THE DETERMINATION OF THE SERVICES OF QUANTITY SURVEYORS

Olanrewaju A. Abdul Lateef* and Anavhe J. Paul***
*Procurement and Project Delivery System Research Group,
Kulliyah of Architecture and Environmental Design,
International Islamic University Malaysia (IIUM), Kuala Lumpur, Malaysia

***Allied Consultants: Architects, Quantity Surveyors and Engineers, No. 11 Umaru Gwandu Road, Ungwar Rimi, GRA, Kaduna, Nigeria*

Author for correspondence: olanrewaju20002000@yahoo.com

ABSTRACT

The quantity surveying profession in Nigeria has made tremendous progress since the country gained independence in 1960. Quantity surveyors (QS) provide various kinds of services to a multitude of clients in the building industry. However, empirical researches focusing on the kind or category of services that they provide are somewhat inadequate and far between. This sometimes caused a rift among construction experts doubting what the QS actually do, *vis-a-vis* in providing clients with the necessary support and undertaking. Therefore, this paper seeks to determine the kind of services QS provide for their clients and benchmark it against established international standards. Distinguishing their scope of work will provide a clear direction for improvements and enable their special contribution to be better understood and appreciated. To achieve its objectives, the paper combined literature reviews and questionnaire survey. Henceforth, thirty six (36) general services expected of the QS in projects were identified and solicited among 200 respondents. The findings revealed that majoirty of the services were provided the quantity surveyors in nigeria. Howevere, a substantial percentage within the profession were not providing the required services to the clients. Therefore, the paper recommends for QS in Nigeria to strive for a more client-focused services in order to catch up with international standards and, along the way, improve service quality to meet the clients' expectation.

Keywords: Quantity survey: Nigeria; services; construction; clients.

1.0 INTRODUCTION

The purpose of this paper is to compare and measure the kind of services QS in Nigeria provide against those endorsed by the Royal Institution of Chartered Surveyors (RICS, 2001), the largest professional institution that regulates property professionals and surveyors in the United Kingdom (UK) and other countries in the Commonwealth. Measuring the services rendered by the QS alongside international standards is deemed appropriate since the profession is recognised in Nigeria as in many other countries. The fact that quantity surveying in Nigeria has been entirely British speaks volume of the

issue at hand. However, whilst there have been some studies investigating the kind of services provided by QS in Nigeria, the authors believe that research exploring the quantity surveying services on a wider and broader platform is still lacking. Interestingly, much of the services identified in previous studies were those that the QS clamed they provide. The perception of other players in the construction industry were not investigated.

A number of literature have shown that QS in the Nigerian construction industry perform various roles. However, to date, no empirical studies have actually expressed the services that the QS provide in Nigeria with any international standard. The essence of this paper is to create awareness of the services QS provide in order to measure the performance and hopefully develop its true potential. The paper starts with theoretical frameworks, which set the background of the study. It also include sections on research methodology, research objective and a hypothesis. Sections were also provided for findings and discussions before the conclusion section.

2.0 THEORETICAL FRAMEWORK

Quantity surveying is universal. It is carried out under varieties of names (what a loss of identity!). In countries like the USA, they are known as Cost Engineers. The number of RICS members in America is growing, and RICS Americas has members throughout North, Central and South America and the Caribbean. However, 'quantity' is more than cost engineering or cost management (Popsescu, Phaobunjong and Ovararin, 2003). Cost engineering or cost management, a concept that is arguably broader as compared to cost engineering, is just an aspect of quantity surveying. However, the title "quantty surveyor seem not to adqautely adresss the services that the modern day quanity surveyors provide. Like other professional, quanity surveying is going through dramatic transfromation, and perhaps seems to need re-naming albeit rebranding is already taking place. The focus of the QS has shifted from just cost to cost and value employing sophificated techniques and tool.

The QS is the expert concerned with financial matters and ensuring client value system in construction projects. The dynamism of quantity surveying enables it to venture into other areas including facility management, value management, knowledge management, risk management, arbitration, maintenance management, system management, arbitration, and project management (Ellis, Wood and Keel, 2003; Lee,

Trench and Willis, 2005). The services that are expected of the modern QS cover all aspects of procurement and cost management in construction, as well as the contractual side. QS are adaptable creatures capable of reinventing themselves to the demands and rigours of construction clients (Cartlidge, 2003). Quantity surveying services are required throughout the entire life and juncture of construction projects; be it civil, building, or electrical and other engineering projects (Bennett, 2003). The services of the QS are required in every facet of an economic endeavour including public, private, finance, insurance and energy sector. The services are also required within the academic circles. QS could be engaged by the client or construction contractor(Lee, Trench and Willis, 2005). Clients engage the QS to help them manage the processes and offer advice on selecting the best procurement strategies so that they would fully benefit from the investment. Quite a number of architectural or engineering practices also engage QS to guide them in their design process although the functions they perform in that capacity are more restricted.

The history of quantity surveying in Nigeria is long. Ahmadu Bello University, the first university to offer a course in quantity surveying in Nigeria produced the first set of bachelor's degree graduates in 1974. Since then, the number of tertiary institutions that offer quantity surveying has contune to be on the increase. In Nigeria, quantity surveying as a course is offered in universities and polytechnics. The number of universities and polytechnics ofering courses in quantity surveying should be in excess of 30. In Africa, the Nigerian Institute of Quantity Surveying is prominent.

The kind of services QS in Nigeria provide are quite extensive although their role is being hampered by other professions. For instance, QS were often denied venturing into the oil and gas sector, heavy engineering works (Adamu, 2001) and other similar projects although many issues will require the expert hand of the QS. Capital procurements were often completed without any input from the QS. While most aspects of engineering work fall under the purview of engineers, their job specification tend to intrude into matters like cost management. Inevitably, without proper kowledge in that field most will contribute to a cyclic spate of cost overruns, delays and low management quality. As an illustration, anecdotal evidences suggested that in heavy engineering and building services projects where the QS were not engaged, overruns on cost and time, as well as poor quality management seem to be the expected outcome. However, although the Nigerian construction industry was not doing its clients very proud by producing projects that were completed within the clients' budget, completed on

schedule and with high cost quality, reliability and safety. In Nigeria, projects could incur a 200% time overrun and more than 70% overrun on cost. A major explanation to this unhealthy scenario has been attributed to inadequate education of the services that QS in Nigeria provide to clients. With the services of QS reduced to mere production of bill of quantities, many clients and other members of the construction team were ignorant of their true potential. However, compared to other professions in the Nigerian construction industry, quantity surveying is indeed relatively young. Hence, whilst in other parts of the world the services of QS are well known, the same cannot be claimed in Nigeria.

Writers including Odusami (1999) and Olanrewaju and Khairuddin (2006) have previously identified the scope of services that the QS in Nigeria provide to their clients. However the scope of services they identified were relatively narrow. In addition, the services previously identified were mainly from the QS' side. Services provided by the QS are widening as the requirements for achieving value for money to the client have increasingly dominated the judgement of consultants and contractors alike. The study by Olanrewaju and Khairuddin (2007) has shown that the requirements of clients have extended beyond the issue of cost, time and quality. The idea of *"I don't care how much it costs and how long it takes"* (Cartlidge, 2004) is no longer the issue. The issue is that clients want their project to be completed on schedule, within budget, with maximum performance, reliability, safety and meeting other criteria within their value system. This is a radical transformation from the client's psyche; pushing the consultants to be more proactive. These stringent requirements of the progressive client to achieve the desired value system are the drivers of the transformation in the construction industry (Cartlidge, 2004) and it will continue to be so in the years ahead (Flanagan, 2007). Those who cannot afford to meet the clients' expectation must leave the scene as the diction of 'customers are always right' also apply in the construction sector. Construction clients want the radical transformation that is pushing the car and electronic industries to be analogously transferred to the construction industry.

3.0 RESEARCH METHODOLOGY, OBJECTIVES, HYPOTHESIS

3.1 Research Objectives

a. To identity the kind of services QS in Nigeria provide.

3.2 Research Hypotheses

A research hypothesis (H_1) was generated based on literature review and experts survey as:

The kind of services provided by QS in Nigeria are "narrow" compared with the general services identified by the RICS (RICS, 2001).

3.3 Research Methodology

The methodology used combined literature reviews and questionnaire survey. Based on the literature review, 36 services were identified in the publication of the Royal Institution of Chartered Surveyors (RICS, 2001) as the services that the QS should provide to the client. However, the RISC has categorized the services into three broad classifications namely; general services, services particular to non-traditional methods of procurement, and service not always required in categories 1 and 2. However the focus of this study is concerned with the general services, as listed in Table 1:

Table 1: The Kind of Services Provided by Quantity Surveyors in Nigeria

N	Services
1	Liaise with client and other consultants to determine client's initial requirements and subsequent development of the full brief
2	Advise on selection of other consultants if not already appointed
3	Advise on implication of proposed project and liaise with other experts in developing such advice
4	Advise on feasibility of procurement options
5	Established client order of priorities for quality, time and cost
6	Prepare initial budget estimate from feasibility proposals
7	Prepare overall project cost calculation and cash flow projections
8	Prepare and develop preliminary cost plan
9	Advise on cost of design team's proposals, including effects of site usage, shape of buildings, alternative forms of design and construction as design develops
10	Monitor cost implications during detailed design stage
11	Maintain and develop cost plan, and prepare periodic report and updated cash flow forecasts
12	Advise on tendering and contractual arrangements taking into account the client's priorities and information available from designers
13	Advise on insurance responsibilities and liaise with client's insurance adviser
14	Advise on warranties
15	Advise on bonds for performance and other purposes
16	Prepare tender and contract documentation in conjunction with the client and members of the design team
17	Provide copies of documentation as agreed
18	Advise on use and / or amendment of standard forms of contract or contribute to drafting of particular requirements in association with client's legal advisers
19	Draw up forms of contract, obtain contract drawing from members of design team and prepare and deliver to both parties contract copies of all documents
20	Advise on short listing prospective tenderers
21	Investigate prospective tenderers and advise client on financial status and experience
22	Attend interviews with tenderers

23	Arrange delivery of documents to selected tenderers
24	Review financial budget in view of tenders received and prepare revised cash flow
25	Advise on errors and qualifications and, if necessary, negotiate thereon
26	Prepare appropriate documentation, if required, to adjust the tender received to an acceptance contract sum
27	Review financial budget in view of tenders received and prepare revised cash flow
28	Prepare report on tender with appropriate recommendations
29	Advise on letters of intent and issue in conjunction with client's advisers
30	Prepare recommendations for interim payments to contractors, subcontractors and suppliers in accordance with contract requirements
31	Value designers' draft instructions for varying the project before issue
32	Prepare periodic cost reports in agreed format at specified intervals including any allocation of cost and / or copies as requested by third parties
33	Prepare the final account
34	Attend meetings as provided for under this agreement
35	Provide copies of documentation as provided for under this agreement
36	Advise on submission of programme or work and method statement

We do not consider it necessary to pilot the questionnaire for the following reasons: (1) since we utilised the services identified by the RICS without alteration, we do not expect any ambiguity with the wording; (2) Nigeria is a member of the Commonwealth; and (3) quite a few Nigerian QS are members of the RICS. In fact, quantity surveying in Nigeria could be regarded as one of the legacies of their British colonial masters. The Nigerian Institute of Quantity Surveyors, the professional body for QS in Nigeria, is also a member of Commonwealth Association of Surveying and Land Economy (Seeley, 1997).

A total of 200 questionnaires were distributed to construction experts in Nigeria. The respondents were randomly selected. The questionnaires were administered by a Mr. Paul, one of the researchers working in the Nigerian construction industry as senior quantity surveyor. He has extensive knowledge of the industry as well as capable of identifying whom the questionnaire should be addressed to. One hundred and eleven (111) useable responses were returned and subsequently analyzed. The collection and collation of data commenced in May 2008 to July 2008. The analysis of the findings is divided into two parts. Part one presents the respondents' profiles where the mode technique was used to analyze the demography of the respondents and the frequencies of the respondents are expressed in percentage scores. Part two assess the services the QS provide. Respondents were asked based on their current experience; to indicate the kind of services they provide to clients on a five-point Likert scale of:

(a) very often; (b) often; (c) do not know; (d) not often; and (d) not at all.

The first of these categories, i.e. 'very often', involves a condition where the QS always provide the services mentioned while the last of the categories 'not at all' indicates that the QS have never perform the services. Providing the services do not involve ascertaining their competency in executing the queried task. While selecting and defining the categories, it was decided to use 'do not know' instead of 'neutral'. This is because we believe that 'do not know' or 'neither' are often not the same in term and concept. 'Do not know' will mean the respondent is unaware of the existence of the product or services while neutral carry different meaning. Deductively, 'do not know' to the respondent could be interpreted to mean the service is not applicable. In fact, it is not actually practicable for the respondent to be 'neither' associated of familiarised with any of the services. However, to specifically solicit the perception of other experts in the Nigerian construction industry with regards to services the QS provide, they were asked to indicate the services that they acknowledge the QS provide.

The services provided will be determined by the frequency of the respondents who apply the services. The provisions of the services were determined using the mode technique. For instance, if the frequencies of the respondents that provide a service are higher than those that did not, this will be interpreted to mean that the service is provided and vice verse. Therefore, if a majority of the respondents provide the services (36) to their clients it could be inferred that QS in Nigeria did provide the services to their clients. The negative impact of missing data (where the respondent did not ticked the applicable option / servicce or there is multiple entry) could be improved during data analysis by either replacing the missing data with the mode or mean of the data. Ultimately it could be decided to use mode because the instrument used were ordinal data (i.e. very often; often; do not know; not often; not at all) because it is not very realistic to calculate the mean value of ordinal and nominal data. However, the missing data in this paper will not be treated as such. Instead, we will prefer to leave the data as raw as it were so that the outcome will not in any way be influenced by the authors.

4.0 FINDINGS, ANALYSIS, DISCUSSIONS

4.1 RESPONDENTS' PROFILE

A total of 200 questionnaires were sent to experts in the Nigerian construction industry. One hundred and eleven (111) were returned from randomly selected respondents. This

has a response rate of 56%. This encouraging feedback is possible because one of the authors is working in the Nigerian construction industry and is a registered quantity surveyor. This could be regarded as good response rate because previous researches by the first author have shown that administering questionnaires to the Nigerian construction practitioners was a daunting exercise. One hundred questionnaires were administered to the QS while the remaining one hundred were administered to other professional like engineers and architects. Six questions were intended to solicit information on their profiles. The data analysis found that most (58%) of the respondents that completed the questionnaires possess Higher National Diploma (Table 2), and about 24% hold Bachelor of Science / Bachelor of Technology (Table 2). Nearly 11% possess Postgraduate Diploma / Master of Science (Table 2). Two of the respondents hold a doctoral degree (PhD). Three respondents did not indicate their professional qualification and one did not tick his or her year of working experience.

More than 60% of the respondents have more than five years working experience in the construction industry, which is considered adequate for them to possess minimum knowledge of the prevailing state of affairs in the Nigerian construction industry. The analysis also revealed that a majority of the respondents (75%) hold strategic designations in their respective organizations, namely managing director, contract manager and projects manager with cognizable working experience in Nigerian construction industry (Figure 1). Almost all the respondents were registered with their respective professional bodies (Figure 2).

Table 2: Respondents' Background

Academic and Experience		**Frequency**	**Percent**
Respondent's highest academic qualification	Certificate	5	4.5
	Higher national diploma	64	57.7
	Bachelor of technology	8	7.2
	Bachelor of science	19	17.1
	Post graduate diploma/ master of science	12	10.8
	Doctor of philosophy	2	1.8
	Others	1	.9
	Total	**111**	**100.0**
Respondent' professional qualification	Graduate member	26	24.1
	Associate member	63	58.3
	Fellow member	5	4.6
	Not yet registered	14	13.0
	Total	**108**	**100.0**
Respondent's Organization	Government	6	5.4
	Private firm	67	60.4
	Contractors	25	22.5

	Private client	5	4.5
	Private developer	3	2.7
	Others	5	4.5
	Total	**111**	**100.0**
Respondent's Working Experience	Not more than five years	19	17.3
	Five years to less than ten years	68	61.8
	Ten years to less than fifteen years	12	10.9
	Fifteen years and above	11	10.0
	Total	**110**	**100.0**

Figure 1: **Respondents' position**

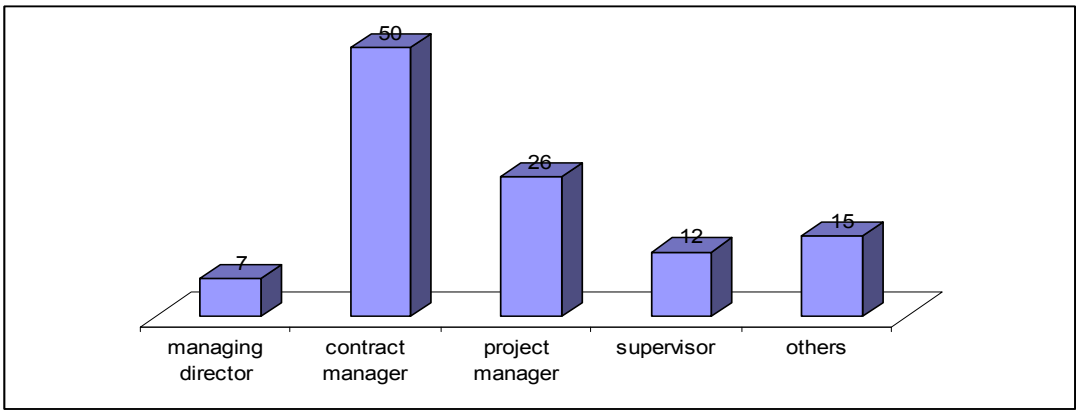
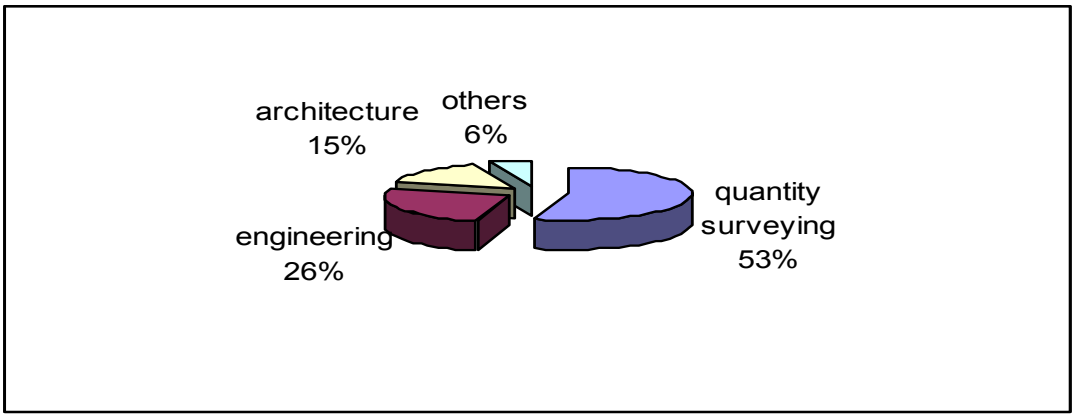


Figure 2: **Respondent's professional background**



The analysis also suggest that a majority of the QS (67%) were registered with the Nigerian Institution of Quantity Surveyors (NIQS) and 68% of them were fellow members of the institution. Likewise, the survey revealed that more than 54% of the QS were contract managers while about 24% were project managers. About 68% of the QS have more than five years working experience while only 10.2% have more than fifteen years experience. A majority (56%) of the QS were higher national diploma holders, while

about 17% were master / post graduate degree holders. Therefore, on the basis of the respondents' profiles it is considered that their opinions on the Nigerian construction industry are sufficient to substantiate the findings of this research.

5.0 SERVICES PROVIDE BY QUANTITY SURVEYORS IN NIGERIA

This section discusses the outcome of assessing the services of QS. Generally, a majority (48.95%) of the respondents provide the services 'often', while about 28% of them provide the services 'very often' (Table 3). The Table also illustrate that nearly 9% of respondents do 'not often' provide the services while 12.23% of them 'do not know' if they do provide the services. More than 2% of the respondents have never provided the services to any client. Multiple modes exist with services 31. However, it could be inferred that the service is often or very often provided.

Table 3. Total Response Rate in Percentahe

Frequency	Avarage weighting	Percentage
Very often	1085	27.75
Often	1910	48.85
Do not know	478	12.23
Not often	343	8.78
Not at all	94	2.4
Total	**3910**	**100**

Table 3. Response Rate on Services of Quantity Surveying Practices (N=111)

	Respondent's Frequency					
No	**Very often**	**Often**	**Do not know**	**Not often**	**Not at all**	**Mode**
1	69	25	8	8	0	1
2	13	73	8	13	3	2
3	66	33	5	6	0	2
4	21	68	15	6	0	2
5	23	70	11	6	1	1
6	23	64	14	8	1	2
7	20	65	13	9	1	2
8	22	67	8	9	4	2
9	18	67	11	12	1	2
10	55	35	9	9	1	1
11	64	21	12	11	1	1
12	60	25	12	11	2	1
13	55	27	11	15	3	1
14	13	69	10	10	9	2
15	15	67	15	10	3	2
16	19	71	8	7	4	2
17	18	73	11	7	2	2
18	17	68	8	12	4	2

19	53	33	9	13	2	1
20	14	77	6	11	2	2
21	15	72	12	10	2	2
22	18	74	9	7	3	2
23	17	68	12	11	3	2
24	55	33	10	12	11	1
25	20	72	10	7	2	2
26	13	52	37	6	2	2
27	16	33	44	13	3	3
28	20	28	51	8	3	3
29	10	70	16	12	2	2
30	24	64	11	8	3	2
31	41	41	11	16	2	1
32	40	45	14	7	3	2
33	23	70	5	6	6	2
34	22	71	11	5	1	2
35	24	63	13	10	1	2
36	69	19	8	12	3	1
AW	**1085**	**1910**	**478**	**343**	**94**	**64**

AW= average weighting scores, total average weighting = 3910

It is also clear from the mode score that 67% (24 services having “2” as their mode score) of the services were provided by the QS in Nigeria. Similarly, 28% of the services were ‘very often’ provided. The findings can safely suggest that a majority (69%) of the respondents ‘very often’ liaise with clients and other consultants to determine the client’s initial requirements and subsequent development of the full brief. Smillary, 69% of the respondents belive that quantity surveyors provide advice on submission of programme of work and method statement”. In response to services no.22, 74% of the respondents often provide the services. The findings also suggest that no respondent answered ‘not at all’ in response to how often the quantity surveyors liaise with clients and other consultants to determine the client’s initial requirements and subsequent development of the full brief “advise on implication of proposed project and liaise with other experts in developing such advice” and “advise on feasibility of procurement options”. In response to the service to “review financial budget in view of tenders received and prepare revised cash flow” as many as 44% of the respondents did not know whether they do provide the services or otherwise, and 13% do not often provide the services, and only 3% have ‘not at all’ provide the service. However, with respect to service how often you “prepare report on tender with appropriate recommendations”, a majority of 51% of the respondent did not know if the quantity surveyors prepare report on tenders or not.

Nonetheless, it could generally be inferred that the services were often provided by the Nigerian QS, but a substantial number (12.23%) of them did not know if they do

provide service. This is rather unexpected considering the affiliation of many of the respondents, QS in particular, with their professional qualifications should mean only few will perhaps did not provide the services. This could be equated as having never provided the service at all. The size that said not providing the services at all is quite large. This is a case of under-utilization of the QS' service and expertise. However, this could be a result of the high level of unawareness and unfavourable attitude towards the functions of QS in Nigeria. Therefore, QS in Nigeria have not delivered the basic services expected of them. In any case, they should expedite the effort of re-branding and redefining their roles in order to play catch-up with their fellow players in the industry. For that reason, the outcome of this study has to some extent supported the hypothesis that QS in Nigeria have not provided all the services as required of them. This is rather peculiar as many of the respondents did not know if they have prepared any report on tenders and to furnish them with appropriate recommendations.

6.0 CONCLUSIONS

The study was to identity the kind and level of services that Nigerian QS provide and in relation to similar services QS elsewhere provide. However, contrary to the research hypothesis, it can be concluded that the QS in Nigeria provide the kind of services as that of other QS elsewhere. However, it appears that the QS in Nigeria need to do more in terms of theor performances with some of the services. For instance, their performance in relation to services no. 26, 27 and 28 were not very encouraging. There is the need for more education on the services that the QS provide generally. The QS in Nigeria also need to do more in acquiring up-to-date knowledge on project management skills in order to satisfy the needs of today's progressive clients and to be able to improve the perception of other professionals in the Nigerian built environment with respect to the intended contribution of the quantity surveyor. Although the QS provide a majority of the services listed in the study, the lack of QS participation in the procurement of capital projects is very alarming and may present a gross disrepute for the profession and the nation at large.

7.0 REFERENCES

Bennett, F. L (2003). *The Management of Construction*. Oxford: Butterworth Heinemann

Cartlidge, D (2003) New Aspects of quantity surveying practice: a text for all construction professionals, Oxford: Elsevier Butterworth-Heinemann

Cartlidge, D (2004) *Procurement of Built Assets*. Oxford: Elsevier Butterworth -Heinemann

Ellis, R.C. T, Wood, G. D and Keel, D. A (2003). An investigation into the value management services offered by Cost consultants, *Proceedings of The RICS Foundation Construction and Building Research Conference (COBRA) 2003,* pp338- 347, University of Wolverhampton, London

Flanagan, R (2007) VISION 2020. For procurement in the construction sector, *Proceedings of Quantity Surveying International Convention*, Kuala Lumpur, Malaysia

Ferry, D. J, Brandon, P. S and Ferry, J. D (1999). *Cost Planning of Buildings.* Oxford: Blackwell Publishing Limited

Lee, S, Trench, W and Willis, A (2005) *Willis' element of quantity surveying,* 10th Edition, Oxford> Blackwell Publishing Limited

Popescu, C. M. Phaobunjong, K and Ovararin, N (2003) *Estimating Buildings Costs.* .New York: Marcel Dekker Inc.

Odusami, K. T (1999) A survey of current trends in quantity surveying consultancy practice in Nigeria, *The Quantity Surveyors*, Vol. 26 ISSN: 116 -915X pp57 - 62

Olanrewaju, A. A., and Khairuddin, A. (2006). *Value Management: New Direction for the Nigerian Quantity Surveyors.* P102 – 109. *Proceedings of Quantity Surveying National Convention. Penang, Malaysia*

Olanrewaju, A. A., and Khairuddin, A. (2007). Identifying the Dominant Procurement Strategies in the Nigerian Construction Industries*. Proceedings of the Management in Construction Researchers Conference Malaysia (MICRA),* Kuala Lumpur, Malaysia