

Effects of Work Attitudes of Design Team on the Service Delivery of Quantity Surveyors

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Abstract

The dynamism of the construction industry everywhere in the world requires no other skill, for stringent cost control and effective cost management in providing value for money for construction clients, than the skills of the professional quantity surveyor. The effectiveness in delivering quantity surveying service efficiently to meeting clients' requirements is entirely dependent on the products of designers in the design team. This research work assesses the effects of work attitudes put on by the design team and how it affects the service delivered by quantity surveyors. Primary data were collected via well-structured close-ended questionnaire. Percentile and mean item score were employed in the analysis using Statistical Package for Social Science (SPSS). The study revealed that the design team is a well-structured and organized team for quantity surveyors to perform their professional obligations, but designers' work attitudes reflected from their design products create a mundane and frustrating atmosphere for the quantity surveyors. The study finally recommended a need for personal improvement by the architects and the engineers in order to enhance a proficient service of the design team.

Key words: Construction Industry, Design Team, Quantity Surveyor, Service, Work Attitude

INTRODUCTION

The construction industry is a complex organisation which centres on the project under construction or adaptation, (Willis, *et al.* 1994). It embraces a wide range of loosely integrated organisation that collectively constructs, alter, refurbish and repair a wide range of different building and civil engineering structures. (Gavin, 2002) defined design as a combination of group of object and requirement which have been designed to create something new as a result of or in anticipation of their collective performance. The construction industry is also described as an assembly industry, assembling on site the products of other industries.

Construction generally encompasses building and civil engineering works, building works such as residential houses, flats, schools, hospitals, shops, offices, factories and warehouses; civil engineering works such as roads, bridges, reservoirs, waste water system, rail ways, power stations, harbours and dams. These construction works are undertaken in both the public and private sectors. Public sector includes government (federal, state or/and local), development corporations and public corporations and private sector includes developers, financial institutions, industries and commerce, building societies, individual

promoters and privatised companies. Researchers all over the world have highlighted the significance of teams in a general organizational perspective. Most organizations that seek to improve efficiency have embraced teams as a way to meet the demand of the turbulent and challenging market place. (Fisher *et al.* 1997).

There are various disciplines and professionals within the industry; architects, quantity surveyors, engineers, builders who are more on the periphery of the industry, the planners, economists, lawyers, and accountants, the contractors, suppliers, and manufacturers, sub-contractors of various types and specialist firms who do highly skilled work, (Seeley, 1997).

The construction industry is bounded by an ever-increasing numbers of rules and regulations with different trades and professional organizations monitoring them intently and dealing with variety of problems which may affect or affecting the efficiency, reputation and work of the industry before the ‘client’- the most important person to the industry.

The building sector is very important in the national economy and it’s a very sensitive sector. To a good extent the fortunes of the Nigeria construction industry are closely related to the state of the Nigeria economy as a whole as postulated by (Ajanlekoko, 2002). He opined that the output of the construction industry has a significant impact on the country’s Gross Domestic Product (GDP) and the Nations construction investment. Therefore, it is not the sole responsibility of the quantity surveyor to establish a successful cost solution and guarantee an effective project delivery in the terms of cost, time, safety and quality standard. All the professionals within the industry are responsible, most especially the design team, being the decision maker for all construction work in the construction industry.

Practicing quantity surveyors are been faced with numerous challenges erupting from his design team-mates in most project works, ranging from clients’ attitudinal behaviours, design decisions, drawings provided by the architect/engineers to professional superiority complex that exist among the professionals. Every activity of each design team member has significant effect on one another’s service(s). The quantity surveyor been the centre of attraction (cost expert), depends so much on the service products of the design/production team-mates. A close collaboration between the design team members and the quantity surveyor throughout the design stage for effective cost control will enable the production members to be kept fully informed of the cost implications of all the design decisions. Team should work together to represent the interest of the client by achieving his aim and objectives in terms of cost, time, quality and standard performance.

A successful project is a justification of expertise and if otherwise, the purpose of professionalism and expertise is jeopardized and defeated. (Sepani and Akalaka 2009). When good team spirit is developed among team-mates in a construction design team, the quantity surveyors enjoys the joy of rendering quality service to his client or employer. To distribute generated design knowledge among design team members for the progress of design, they need to process their own specialist data before useful information can be delivered to others. Designers participate in various ways in the team and are depending

on each other's output. Many participate as individuals, working alone for crucial periods and then return to the network process, (Dainty *et al.* 2006). These will in-turn boosts the good reputation of the design team and the construction industry as a whole. This will invariably contribute to the nation's economy and development.

METHODOLOGY

The descriptive survey method, (Leedy and Ormond 2005) was adopted for the study using structured questionnaires as the main tool for exploring the opinions and the individual experiences of quantity surveying practitioners in research area. The respondents were given statements to assess based on a five point Likert scale on a questionnaire designed comprising three (3) sections with relevant questions pertaining to the topic; section 1, personal data of respondents, section 2, design team features, design products and attitudes of design team members and section 3, services of the quantity surveyor at the design stage.

The population of respondents for data gathering was drawn from among practising professional quantity surveyors in the Nigerian construction industry resident in Akure and Ibadan cities respectively. The sample population of respondents was from registered and practising quantity surveyor only numbered 72 and 35 in Ibadan, Oyo and Akure, Ondo states respectively, who are well experienced in the profession and have being involved in building design team.

The Yamane (1967) formula used to determine the sample size is

$$N/[1 + NE^2]$$

Where N = Number of professionals and E = Degree of precision 10%

Applying the above formula, a total of 68 Quantity surveyors; 41.86 and 25.93 was sampled out from the 72 and 35 registered and practising quantity surveyors in the Ibadan, Oyo and Akure, Ondo state respectively.

From the formula used to derive the sample size for respondents, random selection was done on the list of the professionals particularly to Ibadan and Akure residents. This is simply due to the fact that most contracted building works happens more in these places.

Primary data was fetched using a structured questionnaire for this research work. This is to enable perpetual disclosure of qualitative and relevant experiences of my respondents without any undue influence. The questionnaire covered the demographic background of the respondents and specific aspects that revealed their professional experiences in relation to work attitudes of professionals in the design team to how it affect the service delivered by the quantity surveyors.

Preliminary research approach comprising a qualitative method of data production from the target population was adopted. Data was retrieved through questionnaires by direct contact. . The addresses of practicing quantity surveyors were sourced for and were also

used to locate them. Secondary data were sourced for this study from: journals, published/unpublished articles, conference scripts, textbooks and the World Wide Web (websites). Data collected were processed and analysed with the use of the Statistical Packaged for Social Science (SPSS) software version 17 Frequency distribution table, percentage and mean were used.

Questionnaire Analysis

This section presents how the questionnaire is been administered in respect to distribution and collection expressed in percentage. Table 1. above shows that a total of sixty-eight (68) questionnaires were distributed to respondents in person at Ibadan and Akure cities, Oyo and Ondo states respectively, only 51 were returned for analysis representing 75% proportion of the total number distributed.

Table 1. Questionnaire analysis

S/N	No. of questionnaire distributed	No. received	Percentage received	Percentage not returned	Total percentage
1	68	51	75.00	25.00	100.00

Frequency Distribution Table for Demography Data

This section presents the frequency distribution tables and their respective percentage accruable.

From Table 2. Above, two sectors (private and public) were reached out to with 22 private firms and 29 public organizations of respondents. Company/firm type, 22 consultant firm, 3 consortium, 23 client organization and 3 other firms/company of respondents. Organizations with more than 10 years working experience in building construction took the largest proportion (72.50%) and organization with less than 10 years’ experience have a cumulative percentage of 27.50%. This is expected to make the finding of this work more reliable. 41 males (60.4%) and 10 (19.60%) female quantity surveyors professionals were my respondents. Age range 41 - 50 took the largest percentage while age under 25 took the lowest.

This invariably will also enhance the reliability of the findings of this work. Educational highest qualification of the respondents are Diploma, Postgraduate Diploma, and Bachelor’s Degree each with over 20% proportion while Master’s Degree holders took the largest (27.50%) percentage proportion. Respondents with less than 5 years personal working experience in the construction industry are 11.80%, 33.33% are have between 5-10 years’ experience and 54.90% have more than 10 years working experience. This is a true justification of any outcome from this research work as this will have great influence on the response output. Positions of office of my respondents,19.60% principal quantity surveyors, 49.00% senior quantity surveyors, 17.60% assistant quantity surveyors and 13.70% others offices.

Table 2. Demography data of respondents

		Frequency	Percentage (%)	Total %
Sector	Private	22	43.1	43.1
	Public	29	56.9	100.0
Company/Firm	Consulting firm	22	43.1	43.1
	Consortium	3	5.9	49.0
	Client organization	23	45.1	94.1
	Others	3	5.9	100.0
Year of org. experience	Less than 5 years	8	15.7	15.7
	5 years - 10 years	6	11.8	27.5
	More than 10 years	37	72.5	100.0
Gender	Female	10	19.6	19.6
	Male	41	80.4	100.0
Age	Under 25 years	2	3.9	3.9
	25-30 years	8	15.7	19.6
	31-40 years	13	25.5	45.1
	41-50 years	18	35.3	80.4
	Over 50 years	10	19.6	100.0
Qualification	Diploma	11	21.6	21.6
	Postgraduate Diploma	13	25.5	47.1
	Bachelor's Degree	13	25.5	72.5
	Master's Degree	14	27.5	100.0
Personal years of experience	Less than 5 years	17	33.3	45.1
	5 years - 10 years	6	11.8	11.8
	More than 10 years	28	59.4	100.0
Office	Senior QS	25	49.0	68.6
	Assist. QS	9	17.6	86.3
	Principal	10	19.6	19.6
	Others	7	13.7	100.0

From the Table 3. above, it is clear that quantity surveyors are introduced at the conceptual stage of building construction projects; 4.02 mean value ranked as the first, members of design team comes together to gain awareness of one another; ranked second (mean value 3.96). Also design team develops to maturity to effectiveness before the production stage i.e. construction on site, 3.92 mean value. High level of trust and flexibility exists among design team members, 3.80 mean value.

Only the 5th and 6th variables were rated little above neutral, (3.53 and 3.51 mean value) for “ideas are discussed freely at design sessions especially with the quantity surveyors and Qualitative and quantitative information are transmitted in clear and understandable language to the quantity surveyors respectively. On the average (3.79 mean score) it is seen

that the design team is characterized as a well-structured and organized team for quantity surveyors to perform their professional obligations and services

Table 3. Characteristics of building design team

Design Team	Frequency					Mean	Rank
	5	4	3	2	1		
Quantity surveyors (QS) are introduced at the conceptual stage	19	20	6	6	0	4.02	1
Design team members come together to gain initial awareness about each other	20	15	10	6	0	3.96	2
Design team develops to maturity to attain effectiveness before production stage	10	29	10	2	0	3.92	3
High level of trust and flexibility exists among design team members	11	21	17	2	0	3.80	4
Ideas are discussed freely at design sessions especially with the QS	10	18	14	7	2	3.53	5
Qualitative and quantitative information are transmitted in clear and understandable language to the QS	11	18	9	12	1	3.51	6

From the table 4. above shows that advancement in designs and construction works has positive and significant effects on designer’s work attitude, is ranked second, designers supply coordinated information in designs, drawings and schedules (3.59), designs are reviewed by team members many time before quantities are prepared by the quantity surveyor (3.49) and complete drawings, specifications and schedules are provided for the quantity surveyor to use for his estimate preparations (3.37).

Despite the good characteristics of design products as characterized by the above result, there are reflections of some self-attitudes in these products; not to scale (NTS), wrong scale and mixed scaling have been identified as design deficiencies as it is ranked highest with mean score of 4.06, this implies that is often a major challenge in the design team. Design inadequacies are often as a result of designer’s negligence, inexperience and incompetence, ranked third (3.94) this is intone with (Adefolalu, 2006) in his work, and a respondent in his personal opinion attributed this to laziness of the designers in doing their job. Architects and engineers supply inadequate details (3.67) is ranked forth which is buttressing the above facts.

It is clearly revealed that design products are not absolutely of professional standard. Deficiencies are pin-pointed especially in quantifiable product contents which are valuable and could enhance the quantity surveyors effective service delivery.

Table 4. Characteristics of building design products

Design Products	Frequency					Mean	Rank
	5	4	3	2	1		
NTS – Not To Scale, wrong scale and mixed scaling are often design deficiencies	23	12	12	4	0	4.06	1
Advancement in designs and construction works has positive and significant effects on designer’s work attitude	13	28	8	2	0	4.02	2
Design inadequacies are as a result of designer’s negligence, inexperience and incompetence	18	18	10	4	1	3.94	3
Architects and engineers supply inadequate details	11	22	10	6	2	3.67	4
Designers supply coordinated information in designs, drawings and schedules	7	25	13	3	3	3.59	5
Designs are reviewed by team members many time before quantities are prepared by the QS	12	15	12	10	2	3.49	6
Complete drawings, specifications and schedules are provided for the QS to use for his estimate preparations	13	17	5	8	8	3.37	7
Drawings, specifications and schedules provided are clear and understandable	11	14	8	14	4	3.27	8
Designs are deficient in contents	5	20	11	11	4	3.22	9
Designs are inefficient	0	20	13	14	14	2.96	10

The table 5. above shows a mean average score of 3.94 also revealed that nature of client influences positively the output of quantity surveyors although, 3.43 mean score revealed that clients alter and/or delay the progress and estimate of the quantity surveyors .3.75 mean score revealed that information are transmitted to the quantity surveyors through dialogues and meetings media by design team members, queries to architects and engineers are responded to promptly (3.16), (3.71) mean showed that architects and engineers corporate and contribute positively to the cost planning process of design and (3.45) and designers listen to the professional advice of quantity surveyors (3.67).

A mean average score of 3.98 has revealed that specialist designer’s organization also influences their work attitudes positively as well as government rules and legislations (3.45). But designers are still unwilling to provide quantifiable and qualitative information (3.08) necessary to enhance the quantity surveyor’s work; the architects also make excessive changes to design especially when estimates are prepared by the quantity surveyors (3.69).

Though 2.73 mean, opined in disagreement that quantity surveyors are seen unimportant by other design team members but designers exhibit hostile (unfriendly) relationship with the quantity surveyors (3.04) reflected in their individual self-attitudes and their products

Table 5. Designers and their Work Attitudes in Design Team

Work Attitudes	Frequency					Mean	Rank
	5	4	3	2	1		
Specialists designer’s organization influence their work attitudes positively	10	31	9	1	0	3.98	1
Nature of client influences positively the output of quantity surveyors	19	16	11	4	1	3.94	2
Information are transmitted to the QS through dialogues and meetings media	12	26	5	4	4	3.75	3
Architect and engineers corporate and contribute positively to the cost planning process of design	12	20	13	4	2	3.71	4
Architect makes excessive changes to design especially when estimates are prepared by the QS	10	25	7	8	1	3.69	5
Individual designer attitudes are reflected in their product drawings	6	28	13	2	2	3.67	6
Designers listen to the professional advice of quantity surveyors	10	15	16	8	2	3.45	7
Government rules and legislations influences designers work attitudes positively	4	23	16	8	0	3.45	7
Clients alter and/or delay the progress and estimate of the QS	5	24	12	8	2	3.43	9
Queries to architects and engineers are responded to promptly	4	16	16	14	1	3.16	10
Designers are unwilling to provide quantifiable and qualitative information	0	22	15	10	4	3.08	11
Designers exhibit hostile relationship with quantity surveyors	2	18	17	8	6	3.04	12
Quantity surveyors are seen unimportant by other design team members	4	14	9	12	12	2.73	13

The table 6. above revealed that hostility and unfriendly relationship exhibited by designers in design team as revealed in the above result, shows that work pressure/stress for the QS especially at insufficient information in the designer’s products (4.33) is increased. This was ranked highest of the effects. Also, this wrong attitude toward the quantity surveyor has brought constraints to the profession’s awareness in Nigeria (3.98); ranked second, Even commissions opportunities at times are loss by quantity surveyors due to these harsh attitudes of team members especially the architect (3.69). The research has in disagreement revealed that (2.61) quantity surveyor’s professional fee are delay or/and denied due to unfriendly attitudes of team members (such as the client).

Table 7. shows the effects of these attitudes to the quantity surveyors have significant consequences on his products. These effects was rated highest on the Bills of quantities (4.45) provided by the quantity surveyors and preliminary cost advice (4.35) was rated second. Cost estimate (4.08) third, Cost planning 3.78 and Contractual arrangement 3.78

were rated fourth while Financial management 3.57 was rated least among all the services provided by the quantity surveyors at the design stage. On the average this research study/work revealed that the hostility exhibited by design team members exhibited in their work (products) and behavioural/self-attitudes (Abiola-Falemu, 2007) have significant (reducing) effects on the service offered by the quantity surveyors.

Table 6. Effects on the Quantity Surveyors

Effects	Frequency					Mean	Rank
	5	4	3	2	1		
Work pressure/stress increases for the QS at insufficient information	33	10	3	2	3	4.33	1
Wrong attitudes toward the quantity surveyor has brought constraints to the profession's awareness in Nigeria	21	14	10	6	0	3.98	2
Commission opportunities are loss by QS due to harsh attitude of team members especially the architect	18	13	10	6	4	3.69	3
Quantity surveyor's professional fee are delay or/and denied due to adversarial attitudes form team members (client)	3	8	19	8	13	2.61	4

Table 7. Effects on the Quantity Surveyors' products

Effects	Frequency					Mean	Rank
	5	4	3	2	1		
Bills of quantity (BOQ) preparation	27	20	4	0	0	4.45	1
Preliminary cost advice	26	19	4	2	0	4.35	2
Cost estimate	19	18	13	1	0	4.08	3
Cost planning	13	23	10	4	2	3.78	4
Contractual arrangement	13	23	10	1	4	3.78	4
Financial management	9	20	15	5	2	3.57	6

SUMMARY OF FINDINGS

The study revealed that the design team is a well-structured and organized team for quantity surveyors to perform their professional obligations, tasks or/and services but designers' work attitudes through their design products create a mundane and frustrating atmosphere for the quantity surveyors. Instead of providing production drawings which could be valuable and enhance the quantity surveyors effective and proficient service delivery (and invariably the design team), sketches are provided as working drawings.

The work attitudes revealed by this research work in building construction projects during the design stage include:

1. Personal attitude and individual way of designing without full consideration for the quantity surveyor.

2. Hostile (unfriendly) relationships with the quantity surveyors (drawing wise).
3. Unwillingness to provide quantifiable and qualitative information on drawings.
4. Poor team spirit in team work as earlier stated by (Ajayi, 2004).
5. Provision of not to scale (NTS), wrong scale and mixed scaling drawings, these attributed to laziness of the designers
6. Excessive changes to designs especially when an estimate has being prepared by quantity surveyors.

CONCLUSION

The study has been able to explore the various effects of work attitudes put on by design team and how it affects the service delivered by the quantity surveyors. These design inadequacies are often as a result of designer's negligence, inexperience and incompetence or unethical behaviours and self-attitude or work stress on them (Statt, 1994) but I perceive a drift from the standard of RIBA plan of work by these professionals' designers especially as apply to design which is a reflection of the dominance of personal attitude over professional discipline.

This work has also revealed the following effects of these work attitudes of the design team on the services delivered by the quantity surveyors. The hostile and unfriendly relationship exhibited by designers in a design team increases work pressure/stress for the quantity surveyors especially at insufficient information/details in the designer's products (working drawing). This wrong attitudes toward the quantity surveyors has brought constraints to the profession's awareness in Nigeria, even many do not see the need for the Quantity Surveyor. Commissions opportunities at times are loss by quantity surveyors due to these harsh attitudes of team members especially from the architect. The hostility, unethical and poor team spirit exhibited by design team has efficient reducing effects on the service offered by the quantity surveyors.

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