

Effect of Concession Contract on Infrastructural Development in Kaduna State University, Nigeria

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Abstract

The growing need for infrastructural development in Nigeria has left the government and other government agencies with no option but to resort into alternative means of providing the basic needs of their people. The choice of any PPP contract is very important; it is on the importance of choice of contract that this study examines the effect of concession contract on infrastructural development of Kaduna State University. Based on the nature of the study which involves the personal opinion of respondents, the study adopted a descriptive survey design approach. The population of the study consisted of all the staff of the works department of the university and a random sampling technique was used to select a total number of 60 staff for the study. The study used primary data. The result shows that Design-Build-Finance-Operate has a positive and significant effect on infrastructural development in Kaduna State University. The result also shows that Build-Own-Operate has a negative and insignificant effect on infrastructural development in Kaduna State University. The same thing with Build-Own-Operate-Transfer, it also shows a negative and insignificant effect on infrastructural development in Kaduna State University. Finally, Finance-Operate-Transfer a negative and significant effect on infrastructural development in Kaduna State University. The study therefore concluded that concession contract has a significant effect on infrastructural development in Kaduna State University. From the result of the analysis, it was revealed that the concession contract has a positive and significant effect on infrastructural development in Kaduna State University. It is therefore recommended that management of Kaduna State University should consider concession contract in terms of to improve infrastructural development in Kaduna State University. The study finds that, there is positive and significant relationship between Design-Build-Finance-Operate and infrastructural development in Kaduna State University. It is therefore recommended that, management of Kaduna State University should partner with institutions and individuals with requisite knowledge in Design-Build-Finance-Operate PPP contracts for greater infrastructural development in Kaduna State University.

Keywords: Concession, Infrastructural Development, Design-Build-Finance-Operate, Build-Own-Operate, Build-Own-Operate-Transfer and Finance-Operate-Transfer

Introduction

Countries in Africa are faced with the challenges of adopting the best management strategy or reform that will help them navigate their state out of economic crunch, cut cost of delivering public services, legitimize the government by ensuring effective and efficient social service delivery and stable polity. In Nigeria, it is unarguable that the country suffers from a huge deficit of infrastructure and the infrastructure which is available is not being adequately utilized. But ownership of public assets is a sensitive issue for all governments.

However, budgetary shortfalls as well as the repeated failure of governments all over the world to maintain these assets have forced them to change their attitude towards private ownership of such assets. As a result, policymakers have devised various ways in which the private sector can be brought in to maintain and operate public assets. Thus,

concession contracts, through which ownership rights continue to reside with public authorities save operation rights and associated returns being transferred to private players, have been gaining popularity around the world. Under concession contract, private partner gets exclusive rights from the government to operate, maintain and sometimes even carry out investment in a public utility for a given period of time. In return, the private party pays either a fixed sum, a percentage of revenue from the utility or a combination of the two to the government for exclusive rights over a facility. Revenue to the private party comes from the user fee charged to users of the facility. There are different types of concession contracts, including: ex-lease, franchise, build-operate-transfer (BOT) etc. Private finance initiatives (PFIs) may also be considered similar to concessions.

Bousquet and Fayard (2015) note that a concession arrangement is one in which the government (or her agency) grants the right to fund, build, own, improve, upgrade, maintain or operate a public infrastructure, and charge users for the cost of services, for a limited period of time to a private sector operator. The official view about concession in Nigeria seems to be contained in the Infrastructure Concession Regulatory Commission Act (2005) where concession is described as: a contractual arrangement whereby the project proponent or contractor undertakes the construction, including financing of any infrastructure, facility and the operation and maintenance thereof and shall include the supply of any equipment and machinery for any infrastructure and the provision of any services (FGICRC, 2005).

Literature have shown that there are few studies conducted in Nigeria on the public private partnership, for instance; Oluwasanmi and Ogidi (2014) Public Private Partnership and Nigerian Economic Growth. The study only analyzes the theoretical aspect of PPP by looking at the problems and challenges in a state in Nigeria. But the current study will go further to statistically test the effect on infrastructural development. Ndukwe and Nwuzor (2016) Public-Private-Partnership for Effective and Efficient Service Delivery in Nigeria: A Study of Ebonyi State Health Sector. The study was restricted to one sector of the economy and also was conducted in one state out of thirty-six states of the federation. Dominic, Ezeabasili, Dim and Chikezie (2015) Reviewed Public Private Partnership on some Development Projects in Nigeria. It is obvious that no study has been conducted specifically on the effect of concession contract on infrastructural development in Kaduna State University.

It is on that base that this study examines the effect of concession contract on infrastructural development in Kaduna State University. To address the above gap, answers will be provided for the following questions;

- i. What is the extent of Design-Build-Finance-Operate concession contract on infrastructural development in Kaduna State University?
- ii. What is the extent of Build-Own-Operate concession contract on infrastructural development in Kaduna State University?
- iii. What is the extent of Build-Own-Operate-Transfer concession contract on infrastructural development in Kaduna State University?
- iv. What is the extent of Finance-Operate-Transfer concession contract on infrastructural development in Kaduna State University?

Objectives of the Study

- i. To evaluate the extent of Design-Build-Finance-Operate concession contract on infrastructural development in Kaduna State University

- ii. To determine the extent of Build-Own-Operate concession contract on infrastructural development in Kaduna State University
- iii. To assess the extent of Build-Own-Operate-Transfer concession contract on infrastructural development in Kaduna State University.
- iv. To examine the extent of Finance-Operate-Transfer concession contract on infrastructural development in Kaduna State University

Literature Review

Concept of Concession

Mundhe (2008) believes that concessions are preferable in circumstances when public authorities are unable to maintain facilities procured with public fund. In Nigerian ports for instance, Kruk (2005) observes that concession was employed as an efficiency and productivity improvement tool; first, in line with the views of Razak (2005), to instigate increased private sector participation, and secondly, to improve the operational and management capabilities of the ports (Abdullahi, 2014). Awam (2014) posits that where concession is a chosen reform policy (irrespective of the options or models), the aim is to have an increased efficiency, productivity and management capability improvements; a reduction in the financial burden on the public sector and increased revenue generation; an enhanced service delivery for users as well as the derivation of good value for money from port services; a handover of specialized task of port management to the private sector, thereby reducing political exposure and ensuring a proactive approach to trade and globalization; a redistribution of wealth and other social objectives (e.g. curbing power and influence of labour unions and other monopolies involved in port operations); trade and business development for the region, country and port; a better risk and reward sharing between public and private sector; a stimulation of higher investment in the country, enhancing the role of entrepreneurs and the private sector; as well as better technology transfer and management skills development.

The contractual arrangement embodies service criteria and specifies the technical qualities and practices expected from the concessionaire. Perhaps, it is because of the stake that the government still has in the venture that motivates government to ensure that her policies are implemented both in technical and social terms as noted by (Awam, 2014). According to Ndikom (2006), concession arrangements are geared towards attracting investors, which in turn would lead to providing modern cargo handling plant and equipment, thus enhancing operational efficiency at the ports.

Concept of Infrastructural Development

Sheffrin (2003) explain infrastructure as the facilities and services essential for an economy to function. Woochong (2009) also argues that, the term infrastructure helps mostly to express well-built constructions involving steel as well as concrete that is to say, water supply systems, power plants, roads, increasingly information and communications systems. Woochong (2009) also claims that these are parts of the built environment strengthens a country's economic potential growth and in this modern day it is difficult for a country to succeed without a firm infrastructure support.

In developing an economy, one of the basic needed facilities is infrastructure development. Openly it does not produce goods and services but helps in the achievement of primary, secondary and tertiary performance created by economies. The idea in policy terms has been fluid, as it appears to be including social facilities such as schools, hospitals, prisons etc, industrial capacity and others (Moteff et al., 2003).

Developed countries in this context have made a lot of advancement due to great growth of economic and social infrastructure.

Empirical Review

La Macchia, Wasserman and Binsztok (2017) analyzed policy frameworks of petroleum exploration and production in Brazil. In 2010, the Government introduced Production Sharing Contracts. The first auction of new contract model occurred in 2013 and attracted one bidder that acquired the area. It was concluded that: i) the basis for the model selection was the increase of governmental participation; ii) two different Policy Model created legal conflicts, decreasing the attractiveness of the petroleum business, iii) the policy models differ in their levels of attractiveness.

Okeke, Onwumere and Kalu (2019) examined the effect of port concession on the quality of port service in Nigeria. The objective is to ascertain the degree of impact which concession has on the quality of services of the modern port. The previous structure of Nigeria ports has contributed to negative service experience port users have about the port systems. This experience has led to the diversion of vessels to other neighboring ports in west Africa leading to loss of revenue. To achieve this objective, the researcher sampled 280 employees and port users in the six (6) busiest ports in Nigeria. The study adopted survey method of research design. The study reviewed the service quality model using five parameters (tangible/super-infrastructure, reliability, responsiveness, assurance and empathy of the port systems service delivery). The independent variables of port concession were measured against the indicators of quality port service. The hypotheses were tested using Pearson Moment correlation analysis. The results of the study show that port concession has transformed strongly the super-infrastructure/modern facilities used in the operations and the level of assurance of the Nigeria port system has improved. The reliability and empathy of Nigeria port service delivery is moderately improved by the concession. There is a weak relationship between empathy/customization of service provided by the port system and the concession because the Nigeria port system still experience the rush in spite of the disgruntling service experience of customers. The study observed that concession plays an effective role in transforming the quality of port service in Nigeria. Concession is strongly effective in upgrading the quality of ports super infrastructures and the level of service responsiveness with a moderate impact on the assurance, reliability and empathy of port service in Nigeria.

Nguri (2009) found that municipal projects ranging from infrastructure (roads, telecommunication, power water undertaking etc); housing projects; hospitals; schools and other institutions of education can attract PPP finance. Various types of public private partnership finance for municipal projects were also identified with the most common one being BOT, BOOT, contracting and leasing including Concessioning. Further the paper found that there are certain critical factors which need to be fulfilled before a country/municipal authority embark on a public private partnership type of project finance.

Shirley and Menard (2002) compare the impact of reforms of the water distribution state-owned company in Lima to a counterfactual where reforms would have been done with a concession. The state-owned company originally went through a program of restructuring to prepare for a concession in 1992. The restructuring took place but the concession was postponed. The author used a partial equilibrium cost benefit methodology (developed by Jones et al., 1990), where they compared the actual reform

outcomes with a counterfactual project on the basis of the draft concession contract (CEPRI – SEDAPAL 1994) assuming the private operator complied with the minimum requirements of the concession. The total welfare calculation accounted for the consumer surplus, employee welfare, government revenue and investor's revenue. Despite price increases, consumers would be better off by USD 251 million (i.e., USD 33 per connection per year). Employees are also considered to be better off in this model because they own 5% of the shares (USD 1,579 per employee per year). The Government is better off by USD 12.5 million. The authors found that (after the foreign and domestic owners) the consumer and the workers were the main beneficiaries from concessions partly because concessions would entail higher coverage and sewerage systems post reforms (following the contract). Shirley et al. (2002) study other water reform experiences (Buenos Aires, Mexico, Santiago, Abidjan, and Conakry) comparing before and after and they argue that access to service and coverage improved in most cases. In terms of distributional impact and consumer welfare, the studies show that the magnitude vary but largely positive results.

Theoretical Framework

The Public Private Partnership Model: In theory, public-private partnerships are designed to overcome the persistent challenges that have faced traditionally delivered public works projects, by capitalizing on the relational networks and social embeddedness of governments and firms participating in complex mega- projects. The emphasis in this paper is on concession style PPP models that bundle some combination of facility design, building, financing, operation and maintenance into a contract with a single concessionaire (Teicher, Alam& Gramberg, 2006).

In return, the concessionaire either collects all user fee revenue or is paid an annual fee over the life of a long-term contract lasting between 25 and 99 years. Provided that the facility is constructed on budget and operates as planned, the annual payment or user fee revenue collected by the concessionaire is sufficient to cover capital costs, maintenance and operational expenses, and a margin of profit (Siemiatycki, 2009).

This bundled approach to infrastructure project delivery is meant to deepen early and ongoing cooperation between the partners so that their interdependence is of an increasingly reciprocal nature (Smyth & Edkins, 2007). Accountability and performance is increased among the project partners by better linking financial reward with ongoing project performance, particularly when annual payments to the concessionaire are generated entirely through user fees (Flyvbjerg, 2007).

Methodology

Based on the nature of the study which involves the personal opinion of respondents, the study adopted a descriptive survey design approach to determine the effect of concession contract on infrastructural development in Kaduna State University. Descriptive studies are structured with clearly stated investigative questions (Kothari, 2003).

The population of the study comprised of all the staff of works department of the university and a random sampling technique was used to select a total number of 60 staff for the study. The study used primary data. The primary data was collected with the aid of a semi-structured questionnaire. The use of self-administered questionnaires affords privacy of response and therefore records high response rate. The method of data collection involved the use of semi-structured questionnaire.

Data Analysis and Discussion of Findings

This study analysis the effect of concession contract on infrastructural development in Kaduna State University.

Table 1. Design-Build-Finance-Operate concession contract has effect on infrastructural development in Kaduna State University

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	11.4	11.4	11.4
Disagree	5	14.3	14.3	25.7
Agree	18	51.4	51.4	77.1
Strongly Agree	8	22.9	22.9	100.0
Total	35	100.0	100.0	

The result of the respondents shows that less than 20% of the respondents disagreed with the view that Design-Build-Finance-Operate concession contract has effect on infrastructural development in Kaduna State University. While more than 50% agreed. It is evident in the analysis that the respondents with disagreed view are only 14.3%.

Table 2. Build-Own-Operate concession contract has effect on infrastructural development in Kaduna State University

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	8	22.9	22.9	22.9
Disagree	4	11.4	11.4	34.3
Agree	12	34.3	34.3	68.6
Strongly Agree	11	31.4	31.4	100.0
Total	35	100.0	100.0	

The respondents that responded on the relationship between Build-Own-Operate concession contract and infrastructural development in Kaduna State University, 22.9% strongly disagreed that Build-Own-Operate concession contract has effect on infrastructural development in Kaduna State University. 11.4% just disagreed without any strong base while 34.3% agreed and 31.4 strongly agreed that Build-Own-Operate concession contract has effect on infrastructural development in Kaduna State University.

Table 3. Build-Own-Operate-Transfer concession contract has effect on infrastructural development in Kaduna State University

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	8.6	8.6	8.6
Disagree	7	20.0	20.0	28.6
Agree	10	28.6	28.6	57.1
Strongly Agree	15	42.9	42.9	100.0
Total	35	100.0	100.0	

The table above revealed that, 8.6% of the respondents view the Build-Own-Operate-Transfer concession contract as irrelevant. To them, it doesn't have any effect on infrastructural development in Kaduna State University and they strongly express their

views. While 20% of the respondent just disagreed. In contrast, 28.6% agreed that Build-Own-Operate-Transfer concession contract on infrastructural development in Kaduna State University. To back that up 42.9% strongly agreed that the opinion of those that agreed is valid.

Table 4. Finance-Operate-Transfer concession contract has effect on infrastructural development in Kaduna State University

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	7	20.0	20.0	20.0
Disagree	4	11.4	11.4	31.4
Valid Agree	12	34.3	34.3	65.7
Strongly Agree	12	34.3	34.3	100.0
Total	35	100.0	100.0	

The result of this table is just a confirmation of the earlier opinions of the respondents in the tables above. Just 20% of the respondent in this table disagreed with the fact that Finance-Operate-Transfer concession contract has effect on infrastructural development in Kaduna State University. But equal percentage of 34.3% respondents agreed and strongly agreed that Finance-Operate-Transfer concession contract has effect on infrastructural development in Kaduna State University.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.658 ^a	.433	.357	.820

a. Predictors: (Constant), X1, X4, X2, X3

Table 6. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.386	4	3.847	5.725	.002 ^b
	Residual	20.157	30	.672		
	Total	35.543	34			

a. Dependent Variable: Innovate output

b. Predictors: (Constant), Design-Build-Finance-Operate Build-Own-Operate, Build-Own-Operate-Transfer, Finance-Operate-Transfer.

Table 6. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.936	.725		4.047	.000
	X1	.595	.166	.531	3.583	.001
	X2	-.219	.129	-.245	-1.692	.101
	X3	-.374	.153	-.365	-2.449	.020
	X4	-.073	.128	-.080	-.574	.570

a. Dependent Variable: Infrastructural Development

X1: Design-Build-Finance-Operate

X2: Build-Own-Operate

X3: Build-Own-Operate-Transfer

X4: Finance-Operate-Transfer.

Discussion of Findings

The results of the analysis conducted above revealed that the overall output of the respondents shows that they are of the view that concession contract has an improving and multiplier effect on infrastructural development in Kaduna State University. The R^2 of the study shows that the explanatory variables used in the study, have up to 43.3% influence on the explained variable. The adjusted R^2 explains the impact that will occur if additional variable would be added to the model. That an additional variable to the model cannot influence the model more than 35.7%. The result of the ANOVA shows that, putting the variables in the model together, concession contract has a significant and positive effect on infrastructural development in Kaduna State University. It is in line with the prior expectation. Since concession contract in PPP has great importance in the infrastructural development.

On an individual basis, the result shows that, Design-Build-Finance-Operate has a positive and significant effect on infrastructural development in Kaduna State University. The result revealed a positive coefficient of 0.595 with significant of 0.001. the result implies, one percent increase in the Design-Build-Finance-Operate will lead to increase in infrastructural development.

The result also shows that Build-Own-Operate has a negative and insignificant effect on infrastructural development in Kaduna State University. By implication, an increase in Build-Own-Operate will lead to decrease in the infrastructural development in Kaduna State University. The same thing with Build-Own-Operate-Transfer, it also shows a negative and insignificant effect on infrastructural development in Kaduna State University. Finally, Finance-Operate-Transfer a negative and significant effect on infrastructural development in Kaduna State University.

Conclusion and Recommendations

The result of the study revealed that, concession contract has a positive and significant effect on infrastructural development in Kaduna State University, it is therefore concluded that concession contract has a is significant effect on infrastructural development in Kaduna State University.

From the result of the analysis, it was revealed that concession contract has a positive and significant effect on infrastructural development in Kaduna State University. It is therefore recommended that management of Kaduna State University should consider concession contract in terms of to improve infrastructural development in Kaduna State University.

The study finds that, there is positive and significant relationship between Design-Build-Finance-Operate and infrastructural development in Kaduna State University. It is therefore recommended that, management of Kaduna State University should partner with institutions and individuals with requisite knowledge in Design-Build-Finance-Operate PPP contracts for greater infrastructural development in Kaduna State University.

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