage or from the contractor to the client representatives or

project consultants. More often than not, the costs of such bribes are built into the contract cost or are recouped by the contractor through variation in design or specification.

5.6.2 Frequency of bribery incidences in the building industry

The research sought to find out the frequency professionals observed bribery incidence in the building industry. The analysis is presented in Table 5.18.

Table 5.18: Bribery incidence in the building industry

Frequency	Number of respondents	Percentage	Rank
Sometimes	69	36	1
Often	46	24	2
Rarely	37	19	3
Very often	30	16	4
Never	10	5	5
Total	192	100	

The result presented in Table 5.18 shows that 36% of building industry professionals occasionally observe bribery incidences in the procurement process, 16% observe bribery incidences more often while the percentage of professionals who had never observe bribery incidence in the procurement process was only five percent. This implies that the incidence of bribery in the Nigerian building industry is endemic. In an opinion survey of South African architects, quantity surveyors, engineers and contractors regarding ethical behaviour within the construction industry, Bowen et al. (2007) reported that 41% of the respondents had witnessed or experienced bribery in the work place while Vee and Skitmore (2003) reported 26% in an Australian survey. CIOB (2006) survey of UK

construction professionals indicates that 41% had been offered a bribe on at least one occasion.

5.6.3 Bribe perception index of professionals

An important step in the fight against corruption is to identify those who are engaged in (or most susceptible to) corruption. Since corruption usually leaves no paper trail (receipt), perceptions of corruption based on individuals' actual experiences are sometimes the best, and the only available information. The research sought to find out which of the construction professional groups is most susceptible to receiving bribes/gratification. The result is presented in Table 5.19.

Table 5.19: Bribery perception index of building professionals

Professional	N	Mean	Rank
Quantity Surveyor	191	3.28	1
Builder/Construction Manager	191	2.87	2
Architect	191	2.73	3
Structural Engineer	191	2.67	4
Services Engineer	191	2.28	5

The perception-based measure of corruption was adopted. This involved sampling respondents' perception of the profession most susceptible to bribery. The justification for using the perception-based measure in spit of its many problems is based on the assumption that 'how a person perceives or understands their colleagues would be a significant determinant of their decision making or behaviour in their day to day practice'. Therefore, while perception surveys do not constitute an actual measure of behaviour, they offer an indication of how a person may behave in the real sense given certain perceptions. Table 5.19 shows the overall ranking of the professionals in terms of

the degree of their susceptibility to bribery. Susceptibility to bribery here means those who demand or receive the bribe (demand-side bribery).

As indicated in Table 5.19, the quantity surveyor ranked overall as the most susceptible to bribery, followed by the builder/construction manager and the architect. It is interesting to note that all professional groups rank well above 2.0 on the bribe perception index. CIOB (2006) survey indicates that 41% of the respondents had been offered a bribe on at least one occasion. Vee and Skitmore's (2003) study in Australia and Pearl *et al*'s (2005) study in South Africa indicate that builders/contractors are considered to be the most likely group to participate in unethical practice (including bribery). The outcome of this investigation may follow social comparison error known as "the theory of pluralistic ignorance" in the perception of unethical behaviour. Buckley, Harvey and Beu, (2000), Halbesleben *et al.* (2004) assert that individuals mistakenly believe that others are more unethical than they actually are. They argued that a primary mechanism leading to the overestimation of unethical behaviour is the media's heavy coverage of unethical behaviour in business. It is not surprising that the quantity surveyor ranked as being overall the most susceptible to corruption. This is because of his roles in estimating the cost of a project (preliminary cost, variations, etc), interim valuations of works and cost control functions during project execution stages.

Sharp practices carried out by the quantity surveyors include, over measurement of quantities of various trade items in bills of quantities (e.g. 70m^3 of concrete instead of 50 m^3). The additional cost of this simple (or deliberate) error may amount to about 10

Million Naira depending on the quantity of concrete required. Others include covering up unexecuted item of works in the periodic valuation, over blowing cost of design variation and re-measurement, inflation in figures of day work account and fluctuation in prices of item of work as well as bribery just to mention but a few.

Services engineers who ranked least sometimes over-design or over specify or fictitiously allow for certain quantity of item of work in the design. The quantity of materials or elements specified are reduced on site and in connivance with the client quantity surveyor, the cost of the excess material are shared with the contractor at agreed percentage. The majority of professionals who are engaged in corrupt practices are influenced by situational factors (delays in the payment of professional fees, demands from professionals to bribe to facilitate early release of professional fees, etc).

5.6.4 Differences in bribe perception index of professional groups

The fifth hypothesis states, "There is no significant difference in the bribery perception index of different professional groups in the building industry." One way analysis of variance (F-test) was used to test for any significant difference in the bribery perception index of professional groups as presented in Table 5.20

Table 5.20: ANOVA for bribe perception index of building professionals'

		Sum of Squares	D.F	Mean Square	F-Statistics	p-values	Level of Significance
Architect	Between Groups	5.948	5	1.190	1.269	0.279	NS
	Within Groups	173.434	185	0.937			
	Total	179.382	190				
Builder/Const. Manager	Between Groups	3.113	5	0.623	.882	0.494	NS
	Within Groups	130.615	185	0.706			
	Total	133.728	190				
Structural Engineer	Between Groups	3.977	5	0 .795	1.359	0.242	NS
	Within Groups	108.243	185	0.585			
	Total	112.220	190				
Quantity Surveyor	Between Groups	28.839	5	5.768	1.129	0.347	NS
	Within Groups	945.455	185	5.111			
	Total	974.293	190				
Electrical Engineer	Between Groups	1.331	5	0.266	.484	0.788	NS
	Within Groups	101.821	185	0.550			
	Total	103.152	190				
Mechanical Engineer	Between Groups	.860	5	0.172	.342	0.887	NS
	Within Groups	93.077	185	0.503			
	Total	93.937	190				

NS= Not significant at $p<0.05$

Result of one way analysis of variance presented in Table 5.20 indicates that there is no significant difference, ($p<0.05$) in the opinion of all professional groups, with regard to bribery perception index of professional groups. The Post Hoc tests for multiple comparison indicated that there is no significant difference in the opinion of different professional groups. Hence, the null hypothesis was rejected.

5.6.5 Direction of bribery between parties

Respondents were asked to indicate from their experience the frequency of direction of bribe (supply-side bribery) between parties in the construction process. Descriptive analysis of the result is presented in Table 5.21.

Table 5.21: Direction of bribes between parties to a contract

Direction of bribe	N	Mean	Rank
From Contractor to Consultant	191	3.71	1
From Contractor to Client or Client's representative	188	2.61	2
From Consultant to Client	190	2.15	3
From Consultant to Contractor	186	1.95	4
From Client to Consultant	190	1.70	5
From Client or Client's representative to Contractor	188	1.68	6

The result shows that bribes were mostly offered by the contractor to the consultants (mean = 3.71) and sometimes from the contractor to the client or his representative (in the case of a public sector projects). This finding is in agreement with Vee and Skitmore's (2003) and Pearl *et al*'s (2005) studies, which indicate that builders/contractors are considered the most likely group to participate in unethical practice (including bribery).

5.7 Impact of ethical impropriety on project performance

Respondents were asked to assess the level of impact (or effect) of certain ethical impropriety on project performance criteria. Descriptive analysis of the result is presented Table 5.22.

Table 5.22: Mean impact value (MIV) of ethical impropriety on performance criteria

Ethical impropriety	Degree of compliance to architectural, structural and services specifications	Cost certainty	Time certainty	Effective and efficient communication	Overall client satisfaction
Bias in tendering evaluation/unfair tender practice	2.79	2.77	3.07	3.56	3.27
Bribery and gratification	2.22	2.39	2.67	2.94	2.56
Use of inadequate/inferior materials	2.34	2.85	2.78	3.10	2.44
Negligence/poor workmanship	2.34	2.70	2.69	2.96	2.35
Bad project documentation	2.52	2.51	2.58	2.79	2.71

Table 5.22 presents the impact value of each ethical impropriety upon each of the five performance criteria based on professional's on-going or past project experience. The result indicates that bias in tendering evaluation/unfair tendering practice has no impact on effective or efficient communication whereas it has slightly negative impact on time certainty, overall client satisfaction, and degree of compliance to design and specification as well as cost certainty.

Bribery and gratification have negative impact on degree of compliance to design and specification as well as on cost certainty. However, the impact of bribery and gratification on time certainty, effective and efficient communication as well as overall client satisfaction is slightly negative.

The use of inadequate/inferior materials has negative impact on the degree of compliance to design and specification as well as on overall client satisfaction. Nevertheless, the impact of the use of inadequate/inferior materials on time certainty, cost certainty and effective and efficient communication is slightly negative.

Negligence/poor workmanship has negative impact on degree of compliance to design and specification as well as on overall client satisfaction. However, there is a slightly negative impact of negligence/poor workmanship on cost certainty, time certainty and effective and efficient communication.

The impact of bad project documentation on all the project performance variables is slightly negative.

Generally, the impact of ethical impropriety on project performance variables lies between negative to slightly negative impact. This result agrees with Alutu and Udhawuve (2005) where it was found that unethical practices have very serious negative impact on project management in terms of duration of project, cost, safety and quality of projects.

5.7.1 Association between professionals' ethical impropriety and project performance.

Hypothesis six: The sixth hypothesis states, "There is no significant association between professionals' ethical impropriety and project performance." Chi-square test (Table 5.23)

was used to test for association between ethical impropriety and project performance variables.

Table 5.23: Chi-square test for impact of ethical impropriety and project performance

Ethical Impropriety	Performance Criteria														
	Technical performance			Cost performance			Time performance			Effective communication			Client satisfaction		
	χ^2	*df*	*Sig.*	χ^2	*df*	*Sig.*	χ^2	*df*	*Sig.*	χ^2	*df*	*Sig*	χ^2	*df*	*Sig*
Bias in tendering	73.47	6	0.000	74.83	6	0.000	46.98	6	0.000	30.18	6	0.000	34.46	6	0.000
Bribery & gratification	171.30	6	0.000	120.05	6	0.000	72.22	6	0.000	57.57	6	0.000	85.82	6	0.000
Inadequate materials usage	162.55	6	0.000	53.01	6	0.000	85.68	6	0.000	58.27	6	0.000	120.55	6	0.000
Negligence/poor workmanship	137.46	6	0.000	72.85	6	0.000	82.36	6	0.000	69.05	6	0.000	126.22	6	0.000
Poor project documentation	95.06	6	0.000	100.22	6	0.000	86.91	6	0.000	70.85	6	0.000	76.97	6	0.000

**Significant at p<0.001

Chi-square test presented in Table 5.23 indicate that there is a significant association ($p<0.05$) between ethical impropriety and all five project performance variables investigated. The implication of this result is that ethical improprieties in general have significant negative impact on project performance.

5.9: Summary of research findings

The result of the study shows that twenty-two ethical improprieties that constitute major challenges to professionals in the Nigerian building industry were identified through critical incident technique. Among the identified ethical impropriety in the building industry, award of contract to friends/companies in which professionals holds interest top the list of most prevalent ethical impropriety followed by non-adherence to pre-qualification guideline in favour of desired contractors. Others include bias in recommendation of contractors during pre-qualification, writing favourable report on

contractor without verification of claims and making undue allowance for provisional/prime cost (P.C.) sum in that order.

Greed/inordinate desire for materialism top the list of 18 factors identified as possible reasons for professional's ethical impropriety. This was followed by deterioration in societal values. Others include inadequate/poor remuneration for professional services, lack of patriotism or attitude to government projects and profit motives in that other. Overwhelming majority (77%) of respondents are situationist (high Idealism and high Relativism) in their ethical ideology, while 23% are absolutist. Other result include a very high proportion of the sampled respondent had witness ethical violation among their project team members; overwhelming majority have equally observed incidences of bribery in the industry.

Most common form of bribery in the industry is financial, bribes were mostly offered by the contractor to the consultants and Quantity Surveyors are perceived as the most susceptible to receiving bribe, closely followed by the builder/contractor.

The Builder/Construction manager faces the greatest pressure to act unethically, followed by the architect; contractors mainly offer bribes to consultants and in some cases to client or their representatives in the case of a public project.

Ethical impropriety generally has no favourable impact on project performance. Family members take top priority of consideration by professionals in public, contracting and

corporate organization while the general public top priority of consultants and private developing organisation professionals when faced with ethical dilemma.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter summarises the main conclusion of the research and recommended actions that will be helpful in curbing professionals' ethical impropriety in the procurement of building projects in Nigeria. Finally, areas for further research are recommended and the main contributions of this research to the existing body of knowledge are highlighted.

6.2 Conclusions

The set objectives of this research have been achieved and the following conclusions are made on the basis of the findings:

* Professionals' ethical impropriety in the procurement of building projects is endemic. The procurement phase most prone to ethical impropriety is contractor pre-qualification, tendering procedure and award of contract. Award of contract to friends and companies in which professionals holds interest, non adherence to pre-qualification guideline in favour of desired contractors and bias in recommendation of contractors during pre-qualification tops the list of twenty-two ethical impropriety that constitutes major challenges to building industry professionals involved in the procurement of building projects.

* Greed, deterioration in societal values and lack of patriotism are the dominant factors responsible for building industry professional's ethical impropriety in the procurement of building projects.

* Overwhelming majority of building industry professionals are situationist in their ethical ideology. Judging by the characteristics of situationist, the study therefore concludes that the ethical behaviour of Nigerian building industry professionals depends on situational factors such as the culture of the organisation of the professional, political climate, social and environmental factors of a country.

* Financial bribe, which have the most influence on the middle level managerial staff, is more common in the building industry than non-financial bribe.

* Bribes were mostly offered by the contractors to the consultants

* The builder/construction manager faces the greatest pressure to act unethically in the building industry while the quantity surveyors was perceived as the most susceptible to bribery

* Ethical impropriety generally has no favourable impact on project performance. Generally, the impact of ethical impropriety on project performance variables lies between negative to slightly negative impact.

* Significant difference was found to exist in the opinion of professional groups regarding the prevalence of ethical impropriety in the procurement of building projects.

Non adherence to pre-qualification guidelines in favour of a desired contractor, inflating quantities of measured items in bills, award of contract to unqualified contractor based on relationship, requesting and accepting gratifications before award of contract, inflating quantities of measured bill item, and approving or allowing poor quality/inappropriate materials were statistically significant at ($p<0.05$).

Writing favourable report on contractors' claim of competence without verification, making undue allowance for provisional and prime cost sum in bills, revealing estimates to desired contractor, and tampering with tender figure in favour of desired contractors were shown to have statistically significant at $p<0.01$. Others include, awarding contract to friends/acquaintances/companies in which they hold interest, Poor communication of quality standard to site personnel, and inflating prices of items of fluctuations.

Statistical significant difference exist in professionals opinion for bias in tendering evaluation in favour of desired contractor/supplier and bias in recommendation of contractor during prequalification at $p<0.001$ level of significance.

* Significant difference exist in the perception of professionals' organisational groups with respect to, writing favourable report on contractors' claim of competence without verification, bias in tendering evaluation in favour of desired contractor/supplier, turning blind eye on defective work/bad workmanship and concealing bill item not executed by contractors at $p< 0.05$ level of significance. Award of contract to unqualified

contractors based on relationship is significant at $p<0.01$. However, allowing a contractor to submit more than one tender with different company names is significant at $p<0.001$.

* There was no statistical significant difference in the ethical ideology of different categories of building industry professionals.

* There was no association between ethical influence factors and professionals' ethical ideology.

* There was no significant difference in the bribery perception index of different professional groups in the building industry.

* There was significant association between professionals' ethical impropriety and project performance.

6.3 Recommendations

The following recommendations will be helpful in curbing professionals' ethical impropriety in the procurement of building projects in Nigeria.

1. To avoid bias in tendering evaluation, electronic-tendering (e-tendering) in all public contracts should be adopted.

2 Since knowledge improves the chances for ethical behaviour over ignorance, the professional institutes should organise periodic training sessions as part of Continuous Professional Development (CPD). Issues discussed at such meetings should include:

i. contents analysis of professional code of conduct

ii. case studies and scenario on ethical improprieties

iii. emerging ethical issues of global and national significance.

This can result in the attainment of a national ethical mind-set that will ensure that building industry professionals reacts "automatically" and intuitively to being virtuous and upholding high ethical standards.

3. Project financiers (public and private clients) should ensure adequate and prompt remuneration for professional services. When professionals are short-changed, they tend to collude with the contractors to defraud the client. Adequate and Prompt payment will prevent professionals from depending on contractors and sub-contractors. This will also enable professionals to perform their oversight function confidently and effectively.

4. Since the quantity surveyors are most susceptible to bribery, clients should ensure that discretionary powers of quantity surveyors in the procurement of building projects are limited or subjected to third party verification. For example, strict monitoring, supervision and auditing of contract progress and performance by persons independent of the designers and the contractor in conjunction with government anti corruption agencies, Economic and Financial Crimes Commission (EFCC) and Budget Monitoring and Price Intelligence Unit (BMPIU).

5. The government should establish a body known as 'Nigerian ethics commission (NEC). This commission should comprise representatives of all professional bodies in Nigeria among other eminent citizens. The commission should be responsible for public enlightenment or moral/cultural campaign and value re-orientation of all Nigerians with the aim of identifying and eliminating sociological factors that could predispose individual to fraud.

6. Since the tender process and award of contract phase is the most prone to abuse by professionals, the project financiers (public and private establishment) should ensure that:

a. Unrealistic contractor pre-qualification criteria are removed. This will ensure that such conditions are not used by professionals to erect entry barriers in favour of desired contractor or sub-contractor.

b. Registration details of contractors with the appropriate authority should be thoroughly investigated to avoid contractors tendering for the same project with different company names.

7. Telecommunication operators in Nigeria should dedicate some (toll free) Hot-lines for the purpose of reporting cases of unethical conduct to law enforcing agencies.

8. The government should establish a separate body, to be known as 'National Council for the Built Environment' (NCBE), independent of professional bodies to act as ethical facilitators who polices standards, to receive petitions on professional misconducts, investigate and sanction on individuals and organisations that breach ethical principles and rules.

6.4 Areas for further studies

Based on the findings of this research, a number of recommendations are put forward. This is to provide some direction for future research endeavour in this domain.

- This study covers only ethical behaviour of core professionals involved in the procurement of building projects in Nigeria. The study can be

replicated for other building industry professionals such as the Urban and regional Planners, Estate Surveyors and Valuers and other construction professionals involved in engineering construction such as Civil Engineers who are also prone to ethical impropriety in their professional practice.

- The methodology adopted for this study is Critical Incident Technique (CIT) and a survey questionnaire to identify the nature and prevalence of ethical impropriety in the procurement of building projects. Future research in this domain should adopt a case study approach to investigate to great depth, the amount lost to corruption and other ethical impropriety at the various phases of project procurement.
- This study does not address the issue of which of the procurement options are less prone to corruption. Further study will be required to assess the susceptibility of different procurement options to ethical impropriety.
- This research does not address all the variables used to develop the model. Investigations should be conducted on the influence of organisational factors and project characteristics on professionals ethical behaviour.
- Further research in this genre must endeavour to collect data from different categories of contractors registered with client organisation to increase the precision of the analysis and to enable firmer conclusion to be drawn.

6.5 Contributions to knowledge

Some of the contributions of this study to the existing body of knowledge are as follows:

i. The study identified twenty two forms of corruption, fraudulent or unprofessional ethical conducts of Nigerian building industry professionals at the various stages of building procurement- design and preliminary estimate stage, pre-qualification and award of contract stage and construction/production management stage.

ii The study identified in order of prevalence ethical impropriety in the Nigerian building industry. These are: award of contract to friends/companies in which professionals holds interest, non-adherence to pre-qualification guideline in favour of desired contractors, bias in recommendation of contractors during pre-qualification, writing favourable report on contractor without verification of claims and making undue allowance for provisional/prime cost (P.C.) sum in bills of quantities.

iii The study identified the dominant ethical ideology of core professionals involved in the procurement of building projects as situationism.

iv. The study identified greed, deterioration in societal values and lack of patriotism as dominant out of 18 factors affecting professional ethical impropriety in the Nigerian building industry.

v. The study identified the quantity surveyors as the most susceptible to bribery and that bribes are mostly offered by contractors to consultants

vi. The study identified extremely negative impact between bias in tendering/unfair tendering practice on project time certainty and overall client satisfaction. The impact of other unethical practices on performance

criteria ranges between mean impacts values of extremely negative impact to slightly negative impact.

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APPENDIX A

UNIVERSITY OF LAGOS
DEPARTMENT OF BUILDING
AKOKA, YABA, LAGOS
Telephone: 01-5820411-52 Ext. 2065

Date: ----------

Dear Sir/Madam,

I am a doctoral student in the Department of Building, University of Lagos. I am carrying out an investigation into the issue of construction professionals' ethical behaviour and would appreciate your participation in the study by completing the attached questionnaire soliciting for information regarding ethical breaches in the practice of your profession in the past ten (10) years. Names are not necessary.

Your contribution towards this study will be greatly appreciated since it will significantly add to the value of this research and promote the status of our professions. Your response will be kept confidential as data will be analysed in group form.

Kindly return the completed questionnaire to the undersigned as soon as possible. We are sorry for the inconvenience imposed on you.

Thank you for your anticipated cooperation.

Sincerely,

John Ameh
Mobile: +234 0802 332 3711
e-mail: oameh@unilag.edu.ng
(Research Coordinator)

PROFESSIONAL MISCONDUCT INVENTORY QUESTIONNAIRE

Professional Misconduct	Sanctions	Number of professionals involved										
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
UNFAIR PROFESSIONAL CONDUCT Bribery Corrupt practises Financial misappropriation E.t.c	Warning											
	Suspension											
	Withdrawal of licence											
CONFLICT OF INTEREST securing contract for self or relatives with ones official position direct competition with ones employer E.t.c	Warning											
	Suspension											
	Withdrawal of licence											
CONFIDENTIAL INFORMATION INFRINGEMENT * Divulging trade secret to third party *using employers confidential *information for self benefit E.t.c.	Warning											
	Suspension											
	Withdrawal of licence											
PROFESSIONAL INCOMPETENCE Dishonest dealing with client Undertaking work for which they lack the expertise E. t. c	Warning											
	Suspension											
	Withdrawal of licence											

APPENDIX B

Interview schedule

Introduction

- What is your profession, how long have you worked within the construction industry, current position within the organisation and tenure within present organisation?

Ethical impropriety in the procurement of building project

- drawing from your experience in the building industry, could you recount any critical incidents of your involvement or your project team members involvement in professionals ethical impropriety (fraudulent, corrupt, practices that do not conform to organisational moral and professional guiding principles etc) during:
    i. setting technical parameters of a project (design stage)?
    ii. Measurement and cost estimation of a project?
    iii. Tendering process and award of contract?
    iv. Building construction/
    v. Valuation of works for interim payments(new projects and renovation works)?
    vi. Final account and handover stage?
- In what ways does these professionals' ethical impropriety affected the project outcome in terns of meeting budgeted cost, planned project duration and quality of the projects?

APPENDIX C –RESEARCH QUESTIONNAIRE

UNIVERSITY OF LAGOS
DEPARTMENT OF BUILDING
AKOKA, YABA, LAGOS
Telephone: 01-5820411-52 Ext. 2065

Date: ----------

Dear Sir/Madam,

We are carrying out a series of investigations into the issue of construction professionals' ethical behaviour and would like to invite your participation in the study.

Construction projects involve large financial commitments and are usually prone to corruption and other unprofessional conducts at every stage in the process. There is evidence which suggest that poor project performance in the industry is attributed to professionals' ethical impropriety.

This research aims at empirically investigating the prevalence of ethical lapses in the industry, assessing professionals' ethical conduct as well as its implication on project success. Our research relies on input from professionals on this topic and would appreciate if you can take some few minutes to complete the questionnaire or by designating an officer in your organisation to complete it.

Your contribution towards this study will be greatly appreciated since it will significantly add to the value of this research. Your response will be kept confidential as data will be analysed in group form.

If you are interested in the outcome of this investigation, please provide your name and e-mail address and we shall be happy to send you a summary of the results of this questionnaire when they are published.

Kindly return the completed questionnaire to the undersigned as soon as possible. We are sorry for the inconvenience imposed on you.

Thank you for your anticipated cooperation.

Sincerely,

John Ameh
Mobile: +234 0802 332 3711
e-mail: eronini2002@yahoo.com
(Research Coordinator)

Section A: General Information.

Instruction: Please tick (√) where appropriate

1. Gender? ☐ [1] Male ☐ [2] Female

2. Age as at last birthday? ☐ [1] less than 21 Yrs ☐ [2] 21 – 30 Yrs ☐ [3] 31 – 40yrs ☐ [4] 41 – 50 Yrs ☐ [5] Over 50 Yrs

3. What is your highest educational level? ☐ [1] OND ☐ [2] HND ☐ [3] Bachelors ☐ [4] PGD ☐ [5] Masters ☐ [6] Doctorate ☐ [7] Others (specify)----------

4. How will you classify your organisation in the Construction industry?

☐ [1] Public organisation. ☐ [2] Private – developer ☐ [3] Private Consultancy ☐ [4] Contractor ☐ [5] Corporate organization ☐ [6] Others (specify) ----------

5. Your position in the management structure of your organization could best be described as

☐ [1] Top ☐ [2] Middle ☐ [3] Junior

6. How long have you been in the construction industry? ☐ [1] Less than 5 Yrs ☐ [2] 6 – 10 Yrs ☐ [3] 11 – 20 Yrs ☐ [4] 21 – 30 Yrs ☐ [5] 31 - 40Yrs ☐ [6] Over 40 yrs

7. What course did you study at first degree/diploma level?

☐ [1] Architecture ☐ [2] Building ☐ [3] Civil/Structural Engineering ☐ [4] Quantity Surveying ☐ [5] Mechanical. Engineering ☐ [6] Electrical Engineering ☐ [7] Others (specify).....

8. What is your membership status in your professional institute?

☐ [1] Non member ☐ [2] Student ☐ [3] Graduate ☐ [4] Corporate ☐ [5] Fellow

9. What religious persuasion do you belong to?

☐ [1] Christianity ☐ [2] Islam ☐ [3] Traditional religion ☐ [4] Others ----------

Section B: Ethics Specific.

Ethics refers to well based standards of right and wrong that prescribe what humans ought to do, usually in terms of rights, obligations, benefits to society, fairness, or specific virtues. Ethical behaviour in context of professional practice therefore is conducts in accordance with the code of ethics for the profession. Based on this understanding, answer the following questions:

10. Listed below are ethical issues identified in the Nigerian building industry. Indicate the frequency of occurrence of each ethical impropriety based on your experience in the industry by ticking the corresponding column.

Ethical impropriety	Frequency of occurrence				
	Very Frequent 5	Frequent 4	Sometimes 3	Seldom 2	Never 1
Non adherence to pre-qualification guidelines in favour of a desired contractor					
Writing favourable report on contractor's claim of capability and experience without verifying his/her claims					
Bias in recommendation of contractor during pre-qualification					
Making undue allowance for provisional sums and prime cost sum in the bill					
Inflating quantities of measured items in the bill					
Revealing consultant's estimate to desired contractor to tender.					
Tampering with tender figure in favour of desired contractor					
Accepting tender after closing date					
Allowing a contractor to submit more than one tender with different company names for the same project					
Bias in tendering evaluation in favour of desired contractor/ supplier					
Award of contract to friends, other acquaintances/company in which they hold interest					
Award of contract to unqualified contractor based on relationship.					

Requesting and accepting gratification before award of contract					
Poor communication of quality standard to site personnel (drawing issued with insufficient details or dimensions)					
Intentionally withholding information from client which result in variation					
Over measuring of day-works, variation, demolition items and rehabilitation and conversion works,					
Inflating prices of items of fluctuations					
Inflation of quantities during re-measurement of provisional quantities					
Turning a blind eyes on defective work or bad workmanship during inspection					
Approving and allow the use of poor quality or inappropriate materials in place of specified materials					
Concealing bill item not executed by the contractor					
Indirectly requesting for a graft before carrying out professional responsibility.					
Others(specify)					

11. To what extent would you say religion influence your attitude in professional practice?

☐ [4] Greatly ☐ [3] Mildly ☐ [2] Somehow ☐ [1] Not at all

12. How would you compare the ethical standard in the construction industry before 1999 and after 1999 ?

☐ [3] On the increase ☐ [2] No difference ☐ [1] On the Decline

13 How often do you observe ethical violation/misconduct by project team members?

☐ [4] Very often ☐ [3] Often ☐ [2] Rarely ☐ [1] Never

14. What percentage of your project team members in your perception, engage in unethical conducts identified in question 10 above and others not mentioned?

☐ [1] 0 - 10% ☐ [2] 11 - 20% ☐ [3] 21 - 30 % ☐ [4] 31 - 40% ☐ [5] over 40%

15 Do you feel some pressure to act unethically in your professional practice?

☐ [4] Greatly ☐ [3] Slightly ☐ [2] Very slightly ☐ [1] Not at all

16. How often do you succumb to **conduct considered unethical** by the code standard?

☐ [5] Very often ☐ [4] Often ☐ [3] sometimes ☐ [2] Rarely ☐ [1] Never

17. How often do you observe the incidence of bribery in the construction industry?

☐ [5] Very often ☐ [4] Often ☐ [3] sometimes ☐ [2] Rarely ☐ [1] Never

18. From your experience, which of the following forms of bribery is <u>most common?</u>

☐ [1] Financial ☐ [2] Non-financial

19. Indicate the degree of susceptibility of the following professionals to receiving bribes/gratifications in the construction industry by ticking the corresponding cell.

Professional	**Degree of susceptibility**			
	Highly susceptible [4]	Susceptible [3]	Moderately susceptible [2]	Not susceptible [1]
Architect				
Building/construction manager				
Civil/structural engineer				
Quantity surveyor				
Electrical engineer				
Mechanical engineer				

20. From your experience, please indicate the frequency of **exchange of bribes or gratification** between the following parties.

Parties	Frequency of bribe/gratification exchange between parties				
	Very frequent [5]	Frequent [4]	Sometimes [3]	Seldom [2]	Never [1]
From Client to Consultant					
From Consultant to Client					
From Client to Contractor					
From Contractor to Client					
From Consultant to Contractor					
From Contractor to Consultant					

21. Listed below are **possible causes of unethical conduct** in professional practice. Indicate the extent to which you agree or disagree with these factors by ticking the corresponding cell

Professionals engage in unethical conduct because of:	Strongly agree 4	Agree 3	Disagree 2	Strongly disagree 1
Fear and uncertainty about the future (job insecurity)				
Poor or bad project leadership				
Deterioration of societal values				
Job pressure (need to meet budget and targets)				
Need to meet family needs				
Little recognition for achievement				
Greed (inordinate desire for materialism)				
Pressure from project team members				
Inadequate remunerations/ inability of clients to pay for professional services				
Office or overhead burden				
Incompetence on the part of the constructors (builders)				
Unreasonable demands from client or his agents				
Bureaucratic process				
Delay in payments from clients				
Lack of patriotism (attitude to government projects)				
Profit motives (minimize cost and maximize profit)				
Lack of commitment of professionals/consultants				
Prolonged project duration				
Others(specify):				

22. What is the degree of your familiarity with the ethical code of conduct for your profession?

☐ [3] Very familiar ☐ [2] Vaguely familiar ☐ [1] Not familiar

23. In your opinion, what is the extent of clarity of the code of conduct contents about what constitute unethical conduct?

☐ [4] Very clear ☐ [3] Clear ☐ [2] Somewhat clear ☐ [1] Not clear

24. How much emphasis is placed on **ethics** in the curriculum of your discipline at undergraduate level?

☐ [1]None at all ☐ [2] Less than other topics ☐ [3] Similar to other topics

☐ [4] More than other topics

25. How was it included (if at all included) ?

☐ [1]Stand alone compulsory course ☐ [2]Stand alone elective

☐ course [3]ntegrated into other courses

26. .At what level was it included? ☐ [1]Year 1 ☐ [2] Year 2 ☐ [3]Year 3

☐ [4] Year 4 ☐ [5]Year 5

27. What was the method of teaching? (please tick all that apply)

☐ [1] Group project discussion ☐ [2] Lectures & discussion ☐ [3] Seminar & ☐ [4] research papers

28. Place a number from 1 to 6 (1 being very high priority and 6 being very low priority) *without repeating any number twice* in the left column opposite each item indicating your **priority** when making ethical decisions during professional practice.

Influence factors	Rank 1 or 2, . . .or 6
Yourself	
Client/employer/company	
Boss/superior	
Project team members	
Your family	
General public	

29. Using any of your past or recent projects, please assess the level of impact (or effect) of each **ethical impropriety** (on the left) on **performance criteria** below by placing a number between 1 – 7 in **each box** provided (where **1** = Extremely negative impact; **2** = Negative impact; **3** = Slightly negative impact; **4** = No impact; **5** = Slightly positive impact; **6** = Positive impact; **7**= Extremely positive impact).

Ethical impropriety	**Performance criteria**				
	Degree of compliance to architectural, structural & services specifications	Cost certainty (not exceeding project budget goals)	Time certainty (not exceeding project duration)	Effective & efficient communication	Overall client-satisfaction
Bias in tendering evaluation/unfair tender procedure	[ ]	[ ]	[ ]	[ ]	[ ]
Bribery & gratification	[ ]	[ ]	[ ]	[ ]	[ ]
Use of inadequate/inferior materials	[ ]	[ ]	[ ]	[ ]	[ ]
Negligence/ Poor workmanship	[ ]	[ ]	[ ]	[ ]	[ ]
Bad project documentation	[ ]	[ ]	[ ]	[ ]	[ ]
Others	[ ]	[ ]	[ ]	[ ]	[ ]

30. The general statements listed below represent a commonly held opinion and there are no right or wrong answers. Indicate the extent to which you agree or disagree by ticking the cell that corresponds to your feelings.

S/No	General statements	Strongly agree 4	Agree 3	Disagree 2	Strongly disagree 1
1	A person should make certain that his/her actions never intentionally harm another even to a small degree				
2	Risks to another should never be tolerated, irrespective of how small the risks might be				
3	The existence of potential harm to others is always wrong, irrespective of the benefits to be gained				
4	One should never psychologically or physically harm another person				
5	One should not perform an action which might in any way threaten the dignity and welfare of another individual				
6	If an action could harm an innocent person, then it should not be done				

	General statements	Strongly Agree 4	Agree 3	Disagree 2	Strongly Disagree 1
7	Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral				
8	The dignity and welfare of people should be the most important concern in any society				
9	It is never necessary to sacrifice the welfare of others				
10	Moral actions are those which closely match ideals of the most perfect action				
11	There are no ethical principles that are so important that they should be a part of any code of ethics				
12	What is ethical varies from one situation and society to another				
13	Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person				
14	Different types of morality cannot be compared as to "rightness"				
15	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual				
16	Moral standards are simply *personal* rules which indicate how a person should behave and are not to be applied in making judgments of others				
17	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual rules				
18	Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment				
19	No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation				
20	Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.				

Thank you.

Name (optional) ----------

e-mail address (optional) ----------

APPENDIX D

List of publications from thesis

Ameh, O. J. (2003). A survey of professional's ethical behaviour in the Nigerian building industry. In S.O.Oyediran, G. I. Idoro, M. O. Dada and O. J. Ameh (eds). *Proceeding of international conference "Global Construction"* University of Lagos. December 1 – 5th., 35 - 48

Ameh, O. J. and Odusami, K. T. (2005). Prevalence of ethical impropriety in The management of public sector projects: a case of Nigeria. In W. Fadare, A. Ajayi, D.Amole and B. Babalola (eds) . *Proceeding of a national conference "Globalisation, Culture and the Built environment.* Ile-Ife, Nigeria. June 15-17, 147 – 153.

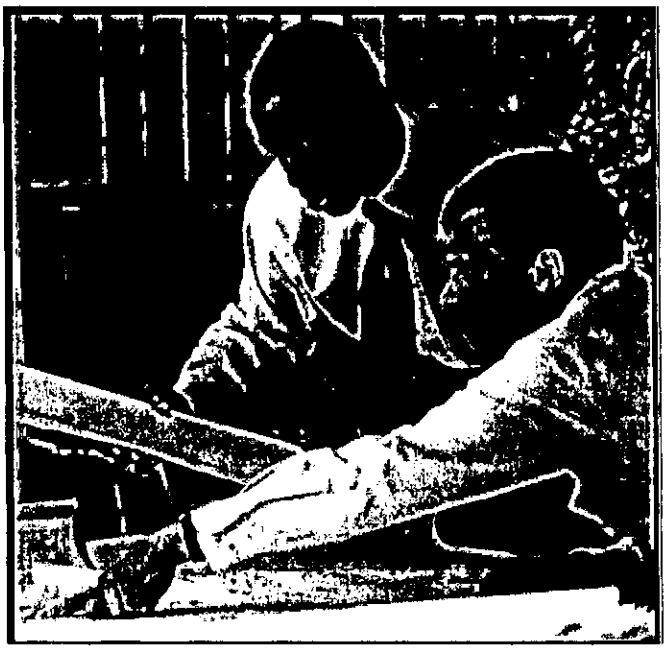
Ameh, O. J. and Odusami, K. T. and Achi, F. O. (2007). .An Assessment of Professional Ethics Content in the Academic Curriculum of Construction Disciplines in Nigerian Universities. *Proceeding of the Built Environment Education Conference (BEECON),* University of Salford, UK. September, 12-13, 1-10

Ameh, O. J. and Odusami, K. T.(2007). Professionals' Ambivalence Towards Ethics in the Nigerian Building Industry. *Journal of Professional Issues in Engineering Education and Practice* (under review)

Ameh, O. J. and Odusami, K. T.(2007). Nigerian Building Professionals' Ethical Ideology and Perceived Ethical Judgement. *Surveying and Built Environment* (under review)

APPENDIX E

SUMMARY REPORT SENT TO SURVEY RESPONDENTS



ETHICAL BEHAVIOUR OF NIGERIAN BUILDING INDUSTRY PROFESSIONALS IN THE PROCUREMENT OF BUILDING PROJECTS

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University of Lagos, Nigeria
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Research Context

There is a growing consensus within and outside the building industry that corruption and other unethical practices are endemic in the Nigerian building industry. The negative impact of contract fraud, corruption and other ethical impropriety in the building industry on the socio-economic growth of Nigeria is enormous. The high cost of building development, frequent need for maintenance of public buildings and failure of buildings (structural and services failure), which in extreme cases resulted in building collapse is an evidence which suggests that the poor performance in the building industry in Nigeria is attributed to ethical lapses among construction professionals (Oyewande, 1992; Chinwokwu, 2000 and Windapo, 2006). Curbing or managing corruption, fraudulent or unprofessional conduct in the procurement of building projects is undoubtedly a critical social problem. There is a need to address the issue of professional ethical impropriety with a view to achieving improved construction project performance in terms of completing projects on time, within budgeted cost and quality standard. This research was thus undertaken to examine Nigerian building industry professionals' ethical behaviour in the procurement of building projects.

Research Method

The research instrument comprises interview and survey questionnaire. The interview elicited information (through Critical Incident Technique (CIT)) with respect to ethical impropriety in the procurement of building projects. The questionnaire was developed to elicit information on the prevalence of identified ethical impropriety in the building

procurement process as well as the dominant ethical ideology and bribery perception index of core building industry professionals. The sample of professionals was drawn from client organisations, consultancy and contractor organisations in Abuja, Kano, Lagos and PortHarcourt cities using appropriate statistical technique.

A total of 192 questionnaire out of 350 copies administered were collected from 108 construction organisations comprising 55 consultancy organisations, 35 contracting organisations and 18 client organisations and used for the study. This represents a response rate of 55%. With sample of this size, results are accurate to within ± 10%.

Summary of research findings

* The result of the study shows that twenty two ethical improprieties which constitute major challenges to professionals in the Nigerian building industry were identified through critical incident technique. Among the identified ethical impropriety in the building industry, award of contract to friends/companies in which professionals holds interest top the list of most prevalent ethical impropriety followed by non-adherence to pre-qualification guideline in favour of desired contractors, bias in recommendation of contractors during pre-qualification, writing favourable report on contractor without verification of claims and making undue allowance for provisional/prime cost (P.C.) sum in that order.

* Greed/inordinate desire for materialism top the list of 18 factors identified as possible reasons for professional's ethical impropriety. This was followed by deterioration in societal values. Others include: inadequate/poor remuneration for

professional services, lack of patriotism or attitude to government projects and profit motives in that other.

* Overwhelming majority (77%) of respondents are situationist (high Idealism and high Relativism) in their ethical ideology, while 23% are absolutist. Other result include: a very high proportion of the sampled respondent had witness ethical violation among their project team members; overwhelming majority have equally observed incidences of bribery in the industry.

* Most common form of bribery in the industry is financial, bribes were mostly offered by the contractor to the consultants and Quantity Surveyors are perceived as the most susceptible to receiving bribe, closely followed by the builder/contractor.

* The Builder/Construction manager faces the greatest pressure to act unethically, followed by the architect; bribes are mainly offered by contractors to consultants and in some cases to client or their representatives in the case of a public project.

* Ethical impropriety generally has no favourable impact on project performance and family members take top priority of consideration by professionals in public, contracting and corporate organization while the general public top priority of consultants and private developing organisation professionals when faced with ethical dilemma.

Conclusion

These findings, which are based on empirical evidence support international community perception about corruption among Nigerians and in the construction industry. The following recommendations will be helpful in curbing professionals' ethical impropriety in the procurement of building projects in Nigeria.

1. Since knowledge improves the chances for ethical behaviour over ignorance, the professional institutes should organise periodic training sessions as part of Continuous Professional Development (CPD). Issues to be discussed at such meetings should include:

   i. contents analysis of professional code of conduct

   ii. case studies and scenario on ethical improprieties

   iii. emerging ethical issues of global and national significance.

This can result in the attainment of a national ethical mind-set that will ensure that building industry professionals reacts "automatically" and intuitively to being virtuous and upholding high ethical standards.

2. Project financiers (public and private clients) should ensure prompt and adequate remunerated for professionals' services. When professionals are short-changed, they tend to collude with the contractors to defraud the client. Adequate and Prompt payment will prevent professionals from depending on contractors and sub-contractors. This will also enable professionals to perform their oversight function with confidence.

3. As corruption results from the discretionary powers of professionals in the procurement of building projects, it is logical to reason that diminishing the discretionary

power of the professional will favourably affect the rate of corruption. Public and private organisations should ensure the following:

i. that design professionals are properly briefed and the technical parameters are adequately documented before commencing the project to forestall change order during execution and if possible avoid provisional sum, prime cost and design or material variations.

ii. consider setting up a review process for all change orders or variations that may be requested by the professional and if the cost of the change order is in excess of 10% of the initial contract value, it should be subject to approval by the project financier.

iii ensure strict monitoring, supervision and auditing of contract progress and performance by persons independent of the designers and the contractor in conjunction with government anti corruption agencies (EFCC and BMPIU) and in the case of privately financed project, with independent consultant.

4. Since the tender process and award of contract phase is the most prone to abuse by professionals, the project financiers (public and private establishment) should ensure that:

a. Unrealistic contractor pre-qualification criteria are removed. This will ensure that professionals do not use such conditions to erect entry barriers in favour of desired contractor or sub-contractor.

b. Registration details of contractors with the appropriate authority should be thoroughly investigated to avoid contractors tendering for the same project with different company names.

5. Telecommunication operators in Nigeria should dedicate some (toll free) Hot-lines for the purpose of reporting cases of unethical conduct to law enforcing agencies.

6. The government should establish a separate body, to be known as 'National Council for the Built Environment' (NCBE), independent of professional bodies, to receive petitions on professional misconducts, investigate and sanction on individuals and organisations that breach ethical principles and rules.