

**A FRAMEWORK OF EFFICIENT INTERIM  
PAYMENT FOR PUBLIC CONSTRUCTION  
PROJECTS IN KANO STATE, NIGERIA**

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**A FRAMEWORK OF EFFICIENT INTERIM  
PAYMENT FOR PUBLIC CONSTRUCTION  
PROJECTS IN KANO STATE, NIGERIA**

by

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## LIST OF ABBREVIATIONS

C	Consultant
CBN	Central Bank of Nigeria
CCA	Construction Contracts Acts
CIDB	Construction Industry Development Board
CIPA	Construction Industry Payment Act
CORBON	Council of Registered Builders of Nigeria
EI	Exploratory Interview
FIDIC	Federation International Des Ingeneieurs Conseils
FMW	Federal Ministry of Works
GDP	Gross Domestic Product
JAMB	Joint Admission and Matriculation Board
JCT	Joint Contract Tribunal
K	Contractor
MMR	Mixed Method Research
MOWH&T	Ministry of Works, Housing and Transport
NEC	New Engineering Contract
NIOB	Nigerian Institution of Builders
NPCN	National Planning Commission of Nigeria
NSC	Nominated Sub-contractor
OGC	Office of Government Commerce
PI	Preliminary Interview
PPAC	Presidential Projects Assessment Committee
PWD	Public Works Department

QS	Quantity Surveyor
RM	Malaysian Ringgit
SFBCN	Standard form of Building Contract in Nigeria
T	Client
UK	United Kingdom
US	United States
WHO	World Health Organization



# **RANGKA KERJA PEMBAYARAN INTERIM CEKAP UNTUK PROJEK PEMBINAN AWAM DI NEGERI KANO, NIGERIA**

## **ABSTRAK**

Ketidakcekapan pembayaran interim akan menyebabkan situasi kelewatan dan tiada pembayaran yang akan menjejaskan kontraktor dan prestasi projek. Situasi kelewatan dan tiada pembayaran telah dilihat sebagai satu keadaan normal atau 'boleh diterima' di Nigeria. Keadaan buruk ini mesti diperbaiki kerana ia mempunyai banyak kesan negatif seperti peningkatan kos, kelewatan projek, keuntungan berkurang dan pertumbuhan terbantut, perselisihan dan pengabaian projek. Penyelidikan ini mencadangkan satu rangka kerja pembayaran interim yang efisien yang memberi tumpuan kepada projek-projek awam di Kano State, Nigeria, menggunakan teori sistem terbuka dan konsep kecekapan. Kajian ini menggunakan pendekatan kualitatif melalui dua peringkat temu duga. Menggunakan teknik persampelan tujuan dan persampelan bola, sebanyak 15 responden untuk temuduga awal dan 30 responden untuk temuduga penjelajahan telah ditemubual. Penyelidikan mendedahkan bahawa kelewatan masalah pembayaran boleh meningkat sehingga 2 tahun dengan tahap indeks 'teruk'. Kelewatan juga dikesan pada setiap peringkat proses pembayaran interim, termasuk pengulangan semula penyerahan dokumen dan penilaian semula sijil. Terdapat 11 sebab utama ketidakcekapan pembayaran interim dan tiga teratas adalah isu pembiayaan, kualiti dokumentasi yang lemah dan ketidakcekapan pihak pembayaran. Sejumlah 12 strategi utama telah disyorkan untuk meningkatkan kecekapan pembayaran interim, di mana yang teratas ialah pematuhan dengan amalan etika, pengurusan rekod, perlindungan pemotongan kerajaan dan prosedur pemeriksaan. Strategi-strategi ini telah dikumpulkan kepada tindakan di peringkat pra, semasa dan selepas pembayaran interim. Rangka kerja pembayaran interim yang cekap dicadangkan berdasarkan penemuan di atas. Kajian ini diharapkan dapat memberi manfaat kepada industri dan negara dengan mempromosikan kecekapan dalam proses pembayaran interim untuk meningkatkan penyampaian projek dan dengan itu kesejahteraan sosio-ekonomi rakyat.

# **A FRAMEWORK OF EFFICIENT INTERIM PAYMENT FOR PUBLIC CONSTRUCTION PROJECTS IN KANO STATE, NIGERIA**

## **ABSTRACT**

Inefficiency in interim payment leads to late and non-payment situations which will affect the contractors and project performance. Late and non-payment situation is seen as normal or 'acceptable' condition in Nigeria. This ill condition must be rectified because it has many negative effects such as cost overrun, project delay, reduce profit and growth, disputes and project abandonment. This research proposes a framework of efficient interim payment focusing on public projects in Kano State, Nigeria using open system theory and efficiency concept. This research adopts qualitative approach through two stages of interview. Using purposive and snowball sampling techniques, a total of 15 respondents for preliminary interview and 30 respondents for exploratory interview were interviewed. The research revealed that delay in payment problem could go up to 2 years with 'severe' index level. Delay is also detected at every stage of interim payment process, including repetition of document re-submission and certificate re-evaluation. There are 11 main causes of interim payment inefficiency and the top three are funding issues, poor documentation quality and incompetency of payment parties. There are 12 main strategies recommended to improve interim payment efficiency lead by compliance with ethical practice, management of records, government discontinuity protection and checking procedure which are grouped into pre, during and post interim payment action plan. The framework of efficient interim payment is proposed based on the above findings. The study is expected to benefit the industry and country by promoting efficiency in the interim payment process to improve projects delivery and thus socio-economic wellbeing of the citizens.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

This chapter provides the background of the study by looking at the construction industry both globally and locally, payment issues which include types of payment focusing on interim payment, the impact of payment problems and the parties involved. Then it focuses on the problem statement before setting out the objectives of the study alongside the research questions. This chapter also briefs on the research methodology and highlights the significance of the study. Lastly, it discusses the scope of the study before providing the guide to the thesis.

### **1.2 Background of the Study**

Construction industry is responsible for the enhancement of human's environment for the comfortable habitation and activities that are attached to it. The industry is responsible for the provision of housing, which is one of the basic necessities of life. It is also responsible for the provision of social amenities, recreational facilities, sporting accommodation and also the development of infrastructures such as railways, roads, airports, seaports, drainages, bridges, dams, canals, hospitals and clinics, institutional buildings and schools, water treatment plants and dams, industrial developments among others (Familoni, 2006; Ibrahim, Githae & Diang'a, 2014; Ozorhon, Arditi, Dikmen & Birgonul, 2010) enforcing the industry's significant role in long-run socio-economic developmental activities of any country. The level of infrastructure development of any nation shows the level of its people's standard of living (Familoni, 2006; Martin and Marsh, 2008), measures the strength of a country and ability to attracts foreign investors and global trade (World Bank report,

2005). The construction industry plays a great role in the economy of both developed and developing countries, contributing between 4-14% of the Gross Domestic Product (GDP) whilst generating large number of employment as well as providing the infrastructure that complements other sectors of the national economy (Ibrahim & Musa-Haddary, 2010; Ijigah, Oloruntoba & Mohammed, 2012). For example, the industry contributes 3.8% GDP in the Malaysian economy in 2013 (Department of Statistics Malaysia, 2014) cited in (Mohammad, Bajung & Hakim, 2018). Another major contribution of the construction industry to a nation's economy is the employment of 1-3% of the economically active population in developing countries for examples 3% in Korea, Russia and Brazil and 1% in India (Mckinsely, 1997). According to Said, Shafiei, Razak, Osman & Kamaruddeen (2010), the importance of construction industry to national economies can never be underestimated.

Similarly, the construction industry in Nigeria is vital to the nation's development and a major indicator of the country's wealth in terms of social and economic. The industry account for about 70% of the fixed capital formation and employs eight (8) million people, which represents approximately 25% of the nation's workforce and thus, considered the largest employer of construction labour in Africa in 2010 (Ibrahim, 2012; Inuwa, Napoleon, Usman & Dantong, 2015). Previously, the industry contributed up to 70% of the country's GDP in the early '80s, but drastically reduced to one per cent (1%) in 2001 (Ijigah et al., 2012) before slightly increase to 2.08% in 2011 (Quantity Surveyors Registration Board of Nigeria (QSRBN), 2012) and 4.2% in 2015 (Central Bank of Nigeria (CBN), 2015). The drastic decrease in the value of one naira (#) to one dollar in the 80's i.e. (\$1= # .80) with 2018 i.e. (\$1= # 340) is due to severe inflation. Apart from inflation, the population of Nigeria in 1980 which was 78 million has also increased to 180 million in 2006 (National Population

Commission (NPC), 2006). In the 1980s, there was an oil boom meaning that money was in excess for the country and the government decided to invest heavily in the construction sector. The increase in GDP contribution in 2015 is also contributed by the Nigerian vision 2020 National Implementation Plan which invests more for construction activities at about # 7.09 trillion (CBN, 2015). Nevertheless, Nigeria still faces a huge deficit of basic amenities and essential infrastructures required by the majority of the populace to facilitate the attainment of other needs (Ibrahim et al., 2014). The major challenges for the construction industry sector in Nigeria, is how to provide efficient and satisfactory project delivery services within the available resources (Finance, Capital, Human, Equipment, Technology, Project Management etc.) and strategies required to achieve the project goals (Ibrahim et al., 2014).

The Nigerian construction industry in general has suffered problems of inefficiency, low productivity and poor performance (Adeyemi, Oladapo & Akindele 2005; Ijigah et al., 2012). The industry's inability to deliver services effectively and efficiently to its clients was attributed by scholars to various reasons. For example, the Nigerian construction industry has also been accused of poor funding and corrupt practices (Oyegeke, 2005; Oforeh, 2006; Musa, Oyebisi and Babalola 2010); inadequate budgetary provision, abuses of contractual arrangements and poor planning and execution (Wahab, 2006).

Traditionally, construction project participants work first and then get paid in stages as work progresses. Delay and non-payment happened when the client and main contractor abuse these deferred payment privileges. The prevalence of financial inappropriateness in the construction industry has been globally acknowledged in notable studies that have spanned over fifty (50) years (Banwell, 1964; Egan, 1998;

Latham, 1994). Generally, the construction industry has delayed payment culture (John, 1999) which continually become the major cause of disputes within the industry (Collin, 1996; Kennedy, 2005). Contractors and sub-contractors are at the unfortunate receiving end of these practices. In Nigeria, delayed payment and non-payment of contractors are prevalent in the construction industry (Dantata, 2007; Babalola, Oluwatuyi, Lawal & Aiyewalehinmi, 2015). Failure to honour payment on time as work progresses on site has negative effects on parties to the construction contract. Late payment, time overruns, cost overruns and non-performance to design specification standards, thereby, resulting in dissatisfied parties and poor performance of completed projects (Senarate, 2008; Sexton, 2008). Thus, the construction industry and its stakeholders have been constantly criticized for inefficiency in the delivery of housing and infrastructure projects to both public clients and private clients including in the efficiency of making payment.

Measures have been taken in the past to improve the performance of construction sector in its project delivery such as the use of alternative procurement system, application of alternative building materials and construction methods, sustainability, frequency in seminars/conferences, workshops, colloquium, professionals' assemblies among others (Ibrahim, 2012). Other measures include the establishment of bodies/agencies by various nations such as Construction Industry Development Board in Malaysia, the National Construction Council in Tanzania, the Institute of Construction and Training and Development in Sri Lanka and the National Council of Public Procurement and Public Procurement acts in Nigeria among others. However, most of these efforts have not directed on improving payment issues (Ibrahim, 2012). Researchers have shown that improvement in payment systems will greatly transform the construction sector. For example; countries like the UK, USA,

Singapore, New Zealand, Australia and Malaysia have already legislated their construction-specific statutory payment security regimes. These payment Acts were purposely enacted to address issues on prompt payment in the construction industry, to eliminate poor payment practices and enhance the contractor's cash flow (Ameer, 2005; Kolt, Ibrahim & Olayan, 2018; Lip, 2005).

Payment is a vital part of any economic transaction because it is the best incentives for getting any work done. Payment is the lifeblood of the construction industry (Ramachandra & Rotimi, 2015; Supardi, Adnan & Mohammad, 2011a). The significance of payment and problems associated with it in the construction industry are globally observed (Jones et al., 2010; Latham, 1994; Mohammad, Bajung & Hakim, 2018; Pettigrew, 2005; Ye & Rahman, 2010). Payment problems occur in both developed and developing countries irrespective of the size of the construction industry. Paulsen, Hughes and Holland (2010) and Hughes (2008) mentioned that payment problems in the construction industry manifest themselves in three ways: intentional defaults (late/delay) by client, arbitrary devaluation of claims/invoices and non-payment. Williams. Hughes and Parmar (1998) elaborated that late and non-payment are due to 'cannot', or 'would not' pay attitude, or both, of the client. It has been proffered that payment on construction projects is often deliberately delayed because upper-tier parties use it as a strategy to funds other projects (Carmichael & Balatbat, 2010; Odeyinka & Kaka, 2005; Tran & Carmichael, 2012). Hence, late and non-payment seems to be a common scenario in most construction industry (Johnston, Swallow & Weaver, 1999).

Late payment can be defined as a refusal of a client to pay within the period of honouring of certificates as provided in the contract (Harris and McCaffer, 2003). Non-

payment is defined as a situation where interim payment is not honoured for three consecutive periods or three to five months after the due date (Ameer-Ali, 2005). In the construction industry, payment is a major concern because: (1) payment terms are usually on credit rather than on delivery (2) unlike other industries, the duration of construction project is often relatively long (3) the size of the project is relatively large, and each progress payment amount is usually large (Ameer-Ali, 2005).

In the construction industry, payment of the contract sum to be made by instalments is known as interim payment (Murdoch & Hughes, 2000). Interim payment assists in reducing the size of the contractor's working capital requirements. When there is a delay in payment, the contractor's working capital requirements increases which force them to depend on personal or external sources to fund the working capital requirement. Most standard forms of contract, including Joint Contract Tribunal (JCT) which is used in Nigeria, incorporate clauses for periodic payments to the contractor for the works properly executed at the time of issue of certificate (JCT, 80). The amount to be paid to the contractor depends on the evaluation of work properly executed in which the client is expected to honour payment within a fixed period from the date of certification.

Abdul- Rahman, Kho and Wang, (2013) observed that construction projects are extremely complex, usually governed by highly detailed contracts and the payment process is one of the most sensitive areas for all parties. It is important to understand each party's concerns, as all parties bear significant risk. The parties that are responsible with payment are client, contractor, consultants (Quantity Surveyor, Architect, and Engineers). The action or inaction of one or more of these parties can



cause a payment to be delayed. Delay in the interim payment process was found to be due to the inefficiency of the payment process (Ramachandra & Rotimi, 2015).

It is based on the above described scenario that this study intends to study payment problems for public construction projects in Nigeria. The study will be focusing on interim payment practice by Kano state government as a public client to main contractors. Interim payment is being considered as a system which consists of various interrelated components. These components will be explored with a view to identifying the causes of payment inefficiency and recommends strategy to improve payment efficiency. The study adopts a qualitative method of data collecting using semi-structured interview to elicit information from three groups of respondents (contractor, consultants and client) who are involved in the payment process.

### **1.3 Problem Statement**

Payment problem in the construction industry has been globally acknowledged in notable studies that spanned over four decades (Banwell, 1964; Egan, 1998; Latham, 1994). The problem persists to date (Ramachandra and Rotimi, 2015; Ye and Abdul-Rahman, 2010; Abdul-Rahman et al. 2011; Badruddin et al. 2016; Bell et al. 2018). Delay in payment has negative consequences on the projects and contract parties. Lack of on-time payment to the contractor has direct ill effects on the parties of the contract. According to Abdul-Razaq, Ibrahim and Ibrahim (2012), project funding problem can be classified into time-related, cost-related and quality-related problem that can significantly affect the successful delivery of a project. Late payment from a client can be classified as a type of financial risk which has a high level of uncertainty (Maeda & Sakai, 2007; Taleizadeh, Pentico, Jabalameh & Aryenezhad, 2013). Dealing with financial and economic problems is necessary because these problems may have a

negative consequence on cash flow, endanger the project's viability and minimize profitability (Abdul-Razaq, Ibrahim and Ibrahim 2012). Proper cash flow management plays a vital role even when a company is not encountering financial problem (Barbosa & Pimentel, 2007; Yang & Chang, 2013). The organization least able to carry the risk such as the small sub-contractor must accept the risk or failed to secure the work (Zhou, Hwang & Low, 2013). Parties at the bottom of the supply chain will consequently be more exposed to this risk.

The Nigerian construction industry is facing payment problems as evidenced by various researches and reports in the country. Olusegun and Michael (2011) also highlighted that project problem related to financial issues are due to delay payment and inadequate cost control, inadequate project cost planning, inadequate fund and bankruptcy of the contractor. Payment problems in Nigeria are in the form of late payment, non-payment and incomplete payment (Onoh, 2010). These problems happen from project to projects. There is evidence that the situation is yet to change. For example, the Presidential Projects Assessment Committee (PPAC) indicated that about 11,886 Federal projects were abandoned or have not been completed with a total amount of # 7.8 trillion (1USD = # 160) (Federal Ministry of Works (FMW), 2014). The PPAC believes that this figure is not exhaustive and may increase by 20%. The same thing applied to the private sector. According to FMW (2014) payment of outstanding claims to contractors is affecting the completion of the number of road projects. Evidence suggests that this problem is widespread across other Ministries and Agencies. The Federation of Building and Civil Engineering Contractors in Nigeria has been lamenting on this problem as frequently reported in the press. This is a major concern because the quantum of payment for works and services rendered in the industry is large, often in trillions of Naira (#) (CBN, 2014). Previous studies CBN,

(2014); FMW, 2014); Olusegun and Michael (2011); Onoh, (2010); Ezeokoli, Ugochukwu and Okolie, (2016) highlighted on the occurrence of payment problems in Nigeria. These studies failed to address the severity level of the payment problem which this study intends to fill the gap.

Onoh (2010) studied late and non-payment issues (causes, effects and contractors' reactions on the issue) in the Nigerian construction industry focusing on contractual payments from employer to contractor. It was found that late and non-payment are caused due to delay in certification, employer's poor financial management, local culture and attitudes, underpayment of the certified amount and short of current year budget. The findings of the study indicated the occurrence of late and non-payment which create cash flow problems, stress on contractor and high rate of project abandonment. The study recommended regular payment within a define time frame, right to speedy dispute resolution and contractor's right to suspend work as solutions to remedy the problem. The delay payments of claims for variations, fluctuation, loss and expense and extension of time sometimes run into several years. This results in unpredictable fund flow for the contractor and makes financial planning unfeasible (Ezeokoli et al., 2016). Sarki, Hamid and Mahmood (2018) investigated on the experts' consensus on payment performance attributes in the Nigerian construction industry. The study aimed at finding attributes that are useful for improving client payment performance. It was found that regular payment according to contract, processing files for payment, selective payment, paymaster certification, contractor's claim, credit payment, amount of payment, flood, change of government policies, and economic meltdown as the top attributes for payment performance. Dantata (2007) studied on the general overview of the Nigerian construction industry and stated that one of the major reasons many construction companies go out of business in Nigeria

is the lack of on-time payments by clients, especially the government. This affects the cash flow of construction companies that are expecting payments. Large size construction companies managed to handle the situation while small size companies hardly survive it. Companies that are forced to source for external credit reduces the profit of the organization and failure to collect the loan, the company will likely go bankrupt (Stanley & Tolechukwu, 2014).

Kog (2017) reviewed 23 studies to identify major delay factors for construction projects in Nigeria. It was found that finance and payment of completed work by the client, delay due to progress payment, late claim evaluation and issuance of a certificate by consultants are the major delay factors for construction projects. A study conducted on factors militating against prompt delivery of construction projects in Lagos Megacity, Nigeria found that majority of the projects were completed behind schedule due to delayed payment (Ogunde et al., 2017). The major causes of time overrun for construction projects in Nigeria are due to delayed payment factor with significant value of 48%, others were architects' variation instructions 32%, material shortage due to late delivery 6%, repeat works 4%, and inclement weather 1%. Other minor causes account for 9% of delays (Amu & Adesanya, 2011). Akinsulu and Akinsulire (2012) observed that the causes of time overrun depends on the mode of financing and payment for the completed work. They also identified several factors related to the inefficiency in project processes such as non-compliance with conditions of a contract, lack of coordination between contractor and design team. Similarly, failure to pay for completed works, delays in payments by clients to contractors, improper financing and payment arrangements results in project delay (Adekunle & Ajibola, 2015).

The delay payments of claims for variations, fluctuation, loss and expense and extension of time sometimes run into several years. This results in unpredictable fund flow for the contractor and makes financial planning unfeasible (Ezeokoli et al., 2016). Asuquo and Effiong (2017) highlighted that payment problems result in an increase of construction cost as contractors usually factor in the cost of finance and the risk associated with the late payment into their tenders. They further asserted that the problem decreases the profitability of contractor and delay of completion period of the project. Raji, Mohamed and Oseni (2015) identified the major causes of dispute in adjudication to be due to valuation and variations of final accounts and failure to comply with payment provisions. In many cases, payment delays which result in disputes among construction parties lead to suspension and termination of projects. This problem could possibly lead to a formal dispute resolution such as ‘arbitration’ or ‘litigation’ and those processes are very costly and lengthy. The client’s fail attitude to honour payment is identified as among the risk factors that affect the construction project’s cost and/or time (Amusan, Dosunmu & Joshua, 2017). Olalusi and Anthony (2012) opined that most construction projects that would have impacted on the economic and entire development of Nigeria are abandoned in every place of the entire country. This has affected the entire environment by defacing the aesthetics and creating social problems as well as other health hazards to the entire populace. From the above discussion, it could be observed that most causes are related to people, process and management such as sub-contractors and suppliers, delay in certification, employer’s poor financial management, local culture and attitudes and dispute. Studies such as Adekunle and Ajibola, (2015); Akinsulu and Akinsulire, (2012); Kog, (201); Ogunde et al., (2017) identified the causes and effects of payment problem from a general perspective. There are four types of project payment. The causes and effects

of the problems can occur from each of these payment types which previous studies fail to investigate. This study intends to address this problem by narrowing into interim payment.

Ramonu et al. (2018) highlighted that the situation is getting worse because there is limited security of payment and remedies available to the unpaid contractor in Nigeria pending dispute resolution. There is no common law right of suspension of work by the contractor for non-payment, else the court may find the contractor guilty of repudiating the contract. Even though the Standard form of Contract (JCT 80 Nigerian edition), contain express provisions for determination of his employment for non-payment, most contractors as a matter of practice are reluctant to go on this route hoping that things will be better and to maintain commercial goodwill with their clients. This is the present dilemma of unpaid contractors in Nigeria.

Interim payment is very important in any project execution. Lathan (1994) highlighted that payment is the 'lifeblood of the construction industry. Contractor needs to maintain a regular cash flow as work progresses on site to purchase materials and pay labour. Prompt payment to the contractor will ensure successful delivery of construction projects. When projects are completed on time, it will improve the socio-economic wellbeing of the populace. Ramachandra and Rotimi (2015) observed that payment problems were mainly due to the inadequacies of the payment process. Payment process was only visualized from the narration version of JCT. Delay in completion of payment process could lead to a delay in honouring payment certificate. Hence, there is need to study the root causes of the problems by examining the interim payment process and procedure so that proactive measures will be taken to address the situation at the root level. It is based on the above stated problems; this study focuses

on the interim payment problems of public construction projects in Nigeria. This would be achieved by conducting interview with contractors, consultants and clients in Kano state, Nigeria. Previous researches looked at the payment problems from general perspective focusing on causes effects and mitigating factors. This study focuses on inefficiency within the interim payment process to detect where the problem lies and recommends strategy to improve interim payment efficiency.

#### **1.4 Research Questions**

Based on the foregoing, the study attempts to address the following research questions:

1. What is the level of payment problems in Kano state, Nigerian public construction projects?
2. Why inefficiency occurred during interim payment process?
3. How to improve efficiency in interim payment procedure?

#### **1.5 Brief of Research Methodology**

This research can be divided into two stages: literature stage and fieldwork stage. Literature review was done through consulting published materials on payment related issues i.e. from textbooks, forms of contract, journal articles, past published theses and internet search to obtain secondary data. Specific focus is dedicated to the Nigerian construction industry and past researches on interim payment issues. At fieldwork stage, two phases of interview processes have been conducted with the aim to obtain primary data for the purpose of achieving research aim and objectives. The two phrases of the study are named as preliminary and exploratory interview. The preliminary interview focused on establishing the occurrence of payment problems,

identify the main process and detail processes of payment procedure and identify the causes of payment problems. The exploratory interview focused on investigating the severity of payment problem, the causes of payment inefficiency and strategies to improve payment efficiency. Both interviews adopt Qualitative approach using semi-structured design questionnaire. The selection of the respondents starts with identifying key ministries and agencies that are responsible for the execution of public projects as client's respondents. Similarly, construction professional associations/bodies were contacted to get major consultants who were involved in the execution of public projects, associations of construction companies in Nigeria were reached out to get the name of their members who participated in the construction of public projects. Snowball sampling technique is adopted in identifying potential respondents from contractor, consultant and client category. A total of fifteen (15) participants were interviewed with five (5) participants from each group from the preliminary phase while thirty (30) participants were interviewed in the exploratory phase comprising thirteen (13) contractors, ten (10) consultants and seven (7) clients. The study was conducted in Kano State, Nigeria. The findings of both preliminary and exploratory phases were analyzed and reported separately. Data were analyzed using NVIVO version 12 and findings were presented following the outlined objectives.

## **1.6 Aim and objectives of the Study**

The aim of this study is to develop a framework of efficient interim payment for public construction projects in Kano State, Nigeria.

To achieve the aim, the research has outlined five (5) objectives as stated below:

1. To investigate the occurrence of payment problems in public construction projects in Kano State, Nigeria



2. To establish interim payment procedures in Kano State, Nigeria.
3. To explore the inefficiency within the interim payment process of public construction projects in Kano State, Nigeria.
4. To examine the causes of interim payment inefficiency of public construction projects in Kano State, Nigeria.
5. To recommend strategies to improve efficiency within interim payment process of public construction projects in Kano State, Nigeria.

### **1.7 Significance of the Study**

Uninterrupted interim payment regardless to public or private construction projects will provide smooth cash flow to a contractor and other parties down the supply chain which ensures construction projects performance in terms of time, cost and quality. Efficient interim payment procedure would promote timely payment of public projects. This study is important to parties of the contract because it will improve payment efficiency which will improve contractor's cash flow and protecting the reputation of the client. Smooth cash flow to the contractor will enable him to maintain skilled works, order for materials and pay subcontractors and suppliers. The client on the other hand is expected to have project completed within budgeted cost, scheduled time and required standard and specifications., it will create the good working relationship between the contractor and consultants which also enhance the reputation of the consultants. At project level, improving interim payment efficiency will promote successful delivery of construction projects. When construction projects are being executed successfully, it will bring people confidence and trust in the industry. The study will also help to improve efficiency in the process and subsequently improve interim payment procedure. Timely interim payment of work

done by the contractor will improve the performance of the construction industry. Finally, successful delivery of construction projects will improve the socio-economic wellbeing of the citizens as well as creating job opportunities.

## **1.8 Scope of the Study**

Payment is a significant aspect of any construction project. Research on payment generally focused on main causes of late and non-payment (Abdul-Rahman, Takim and Min., 2009; Abdul-Rahman, Wang, Takim and Wong 2011; Alaghbari et al., 2007; Assaf, Al-Khalil and Al-Hazmi, 1995; Ramachandra and Rotimi, 2015), effects of late non-payment on cash flow (Memon, Rahman, Abdullah and Azis, 2011; Sambasivan & Soon, 2007) and methods of mitigating payment problems (Azizan et al, 2010; Euginie, 2006; Wu, Kumaraswamy & Soo, 2011; Ramachandra & Rotimi, 2012). This research focuses on interim payment of public construction projects at a deeper level. It establishes inefficiency within the interim payment process from the view of three key stakeholders i.e. client, contractor and consultants who have different roles to play during the interim payment process. This research considered public projects of Kano State, Nigeria. This is due to a large number of abandoned public construction projects in the state as frequently reported in the newspapers as well as contractors' associations (Gambo & Ilias 2014).

## **1.9 Definition of Terms**

This section highlights four main terminologies in this study.

**a) Late payment:** Late payment is defined as a payment made to the contractor by the client after 14 days period of honouring certificate and not later than 3 months.

**b) Non-payment:** Non-payment is defined as a situation where main contractor did not receive interim payment from a client for more than 3 consecutive interim certificates.

**c) Efficiency:** Efficiency refers to the completion of an interim payment process within the 28 days stipulated in the form of contract or other contract documents.

**d) Inefficiency:** Inefficiency in the context of this research, is defined as a situation where interim payment process is not completed within the 28 days specified in the standard form of contract.

## **1.10 Guide to Thesis**

The study is organized into seven chapters. Chapter one is the introduction which presents the subject matter of the study, the payment problems in the construction industry; including the research background, statement of the research problem, objectives, significance, scope of the study and organization of the study.

Chapter two reviews the literature. It presents an overview of the Nigerian construction industry introducing construction payment which includes payment definition, types of payment, the importance of interim payment, and payment issues in the Nigerian construction industry and globally. The chapter also presents an overview of interim payment comprising its significance in the project development, interim payment under various forms of contract, interim payment process and procedure and parties involved. System theory was presented along with efficiency theory as the theories underpinning the study to propose conceptual framework for the research.

Chapter three describes the research methodology of the study including, research paradigms, research approach, research design, population and sampling, data collection and analysis technique. The chapter concludes by highlighting steps taken to ensure the validity and reliability of the research findings.

Chapter four presents preliminary interview process, coding of respondents, results and research findings. The findings were presented in tables, figures and in narrative form.

Chapter five presents exploratory interview process, coding of respondents, results and research findings. Similar to chapter four, findings were presented in tables, figures and narrative form.

Chapter six discusses the findings from both preliminary and exploratory interviews. The framework is re-visited based on the overall findings.

Chapter seven concludes the study and review the achievement of aim and objectives. It describes the main contribution of the study to the body of knowledge and to practice. The chapter also states the limitation of the research and recommendations for future studies. Finally, overall concluding remarks is presented in this chapter.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section presents literature on construction industry in Nigeria which comprises of construction industry progress, the structure of Nigerian government as project clients and issues within Nigerian construction projects. The second aspect of the chapter deals with payment issues which consists of definitions, types of payment, the importance of payment, problems of payment, interim payment procedure and previous studies on payment. This chapter also highlighted the causes of late and non-payment, its impacts and recommended remedies. Lastly, the conceptual framework is proposed.

#### **2.2 Construction Industry in Nigeria**

Nigerian construction industry is similar to other construction sectors or across the world. It is very complex and multidisciplinary. Similar to other countries, the construction industry in Nigeria is also crucial for national economy. The government interacts with the industry as purchaser, financier, regulator, and adjudicator. Mbamali and Okotie (2012) further asserted that the major client of the industry is the government. To support this assertion, Anny, Anthony and Kehinde (2014) stated that the government of Nigeria accounts for 60% of building works and 95% of infrastructure works in the construction industry and consequently the biggest and most important client of the industry. The construction industry in Nigeria is discussed in three parts: its progress, the government structure and its emerging issues.

### **2.2.1 Construction Industry Progress**

Organized construction activities in Nigeria started in the 1940s with a few foreign companies coming into operation (Olowo-Okere, 1985). Nigerian independence in 1960 supported by the ‘oil boom’ of the 1970s brought an upward trend in the construction activities and up to the end of the second republic in 1983, the construction industry in Nigeria has witnessed an overwhelming improvement in construction activities dominated by expatriate companies with a few indigenous companies (Idoro, 2009). During this period, indigenous companies were facing a serious challenge of the low level of human resources required for planning, designing, constructing and maintaining large size and number of projects conceived by the government. However, with improved training institutions, engagement of expatriates, collaboration between indigenous and foreign entrepreneurs, political stability and improved government policies, the apparent resources gap needed for successful completion of complex projects between indigenous companies and their foreign counterparts are now closer compared to the pre-independence era (Isa, Jimoh & Achuenu., 2013; Mbamali & Okotie, 2012).

The major source of capital formation in the construction sector that can stimulate growth and development in Nigeria is from the public sector via infrastructure projects. Infrastructure such as roads, airports, seaports, bridges etc, is widely defined as the system of services and facilities which provides for the basic well-being and quality of life (Zara & Ayyub, 1996). There is a positive link between the provision of infrastructure and the level of urbanization (UN-Habitat, 2012). According to Iseh (2003), the construction of infrastructure and its maintenance in Nigeria is capital intensive and these services are normally provided by different tiers of government

although the private sector is becoming involved due to the liberalization policy of some aspect of the national economy by the government. The standards and regulations of infrastructure are based on conventional standards which are formulated by professionals at the town planning, land and survey departments.

In 2018, a sum of # 2.87 trillion which is equivalent to 31.5% of the total federal government had been allocated for the development and maintenance of infrastructure (Vanguard, 2017). Housing is another sector that is in high demand with the growth of the Nigerian population. Nigeria has a shortage of housing stock, with an estimate of 80% of its urban dwellers living in slums (Muhmmad & Bichi, 2014). The proportion of the Nigerian population living in urban centres has increased over the years, for example, only 7% of Nigerians lived in urban centres in the 1930s, 10% in 1950s, by 1970, 1980 and 1990, 20%, 27% and 35% lived in the cities respectively (Abdulazeez, Owoicho & Badiru 2015). Over 40% of Nigerians now live in urban centres of varying sizes (Okupe, 2002). Ololuah (2002) estimated that about 2.3 million urban housing units are below standards, only 33% of houses are considered physically sound and 44% and 19% require minor and major repairs respectively to bring them to standards. It is the right of every individual to have decent housing, yet a greater number of Nigerians live in poor housing conditions.

Nigeria had four National development plans from independence to date. The first national development plan was formulated between 1962 to 1968 with objectives of development opportunities in health, education and employment. The sum of 2.2 billion Naira was allocated for the achievement of the said objectives (Obi & Obiekeze, 2004). In this plan, less priority is given to the provision of housing and development of infrastructural facilities. The plan failed because 50% of the resources needed to

finance the plan will come from external sources and only 14% of the external finance was received. The second national development plan was between 1970 to 1974 which provide a capital expenditure of 3 billion Naira targeted to correct and improve some of the mistakes of the first plan (Obi & Obiekeze, 2004). The third national development plan was carried out from 1975 to 1980. Initially the sum of 30 billion naira was allocated for capital expenditure but later revised to 43.3 billion (Ogwumike, 1995). The fourth national development plan was between 1981 to 1985 which project a capital expenditure of 82 billion with a specific aim to improve the living conditions of the citizens (Ogwumike 1995). Majority of these plans were formulated during military era. All these plans failed to achieve the purposes for which they are designed. These plans failed mainly due to poor leadership. Other factors responsible for the failure include problem of internal and external conflicts between the various level of government, election and appointment of new officials due to stoppage of ongoing project or failure to implement already plan projects, other reasons are corruption which is a very serious problem delaying the progress of the country, finance and lack of adequate professionals (Okoli & Onah, 2012). Following the end of military rule, a four-year maiden development plans are introduced by successive administrations which include national rolling plan, structural adjustment programme (SAP), vision 2010, national economic empowerment and development strategies (NEEDS), 7 points agenda and vision 2020 (Bietan & Ekhosuehi, 2013; Ikeanyebi, 2009). Literature indicated that the percentage allocated for public capital projects ranges from 12% to 34% from independent to date (Bietan & Ekhosuehi, 2013; Okoli & Onah, 2012; Ikeanyibe, 2009).

Until 2007, Nigeria did not have a statute that specifically regulates public procurement. This led to the enactment of the public procurement act (NO. 14) of 2007 (the “procurement act”), which requires public institutions and other relevant parties to



ensure that all public procurements are conducted in a manner that is transparent, timely and equitable and based on the agreed guidelines and standards. The procurement act established the Bureau of public procurement (BPP), which oversees the procurement activities of all the procuring entities and is responsible for the issuance of procurement ‘Certificate of No Objection’. A ‘Certificate of No Objection’ is the document that confirms that due process was followed in the conduct of procurement process and authorizes the procuring entity to enter into the relevant contract (Ikeanyibe, 2009). On the other hand, various professional bodies such as Nigerian Institutes of Quantity surveyors (NIQS), Nigerian Institute of Architects (NIA), Nigerian Society of Engineers (NSE), Nigerian Institution of Builders (NIOB), Nigerian Institution of Surveyors (NIS) are making effort towards improving performance of the industry through organizing seminars, workshops and conferences for their members.

Nigeria, as a developing country and its construction industry, is still struggling with a lot of intrinsic challenges, ranging from inadequate technical and managerial know-how to insufficient financial, material and equipment capital base (Fagbenie et al., 2018; Oladimeji & Ojo, 2012). However, the industry is also full of inherent potentials, such as self-sufficiency in cement production that will stabilize the materials sector and the huge deficit in physical infrastructure (road, rail, airport and seaport) that will be key to creating opportunities for sustainable development (Oluwakiyesi, 2011).

### **2.2.2 Structure of the Nigerian Government as Project Client**

The structure of the Nigerian government as a project client comprises of three tiers of government and the federal capital. The three tiers of government are namely: the federal government, state government and local government. There is one federal

government, one federal capital, 36 states government and 774 local government councils. Government construction projects are categorized and executed by these tiers of government (Dantata, 2007). Construction of federal roads, federal dams and bridges, airports, seaports, railways, federal housing schemes, federal hospital and medical centres, federal educational institutions etc. are supervised and coordinated through various federal ministries, federal agencies, boards, parastatals and departments while the development of the federal capital city is taken care by the federal capital various agencies, boards and departments. The construction of state roads, states education institutions, states hospitals and medical centres, states housing schemes, state water projects etc are executed by the state ministries, state government agencies, parastatals, boards and department. The last tier which is the local government is responsible for the construction of projects such as feeder roads, culverts, dispensaries and other small community projects. The major ministry responsible for the execution of government projects for both federal and states is the ministry of works while for federal capital is the federal capital development authority and works department for local government council. Figure 2.1 shows the structure of the Nigerian government as a project client.