EXAMINING THE ROLES OF ARCHITECTS VIS-A-VIS QUANTITY SURVEYORS IN THE BUILDING INDUSTRY AT SOUTH WEST, NIGERIA

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ABSTRACT

Architects and Quantity Surveyors are partners in progress in the construction industry especially at South-West parts of Nigeria. The roles are enormous and cannot be over-emphasized as both targets on how to achieve a common goal towards client’s utmost desire to the financial resources. The main objective of this research work is to explore the perceptions of two identified professionals in their overlapping functions in the building industry with a view to determining a clear cut goal. The methodology adopted involved a quantitative research approach, using survey questionnaires as instrument while the analysis was with the aid of the “relative importance index” method. This research paper thus identified the significant roles of cost effectiveness as the paramount goal of the two professionals. Therefore, the paper recommends that while each executes these targeting tasks; the client’s judicious use of the construction cost should be justifiable and not compromised.

Keywords: Architects, Quantity surveyor, Client’s cost, Building industry, Nigeria.

1.0 INTRODUCTION

“Architecture” is the acts of science that involves designing and constructing buildings with durable materials following certain canons, so as to produce structures that are suited to their purpose; which often stimulating and aesthetically pleasing (Encarta, 2005). In furtherance to this, Conditions of engagement and consultancy services agreement of Nigerian Institute of Architects (2000), also defined architecture as the art and science in theory and practice of design, erection, commissioning, maintenance and management and coordination of allied professional. It imbued with inputs thereto of buildings, or part thereof and the layout and master plan of such building or groups of buildings forming a comprehensive institution, establishment or neighborhood as well as my other organized space, enclosed or opened, required for human and other activities.

“Quantity surveying” on the other hand involves production of the bills of quantities, which are usually prepared by Quantity Surveyors from drawings and specifications produced by Architects and Engineers. The bills, however describe the works to be done and provide quantities of the works trade by trade. Essentially, bills are meant for competitive tendering, which provide an equal basis for all tenders that would not have been the case were each contractor are to prepare his separate tender based on individual perception of the drawings.

The employer or client is saddled with the irresponsibility of providing the funds for the project; it is the utmost duty of both the Architect and other consultants in this case, the Quantity surveyor should be concerned with the finances of the project. What is the major tie in the roles between the Architects and the Quantity surveyor in the building construction firm in relation to the clients’ interest? In response to the research question, this paper empirically investigate the identified role, and established that the onus is bestowed on both Architect and the Quantity surveyor to unanimously work together to achieve the common goal of minimizing the clients’ proposed construction cost. In this regard, the project cost would be kept within the client’s budget or contract sum.
2. LITERATURE REVIEW

2.1 Scope of Professional Services for the Consultants Architects in the Construction Industry in Nigeria.

Conditions of engagement and consultancy services agreement of Nigerian Institute of Architects (2000), stated the scope into three broad categories, namely; the Normal services, Additional services, and Project management.

2.1.2. The “Normal Services”: this comprises of stage I, stage II, stage III, and the maintenance.

The Stage I made up of the preliminary design functions which associate with the following:

- Obtaining client’s briefing and requirements including survey plan(s) other statutory documents, visiting and appraising and analyzing the site, sourcing of statutory design data and information. Analyzing the client’s requirements and sourcing other consultant’s input therein.
- Preparing, illustrating and describing outline proposal in an appropriate scale. While on maintenance works, detailed schedule of dilapidation to include extent and level of damage, deterioration, disrepair and defects amongst others, shall accompany the proposal.
- Advising, guiding the client on the needs to take any major decision required and receiving appropriate approval.
- Preparing appropriate design scheme(s) consisting of drawings and outline specifications sufficient to indicate spatial arrangements, material usage and design configuration in conjunction with site arrangements and architectural massing. While on maintenance works, appropriate re-detailing, repair or replacement schedule, and specification shall accompany the proposal. Presenting a report on the scheme, including cost implication and program for the project.

The Stage II, associated with the Production, Working, Drawings, Specifications and Details functions namely:

- Preparation of comprehensive workings and contract documents, including designs/technical specifications. The detailed working/construction drawing shall include:
  - Detailed site plan showing the design orientation and configuration, statutory setbacks, external works; septic tanks, soak away pits and inspection chambers; gates, fence locations, parking and any other design information relevant to the scheme.
- Overall plan(s) of the scheme for all floors including the roof plan(s) detailed dimensions, annotations and blown up details of all part in appropriate scale for other consultants use and constructor works.
- Detailed sections, elevations, wall and floor finishes, construction details, levels.
- Working details, window and door schedules, ironmongery schedule fittings and fixtures.
- Detailed material specification book and painting schedule for the scheme.
- Co-ordination and reconciliation of all the drawings and inputs of other consultants and specialists.
- Obtaining information and other design from manufacturer and suppliers for the purpose of detailing design schemes and cost control.
- Providing appropriate information, drawings, and specifications for preparation of Bills Quantities.
- Reconciling all structural drawings and their specification with the architectural design to ensure that there are no conflicts or discrepancies.
- Reconciling all Mechanical, Electrical, and other specialist drawings, and their specifications with the architectural design to ensure that there are no conflicts or discrepancies.
- Reconciling all final Bills of quantities with the detailed architectural design, working/construction drawings, and specifications to ensure that there are no conflicts or discrepancies.
- Co-ordination of reconciliation of all the final designs, specifications, Bills of Quantities, other tender/contract documents and input of all consultants to ensure that there is no conflict or discrepancies.
- Avail the Client the appropriate form of contract and advising and guiding the client in the pre-qualification of all contractors for the works.
- Preparing the form of tender and issuing an invitation to tender.
issuance and collation of all tender documents to and from tenderers, preparing the appropriate contract agreement with all conditions applicable for the works.

However the Stage III involves the Obtainment of Tenders to Completion, which includes:

- Obtaining, analyzing as it rates to Architects works (preference, quality of work executed, machinery equipment capability/competence, category of statutory registration, etc); and full report on tenders, preparing and advising on the contract and appointment on the contractor.
- Arranging for the works contractor to take possession of the site.
- Examining, reviewing and approving the contractor’s works program.
- Supervision and co-ordination of all site works including a per month formal site and technical meetings.
- Producing and circulating the minute of such meetings to all parties.
- Issuing payment certificates and other administrative duties including submission of a progress report to the client quarterly or as agreed.
- The normal service allows for one formal site visit per month at which meeting is held as above.
- The consultant Architects shall make additional periodic visits to the sites as appropriate to supervise the progress and quality of the works.
- Additional visits for more frequent or constant supervision in this regards as approved by the Client shall be regarded as an additional service.
- Upon the practical completion of the works, the Consultant Architect shall visit the site with the Client of his duly appointed representative and all interested parties for the purpose of handing over the building to the client and agree on the expiry date of the defects liability period.
- Upon this agreed date, the consultant Architect shall make the first inspection and upon the expiry of a mutually agreed period for the rectification of defects, he shall make final inspections of the works. Any further shall be regarded as an additional service.
- Issuing a certificate of the practical completion of the works and the final payment certificate.

The maintenance services dealt with the Maintenance (renovation, rehabilitation, restoration, refurbishing of existing buildings) and furnishing works shall be carried out in stages 1, 11, 111 as described under items 1.2.1 to 1.2.3.12 above of the design and supervision process.

2.1.3 Additional Services:

This service relates to the requirements according to the circumstances of the project, to augment the normal services. Where there is no established basis for calculating the fees for other services the employer and consultant shall discuss the required services at the onset and agree on both the method and the amount of remuneration. Thus, the services, method of remuneration agreed, and the charges should be set out in the first schedule. Meanwhile, this service includes the following:

(i) Feasibility Studies

Undertaking a preliminary technical appraisal of the project sufficient to enable the employer to decide whether and in what form to proceed. Planning approval requirements and or making application for outline planning approval. Such appraisal may include budget to meet the Clients requirements, a statement of the need for Consultants, an outline program and a proposed contract procedure.

(ii) Sites and Buildings

Advising on the selection and suitability of sites, conducting negotiations concerned with sites, for new buildings or of existing buildings.

(a) Undertaking visits, preparing reports or giving general advice on the condition of the premises.

(b) Making schedules of dilapidation and agreeing them with other parties: taking particulars on the site, developing specifications for repairs and supervising their execution.

(c) Undertaking investigations, the limits of which shall be clearly defined and agreed in writing such as are necessary to ascertain whether or not there are defects in the wall, roof floors and drains of a building that may materially affect its life and value.

(d) Preparation of measure drawings of existing building.

(e) Preparation layout of parks and gardens and landscape design.
(f) Specialist advice on the selection of plants and materials, visits to nurseries etc.

(iii) Development Plans
Preparation of development plans, which will be carried out over a number of years for any large building or complex of buildings? Fees for preparing development plans shall in all cases be additional to the percentage fee for the normal service.

(iv) Development Studies
Where an employer's initial statement in stage 1 requires special services such as operational research including work study, before consideration of the brief and development of a preliminary design such services shall constitute an additional service. Where the development of a final design in stage II or design details involves special constructional research including the design, construction or testing of prototype buildings and models, such research shall constitute an additional service.

(v) Interior Design
Where special services in respect of interior design work are provided including advice on the selection of furniture, fittings, soft furnishings, and inspection of making up such furnishings in a new building or existing building. The percentage fee for each stage of service shall be negotiated between the architect and the client. The Furniture and Fittings comprise of:

(a) Advising on the selection and suitability of loose furniture, fittings and soft furnishings where a service is not provided, the fee shall be negotiated.

(b) The design of special items of furniture and fittings for limited production only, including designs for garden furniture, the fee shall be negotiated.

(c) Payment for the design of mass produced items of furniture may be by royalty, or by time charges and scale of copyright. Fees for the design of prototypes may be an advance on royalties.

(d) Advising on the commission of special works of art, the selection of paintings and sculptures, among others, for liaising with artists and for advising on installation of the artwork fees shall be negotiated.

(e) Preparing artwork, murals and other studies of the final work where no separate artist is employed, fees shall be negotiated.

(vi) Litigation and Arbitration
This associates with the qualification to give evidence, getting proof, attending conferences with solicitors and counsel. Attendance in court or at Arbitration or planning inquiries or before other tribunals for services in connection with litigation or for arbitration, a negotiated fee shall be agreed.

(vii) Supervision: in provision of resident supervision on any site, a monthly charge shall be made computed in accordance with the approved man-month rates.

(a) For providing supervision by site visits beyond the original contract period (during and extended construction period), the charge shall be based on the man-month rate charges.

(b) For each additional site visit required by the employer during the contract period over and above the normal service. The charge shall be the same as the man-month charge for each visit during the normal visit.

2.1.4. Project Management
This involved the following:

(i) Identification of the client's objectives and priorities.

(ii) Development and preparation of the brief

(iii) Preparation of option and feasibility report

(iv) Execution of a risk analysis exercise

(v) Establishment of a budget and the total project program design

(vi) Advise on the design team selection

(vii) Establishment and management of integrated communication and information systems between the client and the Design Team

(viii) Advise on the appropriate procurement strategy

(ix) Establishment of the pre-contract control systems and execute a value analysis exercise

(x) Monitoring and planning permission and other statutory consents

(xi) Facilitation and receipt of tenders evaluation and report including the selection of the contractor(s). Establishment of the post contract time, cost and quality control and management systems.
(xii) Monitoring and receipt from the prime consultant, report regularly through to the project completion commissioning and occupation.

2.2. SCOPE OF SERVICE OF THE QUANTITY SURVEYORS IN THE CONSTRUCTION INDUSTRY IN NIGERIA

As the building industry expands in recent years, skilled roles are becoming available, especially in positions like Quantity surveyor. These professionals responsible for the preparation and issuance of any building project cost from initial estimates, through the final acquisition of materials. Their associated roles are varied, better still, it focused on providing clients value for money while adhering to the strict regulations which govern every aspect of the construction industry. Quantity surveyors may choose to specialize in a specific area of the construction industry and therefore focus on areas such as property taxation, costing advice, maintenance of existing buildings and application to funding sources.

2.2.1. Normal Scope

Conditions of engagement and consultancy services agreement of Nigerian Institute of Architects (2000) stated the Normal scope of Services for Quantity Surveyor as follows:

(i) Stage 1: this involves the Preliminary and Final Budget Estimating as follows:
- Inspection of the site to ascertain site conditions.
- Preparation of budgetary estimate based on grass floor area or other “unit method”.
- Preparation of preliminary estimated based on Preliminary design/drawings prepared by other consultants. Cost checking of alternative designs and specifications arrive at acceptable final budget estimate
- Preparation of detailed estimate based on detailed drawings, specifications and schedules prepared by other consultant.

(ii) Stage 2: As follows:
- Preparation of Bills of Quantities based on detailed drawings, design, specifications and schedules prepared by other consultants.
- Preparation of Articles of Agreement.
- Preparation of Tender form.
- Preparation of Schedule of Day works.
- Preparation of Preliminary items of works.
- Advice on Specification and Contract Conditions to other Consultants.
- Collation of specifications and contract conditions and advice on tendering procedure.
- Advice on Contractual Arrangement.
- Pricing of Bills of quantities with a view to the company with Tenders.
- Collating the Full Tender Document comprising Articles of Agreement, Contract Conditions, Preliminaries, Specifications/ Preambles, Bills of Quantities, Form of Tender and Schedule of Day works.
- Co-operate with other Consultants on the preparation of the list of contractors and sub-contractors
- Send the full Tenders.

(iii) Stage 3: Contract Administration
- Tender evaluation, analysis and reporting
- Preparation of contract documents for the project, ready for signature (at least five copies).
- Check and confirm suitability and adequate of Bonds.
- Advice on Advance Payment and list of materials to be covered
- Site measurement and preparation of interim valuations for the works on a monthly basis or agreed intervals.
- Measurements and adjustment of variations in the scope of works, variation, etc.
- Measurement of (where applicable) and settlement of claims.
- Management of the cost implication of contractual issues
- Preparation of periodic assessment of anticipated final cost and reporting thereon.
- Preparation of Final Accounts for the project.
- Advice on the management of cost implications on non-contractual issues.

2.2.2 Additional Scope Services Includes Project Management As:

(i) Identification of the client Objectives and priorities
(ii) Development and preparation of the brief
(iii) Preparation of an option/feasibility study
(iv) Execution of a risk analysis exercise
(v) Establishment of a budget and the total project program
(vi) Advise on the design team selection
(vii) Establishment and management of integrating communication and information systems
(viii) Selection of the appropriate procurement strategy
(ix) Device the pre-contract control systems and execute a value analysis exercise
(x) Co-ordination and planning permission and other statutory consents
(xi) Conduct tenders evaluation and select contractor(s)
(xii) Establishment of the post contract time, cost and quality control and management systems
(xiii) Control, monitor and report on the project completion, commissioning, and occupation.

1. CASE STUDY AREA

Nigeria is located at the extreme inner corner of the Gulf of Guinea on the west coast of Africa. It occupies an area of about 923,768 sq. km (356,669 sq mi), extending 1,127 km (700 mi) E-W and 1,046 km (650 mi) N-S. Comparatively, the area occupied by Nigeria is slightly more than twice the size of the state of California. It is bordered by Chad on the NE, by Cameroon on the E, by the Atlantic Ocean (Gulf of Guinea) on the S, by Benin (formerly Dahomey) on the W, and by Niger on the NW and N, with a total boundary length of 4,900km (3,045mi) of which 853 km (530 mi) is coastline. The Nigeria’s capital city is Abuja, located in the center of the country. South-West, geo-political region of Nigeria covers states such as Osun, Ondo, Ogun, Ekiti, Oyo, and Kwara states, among others. Fig. 1 refers.

Fig. 1: Map of Africa, Nigeria and the South-West part of the country. Source: www.googlemap.com

4. RESEARCH MEASUREMENT AND METHODOLOGY

From existing literature on the building industry, preliminary investigation conducted at the onset of this study; and scope of services of both professionals in Nigeria, it was possible to identify major similarity between the roles of Architects and Quantity Surveyors. Questionnaire was drawn up and divided into two sections. Section A sought to know the general demographic information about the respondents; while section B focused on the five identified similarity roles between the Architects and the Quantity Surveyors.

The questions enquired includes, (i) Both professionals engaged in the Normal scope services (1st stage preliminary design stage), (ii) Both professionals engages in the
production, working drawings, specification and details (2nd stage, design stage), (iii) Both professionals engaged in the obtaining tenders to completion (3rd stage, contract administration), (iv) Both professionals engage in the additional services (maintenance), (v) Both professionals focus on the cost control during the initiation and execution of the building project (Client’s capital managers). The respondents opinions degree were rated with the statements elicited through the use of five-point Likert-type scale measurement with 1 being the lowest score (“Strongly disagree”) to 5 (“strongly agree”) and 3 (neutral). This enabled the researcher to understand respondents own perception through their various working experience in the Nigerian building industry. The stratified random sampling technique was used. The questionnaires were sent to two groups of building construction practitioners viz. Quantity surveyors and the Architects. The professionals were drawn from architecture and quantity surveyor firms located within three of the south west states of Nigeria. These comprise Oyo, Osun and Ondo state. The respondents were selected and contacted through their professional body’s membership list. Systematic sampling techniques were adopted in the selection. This according to Leedy (1980) minimizes bias.

5. ANALYSIS AND DISCUSSION
5.1 Respondents Demographical survey
One Hundred and Twenty (120) survey questionnaires (120) were distributed, and One hundred and five (105) were returned representing a response rate of 87.5% .This was considered adequate for the analysis based on the assertion by Moser and Kalton (1971). The author affirms that the result of a survey could be considered as biased and of little value if the return rate were lower than 30–40%. Fig. 2 indicated that 68.6% of respondents are married, as against 31.4% that are single. A total number of 30 (28.6%) of respondents were from Oyo state, 54 (51.4%) were from Osun state, while the remaining 21 (20%) respondents were from Ondo state (Fig.3). Out of these respondents, 72 (68.6%) are Architects while 33(31.4%) are Quantity surveyor (Fig.4). However, 45.5% of respondents are Graduates who are HND, BSC or Master Degree holders, while 54.3% are professionally registered (Fig.5).

The respondents Age groups and Sexes are represented in fig.7 and Fig.8 respectively. The respondents Age groups and Sexes are represented in fig.7 and Fig.8 respectively.

![Respondents Marital Status](image1)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>72</td>
<td>68.6%</td>
</tr>
<tr>
<td>Single</td>
<td>33</td>
<td>31.4%</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>100%</td>
</tr>
</tbody>
</table>

![Case Study area](image2)

**Figure 3: Case study area of the respondents**

<table>
<thead>
<tr>
<th>State</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oyo state</td>
<td>30</td>
<td>28.6%</td>
</tr>
<tr>
<td>Osun State</td>
<td>54</td>
<td>51.4%</td>
</tr>
<tr>
<td>Ondo State</td>
<td>21</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>100%</td>
</tr>
</tbody>
</table>

![Respondents Professional Affiliations](image3)

**Figure 4: Respondents’ Professional affiliations**

- Architects: 72 (68.6%)
- Quantity Surveyors: 33 (31.4%)
- Total: 105 (100%)

Years of experience of respondents in the building construction firm stands at 45.7% (1-5 years of experience), 28.6 % ( 6-10 years), and 25.7% (10 years and above) as shown in Fig.6. The respondents Age groups and Sexes are represented in fig.7 and Fig.8 respectively.
5.2 ANALYSIS AND RESULTS

Chan and Kumaraswamy (1993) and Kometa et al. (1994) used the ‘relative importance index’ method in similar study. This method was also adopted to analyze the data collected from the questionnaire survey. The analysis was carried out for each group of respondents (Quantity Surveyors and Architects). The five-point scale 0–5 mentioned earlier was transformed to “relative importance indices” for each of the similarity between the roles of Architects and Quantity Surveyors. The indices were then used to determine the rank of each item. These rankings made it possible to cross compare the relative importance of the items as perceived by the two groups of respondents. The weighted average for each item for the two groups of respondents was determined and ranks (R) were assigned to each item representing the perception of the two groups. The relative importance index (RII) was calculated for each item as follows (after Lim and Alum (1995):

$$RII = \frac{5n_1 + 4n_2 + 3n_3 + 2n_4 + 1n_5}{5N}$$

Where $n_1=$number of respondents for ‘Strongly agree’;
$n_2=$number of respondents for ‘Agree’;
$n_3=$number of respondents for ‘Neutral’;
$n_4=$number of respondents for ‘Disagree’;
n5=number of respondents for “Strongly disagree”;  
N=Total number of respondents.

The results of the relative importance indices (RII) and weighted average index (RII) for Architects and Quantity Surveyor were shown in the table 1 and table 2. The results were represented graphically on chart table 3. The weighted average index (RII) for Architects and Quantity surveyor has the highest value of 0.879 for PRen5 (RQ5), and the value of 0.870 for PRen3 (RQ3). The weighted average index (RII) for PRen4 (RQ4) stands 0.861, a little value below the PRen5 and PRen3 weighted average index value. PRen2 (RQ2) has the lowest weighted average index (RII) of 0.845 followed by the value of PRen1 (RQ1) of value 0.855.

Table 1: The output of Relative Importance Indices (RII) for the Architects.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Research Question (RQ)</th>
<th>CODES</th>
<th>ARCHITECTS RII</th>
<th>RII</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(RQ1) Both professionals engages in the Normal scope services (1st stage preliminary design stage)</td>
<td>PRen1</td>
<td>0.856</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>(RQ2) Both professionals engages in the production, working drawings, specification and details (2nd stage, design stage).</td>
<td>PRen2</td>
<td>0.834</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>(RQ3) Both professionals engage in the obtaining tenders to completion (3rd stage, contract administration).</td>
<td>PRen3</td>
<td>0.880</td>
<td>1.5</td>
</tr>
<tr>
<td>4.</td>
<td>(RQ4) Both professionals engage in the additional services (maintenance).</td>
<td>PRen4</td>
<td>0.867</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>(RQ5) Both professionals focus on the cost control during the initiation and execution of the building project. (Client’s capital managers).</td>
<td>PRen5</td>
<td>0.897</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Table 2: The output of Relative Importance Indices (RII) for the Quantity Surveyor and Weighted average (RII).

<table>
<thead>
<tr>
<th>S/ N</th>
<th>Research Question (RQ)</th>
<th>CODES</th>
<th>QUANTITY SURVEYORS RII</th>
<th>WEIGHTED AVERAGE RII</th>
<th>RII</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(RQ1)</td>
<td>PRen1</td>
<td>0.854</td>
<td>5</td>
<td>0.855</td>
</tr>
<tr>
<td>2.</td>
<td>(RQ2)</td>
<td>PRen2</td>
<td>0.856</td>
<td>4</td>
<td>0.845</td>
</tr>
<tr>
<td>3.</td>
<td>(RQ3)</td>
<td>PRen3</td>
<td>0.860</td>
<td>1.5</td>
<td>0.870</td>
</tr>
<tr>
<td>4.</td>
<td>(RQ4)</td>
<td>PRen4</td>
<td>0.854</td>
<td>3</td>
<td>0.861</td>
</tr>
<tr>
<td>5.</td>
<td>(RQ5)</td>
<td>PRen5</td>
<td>0.860</td>
<td>1.5</td>
<td>0.879</td>
</tr>
</tbody>
</table>

Table 3: Relative Importance Indices (RII) and weighted average Indices (RII) chart for the Architects and Quantity Surveyors in the Building Industry in South West Nigeria.

5.3 FINDINGS AND DISCUSSION

Table 1 shows the ranking (R) of the weighted average of the relative importance indices (RII) for the two groups. It could be observed that respondents seem to agree “both professionals focused on the cost control during the initiation and execution of the building projects”. This has the highest value of RII as 0.879, and next to this is “both professionals engages in the obtaining tenders to compilation” (3rd stage, contract administration) having value of RII as 0.870. “Both professionals engage in the additional services (maintenance), has RII value of 0.861. “Both professionals engage in the Normal scope services” (1st stage preliminary design stage) with a value of RII as 0.855. The least value is attributed to “Both...
professionals engage in the production, working drawings, specification, and details”. (2nd stage, design stage) with a value of RII as 0.845.

### 5.3.1 Cost Control: A tie between Architect and Quantity Surveyor

Consequently, aside the various roles of an Architect and a Quantity surveyor in the building industry, it is established in this research work that the cost control is perhaps the major objective that forms a tie between the two professional as indicated in table 1 and table 2. However, this is initiated during the initiation and execution of the building projects. This forms a tripartite frame structure as explained in the Fig. 9.

**Fig.9:** Tripartite frame structure between the Clients’ Cost control, the Architect, and the Quantity Surveyor.

Cost plays an important part throughout the design process up to the supervision stage. In the first instance, it influences the size of the project and its general form, and also dictates the type of structure which subsequently affects the choice of services and finishing. Cost is, therefore, a continuing influence, but has two distinct phases.

(i) **During the briefing stages:** The Quantity surveyor, client and Architect have a joint responsibility of deciding just how much the building project would cost, which will invariably impacts on the magnitude and quality of structure that could be achieved for a given sum.

(ii) **During the sketch plans and working drawings production phases:** the Architect has the responsibility of designing structure that is suitable in such a way that the average cost will not exceed the client’s budget or cost limit. However, the importance of cost planning is to enable the Architect and the Quantity Surveyor to control the building cost (within the Client’s target) even at the design stage. The earlier the cost checks, the greater the cost control measure, quality and the design.

(iii) **Cost Control during Execution of Contract**

The Quantity Surveyor’s cost control function does not terminate at the tender stage but continues throughout the execution of the contract. Right from the time the contractor commences work on the site; the onus lies on the Quantity Surveyor to properly scrutinize the priced bills, schedules of basic rates, insurances, and other relevant documents. The main function of the Quantity Surveyor, once the work has commenced on site is project financial control. It is important to ensure that any variations, claims do not increase the final account bill beyond the cost limit.

### 6.0 CONCLUSION AND RECOMMENDATION

This paper has enlisted and discussed the roles of the Architects in relation to Quantity Surveyors in the building industry as stipulated in the Nigerian Institute of Architects Publication on Condition of Engagement for Architects. It has also identified the cost as a binding agent between the two professionals. The paper, recommends that an intimate connection and adequate understanding should exist between the two, if their roles are to be accomplished without jeopardizing the client/employer’s interest.

### 7.0 REFERENCES

2. Carrier in Construction: The role of Quantity Surveyor:  


14. Saroop Shian Hemraj (2009): The infrastructure cost planning model: an integrated solution to cost effective design. Thesis Submitted in fulfilment of the academic requirements for the degree of Magister Technologiae : Engineering; Civil in the Department of Civil Engineering and Surveying. Faculty of Engineering and the Built Environment at the Durban University of Technology.

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