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Compliance with Public Procurement Act 2007 in Design-Bid-Build and Design- Build Projects Procured by Public Tertiary Institutions in Southwest, Nigeria

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Abstract
Noncompliance with procurement regulations remains a major concern but studies neglect the effect of procurement methods on compliance with public procurement regulations. This study compares the Levels of Compliance (LOC) with the Public Procurement Act, (PPA) 2007 by Public Tertiary Institutions (PTIs) in Southwest, Nigeria. The objectives are to evaluate and compare LOC with PPA in Design-Bid-Build (DBB) and Design-Build (DB) in construction projects procured by PTIs. A questionnaire survey involving a population of 44 PTIs in Southwest Nigeria was adopted. The sample size of the study consists of the entire 44 PTIs in the population selected by the census-sampling technique. Data were collected on LOC with PPA 2007 in DBB and DB projects procured by PTIs using structured questionnaires and analyzed using mean and t-test. Results revealed that LOC differs significantly in four provisions between DBB and DB projects procured by PTIs with DBB having higher LOC than DB projects but, LOC significantly remains the same in other provisions. The study concludes that PTIs comply better with PPA 2007 in DBB projects and recommends increased compliance in the four provisions in DB projects.

Keywords: Compliance, design-bid-build, design-build, public procurement act, public tertiary institutions

INTRODUCTION

Public organisations must deliver services to the public in many ways, one of these ways is through the procurement of goods, works and services. Odhiambo and Theuri, (2015) maintained that in government functions, procurement is a fundamental operation. Procurement forms an important activity in every private and public organisation of every country of the world. Mukura, Shalle, Kanda and Ngatia (2016) maintained that, globally, public procurement is considered a key factor in economic and business activities. Mathonsi and Thwala (2012) observed that procurement is defined by many stakeholders in the construction profession with many words like; procurement systems project delivery systems and project approach.

As a result of its economic and social implications, transparency, openness and accountability are the major focus of public procurement processes to ensure successful delivery of all activities that are involved. Claren (2017) maintained that the first International Standard for sustainable procurement (ISO 20400) provided guidelines on development and implementation of sustainable procurement practises and policies by an organisation. ISO 20400 contained the principles of transparency and accountability that ensure sustainability in procurement. Studies: however, discovered that Nigerian procurement laws lacked distinct procurement regulatory and administrative functions, harmonisation of public procurement regulatory authorities, and establishment of independent review mechanisms required for providing public procurement-related information to the public among others (PPDC, 2012). Sequel to the enactment of the Public Procurement Act of 2007, public procurement in the country was fraught with corruption of several magnitudes because of the absence of statutory regulations and regulatory authority for monitoring

procurement procedure in the public sector (Innocent, Okeke & Sabina, 2015). In an attempt to put in place procurement procedures and practices that would meet international and regional standards and requirements on procurement, such as the United Nations Commission on International Trade Law (UNCITRAL), the Common Market for Eastern and Southern Africa (COMESA), and the West African Economic and Monetary Union (WAEMU) and to guarantee transparency and accountability in public procurement, Nigeria embarked on a reform of its existing procurement laws (Public and Private Development Centre PPDC, 2012).

Different procurement methods or project delivery methods are available for different construction projects; hence, choosing a correct method will save a client from avoidable problems and assists in ensuring the attainment of project objectives (Eyitope, Ojo, Ajibola, & Gbadebo, 2012). Procurement methods in construction project delivery include design build, management contracting, and construction management, general contracting, public private initiative (Hackett, Robinson and Statham, 2007). These procurement options vary from one country to another. For example, in Australia, procurement options include construct only, design-bid- build, design- build, direct managed, construction management, management contractor, alliances, public-private partnership and professional services (Australian Procurement and Construction Council, APCC, 2014). Mathousi and Thwala (2012) listed procurement methods available in South Africa as; traditional (design-bid-build) and non-traditional procurement systems (design-build) Integrated procurement system, management-oriented procurement system and collaborative/discretionary procurement system. In Nigeria, the commonly used procurement methods are traditional or Design-Bid-build (DBB) method, Design and Build or Design-Build (DB), management systems and design and manage systems. Each of these four categories has variants with different degrees of certainty and risk to the project construction and development (Ogunsanmi, 2014). For a successful project, the owner is left with choosing the best method from the available options for a particular project having in mind his project profile in anticipation of best value-for-money (APCC, 2014). Smith, O'keefe, Georgiou and Love (2004) and Transit Cooperative Research Programme, TCRP (2009) opined that apart from deciding to build choosing a right procurement method is the single most crucial decision that a client could make.

Design- Bid- Build (D-B-B) according to Akran, Cavalini, Dizdar, Mukherjee, Kluczuk, … and Zaria, (2012); Ojo, Adeyemi and Ikpo (2000) and Idoro (2007) are the commonest procurement methods used in the Nigerian construction industry. Ogunsanmi (2014) maintained that it is a process whereby a person obtained new building by employing the designer and contractor separately. The main feature of this type of procurement is that design is separated from the construction. While design consultants conduct the design and cost control, the contractor carries out the construction (Davis, Love & Baccarini, 2008).

Design- build (D-B) procurement method is otherwise referred to as design and build. It is a delivery process in which the client procures a building project by employing the designing and the construction services in the same contract from only one legal entity known as the design builder (Transit Cooperative Research Program Report, 2009). It is a delivery method whereby the client procures design and construction services in the same contract from only one legal entity known as the design builder (Transit Cooperative Research Program Report, 2009).

The client, in line with the required project objectives, select a suitable contractor known to be able to work in line with the client's project requirements. The contractor is then required to carry out the design and construction including the costs and provide a firm, fixed price in its proposal (Graham, 2001; Ibbs, Kwak and Odabasi, 2003; El-Wardani, Messner and Horman, 2006; Davis et al., 2008).

Much literature reviewed acknowledged the importance of public procurement in project delivery but also discovered inadequate adherence with the provisions of the existing regulations,

especially, the public procurement Act, 2007. Studies: however, failed to establish the extent of compliance with these regulations and the contribution of project delivery methods in PTIs to the levels of compliance with PPA 2007. Against this backdrop, this study was undertaken to fill the existing gap in literature on levels of compliance with PPA 2007 in project delivery by PTIs in Southwest, Nigeria.

MATERIALS AND METHOD

This study covers one of the six geo-political zones of the Federal Republic of Nigeria, namely, southwest zone. The study conducted a field survey covering six states including Ekiti, Lagos, Ogun, Ondo, Osun and Oyo.

The population of the study consisted of construction projects procured and executed by the Public Tertiary Institutions (PTIs) in Southwest, Nigeria in 2006. The PTIs consist of Universities, Polytechnics and Colleges of Education. The website of Joint Admission and Matriculation Board (JAMB) in 2019, the body in charge of the conduct of examinations and admission into all higher educational institutions in Nigeria. This body in (2019) revealed that the zone had 44 Public Tertiary Institutions. In view of the population frame, the entire 44 PTIs were selected as the sampling frame and sample size for the study. For this reason, the census-sampling technique was adopted in selecting the study sample

The research instrument adopted for the survey was a structured questionnaire. Forty-four questionnaires were administered by two research assistants to the Institutions Procurement Officers who were construction professionals, namely Builders, Architects, Quantity Surveyors and Civil Engineers. The Procurement Officers were the persons recognised by the Act as heads of Procurement Unit of the Institutions with relevant experience and knowledge about construction procurement and were responsible for the implementation and compliance with the PPA, 2007 during the procurement process. The Act comprises several provisions for procuring goods, services and works. Thirty-nine (39) provisions of the PPA 2007 relevant to the construction project procurement were selected for the study. Respondents were requested to indicate 'Yes' for the provisions of PPA, 2007 that they complied with when procuring construction projects in their Institutions and 'No' for provisions they did not comply with. Thirty-one out of forty-four questionnaires administered to the respondents were returned. In the attempt to compare the levels of compliance with PPA, 2007 in DBB and DB projects procured by PTIs in Southwest, Nigeria and establish whether the Institutions comply with the Act in one delivery method than the other, a research hypothesis was devised. The hypothesis states that there is no significant difference in the levels of compliance with Public Procurement Act 2007 between projects procured by PTIs by DBB and DB project delivery methods. The results of the hypothesis are expected to reveal the significant similarities and differences in compliance with the Procurement Act by PTIs in the two project delivery methods.
Data collected were processed using the Statistical Package for Social Sciences Version 20 software. The levels of compliance with the provisions of the PPA 2007 by each PTI were analyzed as the number of projects procured by each method in which a provision is complied with divided by the total number of projects sampled for each method.

$$\text{(Compliance level (\%)} = \frac{\text{Number of Projects Procured by each method in which a provision is comply with}}{\text{Total number of Projects sampled by each Method}} \times 100\%)$$

The hypothesis of the study was tested using t test at p-value ≤ 0.05. The rule for the rejection of the hypothesis is that when the calculated p-value is less than or equal to 0.05, the test rejects the hypothesis but when the calculated p-value is greater than 0.05, the test fails to reject the hypothesis.

RESULTS AND DISCUSSION

Level of compliance with PPA, 2007 in DBB and DB Projects by PTIs

In order to evaluate and compare the Levels of Compliance (LOC) with Public Procurement Act (PPA) 2007 in design-bid-build and design-build projects procured by PTIs in Southwest, Nigeria, 39 provisions of PPA 2007 relevant to

procurement of construction projects were selected. Respondents were requested to indicate 'Yes' for the provisions, which they complied with and 'No' for the provisions that they did not comply with. Data collected were analyzed to determine the level of compliance with PPA, 2007 using percentage. The results are presented in Table 1.

Table 1: Level of compliance with PPA, 2007 in DBB and DB Projects by PTIs in Southwest, Nigeria

Provision of PPA 2007	LOC with PPA 2007 in: DBB N	DBB Mean	DB N	DB Mean		f-value	p-value	Diff
Compliance with:								
Funding of capital projects	17	47.0	14	36.0	31	0.620	0.540	Ns
Values of projects for which CNO is obtained	17	12.0	14	14.0	31	-0.202	0.842	Ns
Basis for award of contract	17	100	14	50.0	31	3.988		Ns
Period when CNO to contract award is obtained	17	65.0	14	43.0	31	1.206	0.238	Ns
Procedure of procurement of capital projects	17	71.0	14	86.0	31	-0.986	0.332	Ns
Time allowed for bidding before contract award	17	18.0	14	29.0	31	-0.706	0.486	Ns
Minimum bids received before contract award	17	65.0	14	71.0	31	-0.386	0.702	Ns
Payment procedure for contractors	17	94.0	14	86.0	31	0.769	0.448	Ns
Contractor selection procedure	17	57.0	14	49.0	31	0.899	0.376	Ns
Process for exclusion of bids from evaluation	17	41.0	14	0.00	31	3.028	0.005	S
Bid & contract documentation language	17	100	14	93.0	31	1.106	0.278	Ns
Time taken to transmit proceedings to BPP	17	12.0	14	21.0	31	-0.710	0.483	Ns
Public access to procurement records	17	0.00	14	0.00	31	0.000	0.549	Ns
Procedure for award of contract for projects	17	29.0	14	43.0	31	0.000	0.453	Ns
Person for final selection of winning tender	17	100	14	71.0	31	0.932	0.017	S
Powers of Tender's Board	17	56.0	14	14.0	31	-0.128	0.016	S
Procedure for engagement of sub-contractor	17	94.0	14	57.0	31	1.236	0.013	S
Form of dispute resolution in contract	17	41.0	14	14.0	31	0.732	0.107	Ns
Currency for stating values in contract	17	100	14	93.0	31	0.393	0.278	Ns
Content of the procurement contract	17	45.0	14	48.0	31	-1.154	0.774	Ns
Approving authority to conduct procurement	17	53.0	14	57.0	31	2.393	0.822	Ns
Procurement planning procedure	17	49.0	14	44.0	31	0.482	0.678	Ns
Procedure for implementing procurement plan	17	62.0	14	50.0	31	-0.202	0.249	Ns
Procurement Planning Committee	17	75.0	14	54.0	31	-0.094	0.063	Ns
Procurement Planning committee members	17	50.0	14	54.0	31	1.083	0.756	Ns
Construction projects procurement procedure	17	84.0	14	54.0	31	0.435	0.004	S
Mode of bidding for construction projects	17	46.0	14	50.0	31	0.522	0.523	Ns
Activities performed during bid opening	17	62.0	14	68.0	31	2.078	0.555	Ns
Bid solicitation procedure	17	35.0	14	38.0	31	1.631	0.732	Ns
Margins of mobilization granted to contractors	17	59.0	14	43.0	31	1.528	0.013	S
Basis for granting mobilization to contractors	17	65.0	14	61.0	31	1.024	0.732	Ns
Proc. of payment for goods, works and services	17	33.0	14	33.0	31	0.166	0.373	Ns
Contents and treatment of procurement record	17	52.0	14	54.0	31	1.282	0.874	Ns
Recommended procurement bidding method	17	100.0	14	71.0	31	0.932	0.017	S
Procedure on restricted bidding	17	53.0	14	57.0	31	-0.477	0.822	Ns
Consultancy services value for soliciting open bidding	17	100.0	14	57.0	31	0.616	0.002	S
Procedure for procuring consultancy services	17	22.0	14	49.0	31	0.543	0.006	S
Procedure for evaluating bids	17	56.0	14	50.0	31	0.024	0.611	Ns
Procedure for selecting bids	17	41.0	14	35.0	31	0.995	0.285	Ns
Overall levels of procurement with PPA 2007	17	56.0	14	49.0	31	0.438	0.132	Ns

N = No. of Respondents, Diff. = Differences, S = Significant, Ns = Non-Significant, Proc. = Procedure, CNO = Certificate of No Objection, PPA = Public Procurement Act, BPP= Bureau of Public Procurement,

DBB= Design-Bid-Build, DB=Design-Build, PTI=Public Tertiary Institution

The result in Table 1 shows that compliance with the provisions of PPA 2007 in projects procured by PTIs varied as; 0-100 and 0-93% in DBB and DB delivery methods, respectively. Table1 further reveals that PTIs recorded the same levels of compliance in one provision of the Act, namely the procedure of procurement of goods works and services (DBB 33%, DB 33%). The result also shows that overall levels of compliance with the provisions of PPA 2007 in projects procured by PTIs using design-bid-build and design bid project delivery methods are 56 and 49%, respectively. Table 1 equally reveals that PTIs in the use of both the DBB and DB delivery methods recorded zero compliance in one provision of the Act that bothered on public access to institutions unclassified procurement records for scrutiny (DBB 0%, DB 0%). However, PTIs in DB project procured, recorded zero compliance in one other provisions of the Act; process for exclusion of bids from evaluation.

The results in Table 1 also reveals that PTIs recorded very low compliance levels (below 50%) in 14 provisions of the Act, namely; funding of capital projects (DBB 47%, DB 36%); values of projects for which certificate of "No Objection" is obtained from BPP (DBB 12%, DB 14%); Time allowed for bidding before contract award (DBB 18%, DB 29%); Process for exclusion of bids from evaluation (DBB 41%, DB 0%); Time taken to transmit proceedings to BPP (DBB 12%, DB 21%); Public access to procurement records (DBB 0%, DB 0%); Procedure for award of contract for projects (DBB 29, DB 43%); Form of dispute resolution in contract (DBB 41%, DB 14%); Content of the procurement contract (DBB 45%, DB 48%); Procurement planning procedure (DBB 49%, DB 44%); Bid solicitation procedure (DBB 35%, DB 38%); Procedure of payment for goods, works and services (DBB 33%, DB 33%); Procedure for procuring consultancy services (DBB 22%, DB 29%) and; Procedure for selecting bids (DBB 41%, DB 35%). The low compliance in thirteen of the thirty-nine provisions by the three categories of institutions is an indication of poor performance by the two categories of PTIs generally.

Public Tertiary Institutions (PTIs) however, recorded full compliance with PPA 2007 in only six DBB projects, namely basis for award of contracts, bid and contract documentation language; person for final selection of winning tender, currency for stating values in contract recommended procurement-bidding method and consultancy service value for soliciting open bidding

The zero compliance recorded by PTIs in some provisions of the Act is a demonstration of an utter defiance to those provisions in their project procurement. Particularly, total disobedience to the provision of PPA 2007 on unhindered access to certain procurement records of the PTIs that are regarded as 'non-classified' for public scrutiny suggests a shady practise and secrecy on those documents. This act demonstrated by the PTIs is contrary to the objectives of the PPA 2007 as stated in Part 1 section 4 of the Act (FGN, 2007) that bothered on ensuring probity, accountability, and transparency in the public procurement process. Specifically, Part IV Section 16 sub-section 14 maintained that those documents be made opened for access by the desired public member. This, therefore, suggests that the institutions are into shady and corrupt practise in their construction procurement.

The institutions' poor and weak compliance in some of the provisions of the procurement Act also suggests a nonchalant attitude towards the provisions of the PPA 2007 by the institutions. For example on funding of the procurement, the Act provided that public procurement shall only be done based on procurement plans supported by prior budgetary appropriations and assurance that funds are available for the procurement and collection of certificate of No Objection. The institutions, however, disobeyed these provisions.

The flagrant flouting of the provisions, as observed in the results is an indication of abuse of powers of Tenders Board and unethical practises through non-adherence to the laid down Procurement Regulations. This indicates that the PTIs deliberately deny the Bureau of Public Procurement (BPP). The regulatory authority

responsible for monitoring public procurement, the privilege of performing their functions by not submitting their procurement procedures and documentation for checking, certification and clearance before awarding contract to contractors. These will require the BPP in their oversight functions in accordance with Clause 16(13), part IV (Fundamental Principles for Procurements) of the 2007 Public Procurement Act to pay greater attention to procurement records of PTIs during post- procurement reviews (FGN, 2007).

Non-observant of procurement regulation and sharp practises in procurement exercises will erode the basis for which the procurement is made. The result of these are uncompleted structures, poor buildings and inadequate infrastructure as a result of mismanagement of funds through disobedient to regulations meant for procuring such structures in many institutions. These may lead to student unrest and subsequent closure of institutions by government

Difference in the Levels of Compliance with Public Procurement Act 2007 in DBB and DB projects procured by PTIs in Southwest, Nigeria.

Results in Table 1, reveals that the p-value for the test of difference in the levels of compliance with nine provisions of PPA 2007 in DBB and DB projects procured by PTIs in Southwest Nigeria is less than the critical p- value (0.05). The nine provisions and their p-values are; Process for exclusion of bids from evaluation (0.005); Person for the final selection of winning tender (0.017); Powers of Tender's Board (0.016); Procedure for engagement of sub-contractor (0.013); Construction projects procurement procedure (DBB 84%, DB 54%); Margins of mobilization granted to contractors (0.013); Recommended procurement bidding method (0.017); Consultancy service value for soliciting open bidding (0.002) and Procedure for procuring consultancy services (0.006). Consequently, the test rejects the hypothesis that there is no significant difference in the levels of compliance with the nine provisions of PPA, 2007 by PTIs based on the two project delivery methods.

The implication of the result is that there is a significant difference in the level of compliance with the nine provisions of PPA 2007 in DBB and DB projects procured by PTIs in Southwest Nigeria. Hence, the project delivery methods by PTIs in Southwest, Nigeria, affect the levels of compliance with the provisions of PPA 2007.

The table further reveals the levels of compliance with the provisions of the Act in DBB and DB project with significant values as; Process for exclusion of bids from evaluation (DBB 41%, DB O%); Person for the final selection of winning tender (DBB 100%, DB 71%); Powers of Tender's Board (DBB 56%, DB 14%); Procedure for engagement of sub-contractor (DBB 94%, DB 57%); Construction projects procurement procedure (DBB 84%, DB 54%); Margins of mobilisation granted to contractors (59%, DB 43%); the Recommended procurement-bidding method (DBB 100%, DB 71%); Consultancy service value for soliciting open bidding (DBB 100%, DB 57%) and Procedure for procuring consultancy services (DBB 22%, DB 49%). The implication of these results is that PTIs comply more with the provisions of the Act in eight of the nine provisions in DBB projects.

Table 1 further shows that the p-values for the test of difference in the levels of compliance with the remaining 30 provisions of the Act in DBB and DB projects procured by PTIs are greater than the critical p-value (0.05), therefore, the test fails to reject the hypothesis, which states that there is no significant difference in the level of compliance with PPA, 2007 in DBB and DB projects procured by PTIs. This indicates that the level of compliance with the 30 provisions of PPA, 2007 by PTIs is the same based on the two project delivery methods. Hence, DBB and DB projects procured by PTIs have no effect on the levels of compliance with the remaining 35 provisions of PPA, 2007 based on DBB and DB projects procured by PTIs.

CONCLUSION

The study compares the levels of compliance with Public Procurement Act 2007 in DBB and DB projects procured by PTIs in Southwest, Nigeria. The poor compliance recorded in 14 provisions of PPA 2007 and the average compliance value of 56% for DBB and 49% for DB projects by the institutions with all provisions of the Act was not good enough. Hence, the study concludes that

compliance with the provisions of the Act in projects procurement by the PTIs is low. The results of the test of research hypothesis reveal that the compliance among the PTIs in the two project delivery methods differs significantly only in nine provisions of the Act with the institutions recording higher compliance in DBB than DB projects. Hence, the study further concludes that the nine provisions of the Act have effects on the levels of compliance with the PPA 2007 in DBB and DB projects procured by PTIs in Southwest, Nigeria and that the levels of compliance with the provisions of the Public Procurement Act in DBB projects are higher than DB projects.

The study recommended increased training to the Management and staff of the procurement department of the PTIs for improved compliance on those provisions of the Act, where they have very low compliance. The BPP should also maintain a strict supervision of PTIs and other Ministries, Departments and Agencies in line with their monitoring and oversight functions to ensure a transparent and corrupt free public procurement.

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