

Evaluation of the Adequacy of Contractors' Tendering Duration for Public Building Projects in Nigeria

Stanley, C. Ugochukwu¹ and Kevin, C. Okolie²

¹ Lecturer Department of Quantity Surveying, Nnamdi Azikiwe University, Awka Nigeria

² Senior Lecturer Department of Building, Nnamdi Azikiwe University, Awka Nigeria

-----ABSTRACT-----

From the inception of the public procurement mechanism in Nigeria, there has been a growing rift between the public sector clients and contractors as to the satisfaction and appropriateness of the time frame allocated for preparation and submission of tenders. This study is aimed at investigating the adequacy of the current tendering duration practiced in Nigeria. The aim was achieved through questionnaire administered to obtain the views of public clients and contractors respectively. A T-test analysis conducted on 78 public building projects was employed to ascertain the mean differences between the time frame currently allowed and that considered adequate. Results revealed that a surprising 75% of the contractors believe that the time frame presently stipulated is sufficient, and this was attributed to a number of subjective issues such as inexperience, incompetence, inappropriate estimation techniques and tendency to cut corners to secure contracts while 84% of clients also support this. The T-test statistic revealed a mean of 3.05 for tendering duration presently allowed and 3.15 for which it was inferred that there is no significant difference between both means. It was however recommended that some form of construction regulatory framework be established to assess the expertise of tenderers, regulate contracting practice/business, checkmate quacks and incorporate standard tendering durations for various project complexities into the Procurement Act (2007). Concerted efforts should be made on the part of the Executive and Legislative arms of Government towards securing timely approvals of national budget to reduce pressure on procuring entities.

KEY WORDS: Adequacy, projects, Public building, Tendering duration, Nigeria.

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I. INTRODUCTION

Maduadi (2004) established that the importance of the pre-contract planning stage of building procurement cannot be over-emphasized, as it determines to a large extent the overall success of a project. Adequate time, effort and attention must therefore be allocated to it. Chitkara (2009) calls this stage the mobilization or preparation stage which aims at processing the project preliminaries so as to enable the commencement of the construction stage. This is achieved by compiling the detailed contract documents such as designs, drawings, specifications and bills of quantities, planning the project execution which includes the work programme, manpower, material, plant and machinery utilization plan, work organization and mobilization plan, project budget, tendering and appointing contractors, especially those needed for commencement of the work (Chitkara, 2009). The tendering phase in the building industry has thus been deemed to be the most critical and important phase of the life cycle of the project, as it shapes the contractual and legal agreements between the client, consultant team, the contractor and other members of the project (Lou and Alshawi, 2009).

Prior to the submission of completed tenders and subsequent selection of successful tenderers/contractors, a period of time is usually allowed for, or given to tenderers by the client or his consultants to prepare their estimates or proposals, and carry out all necessary activities that will enable them achieve it. This space of time is referred to as the tender period or duration which begins with the tender advertisement and ends with the closing or submission date for tenders (Tamimi, 2009). During the tender period, after tender documents must have been issued, prospective tenderers begin the preparation of adequate and realistic tenders by collating data to aid their project estimation (Knowles, 1997). According to Neighbour (2006) activities such as (i) Clarifying any inconsistencies and other queries, such as conflicts, omissions or errors that exist in their opinion or the opinion of their sub-contractors across the documentation are reported to the client or consultants, for corrective resolution to be obtained (ii) Measuring the scope of the works or services being sought (iii) Obtaining prices from sub-contractors and suppliers (iv) Visiting the site(s) (v)

Assessing the tender and contract conditions (vi) Assessing capacity to undertake the work and (vii) Documenting the tender bids are carried out by the tenderers to aid them prepare and collate a realistic bid or estimate. Thus, Contract documents need to be thoroughly examined to ensure that all conditions likely to affect the duration and cost of the project are not overlooked. According to Izam & Kolawole (1998), these later activities and actions on the part of the contractor, more often than not require considerable time than the client may be able to concede. Tender duration for submission by the contractor and its adequacy heavily depend on the type of tender (commercial, design and build or invited tender), size/scale, complexity and value of the project and the amount of information that needs to be disclosed by the tenderers (Bina, 2010). However, Paynter (2009) explains that if there is a bill of quantities, and the work is thoroughly designed, turnaround will be fast. The tender process carries with it substantial dangers (Nosworthy, 2001), while the adequacy of time allowed for it is considered a typical risk in a building project (Neighbour, 2006). It is therefore important to ensure that sufficient time is provided to enable contractors properly formulate their offers/submissions and prepare accurate and competitive tenders. If the period is too short, it may result in either overpriced tenders to cover unforeseen risks or underpriced tenders completed without due care (Knowles, 1997). The opinion of Paynter (2009) further raises a pertinent question which clients and consultants ought to ask themselves when calling for tenders for their projects; "Do these contractors have enough time to tender?" or "if the tender invitations are issued to them, how long should they be given to tender?" If this problem is better understood, then there are more chances of finding an effective solution.

1.1 Purpose/Objective of the Study

The purpose of this study is to assess the adequacy of the time deemed appropriate for tendering on the various cost categories of projects stipulated by public building clients for contractors. Specifically, the objectives of the study include:

To identify and rank the most time consuming activities contractors embark on during preparation of their tenders; and To assess the mean differences between the tendering periods presently allowed and that considered adequate by respondents for various sampled/historical public projects in Nigeria.

II. REVIEW

2.1 Tendering Administration in the Nigerian Construction Industry

Idiako (2007) asserts that the construction industry in Nigeria is one of the most important sectors of the economy and the major index of assessing the growth of the economy. The industry is thus an essential contributor to the process of development, which includes the construction of schools, houses, hospitals, and factories to mention a few. The products of construction works thus forms the basis on which development effort and improved living standards are established.

The pace of economic growth of any nation can be measured by the development of its infrastructure (Izam and Katun, 2009). The Nigerian Government favours a contract tendering process that is open, competitive, fair and equitable to all bidders and which seeks to strategically focus on minimizing waste and reduce incidence of failure of public sector projects. The competitive tendering process is thus widely adopted at all levels of government in Nigeria, since it is believed that it gives best value for money and is an antidote to corruption through transparency and openness (Oladapo, 1999; Offong, 1999). However, evidence available from the authors investigations shows that emphasis is placed only on tender cost. In other words, the criteria for selecting the contractor places little or no value on tender duration proposed by the contractor, since the ministry specifies such duration

In Nigeria, contractors are invited for tender submission through advertisement in the national dailies and technical journals, such as the Federal tenders' journal. Assessments, such as bid price, time for project completion, financial capability, work experience, technical staff available, equipment facilities and current list of works are the common criteria for being prequalified and shortlisted. For the successful implementation of building projects, Seeley (1997) suggests that selection of tenders should be limited to a realistic number of firms who are capable to a recognized standard of competence, the general use of standing approved contractors and that of an ad-hoc list should be used mainly when the work is of a specialist nature and the period allowed for tendering should be adequate for the type of projects and price of contracts. Tendering provides advantages for clients and tenderers alike, including providing best value through competition, fair distribution of work opportunities, support of ethical standards, achievement of innovative results and creative solutions to client's needs (Knowles, 1997).

According to O'Connell (2010), the tender process is made up of four steps, namely;

- Qualification: Firms attempt to gain opportunity to be considered for tender by clients
- Tender invitation and submission: Client invites firms to complete and return tender documents
- Tender Assessment: Client considers completed returned tenders to find suitable contractors
- Tender acceptance: Client accepts most suitable tender

The above stages can be broken down into numerous sub-activities or stages which also characterize the views of the major players in the process: the client, consultant and contractors (Mohemad, Hamdan, Othman and Noor, 2010). Figure 1 depicts this extensively.

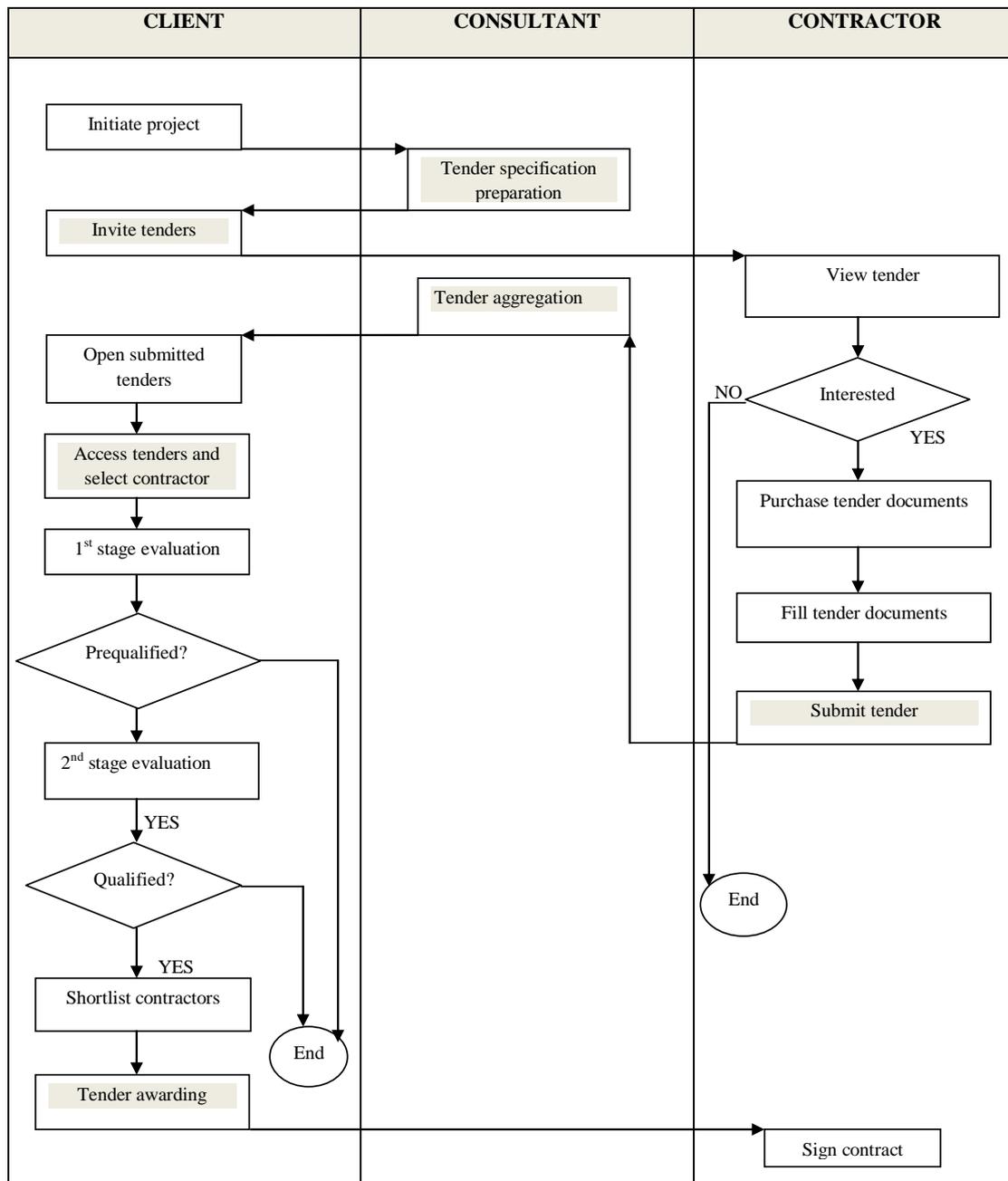


Figure 1: Client, Consultant and Contractor Perspectives of the Tendering process.
 Source: (Mohemad *et al.*, 2010; <http://www.ijcsi.org/papers>).

2.2 The Tendering Duration

The Oxford advanced learners dictionary (2001) defines 'tendering' as making a formal offer to supply goods or carry out work at a stated price, and 'duration', as the length of time that something lasts or continues: until the end of a particular situation. Tendering duration can therefore be referred to as the length of time that a formal offer to supply goods or carry out work at a stated price is open, or when a tender offer ends.

Prior to the tender assessment, the client gives prospective contractors a period of time to document their bids and attach their prices. This time period is often referred to as the tendering duration (Izam and Ugochukwu, 2012). According to Izam (2007), the time for tendering from the contractor's stand point can simply be defined as the period covering the contractor's acceptance of the client's invitation to tender and the date set aside for the submission of the tender proposal. Izam (2007) also identified the series of actions which follow a contractor's decision to tender, which includes: collection and collation of project drawings and bills, site visit(s) and collation of data for project examination.

A pertinent question has thus often been raised while various attempts have been made to provide an appropriate answer; how long should the tendering duration be? It is quite obvious from the foregoing, that this period needs to be long enough to prepare accurate and competitive tenders. If the tendering period is too short it may result in either overpriced tenders to cover unforeseen risks or underpriced tenders completed without due care (Knowles,1997).

Hackett, Robinson and Statham (2007) posit that the time required by a contractor to prepare a tender is dependent on both the size and complexity of the project. Whilst it is generally accepted that the minimum tender period should be 4 weeks, a longer period will be required in some instances. If realistic prices are to be tendered, it is imperative that tenderers be given sufficient time in which to obtain competitive prices from their suppliers and subcontractors and to formulate their bids properly.

III. RESEARCH STRATEGY/METHODOLOGY

The study came in four distinct stages. The *first stage* involved a structured questionnaire administered to 36 public sector staff from the Federal ministry of Housing and the Federal capital Development authority (FCDA); 9 practicing Quantity surveying consultants/principal partners and 29 contractors. This was to obtain their take on the adequacy of tendering duration presently allowed. The *second stage* entailed an extensive survey of different cost categories of projects in existence and their corresponding average time allowed for tendering. Data were obtained from the federal tenders' journal and project/contract documents. The respondents include clients/consultants and contractors and were expected to fill in the time periods they deemed adequate for each category. The *third stage* involved a detailed study & interview of contractors on the activities they carry out prior to preparation of their bids. This was with a view to obtaining the most stringent or difficult pre-qualification criteria that may serve to strengthen the argument or validate any inadequacy in tendering time allowed for such projects.

The *fourth stage* employed a detailed survey of 78 public building projects executed between 2007 and 2010 within the Federal Capital Territory (FCT). Data were obtained from project/contract documents. Consequently, a template was drawn up, highlighting their project costs, tendering durations presently allowed and that considered adequate, which respondents were expected to fill.

Data analysis involved first, the simple percentages method to determine the proportion of respondents agreeing with the adequacy of the current tendering time. Second, a T-test analysis to obtain the significance of the mean differences between the tendering duration presently allowed and that considered adequate. Details are shown in the following tables:

Table 1: Preliminary Data on Respondents

Location	Respondents	Number Distributed	Number returned	Number returned suitable for analysis
F.C.T	Public sector staff (Ministries & parastatals)	36	34	30
	Consultants	9	8	8
	Contractors	29	29	24
	Total	74	71	62

Table 2 Durations of Sampled Projects Executed From 2007 – 2010.

Project S/N	Client Type/Location	Project Cost (₦)	Tendering Duration given (Weeks)	Tendering Duration Considered Adequate by respondents (Weeks)
1	Public/FCT	64,320,334.39	2	2
2	“	172,000,715.60	2	3
3	“	33,333,830.25	2	2
4	“	69,207,390.00	2	2
5	“	217,453,689.50	4	4
6	“	181,999,881.00	4	4
7	“	118,989,937.00	3	3
8	“	5,366,496.93	2	2
9	“	38,699,480.00	2	2
10	“	68,748,216.00	2	2
11	“	28,886,471.25	2	2
12	“	7,688,114.00	2	2
13	“	300,251,415.78	4	4
14	“	4,411,744,958.08	6	6
15	“	1,419,280,338.00	6	6
16	“	743,911,518.00	4	4
17	“	311,766,661.53	4	4
18	“	262,722,177.90	3	4
19	“	690,411,022.95	4	6
20	“	5,001,785,839.05	6	6
21	“	18,867,283,615.14	6	6
22	“	3,509,327,405.00	6	6
23	“	1,956,593,550.89	6	6
24	“	2,132,646,231.79	6	6
25	“	1,155,557,448.00	4	6
26	“	79,181,245.50	6	4
27	“	12,456,700.00	2	2
28	“	13,055,004.59	2	2
29	“	9,180,733,046.00	6	6
30	“	10,185,327.70	3	2
31	“	230,415,967.00	3	6
32	“	87,340,180.91	3	4
33	“	12,509,775.30	3	2
34	“	23,355,209.00	3	2
35	“	32,545,435.00	2	2
36	“	45,578,342.50	2	2
37	“	604,415,386.26	6	6
38	“	450,250,065.00	4	6
39	“	600,014,085.50	6	6
40	“	11,578,959.81	2	2
41	“	22,952,729.01	2	2
42	“	32,003,067.60	2	2
43	“	924,701,193.16	6	6
44	“	6,412,799.26	2	2
45	“	15,013,386.61	2	2
46	“	27,010,596.90	2	2
47	“	29,971,950.75	2	2
48	“	177,185,277.85	3	3
49	“	21,600,744.90	2	2
50	“	28,390,960.90	2	2
51	“	20,908,900.00	2	2
52	“	604,488,209.96	4	6
53	“	4,960,000.00	2	2
54	“	556,545,433.50	6	6
55	“	23,163,327.73	2	2
56	“	12,825,598.52	2	2
57	“	413,508,774.33	4	4

58	“	9,530,393.57	2	2
59	“	9,622,389.45	2	2
60	“	12,571,113.00	2	2
61	“	35,256,090.72	2	2
62	“	20,091,007.00	2	2
63	“	3,936,600.00	2	2
64	“	8,748,000.00	2	2
65	“	12,150,000.00	2	2
66	“	6,739,200.00	2	2
67	“	6,998,400.00	2	2
68	“	3,664,926.81	2	2
69	“	7,290,000.00	2	2
70	“	10,223,181.72	2	2
71	“	9,204,545.16	2	2
72	“	51,501,670.50	2	2
73	“	10,564,180.96	2	2
74	“	25,391,431.72	2	2
75	“	40,525,247.23	2	2
76	“	5,284,320.00	2	2
77	“	17,209,357.15	3	2
78	“	24,302,550.75	3	2

IV. RESULTS AND DISCUSSIONS

Data collection was analyzed in terms of perception of respondents with respect to the general adequacy of tendering duration stipulations. Table 3 shows the responses obtained from 38 public building clients and 24 contractors respectively, while Figures 2 and 3 represents the respective percentage responses in a pie chart form.

Table 3 Adequacy of Tendering Duration by Respondents

a) Clients'/Consultants' Response

Adequacy	Number of responses	% response
Yes	32	84
No	6	16
Total	38	100

b) Contractors' Response

Adequacy	Number of responses	% responses
Yes	18	75
No	6	25
Total	24	100

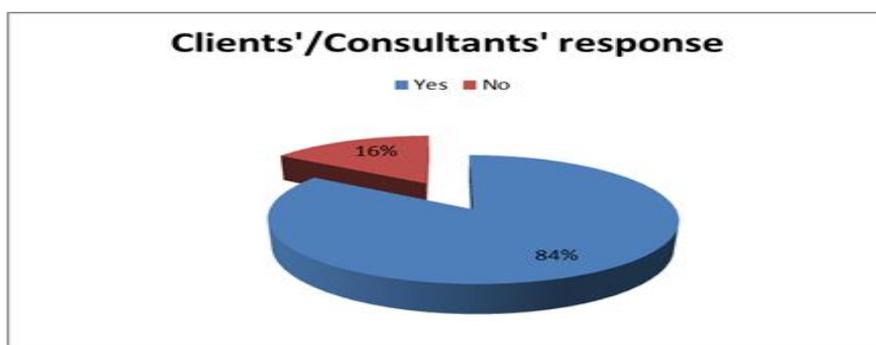


Figure 2 Pie Chart Representation of Clients'/Consultants' Response on the Adequacy of Tendering Duration. Source: (Author's Field Work, 2011).

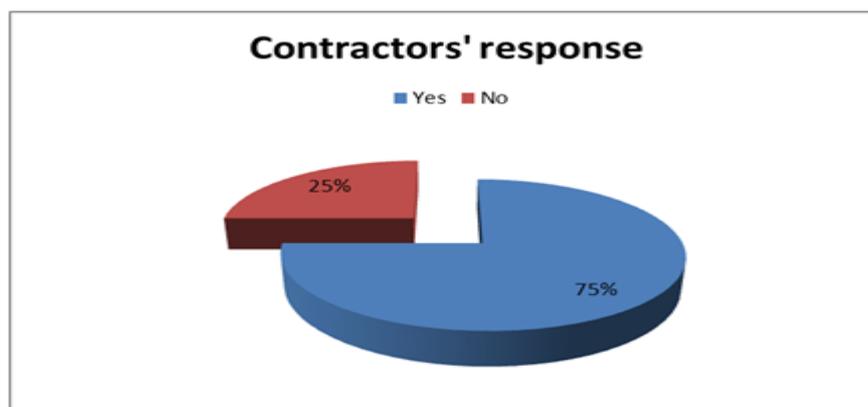


Figure 3 Pie Chart Representation of Contractors' Response on the Adequacy of Tendering Duration Allowed. Source: (Author's Field Work, 2011).

Table 3 (a & b) reveals a subjective scenario in the opinion of clients and contractors with respect to the sufficiency of tendering time. 84% of clients/consultants believe that the time stipulated for contractors is enough and further explain that contractors will typically want more time. In many cases, they are either inexperienced or tender for more than one job within the same period. However, a paltry few (16%) believe that more time should be given to contractors, if they are to visit site, calculate/forecast the project duration, assess their capability, and obtain competitive quotations in order to prepare a detailed tender.

Surprisingly, on the other hand a sizable number of contractors (75%) also believe that the time being stipulated for them is sufficient. This, as it was discovered could be because a good number of contractors are inexperienced, as they rarely visit site, do not carry out any form of duration estimation, use old rates in pricing their bills and already have rapport with greedy suppliers and sub-contractors who are often very hopeful in securing such contracts.

Table 4 Tendering Duration considered Adequate for different cost categories of Projects, by Respondents

Project Cost (N)	Average time presently allowed for tendering	Time required by respondents	
		Clients/Consultants	Contractors
Up to 10 million	2.5 – 3 weeks	2 weeks	2 weeks
10 – 50 million	2.5 – 3 weeks	2 weeks	2 weeks
50 – 100 million	2.5 – 3 weeks	2 weeks	2 weeks
100 – 250 million	3.5 – 4 weeks	3 – 4 weeks	3 – 4 weeks
250 – 500 million	3.5 – 4 weeks	3 – 4 weeks	3 – 4 weeks
500 – 750 million	5.5 – 6 weeks	5 – 6 weeks	6 - 8 weeks
750 – 1 billion	5.5 – 6 weeks	5 – 6 weeks	6 - 8 weeks
Over 1 billion	5.5 – 6 weeks	6 – 8 weeks	8 – 12 weeks

Source: (Author's field work, 2011)

Responses to the questionnaires yielded Table 4 which clearly depicts the tendering durations that respondents feel should be sufficient for different cost categories of projects. As can be clearly seen, for projects above the N500million mark, clients and contractors' preference begin to differ considerably

Table 5 Average time spent to obtain/carry out prequalification and/or tendering requirements.

S/N	Requirement, Activity	Average time(days or weeks)	Remarks/conditions
1	Obtaining performance bonds	3 days – 1 week	Rapport and financial standing with bank, track record and tender amount
2	Obtaining Bid security.	5days – 2 weeks	Ditto
3	Preparing a detailed work program	2days- 4weeks	Tenderer's work load, type of program, skill/expertise of personnel on computer based program, project complexity
4	Duration estimation	1 week – 2weeks	Method of preparation, expertise of personnel, Tenderer's work load, past similar projects executed, project complexity.
5	Preparing a detailed Health and safety plan	4 days – 1 week	Project complexity, similar Past projects, experience and training of personnel
6	Preparing a detailed work plan and methodology	4 days – 2 weeks	Ditto
7	Obtaining Tax clearance certificate	4 days – 1 month	Rapport with tax officers, Attitude of tax officials, frequency of previous tax remittance, newness of contractor in the industry
8	Site visit	1day – 3days	Residence of tenderer, location/accessibility of site, attitude of tenderer, means of transport.
9	Obtaining prices from Foreign suppliers	2 days – 2weeks	Rapport with suppliers, tenderer's track record/ previous dealings, tenderer's IT compliance and financial standing.
10	Obtaining prices from local suppliers and Sub-contractors	1 day – 1 week	Reliability/seriousness and experience of supplier or sub-contractor, tenderer's track record and previous business dealings
11	Pricing the Bill of Quantities	2 days – 3 weeks	Complexity and magnitude of the works and specifications, foreign content, experience and number of Quantity surveying/estimating staff, rapport with suppliers and sub-contractors, adequacy and suitability of tender documents.

Source: (Author's field work, 2011)

Table 5 succinctly depicts the average time spent for tenderers to effectively and accurately carry out their pre-qualification and tendering requirements and the corresponding conditions required to meet the required submission date. In situations where tenderers are given 2 weeks for instance to submit tenders, various criteria and conditions may not make this return date feasible, at least not to the detriment of quality and accuracy.

Table 6 T-Test Analysis of Tendering Duration Allowed and Tendering Duration considered Adequate. (a) Group Statistics

	Status	N	Mean	Std. Deviation	Std. Error mean
Count (Weeks)	Duration allowed	78	3.0513	1.49369	0.16913
	Duration considered adequate	78	3.1538	1.65205	0.18706

(b)Independent Samples Test

		Levene's Test for Equality of Variances		T-test for Equality of Means						
		F	Sig.	t	df	Sig.(2-tailed)	Mean difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Count (Weeks)	Equal Variances assumed	3.251	0.073	-0.407	154	0.685	-0.10256	0.25218	-0.60074	0.39561
	Equal Variances not assumed				152.462	0.685	-0.10256	0.25218	-0.60074	0.39565

In order to specifically assess whether a significant difference exists between the tendering duration presently allowed for public building projects in Nigeria and the duration considered adequate by contractors, the T-Test analysis via SPSS output in the table above shows that the means of the respective variables for the two groups are: Tendering duration allowed = 3.05 and Tendering duration considered adequate = 3.15. Thus, interpreting the t-test for Equality of Means, the Significance (2-tailed) for equal variances assumed is 0.685 (which is more than 0.05), it is therefore inferred that there is no significant difference between the means of the two samples.

V. CONCLUSIONS AND RECOMMENDATION

According to the respective views of clients and contractors, it has been established that tendering duration stipulated for public building projects can generally be considered adequate. Though subjective, most consultants and contractors attest to its sufficiency and do not see it as a problem that affects the submission/acceptability of tenders and eventual project success. This was further corroborated by the results of the T-Test analysis which reveals that there is no significant difference between the mean values of tendering durations presently allowed and the durations considered adequate.

However, the study is inclined to conclude that the majority of contractors that expressed satisfaction with the current tendering durations may have been inexperienced or influenced by a lack of adequate pre-contract planning imperatives, incompetent planning officers and the business tendency to go over transactions fast and reliance on other criteria than merit to win contracts. From the foregoing, the following corrective propositions are advocated:

- 1) Establishment of construction regulatory bodies such as a Construction Industry Development Board or Contractors Regulatory Authority, National construction council that will be saddled with the function of registration of contractors and assessment of contractors' expertise in tendering for projects in order to regulate contracting practice and check mate quacks.
- 2) There should be concerted efforts on the part of the presidency and the Legislature to ensure that the yearly national budget

is passed and approved early, to ease pressure on procuring entities or public clients to observe procurement benchmarks and award projects before the year in question runs out.

- 3) A review of the procurement Act (2007) to provide a section on required minimum tender durations for various cost categories of projects.

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