

Construction Project Financing for Sustainable Development of Nigerian Cities

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Key words : City Development, Partnering, Project Finance, Public/Private Partnership, Sustainable Development.

SUMMARY

Construction project finance poses as herculean task in city development in developing countries and must be tackled if meaningful development must take place. The agitation for construction projects are more in democratic governance while the means of providing them are limited. Leaders must therefore, innovate means of financing construction projects to meet majority of people's yearning. Nigeria construction industry has experienced various methods of construction project finance from Traditional (Direct Labour, Open Tendering and Selective Tendering) to Modern Methods (Design and Build, Turnkey Project, Contract Management, Public-Private Partnership etc). Despite the failure of Public-Private Partnership (PPP) in the finance of projects in Nigeria (for examples, Lagos-Ibadan Expressway, Guto-Bagana in Nasarawa and Kogi States, and Maevis Concession projects in all International Airports in Nigeria), the federal government has signified intention to concession two more bridges for private-investors' development. These bridges are the Second Niger Bridge between Onitsha and Asaba and River Niger Bridge in Nupeko, Niger State. The financing methods have placed our infrastructures in horrible states across the country. This paper will adopt the triangulation method of research (quantitative and qualitative) in order to have an in-depth knowledge of the challenges of construction project finance. Construction project finance methods like the Traditional Method (Direct Labour (DL) and Design, Bid and Build (DB&B)) and Modern Methods (Design and Build (DB); Build, Operate and Transfer (BOT); Partnering, Public-Private Partnership (PPP) etc, will be discussed. Lagos-Ibadan Expressway concession, Lekki-Epe Expressway concession, and Murtala Mohammed International Airport concession to Messrs Maevis Limited will be discussed as case studies of PPP in Nigeria.

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1. INTRODUCTION

Feyisipo (2011) reported that “The Federal Road Maintenance Agency (FERMA) says it requires about N320 billion to maintain Nigeria’s 194,200 kilometres of roads on a yearly basis”. This is a whopping sum and a major share of the annual budget. Financing construction projects is a great challenge in developing countries and has left most of the infrastructure in sorry state.

According to Merna et al, (2010), “Project finance has spread worldwide and includes numerous industrial projects from power stations and waste-disposal plants to telecommunication facilities, bridges, tunnels, railway networks, and now also the building of hospitals, education facilities, government accommodation and tourist facilities”. Political leaders and head of governments now see project development as a yardstick for measuring political achievements by stakeholders. They therefore, try to outdo each other in the scope and number of projects delivered. Construction projects are physical (tangible wealth), can be viewed by all and serve as means of wealth-creation.

Kostof (2009, p. 26) said that “Cities are amalgams of buildings and people. They are inhabited settings from which daily rituals – the mundane and the extraordinary, the random and the staged – derive their validity. In the urban artifact and its mutations are condensed continuities of time and place. The city is the ultimate memorial of our struggles and glories: it is where the pride of the past is set on display”. Our cities thus deserve utmost attention in terms of organization and investment.

The government efforts to evolve a sustainable method of public procurement have not succeeded primarily because it has been trial and error so far. The government failed to take into consideration the culture of the people in its formulation of policy for construction development. Tylor (1889) defines culture as “that complex whole which includes knowledge, belief, art, morals, laws, customs, and any other capabilities and habits acquired by man as a member of society”.

The objectives of construction project financing include delivery of functional projects at agreed time, at acceptable quality and within scope. Construction projects are embarked on to meet some objectives which include the cost of the project, the time in which it can be delivered and the bench-marked standard which determines the value/s of the projects. If a construction project is not delivered to meet these three constraints of time, cost and quality, the project is unsuccessful. Construction project financing methods must be mutually beneficial to all stakeholders and must be sustainable.

There is yet no harmony in the methods of project financing in Nigeria. The Public Procurement Act (PPA) 2007 stipulates that all states, local governments, ministries,

departments and agencies must follow due process in its public procurement, but the Director General of the Bureau of Public Procurement (BPP), Mr Emeka Ezeh, has highlighted corruption as one of the challenges militating against PPA. He said ministries, departments and agencies (MDAs) delay contractors' payments more than the stipulated 60 days by the Procurement Act (Ezeh, 2011). In most cases, personal interests of Nigerian leaders override public interests in the management of construction projects.

This paper will look into the challenges of construction project financing in developing countries with emphasis on Public-Private Partnership.

2. REVIEW OF LITERATURE ON CONSTRUCTION PROJECT FINANCE AND SUSTAINABLE DEVELOPMENT OF CITIES IN NIGERIA

According to UKCG (2009) "The construction industry is a driver of growth in other sectors due to its heavy reliance on an extended and varied supply chain". All other sectors of the economy like manufacturing, education, health, sports etc, depend on construction industry for performance.

According to Oyeweso (2011) "Our roads - all 193,200 kilometres of them (2004) pale in comparison to South Africa's 362,000 km (2002). Only about 15% of Nigerian roads are paved and of these 28% are not motorable. Building roads in Nigeria is also expensive, costing multiples per kilometre on average compared to our sub-Saharan neighbours. Road projects in Nigeria habitually suffer cost over-runs, delayed completion and poor quality. Nigeria has the largest road network in West Africa, 17.6% of which is owned by the Federal Government, while the various state governments own 15.7% of the network and the rest – 66.7% are local and rural roads".

Construction project financing is done for the purpose of providing infrastructure for the people. The dearth of infrastructure is a pain in the neck to the people of Nigeria and is causing a great headache. The social implication of lack of infrastructure is more than the financial implication. Corruption has been pin-pointed as the major obstacle behind the failure of the procurements so far adopted by the governments to meet their goals.

"Every year, Federal roads carry 70% of the total freight traffic across the country. Lack of maintenance culture has seen the roads fall into state of disrepair and road transport across the country is dreaded by all. Train transport which could have served as alternative to road transport is still at the design stage. "Today, only a pitiable 15% of Nigerian road network is safe and motorable. Nigerian road users pay a lot yearly to rehabilitate their vehicles for plying the decadent roads across the country. Many had paid the ultimate price instead" (Oyeweso, 2011).

Nigerian road contractors still use asphalt, which is the cheapest material for road paving. This material is water soluble and has a higher rate of wear and tear especially under harsh weather. Countries like Germany, Belgium and Norway have adopted the use of concrete paving for their roads. Concrete is more durable for road construction but cost more initially. Analysis of road constructed of concrete and asphalt which lie side by side between Papalanto and Ewekoro in Ogun State showed that it cost more than five times to construct road with

concrete than to construct with asphalt on a stable ground. Where the ground (base) is not stable, it may cost more than eight to ten times the cost of concrete depending on usage.

“About N450 billion is estimated to be wasted by vehicle owners on about five million vehicles that ply the roads in Nigeria because of bad roads. It requires about N90,000 per annum to maintain (apart from the normal running costs of tyres, fuel, oil, and so on) a vehicle in Nigeria on the average due to the overall effects of bad roads. This is apart from the disastrous avoidable loss of precious human lives and properties due to accidents on the bad roads. For our roads to be transformed so that they can serve as catalyst for macroeconomic turnaround, about N321 billion (over \$2 billion dollars) would be required for the routine and periodic maintenance of the national road network on a yearly basis. These all add up to our infrastructural financing needs” (Oyeweso, 2011).

Construction projects have both social and economic benefits and governments cannot leave the supply of all construction products in the hands of capitalists (private sector). The gap between demand for road infrastructure and its supply is so high in Nigeria that the Federal Executive Council (FEC) has approved the request of Anambra State government to fund rehabilitation of Onitsha to Enugu road. According to Onuorah (2012), “the federal government has approved the request of Anambra State Governor, Peter Obi, to fund the construction of two failed portions of the dilapidated dual carriage Onitsha-Enugu road. The failed portions are the Niger Bridge/ Onitsha to Old Toll Gate and Amansea/Awka to Amawbia, all in Anambra State”.

The federal government also wishes to set up New Road Management Agency. Federal government was set to establish Road Fund through the proposed Highway Management Act. The new tax which would be collected and managed by a new agency - Road Management Agency - would see the return of toll gates which were pulled down by former President Olusegun Obasanjo's administration.

3. THE NATURE OF CONSTRUCTION INDUSTRY IN NIGERIA

The construction industry can be divided into three major segments. These include; Construction of building by Building Contractors, or General Contractors. These contractors build residential, industrial, commercial, and other buildings. The second category is the Heavy and Civil Engineering Construction Contractors that build sewers, roads, highways, bridges, tunnels, and other projects. Specialty Trade Contractors who perform specialized activities relating to construction such as carpentry, painting, plumbing, tiling, and mechanical and electrical works form the third segment. Those that lease heavy earth moving equipment, plant and machineries for construction purposes are also in this category.

Construction usually is done or coordinated by general contractors, who specialize in one type of construction such as residential or commercial building. They take full responsibility for the complete job, except for specified portions of the work that may be omitted from the general contract. Although general contractors may do a portion of the work with their own crews, they often subcontract most of the work to heavy construction or specialty trade contractors.

Specialty trade contractors usually do the work of only one trade, such as painting, carpentry, or electrical work, or of two or more closely related trades, such as plumbing and heating. Beyond fitting their work to that of the other trades, specialty trade contractors have no responsibility for the structure as a whole. They obtain orders for their work from general contractors, architects, or property owners. Repair work is almost always done on direct order from owners, occupants, architects, or rental agents.

Construction industry is the sector of the national economy that engages in preparation of land and construction, alteration of roads and alteration of buildings, structures and facilities. The construction industry is the fourth largest contributor to Gross Domestic Product (GDP) in the Australian economy and plays a major role in determining economic growth. In chain volume terms, the construction industry accounted for 6.8% of GDP in 2008-09, compared with 7.0% in 2007-08. The industry had previously experienced seven consecutive years of growth as a proportion of GDP, since the introduction of the Goods and Services Tax (GST) in 2000-01. As at May quarter 2009 the construction industry employed 9.1% of the Australian workforce, making it Australia's fourth largest industry after Banking and Finance, manufacturing, and health.

Construction industry in the UK consists of firms engaged in general construction and demolition; construction and repair of building; civil engineering; installation of fixtures and fittings (which includes plumbing, gas fitting, and electrical installation) and finally what is called ‘‘building completion’’, that is painting, glazing, plastering, tiling, etc (Standard Industrial Classification).

The construction industry operates in both the private and public sectors, engaging in three broad areas of activity; residential building, non-residential building and engineering construction. Demand for, and supply of, these services is driven by economic factors including population growth and consumer confidence, changes in interest rates and inflation. Most recently, government policies affecting housing and infrastructure projects have been an influence. The availability of resources, such as labour and building materials, and changes within closely linked sectors (e.g. agriculture, mining and manufacturing), also drive change in the industry.

Construction industry in Nigeria is neither organized nor controlled. There is no clear cut between the contractors and some of them are just in business to make profit irrespective of the nature of work. In 1985, Julius Berger Nig Plc, a major player in the construction market in Nigeria, supplied Mercedes Benz saloon cars to the federal government. Though major construction companies in Nigeria segregate jobs by scope, internationally, market segregation has gone from scope to specialization to industry. For example, Redrow, popular United Kingdom builders will not go out of residential building and Lang O'Rourke will not do anything other than Public-Private Partnership (PPP).

The Nigerian construction industry is not controlled as anybody can build any structure without government knowledge or building code stipulations. This practice has led to incessant building collapse with great casualties. In the seventies and early eighties, major construction jobs were done by expatriate contractors who observed ethics of the profession.

Buildings were not erected on natural drainages because of the future implication and the integrity cost to the builders/contractors.

The industry is underfunded. Major players in the industry have cried loud about this underfunding of the construction industry in Nigeria and have suggested setting-up Bank of Construction like Nigerian Bank of Commerce and Industry (NBCI) and Bank of Agriculture (BOA). It is unprofessional. Dantata (2008) said “With double digit growth rates in the last 3 years, the construction industry has outgrown all other sectors of the Nigerian economy. However, its contribution to the Nigerian GDP and employment of labour are still very low. Despite its impressive performance, the industry faces a significant number of challenges including the lack of local skilled labour, power shortage, the unavailability of materials, and the unethical practices that are very common in the industry”.

The industry is primitive which allows several opportunities to exist in the industry especially in the ICT, education, and subcontracting sectors without tapping. Akintoye, and Black (2000), said that it appears that construction supply chain management (SCM) is still at its infancy but some awareness of the philosophy is evident”.

It is highly litigious and has high appearance record in Nigerian courts. The construction industry in Nigeria has high rate of entry and exit by contractors according to the Corporate Affairs Commission (CAC) records. The industry also have high turnover of employees. According to News Agency of Nigeria (NANS 2011), Mr Babatunde Liadi, the Secretary General of The National Union of Civil Engineering, Construction, Furniture and Wood Workers said “40,000 members of the union have been thrown into the labour market in the past two years because of abandoned projects. He cited the Sango-Ota Road, the bridge on Lagos-Abeokuta Expressway and the Abuja-Lokoja Road as examples of abandoned projects”.

Construction project finance in Nigeria is majorly a public affair with government controlling over 80% of construction start. Apart from construction of building and offices where the private sector contributes meagerly, major construction work like construction of roads, bridges, dams and extensive residential estates like Gwarimpa Estate Team 1 to 7, rehabilitation of Rainbow City in Port Harcourt, Rivers State, are only done by governments.

The life-span of construction project in Nigeria is unpredictable. There are many abandon projects all over due to improper planning. Construction projects suffer from “capital flight, capital stagnation and capital sink”. Capital flight occurs due to imported materials and imported technical inputs into construction projects. Capital sink occurs due to bad planning, wrong location of projects and over design in construction. Inflated contract sums and abandoned projects due to bad cash-flow are all parts of capital sink. Capital stagnation occurs where a project has a time over-flow more than necessary. There is also no succession plan in Nigeria leading to a lot of completed projects not utilized.

4. CONSTRUCTION PROJECT FINANCING METHOD IN NIGERIA

4.1 Traditional Methods

When we say traditional methods of construction, we are either referring to the Direct Method of construction in which the client (the owner of the construction project) engages the tradesmen to fix the construction without a coordinating contractor. In Direct Labour Method of construction, the client designs his building and call different tradesmen which do not form a team to work for him. The client takes all the risks and manages the cash-flow. The shortcoming of direct labour is that the client may not be knowledgeable about construction and will end up spending more than a professional.

The other traditional method is the Design, Bid and Build. In Design, Bid and Build, the client designs his property and call for different contractors who will compete among each other especially in the area of cost to win the bid (Open Tendering). Initially, the lowest bidder was considered. The problem with this method is that contractors who are desperate for job may under-bid and fail to complete projects. This led to Selective Tendering method. Selective Tendering involves inviting some 'qualified contractors' who bid for works. Qualifications may be in terms of turnover, number of employees, annual profit, previous experience or a combination of these.

The problem with selective tendering is that the few contractors who know each other may form a cartel to outsmart the client by over-bidding and sharing the outrageous profit. Cost variation due to change in design during construction was rampant with traditional methods leading to disagreements and litigations. A newer fashion of the traditional method is a system whereby clients have their own bill of quantities (BOQ) on the property which is used to compare the bid of the contractors. Any contractor that bids 10% lower or 10% more than the reserved price (the contract sum in the client's BOQ) will be disqualified. In a case where there is no winner, the closest bidders to the reserve price will be invited for negotiation to reduce or improve its bid price.

According to Carpenter, Fekpe and Gopalakrishna (2003), "The traditional methods are slow and does not favour a life cycle cost approach to projects. The associated risks in terms of quality and maintenance are not the responsibility of the contractors, since the specifications are usually prescriptive and under the control of the public agency. Innovation is often stifled; prescriptive specifications and low-bid pricing result in no reward for the design and construction innovations. Some innovative ideas necessitate changes in laws and regulations and are therefore difficult to implement. There is little, if any, opportunity for contractor input into design and construction methods, and quality is often an issue of dispute. The Traditional system requires that the highway department have a large staff to conduct all of its necessary functions of highway design and construction. These include preliminary design, design review, environmental clearance, ROW acquisition, construction management, quality control and regular maintenance".

These problems and many more led to the Modern Methods.

4.2 Modern Methods

Modern methods of construction are the innovative Public Finance Initiatives (PFIs) that are used for construction project delivery. They are public and private finance arrangements which result in mutual benefits.

4.3 Design and Build (DB)

Design and Build is an innovative method of construction which allows the contractor to design the structure and at the same time build it. Qualified contractors will be extensively briefed about the project and allow to make their own design and prepare their own BOQ which will be compared with the client's BOQ to select the winners.

4.4 Turnkey Projects

Turnkey projects are either designed by the client or the contractors. What makes them Turnkey Projects is the financing arrangement which is done by the contractor. The contractor is usually reimbursed after completion of project. A turnkey project provides a deliverable to the customer that is fully tested and ready to use upon delivery. It is like getting a Local Purchase Order (LPO) to supply a ready-to-use item which is paid for by the client upon delivery or at a later agreed time.

4.5 Build, Own and Transfer (BOT)

Under Build, Own and Transfer, the contractors who may be a developer (financier) and not necessarily the builder, build and own the property which will be used by the client with the agreement that the client will possess the property in the future. This arrangement is usually used for specialized facilities like hospitals, schools, social housing and markets.

4.6 Build, Own, Operate and Transfer (BOOT)

In Build, Own, Operate and Transfer, the client does not have intention of using it and allows the developer to own it for a period of time. Example is the construction of Murtala Muhammed Airport II by Bicourtney Aviation Management.

4.7 Design, Build, Finance and Own (DBFO)

This is a Public Finance Initiative (PFI) in which a private organization conceived a development idea, design, construct it and operate it in perpetuity. For example, the Millennium Park, Maitama, designed and developed by Salini Construction Company Limited as a Corporate Social Responsibility (CSR) project.

4.8 Construction Management

The job of the construction manager is to efficiently and economically apply the required resources to realize a constructed facility of acceptable quality within the time frame and budgeted cost specified (Halpin & Senior, 2011).

Labour-only is an example of construction management.

4.9 Management Contracting

Management Contracting is an alternative to using a principal building contractor. In this method, there is preference to using management contractors to manage and integrate the construction through a construction manager who let the construction jobs to contractors or through management contractor who lets construction works to sub-contractors after getting approval from the client. For example, residential buildings for small contractors are usually sub-let to other contractors who are registered with Julius Berger.

4. 10 Public-Private Partnership (PPP)

Public-Private Partnership (PPP) can be defined as a contract between the public sector and a private party in the development of infrastructure. In PPP, the private party assumes substantial financial, technical and operational risk in the design, build, operate and transfer of an infrastructure. PPP is a mutually beneficial arrangement between the government and the development partner. The government provides the base for the execution of the development, while the development partner contributes financial or technical or management inputs or two or all of the above. Transparency is the watch-word and all stakeholders must have awareness of the working conditions of the system.

4. 11 Features of a good PPP

1. The Legal Framework must be sound because of the different objectives of the parties.
2. There must be efficient and effective costing. The costing must take into consideration all the risks involved. PESTLES may be used in assessing the risk situation.
3. The source of finance must be assured and sustainable.
4. Both parties must have technical knowledge of the infrastructure being developed though it may be at different levels.
5. Social feasibility and Economic viability.

4. 12 Problems of PPP in Nigeria

PPP is not new in Nigeria but came into prominence in the nineties. The development of Dolpin Estate was through PPP by the Lagos State government and HFP Construction Limited.

The attempt to adopt PPP as a method of construction in Nigeria failed many times and the latest being the cancellation of Bicourtney's contract on Lagos-Ibadan Expressway. Bicourtney Concession exercise to develop and manage Lagos-Ibadan Expressway into five lanes failed because Bicourtney (the concessioner) could not get a financier.

Kuto-Bagana Bridge over the River Benue is a PPP between the federal government, Kogi and Nasarawa State governments. Nasarawa paid its counterpoint fund of N1billion to the

development partner, but other parties did not pay their commitment and the development partner did not have the money it claimed it had.

Victoria Island-Epe Express Road failed because the concessioner (Lekki Concession Company (LCC)) did not carry along the other stakeholders. Within a distance of less than 5 kilometres, LCC wanted to construct three toll points to collect fees for plying the road. The people kicked against it and threaten to go to court. The result is the construction of Alternative Roads that give stakeholders opportunity not to use the road according to United Nation's rule on PPP.

Messrs Maevis airport landing fee-collection concession at Murtala Muhammed Airport, Ikeja, failed because of heavy non-receipted amount paid upfront by the concessioner.

4. 13 Concession

Concession is a collaborative measure between a government and private developer/s to design and develop facilities through team of participants which include the financiers and the contractors. The developers may not necessarily be the financiers of the project. For example, Bicourtney Limited was expected to coordinate the financial and technical contributions of its partners in the concession. Bicourtney's job was supposed to be management of the concession as it is not a contractor.

4. 14 Partnering

In 1994, Sir Michael Latham led a government/industry initiative to write a report (Constructing the team) on the situation of the construction industry in the UK and how its adversarial problems can be solved. Latham's report which recommended team-working in the construction industry was accepted by the government. In 1988, the Government of the United Kingdom commissioned Sir John Egan to review the state of the UK construction industry. Egan's report 1998, "Rethinking Construction" was accepted by the Government. This report which was a follow-up to the Latham's report 1994 laid much emphasis on partnering or collaboration.

Bennett and Jayes (1995) said that "partnering is a management approach used by two or more organisations to achieve specific business objectives by maximising the effectiveness of each participant's resources. The approach is based on mutual objectives, an agreed method of problem resolution, and an active search for continuous measurable improvements." "Organisations which have used partnering for construction projects are now reporting favourable results, including decreased costs, quality improvement and delivery of project to programme" (Akintoye and Black, 1999).

Partnering or collaboration is the act of working together of different people to achieve a common goal (American Heritage Dictionary, 2011). In construction development, partnering or collaboration is the collective efforts of the construction team in an untraditional way in order to bring about a unique result.

4. 15 Objectives of Research

1. To determine the reasons for dearth of construction projects in Nigeria,

2. To rank the most pressing challenges of construction project financing in Nigeria,
3. To document the reasons for the failure of Public/Private Partnership (PPP) method of construction project financing in Nigeria, and
4. To recommend a more suitable system of construction project financing in Nigeria.

5. METHODOLOGY OF RESEARCH

The chosen methodology for this investigation is the quantitative and qualitative researches. According to Akintoye (2007), the quantitative paradigm is termed the traditional, the positivist, the experimental, or the empiricist paradigm. The qualitative paradigm is termed the constructivist approach or naturalistic, the interpretative approach, or the postpositivist or postmodern perspective.

Quantitative data are data like turnover, cost in naira, qualification, year of experience, etc. Qualitative data are like post, designation, educational qualification, sex, marital status, occupation, religion, etc. Primary and secondary sources are the two sources of data mostly used in this research work. Primary data are those obtained from direct interview and from the questionnaires administered to construction companies. Secondary data were obtained from books, journals, magazines, seminar papers and handouts.

Two hundred questionnaires were administered to workers in construction firms within the study area. Professionals in the built environment and other qualified stakeholders were interviewed about their opinions on dearth of construction projects in Nigeria. Four core assumptions relating to the research methodology above are: (1) the stratification method chosen is assuming that the 200 contractors will speak for the whole population as the responses will be used to generalise for the whole. (2) The method is assuming that the contractors choosing from survey are aware of the challenges of construction industry in Nigeria. (3) The study is also assuming that contractors in Nigeria are products of the system and not part of the problems of construction project finance. (4) The study did not consider the hostile actions of host communities and all other project environmental factors that can affect construction development.

The strength and weaknesses of data triangulation are:

Triangulation is a term borrowed from the study of experimental methods and refers to any attempt to investigate a phenomenon using more than one method. It was developed to counteract the inherent threats to validity that each experimental method contained. The strength of data triangulation is that effective data analysis will be done through triangulation. This is based on the fact that each experimental method is “best” for certain applications, scenarios and populations, but none is best for all. Using the will combine their respective advantages. The weakness lies in the fact that all information may be mixed up in data analysis as researchers are seldom skilful in the two methods and the cost of using multiple methods may be expensive. The implementation time, response rates, size and complexity of survey, sensitive questions, etc are all impediments to triangulation.

After the data have been gathered, it will be organised in a manageable way and analysed using both descriptive and inferential statistics so as to be able to interpret them. The results of the data analysis will then be interpreted for conclusion and recommendations to be made.

6. DATA ANALYSIS

Decisions about the research problem, research design, data gathering methodology and data analysis are all affected by the purpose of a research. This research is a Descriptive Research tending to get information about the characteristics of a current situation. The major concern is accuracy. The data collected were analysed using both descriptive and inferential statistics. Statistical analyses were undertaken using the Statistical Package for Social Sciences (SPSS) and Microsoft Excel. These analyses were to rank the reasons for dearth of construction projects in Nigeria. A lower value to the mean value indicates a weaker reason. One-way analyses of variance (ANOVA) were done to test whether the mean values on each of the eight reasons were equal.

Tables 1-6 give the summary of the analyses. 'F statistics' (based on F-ratio and value) which tests the null hypothesis that all groups have the same mean. 'F significant' (F sig.) indicates the probability of rejecting the null hypothesis saying there is no difference between the mean values of the groups. Lower probability values (P. val.) shows that the null hypothesis can be rejected, suggesting that there is difference of opinion between groups. A significance level below 0.05 indicates that there is a high degree of difference of opinion between groups on that reason.

Table 1. Statistics of Respondents of Questionnaire's survey

Questionnaires Administered		Percentage
Number of Questionnaires Answered = 55		27.5
Number of Questionnaires not Answered = 145		72.5
Total = 200		100.0

Table 2. Frequency Table of Respondents Reasons for Death of Construction Projects in Nigeria

Reasons	Degree of Importance and Frequency				
	5	4	3	2	1
Corruption	23	21	9	2	0
Poor business environment in Nigeria	18	17	16	4	0
Lack of construction bank to finance projects	14	23	13	5	0
Lack of Maintenance Culture	11	15	17	8	4
Lack of Maintenance Culture	5	16	25	9	0
Governments insensitivity to project execution	10	23	13	6	3
Wide gap between demand and supply due to poor supply by past governments	8	14	16	12	5
Attitude of contractors in Nigeria to construction projects	3	11	16	22	3
Lack of efficient skilled workers in the construction industry.					

Table 3. Grouping of the Construction Companies According to Turnover

S/N	Companies Deviation	Turnover (million)	Frequency	Percentage	Sum	Mean
1.	Small	N(0 - 20)	36	65.43	1,304.45	36
2.	30.63					
3.	Medium	N(21 - 500)	12	21.83	2,940	245
	116.19					
	Large	N(501 - Above)	7	12.74	9,181	1311.6
	1008.1					
Total			55	100.00	13,425.45	

Table 4. Experience of Respondents of Questionnaires on Reasons for Dearth of Construction Project in Nigeria

Experience	Overall Large	Small	Medium
Mean Experience In the Company	13.40	13.60	23.58
Total Experience In the Company	19.14		
Mean Experience In the Industry	737	490	170
Total Experience In the Industry	80		
	22.18	22.31	23.58
	19.14		
	1220	804	283
	134		

Table 5. Profile of Respondents' Companies

Position in Company	Number	Percentage
Chairman	1	1.82
Managing Directors	28	50.90
Risk Manager	1	1.82
Area Manager	1	1.82
Project Managers	5	9.10
Senior Commercial Manager	1	1.82
Commercial Managers	9	16.36
Chief Engineers	2	3.64
Bid Managers	2	3.64
Development Manager	1	1.82
Marketing Manager	1	1.82
Human Resources Manager	1	1.82
Quality Control Manager	1	1.82
Technical Manager	<u>1</u>	<u>1.82</u>
Total	55	100

Table 6. Reasons for Dearth of Construction Projects in Nigeria

Reasons	A N O				
	V A Overall P. val.	Small	Medium	Large	F. Stat.
R1: Corruption	4.18	4.08	4.17	4.71	1.695
R4: Poor Business Environment in Nigeria	0.194 3.89	3.75	4.17	4.14	1.139
R2: Lack of Construction Bank to finance Projects	0.382 3.80	3.80	3.80	4.10	0.454
R6: Lack of Maintenance Culture	0.638				
R3: Governments insensitivity to project execution	3.78	3.39	3.42	3.71	2.732
R5: Wide gap between demand and supply due to poor supply by past governments	0.074 3.56 0.203	3.42	4.00	3.57	1.643
R7: Attitude of contractors in Nigeria to construction projects	3.56	3.44	3.58	4.14	1.230
R8: Lack of efficient skilled workers in the construction industry.	0.301 3.15 0.812	3.22	3.00	3.00	0.209
	2.90 0.786	2.90	3.10	2.90	0.242

6.1 Discussions and Interpretations of Analysis

Table 1 shows the percentage of Questionnaires returned to be 27.5. Two reasons can be given for the unreturned Questionnaires and these are that the collectors of these Questionnaires were not ready to discuss the issue of construction project finance in Nigeria, or that they are not aware of any problem in Nigeria construction project finance. The large percentage of unanswered questionnaires means that awareness still needs to be done in construction research and development and construction project finance in Nigerian construction industry.

Table 2 depicts the frequency of the degree of importance of the reasons for dearth of construction projects in Nigeria. Reason 1: Corruption ranked first followed by Reason 4: Poor Business Environment and so on. The table is a list of the importance of the reasons for dearth of construction projects in Nigeria in descending order. Table 3 is the analysis of the respondents' companies' data. The companies were grouped into three based on their turnover as: Small, Medium and Large. The differences between the means and the deviation of the three groupings do not show any significance reason to assume disparity in their opinions on the reasons for dearth of construction projects in Nigeria.

Table 4 gives the experience of the respondents. The average overall years of industry experience of over 22 years and company experience of over 13 years show that all the respondents are capable of answering the Questionnaires. Table 5, which shows the profile of the respondents, also corroborated this assertion that the quality of responses for the analysis of these data is good.

Table 6 shows the ranking of the reasons for dearth of construction projects in Nigeria according to importance. Ho, the Null Hypothesis is that there is noticeable difference of opinion among respondents in the mean of the reasons. Using P-val to analyse, all the P-val's of R1 – R6 are higher than 0.05. It therefore means that the reasons are all accepted. In order to choose the strongest reasons given by the respondents, it was postulated that any Reason which have overall mean lower than the F. Critical should be rejected. The F. Critical for all the Reasons is 3.1751. Reasons R7 and R8 were therefore, rejected as weak.

7. CONCLUSION/RECOMMENDATIONS

Public Private Partnership (PPP) which was lately adopted in Nigeria is not the almighty formula for project financing. It is not without its shortcomings. The government of Scotland, a part of the United Kingdom of Great Britain and Northern Ireland discarded PPP for a mundane public procurement method called Scottish Futures Trust created in 2008. This agency is charged with the responsibility of improving the efficiency and effectiveness of infrastructure investment in Scotland.

There is no method of procurement that is not feasible but the situation, size, technicality and the people managing the procurement method. Corruption is the bane of our construction project procurement method. PPP projects have three constraints of quality, time and cost. In the face of corruption, any of these may be compromised. For example, the Mushin Maternity Centre along Isolo Road, Mushin, was conceded to a private developer to develop under thirty years lease. The cost incurred on the development of the shopping centre, which may not be the best use, may not justify the long gestation. PPP is opened to negotiation power of the parties involved so may be difficult to assess unlike partnering.

Partnering, a system of procurement that allows the participation of both parties in procurement is highly recommended for use in Nigeria construction project procurement, though it is not corruption-proof. Partnering is a win-win arrangement in which communication is open and all parties are risk takers. The government representatives see the development partners as partners and not as businessmen. Their profits are agreed at between 15-20% and assured irrespective of working conditions. The jobs are done under close monitoring of the public sector representatives. The public infrastructure to be procured has budget which is an estimate and not fixed. It can be lower or higher but agreed by all parties. People of integrity who have built names for themselves and who can live above board should be constituted into Nigeria Infrastructure Procurement Committee (NIPC).

The governments and the construction industry can evolve a scheme for prudence to be called Prudent Contractors Scheme just like the Considerate Constructors Scheme. The Considerate Constructors Scheme is the national initiative set up by the construction industry to improve its image. Sites and companies that register with the Scheme are monitored against a Code of Considerate Practice, designed to encourage best practice beyond statutory requirements. The

Scheme is concerned about any area of construction activity that may have a direct or indirect impact on the image of the industry as a whole. The main areas of concern fall into three categories: the general public, the workforce and the environment.

In the Prudent Contractors Scheme, contractors should be made to sign an affidavit as part of their contract documents that they have not given money or gratification out as a way of getting contract, that the contractors will not give out money as gratification to any stakeholder during and after completing the job and that the contractor's profit is not more than 25% of the contract sum. This form should be sworn to before the commencement of job.

REFERENCES

1. Akintoye, A. (2007). Course Notes on BSUM501 - Research Methods. Glasgow Caledonian University, Glasgow. 2006/2007 Session.
2. Akintoye, A. & Black, C. (1999), Operational Risks Associated with Partnering for Construction. Collection of Papers presented at the Construction Industry Board W92, a Symposium held in Chiang Mai, Thailand in January 1999, edited by Stephen O. Ogunlana under Profitable Partnering in Construction Procurement: CIBW9.
3. American Heritage Dictionary (2011). American Heritage Dictionary of the English Language, 5th edition. Chicago: Houghton Mifflin.
4. Bennet, J. & Jayes, S. (1995). Trusting the Team: The best practice guide to partnering in construction. Reading: Centre for Strategic Studies in Construction.
5. Carpenter, B., Fekpe, E. and Gopalakrishna, D. (2003). Performance-Based Contracting for the Highway Construction Industry. An Evaluation of the Use of Innovative Contracting Performance Specification in Highway Construction. Final Report submitted to Koch Industries Inc. Columbus, Ohio: Battelle.
6. Dantata, S. (2008). General Overview of Nigerian Construction Industry. Master of Engineering Thesis, Massachusetts Institute of Technology, USA.
7. Ezeh, E. (2011). Review of specific procurement issues and challenges confronting MDAs. Being Text of Paper Delivered at one-day stakeholders' workshop for Ministries, Departments and Agencies (MDAs). January, 2011.
8. Feyisipo, R. (2011). 'FERMA needs N320bn to fix 194, 200Km roads'. Businessday, Tuesday, October 30, 2012.
9. Halpin, D. W. & Senior, B. A. (2011). Construction Management, Fourth Edition. New Jersey: John Wiley and Sons.
10. Kostof, S. (2009). The City Shaped: Urban Patterns and Meanings Through History. Boston: Bulfinch Press, p. 26.
11. Merna, T., Chu, Y. and Al-Thani, F. F. (2010). Project Finance in Construction: A structured Guide to Assessment. United Kingdom: John Wiley & Sons Limited.
12. NANS (2011). Construction workers want law to reduce rate of abandoned projects. Available at <http://www.nanngonline.com/section/general/construction-workers-want-law-to-reduce-rate-of-abandoned-projects>. Accessed on July 26, 2011.

13. Onuorah, (2012). Govt approves rehabilitation of Onitsha-Enugu road. The Guardian, Monday, August 22, 2012.
14. Oyeweso, S. (2011). Infrastructure Development in Contemporary Nigeria: Issues and Challenges. Being Text of Paper Delivered at the 1st year remembrance of Late Engineer Bola Lashengbe at Osogbo, October, 2011.
15. Oyedele, O. (2006). Tinubu and Integrated Waste Management. Vanguard Newspaper, February 1, 2006.
16. Oyedele, O. A. (2012). The Challenges of Infrastructural Development in Democratic Governance.
17. Public Procurement Act (2007). Available at www.bpp.gov.ng/?ContentPage&sub_cnt. Accessed on July 30, 2012.
18. Rittenhouse, D. G. (2003). Piecing Together a Sustainable Development Strategy. CEP Magazine, March 2003, pp. 32 - 38.
19. Tylor, E. B. (1889). Primitive Culture 1, 3rd edition.
20. UKCG (2009). *United Kingdom Construction Group* http://www.ukcg.org.uk/fileadmin/documents/UKCG/Key_facts/Fact_sheet_Constructionstimulating_economy.pdf. Accessed on July 28, 2012.

BIOGRAPHICAL NOTE

Olufemi Adedamola Oyedele has National Diploma in Building Technology, Bachelor of Science in Estate Management, Master of Science in Housing Development and Management and Master of Science in International Project Management from Glasgow Caledonian University, Scotland, United Kingdom. He is an experience Estate and Project Manager and has written over 80 articles and academic papers. Oyedele is a member of Nigerian Institution of Estate Surveyors and Valuers (NIESV) and registered by the Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON) to practice estate management in Nigeria. He is a member of Association of Project Management, London. He is currently a Senior Special Assistant on General Duties with the State Government of Osun, Nigeria.

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