ASSESSMENT OF TRADITIONAL PROCUREMENT SYSTEM IN NIGERIA: KEY CHALLENGES AND PROPOSED SOLUTIONS

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ASSESSMENT OF TRADITIONAL PROCUREMENT SYSTEM IN NIGERIA: KEY CHALLENGES AND PROPOSED SOLUTIONS.

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University Tun Hussein Onn Malaysia

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DEDICATION

To my late mother, my father, my uncle, Bappa Danladi and to my late bothers and close friends: Nuraddeen Al-Mustapha and Abdullahi Danladi.

Thanks be to Almighty Allah.
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ABSTRACT

Traditional procurement system is commonly used in Nigerian construction industry. However; despite the wide choice of other procurement system, there are numerous of key challenges that affects cost, time and quality of completed project. This challenge contributes negatively to both parties namely clients and contractor. To date, there are limited works that assess the key challenges of traditional procurement system in Nigeria which hinders the proposition of possible solutions to the problems. Hence, this research aims to identify the key challenges that are associated with traditional procurement in Nigerian construction industry with a view to identify areas of weakness and propose a solution. It also involves identification of the most frequent use of traditional procurement system. Structured questionnaire was distributed to 136 contractors that actively participated in the construction industry with 78 percent response rate. The use of mean, ranking, correlation and analysis of variance were used to analyses the data. The result shows that all the challenges have a significant relationship with the open tendering method. Further analysis also show that all the key challenges: Cost certainty, Time certainty, Build ability and Fragmentation of organizational interface have a significant relationship with one another. All the formulated solutions such as creation of unified project team, improvement in line of communication, early participation of contractor in design stage were found to be related to all the individual challenges and are therefore, suitable in overcoming all the key challenges.
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CHAPTER 1

INTRODUCTION

1.1 Introduction

This section discusses on the introduction of the research that serves as the background. Problem statement, research questions, aim and objectives, significant of research and scope of the research are also discussed in this chapter. The last part of the chapter outlines the organization of chapters.

1.2 Background of the Research

The state of the construction industry of a country signals the direction of development in a country. This is because the industry is responsible for the provision of infrastructure and contribution to the gross domestic product of the country (Dada, 2013). Physical and infrastructural development is tied to the industry. The industry is responsible for the provision of shelter, buildings and other infrastructure that adds to, or supports the quality of life of the citizenry.

The construction industry is the backbone of many countries. According to Giang et al. (2011), the construction industry is an important sector of the economy
which makes a significant contribution to gross domestic product (GDP), capital formation, and employment; and has backward and forward linkage effects with several other sectors. Construction produces the nation’s physical infrastructure and other productive assets; the industry is of critical importance in the national development of developing countries (Giang et al., 2011). Whichever procurement system is used to procure projects, infrastructure development remains the most important tool to a national development (Dada, 2012).

According to Noor et al., (2013) in most of developing countries, the construction activity is dominated by infrastructure, and that value added in construction accounts for only 3-7 percent of GDP, the total value of new construction work represents anything between 45 and 65 percent of gross domestic capital formation. Wong et al. (2008) found that the proportion of civil engineering works in the total construction output of developing countries was higher than that in their industrialized counterparts. Miller et al. (2009) observed that the mix of construction demand (and output) changes as an economy develops. Developing countries need to embark on extensive infrastructure provision in order to achieve and sustain economic growth and aspire towards the standards of the developed economies (Kirkpatrick et al., 2006).

From the above discussion it shows that construction is of great importance in economic development and there is a need for understanding of procurement practices in developing countries for better implementation of projects (Noor et al., 2013). Procurement is critical as it determines the overall framework embracing the structure of responsibilities and authorities for participants within the building process. Therefore, it is a key factor contributing to project success. (Noor et al., 2013)

In any contracts, obtaining a project within a predefined time, cost and quality is the ultimate goal of the clients in construction industry (Ballard, 2008). The procurement system is the key through which the clients creates precondition for a successful achievement of projects specified objectives.

Davis et al. (2013) state that in traditional procurement system, the employer accepts that design work will be generally separate from construction; consultants are appointed for design and cost control, and the contractor is responsible for carrying out the works. This responsibility extends to all workmanship and materials and
includes all work by subcontractors and suppliers. The contractor is usually appointed by open competitive tendering. The contractor can as well be appointed by negotiation (Cooke et al., 2013).

According to Kwak et al. (2009), the traditional contract procurement has been widely criticises because it is considered as an ineffective procurement method involving time and cost overrun on construction projects. Despite these criticisms, the stakeholders seem reluctant to adopt new method and the system. For instance, like in many developing countries, is still being widely used in Nigerian construction industry (Babatunde et al., 2010). The reasons for the system’s continuance are obvious to many observers:

The traditional system is sequential in nature and the main advantages are:

i. It provides accountability due to open competitive tendering for selection of prequalified contractors.

ii. It allows a client to make needed changes during the design stage which are less costly than during construction stage.

iii. It allows price to be fixed in advance of constructions thereby allowing client to have prior knowledge of his commitment.

Meanwhile, the traditional practice also has some disadvantage, including that it will lead to a more time taken to finish up the projects period and eventually affects the overall cost of the project.

1.3 Problem Statement

Any procurement system that lead to a successful project delivery are measured based on cost, time and quality performance (Eriksson et al., 2011). The aim of every client is to have the project completed at the right time, with high quality and within an agreed budget. According to Babatunde et al. (2010), the emphasis of procurement methods is on optimizing all the parameters involved in project delivery. One of the procurement method used to achieve the above is the traditional procurement system, which is a widely used system in the Nigerian construction industry.

Different studies on procurement methods have confirmed the dominancy of the traditional procurement method in the construction industry. Recent studies of
Babatude et al. (2010) as well as Dada (2012), all acknowledge this phenomenon in construction projects in Nigeria. This procurement method is on the increase by public sector which is the largest employer of construction industry (Ujaddughe et al., 2010). Dada (2012) also indicates that traditional procurement method has been reported for use in project delivery in many countries of the World in which Nigeria is one.

Although about 75% of public construction is procured through traditional procurement system in Nigeria, “projects procured usually experience some form of cost overrun, delay in completion time and low quality at completion” (Olatunji et al., 2013). Cost certainty only exists at the beginning stage of the project. No one actually knows the final construction cost until the project is completed (Kerzner et al., 2013). On the issue of quality, clients are generally not satisfied with building designs which do not provide value for money in terms of quality (Quinn et al., 2013). Under this system, the contractor’s input into the design process is minimal and therefore; the opportunity to incorporate build-ability into the design is largely lost and clients do not get the best possible quality desired (Kirkham, 2013).

In addition, delay in project completion is another problem bedeviling Nigerian construction industry. No one is certain that the project will be completed on the date which was agreed upon by the parties when signing the contract (Cooke & Williams 2013). Criticism arises when project run longer than planned and legal disputes always arises over how much responsibility each party is willing to take over the delay (Kong & Gray 2012). Most of the construction projects procured by traditional methods experience some form of delay in completion (Ogunsemi et al., 2006).

However, despite these criticisms on traditional procurement system there are limited empirical researches that ascertain the challenges of the system. Accordingly, this project strived to find out the challenges of traditional procurement system application in Nigerian construction industry.
1.4 Research Question

This research work answers three questions, which invariably assist in achieving its objectives. The questions are:

i. What are the various methods of traditional procurement system used in Nigeria?

ii. What are the various challenges of traditional procurement system application faced by the Nigerian contractor?

iii. How can the various challenges of traditional procurement system in the Nigerian construction industry be overcome?

1.5 Aim and Objectives of the Research

The aim of this research is to investigate the challenges of traditional procurement system application in Nigerian construction industry with a view to identify areas of weakness and propose a solution. This can be achieved through the following objectives:

i. To identify the most frequent used methods of traditional procurement system in Nigerian construction industry.

ii. To identify the challenges of traditional procurement system in Nigerian construction industry.

iii. To proposed ways to overcome the various challenges of traditional procurement system in the Nigerian construction industry.

1.6 Significance of Research

Identifying constraints associated with traditional procurement system application is important to the industry in the following regards:

i. To client: Identifying areas that affects quality in construction would ensure good workmanship and high quality of any completed work. This would go a long way to preventing building collapse and safeguard people’s live. It would also ensure that the tax payers, who are the people themselves, get value for their money.
ii. To contractors: completing project within cost, time and stated quality adds to the contractor’s reputation in a great way. When contractor completed project within a minimum time possible, the margin of his expected profit usually increases- because ‘time’, they say is ‘money’. Also, the contractor usually gets the value of his retained amount in full at the end of any defects liability period for a successful completed work that was found to be in good condition. It also prevents the cases of abandon projects.

iii. To the economy: the economy of any nation tends to be more realistic when there is cost and time certainty. If a government is sure of getting a commodity within a particular cost and given time, it can be easily budgeted for and pursue it with high vigor and certainty. Also the quality obtain of any completed project determines whether the economy can benefit from such a project for a long time or not. By getting a quality work of any completed project, the economy can save the money that would have been otherwise channel for maintenance work.

iv. To the Policy: by identifying the problems and solution associated with traditional procurement system application, the government can come up with a good policy and laid down criteria that can ensure that all work to be procured in the future follows a stated guideline to ensure that cost quality and time are maintained.

v. To the Academic: The findings and recommendation of this research project will add to a pool of academic knowledge and for future research.

1.7 Scope of Research

The studies:

i. Area scope: Due to limitation of cost and time, the study will consider only construction projects in Gombe metropolis Nigeria where a significant number of public construction activities are sited and ongoing in the region because of its strategic central location to other neighboring state.

ii. Respondent scope: the target respondents are contractors. The contractor undertakes the direct physical construction of the facility understands the direct physical construction process in detail (Radosvljevic & Bennett, 2012).
iii. The concept scope: within the various types of procurement system, the study would cover only traditional procurement system using a widely used measurement forms of contract.

1.8 Organisational structure of the research

This research work is structured into five (5) chapters. Details and specific explanation to every section will be discussed below as shown in figure 1.1:

Chapter 1: This is the main introduction of the research topic. It comprises the background of research, the research problem, research questions, research aim and objectives, scope, and significance of research. Finally, the organization of the chapters and summary follows.
Chapter 2: Literature review looks at the previous writing researches within the scope. It looks at the problems/effects of traditional procurement system application in Nigerian Construction industry. The chapter focuses on different procurement system available in Nigeria with more emphasis to traditional procurement system and its application in Nigeria. Identify any research gaps that have not been discussed by previous researchers or need to be discussed further. The chapter focuses on various method of traditional procurement system, the different problems/effects of traditional system application.

Chapter 3: Chapter three discusses the research approach and strategies and research procedures that have been adopted in conducting the research. This includes research process and design, population and sampling techniques used. The instrument used in data collection and analysis of data were developed.

Chapter 4: This chapter presents the data and analysis. It also discusses the result of survey and findings. It further discusses the main results of the analysis. The discussion answers the research questions and formed the basis of recommendations.

Chapter 5: The last chapter in the research summaries the complete research work conducted. The conclusion gives recommendation for possible future research.

1.9 Summary

In summary, the introduction of the research subject matter is provided in this chapter. The introduction made up of the background of the research work, the problem statement, which establishes the basis for the research work. The research question, the research aim and objectives, the significant of the research and also the scope of the research were fully explained herein.
CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In the previous chapter, the overview of this study is explained and the problem is identified. This chapter discusses previous researches intensively on procurement system, various types and problems and challenges of traditional procurement system application in the Nigerian construction industry. The overview of the previous researches on the subject matter justifies the way research questions are to be answered. Throughout the chapter, the elaborations of the topic are clearly described. The literature reviews the relevant subject matter from books, journal, articles, and other available documents related to this research work.

To achieve the success of the research, an intensive literature review is needed, which was collected from previous scholars’ write up on the particular subject matter. According to Chua (2006) literature review is an important tool of the research methodology that helps measure any research.

2.2 Definition of procurement method

The term procurement method refers to the owner’s approach to organizing the project team that will manage the entire design and construction process (Wardani et
It is the process where client who wishes to renovate, extend or construct a new building require the services of many construction-related organizations to achieve the desired end product (Othman & Ahmed, 2011).

According to Othman & Harinarain (2011), the term ‘procurement’ here is defined as the overall process of acquiring a building. Adenuga et al. (2012) define procurement as the overall method used by a client/or representatives so as to arrive at a tender figure and other operation towards the selection of a contractor to deliver a project at an agreed time and conditions.

According to Dada (2013), the procurement process is also concerned with the form of procurement whether by contract or direct labour, and with the quality of delivery of both the work carried out and the level of service provided.

Procurement methods for construction industry can be defined as the organizational structure adopted by client for the management of the design and construction of a building project (Baiden et al., 2006). However, procurement methods define the management, functional and contractual arrangement and relationship amongst project team.

Gerge et al. (2012) stated that procurement method is a contemporary term, which is known to many practitioners and researchers of the construction industry by different terms; these include terms such as project approach, procurement systems, procurement delivery methods or project delivery systems.

Procurement process is an organizational structure adopted by the client for the implementation and at times eventual operation of a project (Kelly et al., 2014). It is a key means through which the clients create the pre-conditions for the successful achievement of project-specific objectives (Mathonsi et al., 2012).

A procurement method is an organizational system that assigns specific responsibilities and authorities to people and organizations, and defines the various elements in the construction of a project (Ghahramanzadeh, 2013). Different procurement methods are used for different construction projects and the correct choice may help to avoid problems and be the key to the attainment of project specific goals. The choice of procurement process is govern to a large extend by the risk and owners desire to find a method that will deliver the project on time, budget and in a form that will meet the owners need most effectively. According to Ng &
Chen (2012), the selection of an appropriate procurement system depends largely on the accurate identification of client requirements.

There are a number of alternative procurement methods a client may use to acquire these services. These procurement methods give the client a choice of various management structures, different contractual arrangements and varying degrees of client risk.

From the above definitions provided by various scholars, their respective contribution is provided in Table 2.1 below and discuss earlier. All their respective definition discusses clients-process-product; the means through which clients satisfy his own needs to achieve a specific objective.

Table 2.1: Definitions of Procurement method

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<td>1</td>
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<td>2006</td>
<td>Organizational structure adopted by client for the management of the design and construction of a building project.</td>
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<td>2</td>
<td>Wardani et al.</td>
<td>2006</td>
<td>Refers to the owner’s approach to organizing the project team that will manage the entire design and construction process.</td>
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<td>3</td>
<td>Othman &amp; Ahmed</td>
<td>2011</td>
<td>The process where client who wishes to renovate, extend or construct a new building require the services of many construction-related organizations to achieve the desired end product.</td>
</tr>
<tr>
<td>4</td>
<td>Othman &amp; Harinarain</td>
<td>2011</td>
<td>The overall process of acquiring a building.</td>
</tr>
<tr>
<td>5</td>
<td>Adenuga et al.</td>
<td>2012</td>
<td>Procurement is the overall method used by a client/or representatives so as to arrive at a tender figure and other operation towards the selection of a contractor to deliver a project at an agreed time and conditions.</td>
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<tr>
<td>6</td>
<td>Gerge et al.</td>
<td>2012</td>
<td>Procurement method is a contemporary term such as project approach, procurement systems, procurement delivery methods or project delivery systems.</td>
</tr>
<tr>
<td>7</td>
<td>Mathonsi et al.,</td>
<td>2012</td>
<td>It is a key means through which the clients create the pre-conditions for the successful achievement of project-specific objectives.</td>
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<th>Author</th>
<th>Year</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Dada</td>
<td>2013</td>
<td>The procurement process is also concerned with the form of procurement whether by contract or direct labor, and with the quality of delivery of both the work carried out and the level of service provided.</td>
</tr>
<tr>
<td>9</td>
<td>Ghahramanzadeh,</td>
<td>2013</td>
<td>Is an organizational system that assigns specific responsibilities and authorities to people and organizations, and defines the various elements in the construction of a project?</td>
</tr>
<tr>
<td>10</td>
<td>Kelly et al.,</td>
<td>2014</td>
<td>Procurement process is an organizational structure adopted by the client for the implementation and at times eventual operation of a project.</td>
</tr>
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2.3 Types of procurement methods

Different types of procurement methods are available to meet the needs of the clients (Davis et al., 2008). The decision as to what procurement method to use should be made as early as possible.

The common procurement method found in Nigeria is classified as follows:

i. Design and build (Integrated) procurement method;

ii. Management (Packaged) procurement Method

iii. Traditional (Separated) procurement method
2.3.1 Design and Build procurement method (integrated)

Design and build procurement method is an arrangement where one contracting organization takes sole responsibility for the design and construction of client’s project-usually for a lump sum (Ojo et al. 2012). It is an arrangement of a single point responsibility in which contractor accepts total responsibilities for all function-design, documentation and construction of a project except financing function in return for a lump sum price.

A design and build contract is one in which a single entity, usually a contractor assumes responsibility for the design in whole or in part and for the construction and completion of a construction project (Awodele, 2012). According to Senge (2014), this is the method where one organization, usually but not exclusively the contractor, takes responsibility for the design and construction of the project. The clients deal with only one organization. Davis et al., (2008) stated that design and construct procurement method, a contractor accepts responsibility for some or all the design.

Design and build is the process where the clients deals directly with the contractor for the complete building and it is the contractor who, is not only responsible for but also, coordinate the separation of the design and construction process, including engagement of the design team who are contractually linked with the contractor and not the clients (Eed, 2012).

Design and build contracts place one point responsibility for everything for the design and construction in the hand of the contractor. A single contractors works under a single contract with a clients to provide design and construction service (Cooke et al., 2013).

Essentially, the contractor is responsible for the design, for the planning, organization and control of the construction and for generally satisfying the client’s requirements, and offers his service for an inclusive sum. The procedure is initiated by the client or an architect on his behalf preparing his requirements in as much or as little detail as he thinks fit. These are then sent to the selection of suitable contractors each of who prepare his proposals on design, time and cost and submits with an analysis of his tender sum. Design and construct procurement methods offer certainty on the contract sum and bring benefits. The close integration of design and
construction methods and the relative freedom of the contractor to use their purchasing power and market knowledge most effectively can provide a client with a competitive price (Boelhouwer et al., 2010).

With design and construct procurement method, it is possible to ensure a quicker start on site, and the close integration of design and construction can result in more effective programming. Time, however, is needed by the client’s consultants to prepare an adequate set of requirements, and time is needed to compare and evaluate the schemes from competing tenders. The clients has control over the design element included as part of his requirement, but, once the contract is let, may not have a direct control over the development of the contractor’s detail design. Any changes by the client can prove costly (Cooke et al., 2013).

Table 2.2: Definitions of Design and build Procurement method

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<td>2012</td>
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<tr>
<td>6</td>
<td>Cook et al.</td>
<td>2013</td>
<td>Design and build contracts place one point responsibility for everything for the design and construction in the hand of the contractor. The contractors carry out two functions of design and construct.</td>
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</table>
Table 2.2 shows the various definition of design and build concept. The whole concepts are based on a single firm performing all planning, design and construction tasks. The figure 2.1 below indicates that the contractual links exist between the clients and the contractor, the clients and each of the sub-contractor. It also between clients and each of his independent advisers

The client initiates the process by setting out functional and performance requirement. The clients entered into a contractual arrangement with a single contractor. In this agreement, the contractor agrees to provide both design and construction work for a stated amount of fee. This means that the design consultant are either directly working for the contractor, or are working with contractor in a joint style arrangement (Circo, 2006).

Also, in this contractual arrangement, the primary legal obligation of a contractor is to satisfy client’s performance specification requirements. This means that the contractor is fully responsible for both faulty workmanship in construction and or, any defect in design and construction (Tsegaye, 2009).

Therefore, contractors that do not have in-house professional relative to their project design and construction may have to offer advice to the client on design adequacy, to inspect critical part of construction and to ascertain that the construction generally complies with the project design and specification (Nurhajar, 2009).


2.3.1.1 Types of Design and Build

According to Ling et al., (2004), there are different forms of design and construct as follows:

i. Direct Design and build: In this variance, no competition is obtained in tenders. Some appraisal of the possible competitors may be made before tendering but only one tender is obtained.

ii. Competitive Design and build: Tenders are obtained from documents that are prepared to enable several contractors to offer competition in designs and in prices.

iii. Develop and construct: Consultants design the building required to a partial stage, often referred to as ‘scope design’, then competitive tenders are obtained from a selected list of contractors to develop and complete the design and construct the building.

iv. Package deal: This method is often used where the contractors competing will use a significant part of their own or another proprietary building system. There is limited scope for innovation when this method is used. Some contractors may offer to find site, to sell, mortgage or lease their product, obtain approvals at a risk to themselves or at charge to the client.

v. Novation Design and build: This is where the contractor takes over from the client a previous contract for the design work, completes the design and constructs the work.

2.3.1.2 Advantage of design and build

One of the advantage of using design and build is that construction activities are undertaking by one organization. The clients deal with only one contractor who make the design and at the same time construction (Love et al., 2008).

Another advantage of using this system is the issue of communication which occurs between the design team and the construction team (Nkhabu, 2011). With good and effective communication, the construction professionals are allowed to make a design input in early stage.
In addition, past experience of the design and build team is blended into current design. The clients are less involved in a direct construction. This shouldered the responsibility of complete project delivery on design and build team (Quoc et al., 2010).

Under this type of procurement system, the clients may be relieve of design and construction risk burden as it gives a single point responsibility to contractor for delivering the entire projects.

2.3.1.3 Disadvantage of design and build

Under this arrangement, the contract contractor is hired before design started. The clients may find out that he is not getting what he imagines he might get. Any real pricing is not possible (Goodwin, 2011). Similarly, the owner must rely heavily on the quality and ethics of the firm on any check and balance that has to do with the design (Daft, 2012). In this arrangement, the designer having work for the contractor, may not easily disclose to client any noticeable deficiency and or omission that may have a negative cost implication on his company.

According to Eriksson et al. (2011), Design and Build procurement should be used when a single organization is required to take responsibility and risk for the design and construction. It is a procurement routes favored by the government for publicly-funded projects, as it allows a fully integrated team to work together on the project from the beginning. It is usually adopted when a brief for scope design is likely to change and a building is functional rather than prestigious. The contractor is usually engaged to take responsibility and risk for the design and construction activities. This arrangement places all the design and construction risks on the contractor alone.

2.3.2 Management procurement method (packaged)

Management procurement method is the procurement route where a client employing a professional team to advise him on design and cost issues and in addition a management consultant to advise on and supervise the construction aspect of the project (Ibrahim, 2007).
In an effort to solve the problem of the traditional method, Joint Contract Tribunal (JCT 2008) management contracting provides a contractual relationship in which a contractor alongside client appointed full professional team, who are integrated into the project design stage, to ensure early completion and quality, contribute his expertise in design and management for a fee, though responsibility for financing rest with the client. The management contractor does not directly undertake any work/trade packages by his appointed work contractors (sub-contractors). The work contractors are therefore directly and contractually accountable to management.

There are two main variation of the management fee approach as identified below:

i. Management contracting and

ii. Construction management

### 2.3.2.1 Management Contracting

Management contracting is a form of contractual arrangement whereby contractor is engaged and paid fee to manage the building of a project on behalf of the client. In management contracting, the contractor does none of the construction work himself but it is divided up into work packages which are let to works contractors, each of whom enters into a contract with the management contractor (Smith, 2013).

This is the method where a client appoints an independent professional team and a management contractor at pre-construction stage to advise him and during construction is responsible for construction using a direct works contracts (Potts, 2014). This method makes an early start on-site and achieves early completion. It is also flexible thereby allows a client to change the design during construction.

Management contract is based on trust and good teamwork between client, design consultant and contractor for it to be successful (Ashworth et al., 2014). The contractor is appointed at pre-design stage thereby advice on the design programme, selection of suitable contractors, delivery of construction materials and construction programmes.

The management contractor will normally make a written submission of his proposed management fees, and will be appointed after interviews with the clients.
and the design team. The fee will include for the total management service, expressed as a percentage of the total project cost and for service to cover preconstruction stage should the project not proceed to site (Love et al., 2008). The clients usually accept most of the risk because there is no certainty about cost and programme.

The management contractor’s role is to provide a construction management service on a fee basis as part of the client’s management team. His role is to organise, co-ordinate, supervise and manage the construction works in cooperation with the client’s other professional consultants (Ramus et al., 2006).

In Nigeria, a typical use of management contracting was during petroleum trust fund (PTF) (1994-1999) as part of its mandate and responsibility to maintain roads. However, sincere construction often started before full designs. Subcontractors are often uncertain about the scope of work, hence resulting in indiscriminate delay and disputes (Ojo & Gbadebo, 2012).

In management contracting, contractual links exist between:

i. The clients and each of the members of the design and management team.

ii. Also, the management contractor and each of the work’s contractors.

![Figure 2.2: Management Contracts (Ramus, 2011)](image-url)
2.3.2.2 Construction management

The construction management is similar to management constructing in that construction manager is responsible for organizing and planning of construction work on site and for arranging the carrying out of work in a more efficient manner (Lock, 2014). The construction work is carried out by a number of work contractors each of whom is responsible for a define trade package.

The client accepts a considerable amount of risk because works contracts are directs between the clients and the contractor. The manage contractor is acting as an agents and cannot usually guarantee that the project will be finished to time and cost.

In Construction management contract, contractual links exists between:

i. The clients and construction manager.

ii. The clients and each of the trade contractors.

iii. The client and each of his professional advisers.

Figure 2.3: Construction Management Contracts (Ramus, 2011)
The common characteristics of management contract and construction management are that the employer pays for all the works executed directly to the trade or work contractors. The clients also have a direct contractual relationship with the trade or work contractors. In addition, the construction manager is not liable for the default of the works or trade contractor. In both cases, the construction manager merely acts as a mere consultants rather than a contractor.

2.3.2.3 Advantage of management procurement method

According to Ramus et al. (2011), in management procurement method, the clients are often advised on design and cost implication at the onset. All necessary measures are put in place to avoid cost overrun. Also, the clients deal with only one firm or consultant who enables improved coordination and collaboration between designers and contractors. The total time frame from brief to commissioning is reduced and also, there is an efficient cost monitoring and control. In addition, because design and construction are overlapped; there is potential for time savings for the overall project.

2.3.2.4 Disadvantage of management procurement method

According to Ramus et al. (2011), one of the main disadvantage of management approach to procurement is that the management contractor will require to be paid for his work if the project does not go ahead as schedule. The Clients may also lose direct control of design quality which is influenced by contractors. The two procurement system: Design and build and management procurement system discussed above are some of the few procurement systems in place to provide alternative to the shortcomings of traditional procurement system. However, this study would focus on traditional procurement method as the basis for this research. All relevant literature would be based on traditional procurement system.

2.3.3 Traditional procurement system (Separated)

Traditional procurement is a method of acquiring new units of building in which a client selects an Architect and other consultants for the design of the project and later
a building contractor is also selected, who has contractual relationship with the client and executes the project to completion (Eshun, 2013). Traditional procurement system was further defined in terms of timing and responsibility under this system, design is separated from construction and each stage of the production process managed separately (Rowlison, 1999).

Onwusonye (2005) described the traditional method as a multiplex contractual network in which an Organisation (contractor) usually outsourced using competition bidding, agreed to undertake an obligation (such as construction of a building) to specification on return for an agreed price. Usually, this involves relationship between a public or private organization (client) and another private company organization. The sole responsibility for financing of the project lies on the client organization. However, independent multi-discipline consultants on behalf of the client Organization undertake the management of the project to completion. Harper et al. (2005) referred traditional procurement system as competitively bid contracts where contractors are allowed to compete for projects in a free and competitive atmosphere similar to market environment.

Rashid et al. (2006) characterised traditional procurement system by the separation services-design, and full documentation-required before award and construction commences by the contractor (invited to tender for carrying out the work). Traditional procurement is further defined as a “design-bid-build” system of project delivery with three sequential phases: design, bid and build (Anderson & Oyetunji, 2003).

Walker & Rawlinson (2007) state that traditional procurement system has been in existence for a long time and has been the only choice available for most clients of the construction industry for many years. A system in which a client appoints a design team to provide the production information needed for the project, then select a contractor and supervise the work until completion (Kelly et al., 2006)

Davis et al. (2013) State that in traditional approach, the employer accepts that design work will be generally separate from construction; consultants are appointed for design and cost control, and the contractor is responsible for carrying out the works. This responsibility extends to all workmanship and materials and includes all work by subcontractors and suppliers. The contractor is usually
appointed by open competitive tendering. The contractor can as well be appointed by negotiation (Cooke et al., 2013).

Lengnick (1999) defined traditional procurement system as ‘Value for money’ delivery system which employs participants with different talents and combines these talents into business relationship to produce the desired results with greater certainty. He also describes the system as the free market by enabling contractors either to be selected either by open or select competition among an unlimited number of prequalified competitors.

Recent studies by Babatude et al. (2010) as well as Dada (2012) all documented this phenomenon in construction projects in Nigeria. In particular, Kwak et al. (2009) explain that clients can easily understand the operations of the Traditional procurement method in addition to their financial commitments towards their projects long before their design developments are completed. In the views of Smith et al. (2013), the traditional procurement method is not a suitable method for fast tracking projects because of its sequential nature that projects are designed before being constructed. This is a major disadvantage for this method of procurement as it does not support fast tracking.

The traditional procurement system remains by far the most popular method. In this arrangement, the owner first hires a design professional, who then prepares a design, including complete contract documents. The design professional is paid a fee that is either a percentage of the estimated construction cost or a lump sum amount agreed. With a complete set of documents available, the owner either conducts a competitive bid opening to obtain the lowest price from contractors to do the work or negotiates with specific contractor. The contractor is responsible for delivering the completed project in accordance with the dictates of the contract documents.

However, Babatunde et al. (2010) indicates that separation of design, tendering process and construction phases in Traditional procurement method should be viewed as separate tasks in which the design must be completed before construction phase starts. This study therefore, draws on this sequential feature to classify Traditional procurement method as Design-Bid-Build system. This is another nomenclature for the Traditional procurement method. Dada (2012) also indicates that Traditional procurement method has been reported for use in project delivery in many countries of the World in which Nigeria is one. Precisely, this study
confirms that Traditional procurement method has long being used by both public and private sectors of the Nigerian economy.

Table 2.3: Definitions of Traditional Procurement method

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| 3. | Bowen et al.      | 1999 | Defined traditional procurement system bases on characteristics as:  
  - Project being a sequential process.  
  - The design of project before construction works commences.  
  - The responsibility of managing the project being divided between the client’s consultants and the contractor.  
  - Reimbursement of clients consultants is normally on a fee and expenses basis whilst the contractor is paid for the work completed on lump sum |
| 4. | Anderson & Oyetunji | 2003 | Traditional procurement is further defined as a “design-bid-build” system of project delivery with three sequential phases: design, bid and build. |
| 5. | Harper et al.     | 2005 | Referred traditional procurement system to as competitively bid contracts where contractors are allowed to compete for projects in a free and competitive atmosphere similar to market environment. |
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