

# Quantity Surveyors as Construction Contract Administrator: A Panacea for Efficient and Effective Construction Project Delivery

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***Abstract- Professional Quantity Surveyors in conjunction with other members of the design team on infrastructure development have largely been involved in the administration of construction projects as they undertake effective financial management and cost control of projects from inception to completion. This paper assesses the impact of Quantity Surveyors in construction contract administration in Nigeria with a focus on efficient and effective Infrastructure delivery in Nigerian tertiary institutions by means of questionnaire survey of some selected Quantity Surveyors, Architects, Engineers and both public/private clients within Nigeria Tertiary Institutions. Findings of the study revealed that Quantity Surveyors have impacted significantly on construction contract administration in Nigeria and have also contributed positively to the growth of Nigerian construction industry in area of financial accountability, management of inflation and risk factors, and also ensuring value for money invested in the infrastructure development. The paper therefore concludes that for effective and efficient project delivery, Quantity Surveyors should be involved in the contract administration of tertiary institution's project. The Quantity Surveyors should also continue to market themselves effectively by discharging their professional duties to high standard with due regard to their professional ethics whenever they are engaged on construction projects.***

***Indexed Terms- Contract Administration, Quantity Surveyors, Project Delivery***

## I. INTRODUCTION

The increasing complexity of construction contract arrangements, rising costs, rapid changes in technology and specialization with over increasing number of roles to be managed as well as the correspondingly increasing volumes and values of construction output have resulted in ever more pressing need to properly manage these variables. This is to ensure that the aim of construction contracting is achieved in a balanced system that ensures the most advantageous use of available resources.

According to Usman-Oyowe (1991), the role of the construction industry in Nigeria is very crucial because it provides employment and the infrastructure necessary for development. Therefore, the volume of activities in the construction industry serves as a gauge in the measurement of the overall development of Nigeria as a nation. Moreover, Ajanlekoko (1990) opines that the construction industry generally is a prime motivator of any national economy representing the largest employer of labor (directly or indirectly) in Nigeria and license, forms a crucial focus of the nation's economy. Supporting this view, Mshalgaya (1991) estimates that more than 60% of projects contained in national budget of developing countries like Nigeria are capital projects this further substantiates the fact that the relevance of construction activities in national development cannot be overemphasized. In view of this, the huge budgetary allocations to the construction sector in Nigeria therefore calls for effective administration of construction activities so that investors (both private and public) can get the best value for their investment in infrastructure development.

Contract administration as a major aspect of construction contracting entails those actions taken by the parties concerned to ensure effective cost control, timely completion of projects and management of the limited resources. This function is a joint effort of the design team comprising the Project Manager, Architect, Quantity Surveyor and Engineer. However, each of these professionals has its own area of specialties as far as contract administration is concerned. It is therefore important for professionals involved in a contract to display their skills and expertise in the aspects for which they are involved. Babangida (1992) asserts that a careful survey of the economic landscape of our country since independence would reveal that the importance of Quantity Surveyors as the statutorily recognized professional cost adviser on all construction projects cannot be overemphasized, and since it is true that no such projects can be executed without the invaluable input of Quantity Surveyors, it becomes easy to see the reason they have assumed such a central role in the socio-economic progress of Nigeria. Hence, the Quantity Surveyor then becomes the recognized construction professional managing the financial aspect of construction contract administration. This paper therefore intends to assess the roles of Quantity Surveyors in construction contract administration in the Nigerian Tertiary Institutions infrastructure development and delivery.

## II. CONSTRUCTION CONTRACT ADMINISTRATION

Usman (1991) defines construction contract administration as the application of the tools of management to safeguard the rights and liabilities of parties to a contract by administering the agreed rules, guidelines of convention, so that by this means, the employer secures the project at an economic cost and the contractor maximizes the uses of his resource capacity at an anticipated profit. In other words, construction contract administration would involve the establishment and maintenance of an effective control system over the contract period. By effective administration, the authority, responsibility, rights and liabilities of parties to a contract would be at all times properly delineated and maintained thereby eliminating conflicts, duplication of work and overlapping of authority and responsibility. Inefficient

administration of contract can derail an otherwise viable project and often leads to cost and time overruns and in severe cases, outright abandonment of the project while effective contract administration leads to a successful project.

The commonest yardstick for judging a successful project is therefore cost effectiveness i.e. a situation where returns on or benefits from the projects is maximized while expenditure is minimized. In this context, it is expedient for the design team in whom the powers are vested to administer construction contracts to have adequate capacity to do so by possessing the necessary expertise and knowledge to grasp the full implications of their administrative decisions and those of other parties. The overall objectives and hence, terms of reference of contract administration are really to establish effective cost control of construction projects from inception to completion within the parameters of the clients' brief and to ensure quality construction through management of the limited resources and timely completion of projects.

2.1 Quantity Surveyors as Contract Administrators. The Quantity Surveyor is an expert concerned with financial probity in the conceptualization, planning and execution of development projects in both new and refurbishment works: and in fact, the undisputed expert in matters relating to cost in the construction industry. Abdul (1990) defines the Quantity Surveyor as a professional who by virtue of his training and practice bears the responsibility for administering the financial aspect of construction projects from their inspection through design, construction and maintenance to their terminal demolition. Quantity Surveyors are therefore responsible for evaluating the economic aspects of construction design, contractual arrangements and project appraisal, hence the roles of Quantity Surveyors in contract administration centers on matters relating to cost of projects.

Olateju (1993) confirms that the traditional role of Quantity Surveyor is essentially cost control which covers estimation at the pre-contract stage, preparation of tender documents, analysis of tenders, advising on contractual arrangements, valuation of work in progress and final accounting: hence, Quantity Surveyors are the hub of construction cost control in

the Construction Industry. Owele (1991) asserts that Quantity Surveyors as construction cost experts provides the input which are crucial to all round success of construction projects, they advise people on how to build well and save cost, they are also the construction economist and therefore, indispensable in the construction industry. One of the major roles of Quantity Surveyor is that of financial management and cost control of construction projects to ensure that clients get value for their money. In the process of executing their roles, QS reduces or even eliminates financial and material waste on site, provide proper financial accountability of construction project thereby contributing to the national economic growth of a nation. Onyechi and Alufohai (1989) submit that another important role of Quantity Surveyor in Contract Administration is in the area of advising on Contractors' selection, types and conditions of contract as well as other contractual matters most of which have cost implications.

In view of the forgone, it is evidence that Quantity Surveyors play unique and important roles in construction contract administration which has made significant impact on the activities of construction project delivery in Nigeria. According to Ashworth (1982), the Quantity Surveyor has certain skills and qualities that are of necessity to the construction industry worldwide. These skills include measurement analysis, documentation efficiency as well as pricing assessment and in all the QSs seek to achieving an economically designed and developed product for their clients in construction industry. On the other hand, risks and uncertainty abound in high value in construction projects: management of these risks is crucial and here the Quantity Surveyors have been playing a very important role by identifying risk areas and quantifying the scale of the risk as well as working effectively towards the elimination of the risks. In order to buttress this assertion, McMillan (1991) opines that Quantity Surveyor manages risk factors by implementing effective cost control and monitoring techniques into which are built in a series of checks and balances to ensure that accurate financial control is maintained from inception to completion of the project.

Furthermore, Jakande (1994) asserts that Quantity Surveyors as construction cost experts are very

important actors in the construction industry as they ensure that all actions taken in relation to financial administration of contracts during construction period and in the settlement of accounts are fair to all parties to the contract. As cost Consultants of the construction industry, the Quantity Surveyor has the crucial function of determining the cost of inputs to construction projects and thus ensures value for money.

The Quantity Surveyor is the construction cost adviser who by virtue of his/her specialist training and experience has developed knowledge of construction economy, which enables him/her to advise on what size, and standard of structure that can be erected for a given funds for such projects. Jakande (1994) further submits that government looks up to Quantity Surveyors for efficient contract management with a view to ensuring that all projects embarked upon by government are completed on scheduled and with the active participation of Quantity Surveyors in the construction projects, the waste often associated with abandoned projects are eliminated. This function becomes more important in the light of dwindling resources available for a growing number of construction projects, which has created a problem of allocation of scarce resources for completion of a large number of projects. Sadauki (1991), also posits that Quantity Surveyors' role as construction cost advisers, arbitrators and project managers place them in an important position in the attainment of efficient and effective developments in the construction industry. In consequence, the image and role of Quantity Surveyors in the construction industry especially in relation to project actualization has therefore grown phenomenally.

### III. DATA COLLECTION, ANALYSIS AND RESULTS

#### 3.1 Data Collection

The data for the study were collected by means of questionnaires administered on principal actors' in both the private and public sector of construction industry. Table I below shows the breakdown of the distribution and responses received from the respondents.

Table 1: Questionnaire Distribution and Response

Respondents	Distribution	Responses	% Responses
Quantity Surveyors	40	32	80.00
Clients	35	33	74.00
Architects	25	20	80.00
Engineers	20	15	75.00
Totals	120	100	83.33%

Respondents on this research work are made up of top management or senior technical staff associated with administration of construction contracts. About 73% of the respondent who completed the questionnaires were HND and B.Sc holders while an average of 61% of them were professionally registered. Majority of the respondents have also had 5 and 20 years of

experience in the construction industry. It is then obvious that the data collected for analysis are reliable enough to form a good basis for this research work as can be seen from the qualities of the respondents in terms of their vast experience in construction contract administration.

3.2 Data Analysis and Result.

The data obtained were presented in Tables and the statistical methods that can easily be interpreted were used in the analysis as shown in the following tables. The importance index was used to define the relative importance of some factors as ranked by the respondents. This was calculated by dividing the total ranking on a factor by the number of respondents that rank the factor.

Table 2: Standard of Construction Contract Administration in Nigeria.

	Quantity Surveyor	Arc/Engr	Clients	Mean Score	No.	%	%
	No.	%	No.	%			
Excellent (70-100%)	--	--	--	--	--	--	--
Good (60-69%)	11	34	13	37	11	33	25
Fair (50-59%)	13	41	15	43	22	67	50
Poor (0-49%)	8	25	7	20	--	--	25
Total	32	100	35	100	33	100	100

Table 2 reveals the respondents' view as regard the standard of construction contract administration in Nigeria. The result shows that majority of the respondents (50%) are of the opinion that the standard of construction contract administration is fair while about (35%) believe that the standard of contract administrating in Nigeria is good. However, none of the respondents supported the fact that the standard of contract administration in Nigeria is excellent. It is the view of the researcher that this is as a result of the lingering problems associated with construction contract administration in Nigeria, such as inadequate

planning, poor performance of consultants, contracts not awarded on merits among others as opined by Udeh (1991), Moreover, late engagement of professional Quantity Surveyors, effect of inflation and inter-professional rivalries among the construction professionals also affects the standard of construction contract administration in Nigerian construction industry and especially in tertiary institution's construction projects. This poor standard is also asserted by as high as one quarter of the respondents in the study.

Table 3: Problems associated with Construction Contract Administration in Nigeria.

Problems	Quantity Surveyor		Arc/Engr		Clients		Mean score	
	No.	%	No.	%	No.	%	No.	%
Inadequate planning	32	100	66	22	67	77		
Incompetence of consultants	14	44	20	9	27	30		
Illiteracy or incompetence of contractors.	23	72	34	17	52	52		
Delay in payment	32	100	100	23	70	90.5		

Table 3: highlights some of the problems of construction contract administration in Nigeria. Delay in payments and inadequate planning seems to be the major problems of contract administration in Nigeria. These however, may have arisen from the delay in approval of interim certificates as well as inadequate cash flow from the clients due to their failure in appointing Quantity Surveyors at the conception stage to advise the client on cash flow matters and financial planning. This also agrees with Udeh (1991) that optimum results are not achieved in contract administration as a result of inadequate planning i.e. a situation where projects are conceived in a hurry with little time given to consultants to prepare their documentation. The researcher however opines that these problems still persist because a number of clients believe that Quantity Surveyors are only to prepare bills of quantities, as a result of this, they entrust the administration of their projects into wrong hands. Moreover, other consultants feel reluctant to recommend the appointment of Quantity Surveyors during the planning stage and hence, eliminate the aspect of feasibility studies, preliminary cost advice, and cost planning which are crucial to a steady cash flow and effective administration when the projects eventually commence.

Table 4: Impact of Quantity Surveyors in Construction Contract Administration in Nigerian Construction industry.

	Arc/Eng		Client		Measure
	No.	%	No.	%	
Excellent (70-100%)	-	-	3	9	5
Good (60-69%)	18	51	14	43	47
Fair (50-59%)	14	40	4	36	38
Poor (0-49%)	3	9	12	12	10
Total	35	100	33	100	100

The investigation on the performance of Quantity Surveyors in previous projects handled is revealed in table 4. The result shows that the performance of Quantity Surveyors generally has been quite satisfactory to the clients, 5% were able to rank the performance of Quantity Surveyors excellent because, Quantity Surveyors that have worked with such clients have been able to discharge their professional obligation to a very high standard yielding maximum benefits for the client. This therefore serves as a challenge to Quantity Surveyors generally to always endeavor to give the best to their client whenever they are engaged in any project. The clients and designers should also ensure the appointment of Quantity Surveyors at the early stage of project development to exercise pre-contract cost control on the project which will also have significant impact on post-contract

administration of the project thereby enhancing efficient and effective development and delivery.

Table 5: Ranking of Quantity Surveyors Roles in Construction Contract Administration in Nigerian Construction industry

S/N	Roles	Total Ranking	Importance Index
1	Feasibility studies	42	1.31
2	Preliminary cost advise	174	5.44
3	Cost planning	122	3.81
4	Preparation of Bills of Quantities	345	10.78
5	Advising on Contractor's selection	314	9.81
6	Pricing Bills of Quantities, negotiating and agreeing prices with contractors.	337	10.53
7	Valuing and reporting for interim payments.	317	9.91
8	Assessing cost of proposed variations.	261	8.17
9	Financial reporting to the client.	212	6.63
10	Expert Arbitrator in disputes relating to construction.	10	0.32
11	Preparation and setting final account with contractors.	254	7.94

Note: The maximum possible ranking is 352

The trend in table 5 above shows that Quantity Surveyors still have the least opportunities to show their expertise especially during the pre-contract administration. As confirmed by low rankings for feasibility studies (1.31), preliminary cost advice (5.44) and even cost planning (3.81). this further agree

with the fact that majority of Clients only engage Quantity Surveyors at bill preparation stage and this has therefore contributed significantly to the lingering problems of construction contract administration in Nigeria.

Table 6: Positive Impacts of Quantity Surveyors in the Nigeria Construction Industry.

	Quantity Surveyors		Clients		Measure
	No.	%	No.	%	%
Positive impacts	No.	%	No.	%	%
Accountability	29	91	19	58	75
Management of inflation and risk factors.	30	94	17	52	72
Eliminating project abandonment	24	75	15	45	60
Maintaining cost data for the construction industry	32	100	31	94	97
Ensuring value for money	32	100	30	91	95
Budget analysis of all construction proposals	31	97	25	76	86
Ensuring effective financial management within contracting organization	28	88	16	48	68

The views of both Quantity Surveyors and Clients as regards the definite benefits of Quantity Surveyors within the construction sector are shown in table 6 above. Which played down the responses of Quantity Surveyors (which may be biased), the responses of the

clients are more challenging. The performance of Quantity Surveyors in areas of accountability, management of inflation and risk factors, ensuring effective financial management within contracting organization as well as avoiding project abandonment

which have very low percentage of 58, 52, 45 and 48 respectively call for a critical look as a way of improving the quality of Quantity Surveyors services to their employers especially the clients.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

The paper has explored impacts of Quantity Surveyors in construction contract administration and the Nigeria construction industry with a focus on tertiary institution infrastructure development and delivery. Despite the unique roles of Quantity Surveyors in construction contract administration aimed at effective and efficient project delivery, there are obstacles majorly from the activities of other professionals within the construction industry and the clients limiting the Quantity Surveyors impacts in construction contract administration in the construction industry.

The study revealed that there is still the need for improvements in construction contract administration in Nigeria especially in the tertiary institution projects in the area of delay in payment, and inadequate planning as evidenced in table 3. The study further reveal that lingering problems of construction contract administration affects the standard of contract administration in Nigerian construction industry.

Furthermore, the study revealed that Quantity Surveyors are able to discharge their professional services to a very high standard whenever they are engaged in construction projects, hence the result in table 4 revealed the fact that the services of Quantity Surveyors in past projects has been satisfactory to clients and designers within the construction industry. The study further revealed that Quantity Surveyors are not usually engaged at the planning stage of project development as evidenced in table 5. Most clients even believe that the stage at which Quantity Surveyors should be engaged in project development is at bill preparation stage. This has therefore contributed significantly to problems contract administration.

Finally, the study revealed that Quantity Surveyors are indispensable in the construction industry as they have made considerable impacts in the areas of maintaining effective cost data for the construction industry,

ensuring value for money, and budget analysis of all construction proposals. However, the performance of Quantity Surveyors in the areas of accountability, management of inflation and risk factors, and ensuring effective financial management calls for immediate improvement as evidenced in table 6.

As revealed from the findings of this research and the conclusions already drawn, it is pertinent at this point to put forward the following recommendations:

- (a) Construction professionals generally should keep abreast of the changing development within the Nigerian construction industry. They should therefore strive to improve the qualities of their professional services to clients, which in the long run will increase the standard of construction contract administration in Nigeria.
- (b) Each construction professional should strictly adhere to his/her own areas of specialization without usurping the roles of other professionals while the designers must not discourage the appointment of Quantity Surveyors at the planning stage of project development to offer their professional advice in the area of cost and other financial matters.
- (c) The awareness of the clients on the benefits of engaging Quantity Surveyors at the planning stage of project development must be increased. Moreover, Quantity Surveyors should continue to market themselves effectively by discharging their professional duties to a high standard with due regard to their professional ethics whenever they are engaged in any construction project.
- (d) The Federal government of Nigeria through the Federal Ministry of Works should pass a bill mandating the appointment of Quantity Surveyors at the planning stage of project development to give early cost advice on construction projects. This will also make the involvement of Quantity Surveyors in post contract administration more meaningful.
- (e) Quantity Surveyors generally must find ways of improving their professional services for proper accountability, management of inflation and risk factors as well as ensuring effective financial management within the contracting organizations for effective and efficient project delivery.

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