



PERFORMANCE EVALUATION OF CONSORTIA ON BUILDING CONSTRUCTION PROJECTS IN LAGOS

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ABSTRACT

Construction industry is one of the key industries in every nation, being a key contributor to country's economy that supports economic growth and is an instrument to achieve economic goals. One of the main objectives of embarking on a building construction projects by any building owner is to get satisfaction at the completion of the project. This has resulted to the emergent of professional consortia in building construction to offer a joint professionalism. In Lagos the satisfaction level of client on building construction is still far to attain its goal. The gap between the need to improve client satisfaction on building projects is yet to be filled. Data were collected through questionnaire survey and analysed using descriptive analysis. Results show that completing the project within the projected estimated cost, Client assessment on quality of materials and Employer's involvement during construction phase are the most effective strategies that improve client satisfaction on building construction projects. The study concluded that using the listed strategies by the consortia for a building project will improve client satisfaction. Recommended that the established strategies should be applied on building construction in order to improve client satisfaction.

Keywords: Building projects, Consortia, client satisfaction, Lagos

1 INTRODUCTION

The construction industry is multifarious in its nature because it comprises large numbers of groups as owners (clients), contractors, consultants, stakeholders, and regulators, despite this complexity, the industry plays a major role in the development and achievement of society's goals also. It is one of the largest industries and contributes to about 10% of the total national product (GNP) in industrialized countries (Navon 2005). The construction industry is one of the most important industries in every country (Aziz and Abdel-Hakam, 2016), being a major contributor to country's economy (Alaghbari *et al.*, 2007) that supports economic growth and is an instrument to achieve economic objectives. It ensures common benefits to all groups involved by creating a collective situation, besides creating efficient teamwork. However, evaluation of the performance of partnering projects is still inconclusive. In construction industry today, the construction associating has become one of the major managerial forms utilized in important projects (Lin and Ho 2012). Due to the growing measure and complexity of construction projects, as well as technological innovations, groups have begun to set up associating to develop partner resources (Famakin *et al.* 2012; Zhao *et al.* 2012). Joint venture formation between construction companies has become one of the most commonly adopted methods in both developed and developing countries.

Popular building construction projects are those projects completed on time, within budget, in agreement with

specifications and to shareholders' contentment (Chua, 2011). Research was conducted to examine factors impacting on project operation in developing countries. Shortage of skills and He further observed that the evaluation of performance has been a challenge for the construction industry for decades. The Architects and contractors expect more on profits while the client are more interested in completing their projects on time and on budget (Heywood and Smith, 2006; Meeampol and Ogunlana, 2006). However, the contractor may have roles; for example, extra costs are importance when overtime is required, to complete a project within the tendered time structure (Risner, 2010).

On this theme, agreeing to Memon *et al.* (2014), instability in the prices of materials owing to increase is the most vital factor that affects construction cost performance. Any mistake or deviation of information relayed from the client to the Architect team may cause revise and generate unnecessary costs and schedule overruns to construction projects (Lopez *et al.*, 2010). Also, different viewpoints and know-how among several subcontractors require close communication and management in a construction project (Ye *et al.*, 2014). It is common awareness that the execution of the construction project in the industry is usually go together with with time delay and cost increase as well as client dissatisfaction (Hafez, 2001). Majority of construction clients are attracted in the cost of execution of their projects as the most usual question asked are "what is the cost of the project?" and followed by "can there be a drop in cost?" (Cunningham, 2014).



2 STRATEGIES USE BY CONSORTIA TO IMPROVE PERFORMANCE IN ENSURING CLIENT SATISFACTION

According to Basu (2004), quality professionals have different observations in defining quality such as fitness for purpose, right first time, what the customer wants conformance to standard, value for money and right thing at the right time and others. Therefore, quality is fundamental to high-performing organizations and organizations should focus on the quality of goods or services. Moreover, the organizations should emphasize the quality concept in the management practices of the organization (Evans *et al.*, 2008). Quality in the construction environment comprise with doing the job in time, achieved the requirement requirements and getting the job done within the budget given. The core factors involve with quality issues are the use of quality standard, administration commitment, communication, activities during project and planning and relationship between construction actors (Kandeil *et al.*., 2010). Quality and quality improvement have been receiving growing attention worldwide.

The need for doing quality of the final product in the construction environment is equal important to other industry. However, related to other nations, construction activities always related to discontinuous, dispersed, diverse and distinct. Therefore, the location of quality is more challenging to implement and improvement in quality is hard to reach (Albert *et al.*, 2003). The project quality is the key to success and the quality level of a project reflects the level of technology and management. The quality is divided into step taking, survey, design, construction, getting and application of process (Jiang, 2010). Moreover, the quality should also take into consideration of the financiers and social responsibility so as to keep viable advantage.

Additionally, a major quality task in the construction environment is relating the principles on the job site. Construction bids much more patchiness; each project represents a distinctive formula of plan, place, personnel, materials, weather, cost, and time. Idoro (2010) specify that the excellence of the project in the construction atmosphere are power by usual of workmanship, charge by the user on the quality of construction materials, level of faulty works and upkeep running costs of the project. Furthermore, the security of every construction edifice and the satisfaction of the investors hinge on the construction value. In Malaysia construction environment, the actual benefits of having quality are to improve the functionality and achieve a certain level of user satisfactions. Among quality matters involved in the construction environment are plan management practices, financial management and project success (Din *et al.*, 2011).

Quality task in Nigeria edifice atmosphere is related by those truly doing the work, offsite and on site events,

project running, construction process, training and education, collaboration, supplier enterprise, policies and recognitions (Sodangi *et al.*., 2010; Wan Mahmood *et al.*, 2006). Additionally, issues such as understandable and applicable plan, conformity of plan with the required requirement, finances of construction atmosphere, ease of setup and maintenance and energy productivity need to be measured in construction quality. The practices of quality in the construction atmosphere are also comprising the human resource management, supplier association, management assurance and information and analysis (Abdul Rahman *et al.*, 2010). Che Ali *et al.* (2010) highlight that the main issues in construction quality are the participation of the contractors in the construction process, optimise resources to emerge the final construction products, meeting the condition requirement and application of formal quality scheme. Quality task in Malaysian construction atmosphere is related by those actually doing the work, offsite and on site activities, project administration, construction exercise, training and education, collaboration, supplier corporation, policies and respects (Sodangi *et al.*, 2010; Wan Mahmood *et al.*, 2006). Guerrero De los Rios (2012) proposed a collective model to introduce learning skilled competence in project management for sustainable development.

The theoretical study of Mishra *et al.* (2011) foretold that the ethics approach would end in sustainability of projects, as it would upturn satisfaction and client loyalty, form agreement, union, trust, values and ethics among the team associates. Using literature analysis and dialogue survey methods, Hwang and Ng (2013) examined the critical awareness and expertise of project managers in deliver green construction. They believed these abilities were necessary for project managers to respond to project-related, plan interconnected, client-related, project team related, labour-related and external tasks.

Based on studies on hand drive projects, Baraki and Brent (2013) revealed the reason for project miscarriage was a lack of organized and viable awareness sharing practices among consortium. They suggested that the process and upkeep, awareness management and project life phase management style were crucial in order to establish a workable organized support system through a public private enterprise. Pietrosemoli and Monroy (2013) evaluated the connection between awareness management and possible construction and their control to reach sustainable objectives. The list of critical success influence (CSF) can help the project leaders to measure project performance and outcomes and correctly assign project resources (Chua, 1999; Cox *et al.*, 2003; Yu and Kwon, 2011).



2 RESEARCH METHOD

Some approaches use in the building construction projects to increase buyer were well-defined through a thorough literature evaluation. The strategies were tabulated into a questionnaire form. Then the draft questionnaire was discussed with three experts in construction industry to the questionnaire is divided into two main parts. Part I is related to general facts for the company. The surveyed consultant and contracting professional were bidden to answer questions pertaining to their experience in construction industry. Part II includes the list of the recognized strategies in building construction projects.

4 DATA COLLECTION AND ANALYSIS

120 professionals in consortia working on building construction projects were successfully questioned. The questionnaire gave each respondent a chance to identify variables that they perceived as likely to contribute to consortia performance by responding on a scale from 5 (very high) to 1 (very low). Participants then rated the frequency of occurrence for each variable on project that they have experiences on an ordinal scale: very high (5), high (4), moderate (3), low (2), or very low (1). The mean value from respondents, frequency rating, standard deviation. Frequency and descriptive analysis were identified using Table. Finally, some of the variables of strategies were identified using Figure.

5 TARGET POPULATIONS

The target population in this study was all professionals in the built environment practicing in both contracting and consulting organization as well in consortia. The professionals include, Architect, Quantity Surveyor and Builders. These are the participant who engages in building construction and majorly form built environment consortia.

6 SAMPLE SIZE

The population of this research was 150 and the sample size used for this research was 120. The percentage of sample size to the population was 80% after which 150 questionnaire were given out and 120 were retrieved from the respondent

7 DATA COLLECTION

7.1 DATA COLLECTION INSTRUMENTS

The data collection was by quantitative techniques in which the researcher used primary data that were collected through questionnaires. The questionnaires were given to the respondents by the researcher himself and retrieved after been filled by the respondents.

7.2 DATA PROCESSING AND ANALYSIS

The data for this study were analyzed quantitatively using percentages, frequencies and using linear. Statistical software called Statistical Package for Social Sciences was used to execute frequency and descriptive analysis. The results were presented using table's charts for ease of understanding. This allowed the researcher to interpret the findings and also generate recommendations from the findings.

8 RESULTS AND DISCUSSION

TABLE 1: POSITION OF THE RESPONDENT IN THE ORGANIZATION

Position	Freq.	Val. Perce	Cum. Perc	Cum. Percent
Junior Staff	17	14.0	14.2	14.2
Senior Staff	43	35.5	35.8	50.0
Management Staff	22	18.2	18.3	68.3
Principal/CEO	36	29.8	30.0	98.3
5	2	1.7	1.7	100.0
Total	120	99.2	100.0	
Missing	System	1	.8	

Source: Researcher's field work, 2018

The analysis of the questionnaire showed that, (14%) 17 out of 120 are junior staff, (35.5%) 43 out of 120 respondents were senior staff position in the company, (18.2%) 22 out of 120 were holding managerial position level and (29.8%) 36 out of 120 respondents on Principal/CEO level. This provides reliable data because these individuals are in the best position in the company to answer questionnaires as they are involved in everyday business activities of the company as far as procurement is concerned.

TABLE 2: YEARS OF EXPERIENCE OF THE RESPONDENT

Year	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	0 - 5	32	26.4	26.7
	6-10	35	28.9	29.2
	11-15	20	16.5	16.7
	16-20	14	11.6	11.7
	21-25	14	11.6	11.7
	above 25	5	4.1	4.2
Total	120	99.2	100.0	
Mis Sing	System	1	.8	
Total	121	100.0		

Source: Researcher's field work, 2018

As far as study questionnaires were concerned, the student wanted to know the strength of manpower in terms of years of experience, which gives sustainability of performance, (29.2%) 35 out of 120 respondents on range of 6-10 years, (26.4%) 32 out of 120 on range of 0-5 years, (16.5%) 20 out of 120 on range of 11-15 years, (11.6%) 14 out of 120 on range 16-20 years, (11.6%) 14 out of 120 on range 21-25 years and (4.1%) 5 out of 120 respondents are above 25 years. It shows maturity of manpower for willingness to take tasks and responsibility for benefit of the company.

TABLE 3: DESCRIPTIVE ANALYSIS OF THE STRATEGIES USED BY THE CONSORTIA FOR A BUILDING PROJECT TO MEET CLIENT SATISFACTION.

Strategies	N	M	Max	Mean	Std. D
Completing the project within the projected estimated cost	12	2	5	3.27	.896
Client assessment on quality of materials	12	1	5	3.26	.815
Completing the project within	12	1	5	3.24	1.037

the contract period Adherent to quality target	12	1	5	3.22	.791
Written approvals promptly	12	2	5	3.13	.898
Sustainable knowledge sharing practice	12	1	5	3.13	.809
Involvement of competent professionals throughout the stages of project	12	1	5	3.12	.842
Applying ethnic approach	12	1	5	3.11	.868
Clear and thorough project brief	12	1	5	3.10	.834
Thorough detailing of design	12	1	5	3.08	.866
Value engineering at conceptual phase	12	1	5	3.06	.892
Comprehensive documentation of variation order	12	1	5	3.03	.777
Appointment Project manager from an independent firm to manage the project	19	1	5	3.03	1.045
Effective leadership	12	2	5	2.98	.855

Employer's involvement during construction phase	1	1	5	2.97	.840
Management commitment	1	1	5	2.96	1.077
Variation logic and justification	1	1	5	2.91	.953
Effective good communication	1	1	5	2.90	.854
Clarity of Variation Order procedures	1	1	5	2.90	.858
Constant training and education of the consortia	1	1	5	2.87	.916
Valid (listwise)	N	1	1		
		9			

Source: Researcher's field work, 2018

The figure 3. shows the result of the descriptive analysis of the factors that determine the client satisfactions of the projects undertaken by the consortia in Lagos metropolis. It revealed that Completing the project within the projected estimated cost has 120 respondents that means all the participant actually rated it and it has total mean of 3.27 and standard deviation of .896, Client assessment on quality of materials also had 120 respondent that rated it and it has mean of 3.26 and standard deviation of .815, Completing the project within the contract period has total respondent of 120 and it has a mean of 3.24 with standard deviation of 1.037, Adherent to quality target has total respondent of 120, mean of 3.22 and standard deviation of .791, Written approvals promptly has a total respondents of 120, with mean of 3.13 and standard deviation of .898, Sustainable knowledge sharing practice has a mean value of 3.13 and standard deviation of .809, Involvement of competent professionals throughout the stages of project has a mean of 3.12 and standard deviation of .842, Applying ethnic approach has 3.11 and standard deviation of .868, Clear and thorough project brief has 3.10 and standard deviation of .834, Thorough detailing of design has 3.08 and standard deviation of .866, others has lower means and lower standard deviation.

TABLE 4: COMPLETING THE PROJECT WITHIN THE PROJECTED ESTIMATED COST

Rating	Frequency	Per cent	Valid Per cent	Cumulative Percent
Valid	Low	21	17.4	17.5
	Moderate	61	50.4	68.3
	High	23	19.0	87.5
	Very High	15	12.4	100.0
Total	120	99.2	100.0	
Missing	System	1	.8	
Total		121	100.0	

Source: Researcher's field work, 2018

Table 4. shows that completing the project within the projected estimated cost has 50.4% at moderate level, shows that completing the project within the projected estimated cost has 19.0% at high level, shows that completing the project within the projected estimated cost has 17.4% at low level, shows that completing the project within the projected estimated cost has 12.4% at Very high level.

Completing the project within the projected estimated cost has 50.4% at moderate level which was ranked highest which indicate that is one of the strategies which influence the performance of consortia on a building project in order to satisfy the client which is align with Gunduz *et al* (2013) mentioned that if the project meets the time target, stays within the estimated cost, is in accordance with specifications, and achieves stakeholder satisfactions, it is regarded as a successful construction project.

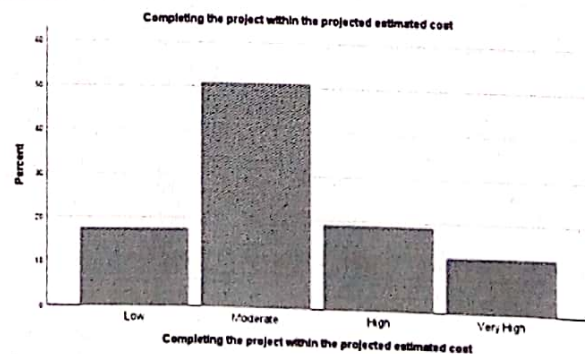


FIG.1. SHOWING PERCENT.

TABLE 5: CLIENT ASSESSMENT ON QUALITY OF MATERIALS

Rating	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	V. Low	2	1.7	1.7
	Low	14	11.6	20.8
	Moderate	63	52.1	65.8
	High	33	27.3	93.3
	Very High	8	6.6	100.0
Total	120	99.2	100	

Source: Researcher's field work, 2018

Table 4.6 shows that Client assessment on quality of materials has 52.1% at moderate level, Client assessment on quality of materials 27.3% at high level, Client assessment on quality of materials has 11.6% at low level, Client assessment on quality of materials 6.6% at Very high level, Client assessment on quality of materials 1.7% at Very high level.

Client assessment on quality of materials has 52.1% at moderate level which was ranked highest which indicate that is one of the strategies that must be used to improve on performance of consortia on a building project in order to satisfy the client which is align . Idoro (2010) specify that the excellence of the project in the construction atmosphere are power by usual of workmanship, charge by the user on the quality of construction materials, level of faulty works and upkeep running costs of the project.

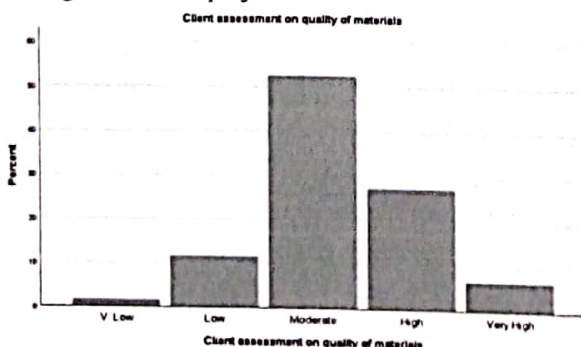


FIG.2. SHOWING PERCENT.

TABLE 6: VALUE ENGINEERING AT CONCEPTUAL PHASE

Rating	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	V. Low	6	5.0	5.0
	Low	19	15.7	20.8
	Moderate	64	52.9	74.2
	High	24	19.8	94.2
	Very High	7	5.8	100.0
Total	120	99.2	100.	

Source: Researcher's field work, 2018

Table 4.5 shows that Value engineering at conceptual phase has 52.9% at moderate level, Value engineering at conceptual phase 19.8% at high level, Value engineering at conceptual phase has 15.7% at low level, Value engineering at conceptual phase 5.8% at Very high level, Value engineering at conceptual phase 5.0% at Very high level.

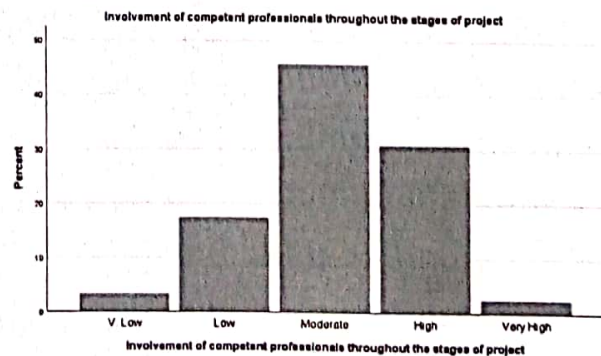


FIGURE 3. SHOWING PERCENT.

TABLE 7. APPLYING ETHNIC APPROACH

Rating	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	V. Low	5	4.1	4.2
	Low	20	16.5	20.8
	Moderate	56	46.3	67.5
	High	35	28.9	96.7
	Very High	4	3.3	100.0
Total	120	99.2	100.	
Missing		1	.8	
	Total	121	100	

Source: Researcher's field work 2018,

Table 4.5 shows that applying ethnic approach has 46.3% at moderate level; applying ethnic approach 28.9% at high level, applying ethnic approach has 16.5% at low level, applying ethnic approach 4.1% at Very high level, applying ethnic approach 3.3% at Very high level.

applying ethnic approach has 46.3% at moderate level which was ranked highest which indicate that is one of the strategies that must be used to improve on performance of consortia on a building project in order to satisfy the client which is align with the theoretical study of Mishra *et al* (2011) foretold that the ethics approach would end in sustainability of projects, as it would upturn satisfaction and client loyalty, form agreement, union, trust, values and ethics among the team associates.

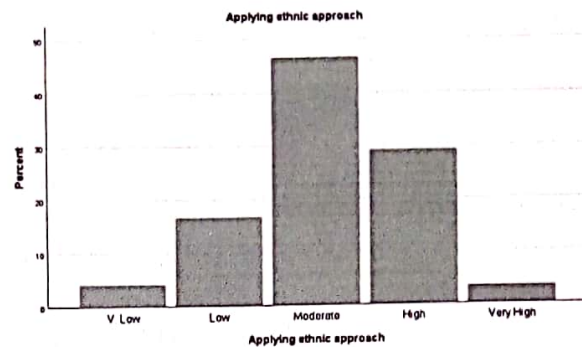


FIGURE 4. SHOWING PERCENT.

8 Conclusion and Recommendations

8.1 Conclusions

Effective use of performance strategies for building project by consortia at very great level will improve the level at which client will have confidence and accept the building project concede by the consortia and not only that but also would be satisfy with their products . The study concluded with an illustration using descriptive table and also with bar chat for clear and easy understanding of the importance of application of performance strategies using by the consortia.

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