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Research Paper

Perceptions of attributable factors for clients' satisfaction in building construction Projects in Nigeria.

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ABSTRACT
Clients' satisfaction can be seen either as a goal or a measurement tool in the development of construction industry. However construction projects are of multiple and specific objectives which must meets clients needs and satisfaction. Many clients are often dissatisfied with their project outcomes. Thus this study investigate the attributable factors that influences client satisfaction in building construction projects. The data used in this research were sourced from both primary and secondary sources. The primary data was collected through a questionnaire aimed at clients (private), practicing construction professionals in the Nigerianconstruction industry which are architects, Quantity surveyors (QS), civil engineers, and building engineers. Indicative findings from the questionnaire survey established the variance degree of the attributable factors as it contributes to clients satisfaction in building construction projects. The study therefore establishes the type of factors that significantly influences clients satisfaction and recommended that project participants should endeavor to promote its success in their project execution.

KEYWORDS: *Clients, contractors, construction process, factors, satisfaction, performance,*

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I. INTRODUCTION

In construction, the client is often taken as the person or organisation that procured a project and this paper is based on this understanding. The satisfaction of clients is characterised by the delivery of services or products that match or exceed their expectations (Rashvand and Majid, 2014).

Determining satisfaction in construction project is complex and subjective. It has received a considerable attention in recent years.Satisfaction in construction is manifested in different ways which includes poor, non sustainable workmanship, unsafe structures delays and cost overruns and disputes in construction works.

Many researchers have recognised client satisfaction to quality of construction projects as a challenge to quality improvements in the construction industry. Client satisfaction is therefore very critical and considered to be a catalyst for client retention which is a success strategy for any organisation. However contractor's performance is critical to any construction project as it is the contractor who converts design to practical reality (Abayomi and Akinloye, 2014). Meng, 2012 submits that for effective collaboration, use of project management approaches and communication between the project manager and other stakeholders enhances client satisfaction.

Furthernore, improved contractors performance leads to increase client satisfaction, which is an improvement in the reputation of contractors and hence their competitiveness in the market. Many clients are becoming knowledgeable of the ranking of contractors performance in construction projects based on their historic performance. Literatures links client satisfaction with: i) many attributes, and ii) project success. Sometimes the distinction between the two is blurred, particularly that client satisfaction in the construction industry is often associated with successful project delivery (Soetanto et.al., 2001).

In the UK economy construction industry has remained a key as it contributed approximately 7% of gross domestic profit (GDP) (construction strategy 2021). In Malaysian, the construction industry contributes 5.95 to GDP in 2017 while in quarter 1 of 2020, the sector contracted 6.2%. Barrett (2000) asserts that quality is what separates the good from the bad and when construction projects are embarked upon with multiple but specific objectives to be achieved the client's needs and their expectations remains paramount.

The industry faces a lot of criticism due to cost overruns, disputes, delayed project delivery, high accidents rate and poor performance. These challenges are the result of poor quest for quality and investment in the construction process via increased pressure and demand for high quality project and delivery to meet clients satisfaction.. In ensuring quality of service delivery in construction projects, the contractors and firms need to implement ISO9000 quality assurance standards which enables supply for a quality assurance and to present a common and widely accepted standards for evaluation of quality standards (Nzekwe-excel, 2015).

Thus under achievement (low construction quality) can be seen in the growing dissatisfaction with construction among both private and public clients. Many of the construction projects are widely seen as unpredictable in terms of timely delivery within budget and to the standards of quality expected (CIDB 2020).

In developing and developed countries failure, meting clients satisfaction in building construction project is not unique and the international federation of consulting engineering (FIDIC) notes that, failure to achieve appropriate quality to meet clients satisfaction in construction is a problem worldwide. The problem is serious and evident in both developed and developing countries (CIDB,2011). Clients in any particular sector should not be complacent with not being satisfied with the quality of construction on their projects rather clients should strive for better value and higher quality construction.

However, contractor, performance in projects to achieve quality is one of the most important elements in building project. Abayomi and Akinloye (2014) emphasized that the major indicators of contractor; performance is client satisfaction and poor contractors performance is characterized by poor work quality and low productivity that is common to construction industry.

Clients are the reason that the construction industry exists. Therefore the industry cannot exist without the client. In actual fact, client and the construction industry is not one of mutual enjoyment but the quality product of the industry must satisfy the client.

Tunde and Awodele (2015) indicates that project manager's skills and perceptions in managing different construction activities effectively contribute to project success and client satisfaction. Meng (2012) agrees with this view, explaining that the perceptions and ability of project managers can correctly identify any undesirable aspects in construction works and help remove faulty aspects that do not meet a client's requirements. Many authors have proposed the importance of the clients to the construction industry but the perception of clients and the construction professionals to evaluating the factors that contributes to clients satisfaction has not been probably investigated especially in the developing countries. Abayomi and akinloye (2014) and Meenakshi (2016), submitted that clients plays a pivotal role in the procurements of construction activities and the implementation of the construction projects. The aim of this research is to evaluate the deepen understanding of factors that contributes to clients satisfaction in building construction projects in Nigeria construction industry.

Hypothesis statement

The following hypotheses are to be tested during the research. H_0 (null hypothesis) and H_1(alternative hypothesis):

H_0- The attributable factors does not have significance influence clients satisfaction in building construction project

H_1- The attributable factors does have significance influence clients satisfaction in building construction project

Over view of Nigeria construction industry

In Nigeria, the construction industry is characterized by small and medium-sized local contractors who in most cases engaged in residential projects for private clients. Tunde and Oluwaseyi (2015) identified the construction client as a customer and groupedthem into two broad categories namely; public sector clients and private sector clients. The public sector clients are made up of corporations, government parastatals that engage in construction projects. . Irrespective of the type of client whether public or private and despite the kind of organization; big or small, regular or oneoff, clients have their unique requirements and value systems (Olaleke et.al., 2018). Popular studies refer to construction client as the only party whose opinion matters at the end of the day.

A construction project typically undergoes three stages known as the preconstruction stage, the actual construction stage and post construction stage. However, beyond these stages, a number of activities are carried out in order to achieve the client's aim and the desired output. This thus makes it very necessary for the construction team to gauge and evaluate the performance of all activities involved in the process of the project (Love et al., 2005). Love et al., (2005) believes that a project's success may be judged as a product of the process, as well as the process's presence (Oke et al., 2016). To define or measure the success of a construction project is determined by the project's adherence to schedule, time, specifications, budget and basic performance as well as meeting the set objectives set out for the project as well as the client's aim (Oke et al., 2016)

Regrettably, like many parts of world according to Olatunji,(2006), the Nigerian construction industry is yet to recover from the avalanche of its wicked perpetual failures to salvage the economic resources often

wasted in overruns of time and cost, substandard work and shoddy workmanship, client-contractor-practitioner's acrimonious relationships and non-performance of projects as envisaged by client or end-users in term of health and safety to juxtapose or commensurate huge resources, expectation, interest and respect invested in the industry by the public. However, Sequel to the complex nature of construction clients' requirements, which at times might be crude and ambiguous, construction professionals reserve the absolute responsibility, trust and expectation of the clients to indemnify clients' rights against certain sensitive negative indicators with respect to project success.

Concept of Client Satisfaction

Poor quality in construction is a problem and client satisfaction varies between projects (public and private). Moreover, the identification of the appropriate means of construction project delivery has also provided an ongoing debate among researchers; this is because the scope of the projects is quite diverse and their development involves multiple stages and processes. There are two classes of clients; they are the (i) private (ii) public clients. The individual clients‟ consists of all private developers, corporate organizations, private property owners, etc.; while the public client is mostly governmental agencies and parastatals. These categories of clients can be categorized into three groups of the informed client, semi-informed, and uninformed client. The informed client understands that satisfaction is directly proportional to cost, quality, and time; and can measure or ascertain the accomplishment of the required level of satisfaction. The semi-informed clients also understand the relationship between cost, quality, and time, however, such clients cannot measure the degree of satisfaction. The uninformed client does not even know whether such relationships exist. It is important to note that there are several stakeholders involved in the procurement process. Shruthi. et al (2017) submits that satisfying clients is key in projects and can be seen as either a goal or a measurement tool in the development of construction quality. Client satisfaction typically leads to relationship strength. Karna and Junnonen (2016) emphasized that clients satisfaction is the key to securing loyalty and generating superior long-term performance. In essence it is found to be profitable to construction companies.

The research findings emphasize that firms that satisfy their clients enjoy superior economic returns. Thus, firms use various forms of approaches to client satisfaction and which has several benefits for the Organisations which include the followings:

- Improvement in communication between parties and enable mutual agreement.
- a recognition of the demand of improvement in the process
- better understandings of the problems in construction
- adequate evaluation of progress towards the goal
- proper monitoring and reporting accomplished result and changes.

However, in construction industry, researchers submitted that there are no common methods of measuring clients/customer satisfaction. Torbica and Stroh (2001), Karna et al (2004), emphasized that there are little or no discuss on client satisfaction in construction industry and that the focus of research literature has been on customer satisfaction on goods and services.

Karna (2004), submitted that the importance or taking into account business-to-business marking as being complex in consumer's marketing as many people and procedure are generally involved. Thus the creation of a common satisfaction measurement and procedure is important in construction where project organisations and collaborative relationship often are of a 'one-off nature'.

Karna et al (2004) reiterate that in construction the relationship between client and contractor constitutes a multilevel complex in which parties operate and collaborate with in-groups networks. Therefore, client satisfaction in construction should be understood as a relationship specific rather than a transaction specific construct. In contrast to other areas of production where there is long term relationship between the client and supplier. The relationship in construction is periodic and dependent on the duration of the project.

Researchers in construction concluded that the customer relationship management models used in product manufacturing will not produce the best in construction as there is mutual cooperation between the clients/ customer and contractors. Clients / coustomers performance has a major and considerable implications on the outcome of construction project. Moreover, the importance performance analysis suggest that contractors need to improve their performance in most aspects of the construction delivery though the clients and architects considered completion of defects as a priority in performance of the contractor in maintaining high quality.

Barret (2008) highlighted that clients satisfaction is the ultimate measure of construction quality and will be achieved if construction companies (firms) addresses full range of quality dimensions that impact on the client (customer). The client satisfaction experienced with constructed facility and the contracting service defines project-level quality in construction (Yasamis et al. 2002). It is a desire or want of what client (customer) feel that a service provider (contractor) should offer rather than would offer.

In construction, expectations and perceived service quality are the functions of customers/ clients satisfaction. These expectation create a frame of reference by which one makes a comparative judgment and

gains satisfaction. Karna et al (2004) submitted that clients compare the perceived performance of a service with some performance standard and the dissatisfaction is perceived when the performance falls short of the standard (negatively disconfirmed). Therefore, when quality is ambiguous or difficult to evaluate, then expectations play a greater role in determining satisfaction.

Thus, the customer/clients play an important role in evaluating the performance of contractor. Therefore, client satisfaction in the construction industry can be premised on how well a contractor meets the client's expectations.

Meanwhile, clients/customer can express requirements and the said requirements is to be accomplished by a contractor and yet may be dissatisfied or partially satisfied due to its fluidity (Mbachm and Nkado, 2006). Campbell and Zhn (2008), emphasized that clients, consultants (designers) and contractors could perceive success criteria differently and thereby impacting on the assessments of the project success and by extension client satisfaction (Lai and Lam 2010).

Clients satisfaction determinants

Clients satisfaction can be checked by inquiring from them directly and indirectly by (i) repeat business (re-use) and use referrals from a clients. Thus, Soetanto et al (2001) submitted that referrals and re-use of contractor are especially more applicable to private sector procurements as most public sector procedures tend to follow strict competitive rules that may not allow these practices. The attributable actions that promotes the quality and standards of work includes; better communication and team leadership approaches, and consequently limit project cost overruns and delays. Keeping a track record and providing management support by contractors further contribute towards client satisfaction (Alzahrani and Emsley, 2013; Nikakhtar et al., 2015). Then, achieving these attributes as a guide generates trust, greater confidence, use of more effective work procedures, improved quality of project outcomes, meeting of project deadlines and consequently client satisfaction

Though clients are the major initiator of any projects and any project initiator is expected to have her goals for such construction project as the satisfaction is of many attributes. Most often, success factors, and by extension client satisfaction criteria, are established at the beginning of a project and tend to remain fixed whereas some of these evolve over time and are often not updated. The satisfaction level are the measures of differences between expectation and level of performances.

In attesting to client expectations, the client make a decision to select a particular contractor to provide construction services. The top-managers of firms discusses with the owner/clients as the most effective method to establish clients expectations and relatedly use preconstruction meetings to establish the expectations, determine their needs and define team interaction (Fawaz et. al. 2020).

Pre-construction phase is one of the vital stages in construction process as detailed information is necessary for construction at this phase to enable a tender. This will include identification of the building procurement approach to be used and appreciation of statutory approvals as well as identification, evaluation and appraisal of collected tenders and submission of recommendations to the project client (Barret 2000 amnd Chan et.al.,(2004).

Furthermore, when whole project life cycle is considered including financial, environmental, and social costs during planning, design, construction operation, maintenance, renewal and rehabilitation stages, a number of benefits will lead to achieve clients satisfaction. These benefits include:

- Ensuring that business needs justify project cost
- Optimizing the total cost by balancing initial capital and running cost.
- Identifying risks that may affect achieving project objectives and
- Promoting discussion and recording of decisions about the durability of materials and components at the outset of the project (Ayman 2004).

Meenakshi (2016) stated that clients satisfaction in construction industry can be achieved by adopting flexible procurement approach as it helps reducing the time traditionally needed for design and preparing tender documents, reducing the rapidly spiraling cost of construction, minimizing the high interest rate period, meeting clients' demands of better value for money and an earlier return on investment. The flexibility procurement approach also helps in utilizing the vast amount of knowledge and practical experience of contractors at early stages of the project life cycle which makes a valuable contribution to a successful outcome (Rashvand and Majid,,2014). Torbica and Stroh (2001) argued that the level of customer satisfaction is evident to stakeholders late in the project when most of the clients budget has already been expended, therefore, making clients‟ satisfaction a major problem.

Therefore, many researchers consider satisfaction as an overall summary measure, an overview while others feel that satisfaction is measured best by a continuation of facet or attributes and cells building. Furthermore according to Olaleke et al., (2018), previous research has identified several factors that determine client satisfaction. Many of those are associated with service providers‟ performance or service quality and

clients‟ strategic decisions, which include: (1) Inability of consultants to accurately determine client requirements and transform into reality. (2) Understanding of the client needs client orientation, communication skills and response to consultants‟ feedback. (3) Service quality factors and cooperation of service providers recognized four important clients‟ needs in the built environment, which are functionality, safety, quality, and completion time. However, Boyd and chinyio (2006) emphasized that customer satisfaction can be length of as a single overall evaluative response that represents a summary of subjective responses to many different facets. In design customer satisfaction promised on translation of customer requirements into design that specifies technical characteristics, functional performance criteria, quality standards and the completion of the project within a specified and in most cost effective manner.

The construction phase consists of two main stages namely, mobilization and construction to practical completion. Mobilization stage comprises of the selection of contractor, issuing of the building contract and site handover to the contractor is arranged. Afterwhich the actual construction work is carried out with the bulk of project fund spent, technical characteristics, functional performance criterial quality standard and the completion of the project with a specified time and in most cost effective. This stage also includes contract administration, providing the contractor with further information needed to carryout the project.

The Clients (customers)satisfaction could be achieved during this phase if the contractor performance is according to the approved rates and project progresses with the agreed time frame cost and quality standards.

II. METHODOLOGY

The aim of the research is to investigate attributable factors that contributes to clients satisfaction level in building construction projects in Nigeria construction industry. In achieving the objective, a survey research design approached was selected the structural questionnaire was prepared and perceived factors for satisfaction by the clients were measured.

The targeted population for the research comprises of the private clients and the professionals in the construction industry that understands the concept of construction quality in the built environment. These professionals are registered with their various professional bodies and are involved in the management and supervision of building projects. Furthermore they must have commissioned at least a project in the last two years. The private clients also include those that do not appoint contracting management process for their building construction work.

The respondent were purposively selected and 120 questionnaires were administered but 90 responses were found useful. The respondents comprises of clients (private), Architects, Quantity Surveyors, Building Engineers and Civil Engineers. Data collected were anlaysed using frequency analysis and the weighted mean score (WMS).The self-administered questionnaire was designed to capture the required data. The questionnaire included items about the respondents demographic data, qualifications and attributable factors that can influence clients satisfaction in building projects . All responses were checked to ensure completeness and readability before proceedings with its analysis.

The WMS analysis was employed to anlayse the strength of the factors that were perceived to influenced clients satisfaction. A number of factors (33) were listed and a 5 – point Likert scale questionnaire was designed to capture the respondents perception for clients satisfaction. The point ranges from 1 to 5 which represents and not limited to

- Giving importance to aesthetics
- Giving priority to operational performance characteristics of the facility
- Perceiving quality as an essential of overall clients satisfaction
- Personnel protection equipment
- Camp frame to safety regulations on site
- Availability of safety director
- Availability or safety plan
- Accidents; investigation and documentation on the site
- Management and construction of subcontractors and suppliers
- Strength of contractors site team
- Material management
- Equipment and plant management.
- Skills of the contractor's worker
- Project management performance and authority

III. FINDINGS AND DISCUSSIONS

Respondents Demographic analysis

Table 1&2 presents the no of the responses and percentage of the gender distribution of respondents The respondents comprises of the Clients, Architects, Quantity Surveyors, Civil engineers (Structures) and

Building engineers, The table shows that the most prominents respondents for the study were male (81%) while the female respondents constitutes 19% of the study.

Table 1.0- Category of respondents

Respondents	**No of Responses *(N)***	**Frequency Male*(M)* Female *(F)***	**Percentage %**
Clients	25	M = 16	64
		F = 09	36
Architects	20	M = 18	90
		F = 02	10
Quantity surveyors	15	M=10	66.7
		F=05	33.3
Civil Engineers	10	M=09	90
		F=01	10
Building Engineers	20	M=20	100
		F=00	00
Total	90	Male=73 Female=17	81 19

Table 2: percentage of gender distribution of respondents.

	Frequency	**Percentage**	**Valid Percent**	**Cumulative percent**
Valid				
Male	73	81.1	81.1	81.1
Female	17	18.9	18.9	100.0
Total	90	100	100	

Table 3 presents the age group of the respondents. 28.9% of the respondents are between 30-40yrs, 36.7% constitutes 41-50yrs while 34.4% are 50yrs and above. The majority of the respondents occupies the age bracket of 41-50yrs of age.

Table 3: Age group of respondents

	Frequency	**Percentage (%)**	**Valid Percent**	**Cummulative percent**
Valid				
30-40	26	28.9	28.9	28.9
41-50	33	36.7	36.7	66.7
50 and above	31	34.4	34.4	100.0
Total	90	100.0	100.0	

The self administered questionnaire was design to capture the required data. The questionnaire included items about the respondents demographic data, qualification and attributable factors that can influence clients satisfaction in building projects. All responses were checked to ensure completeness and readability before proceeding with its analysis.

Table 4 presents the responses on the building project that were commissioned by the respondents in the last four years. It revealed that 28% of the clients, 40% of the Architects, 53.3% QS, 40% CE, while 50% BE have commissioned at least one building project in the last two years. This infers that the professionals have all delivered a building project and they are not novice to the concept of satisfaction.

Table 4: Building projects commissioned in the last two years

Respondents	**No of building project**							
	1	**%**	**2**	**%**	**3**	**%**	**>3**	**%**
Client's	07	28	14	56	04	12	00	00
Architects	08	40	05	05	05	25	02	10
QS	08	53.3	02	13.3	05	33.3	00	00
Civil Engineer(CE)	04	40	02	20	02	20	02	20
Building Engineer(BE)	10	50	03	15	05	25	03	15

Table 5: Typology of building project

	Residents		**Hotels**		**Office complex**		**Religious building**		**Institution project**		**Public building**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Client's	18	72	01	4	02	8	02	8	01	4	01	4
Architects	10	50	02	10	01	5	01	5	05	25	05	25

QS	06	40	03	100	02	13.3			03	100	02	13.3
Civil Engineer	07	70	01	10	-		-		01	10	01	10
Building Engineer	16	80	02	10	-		-		01	5	01	5

- **F= frequency * %= Percentage**

Table 5 reveals that the typology of the project undertook by the respondents to ascertain their knowledge in executing building project jobs. The findings revealed that the 12% of clients was involved in residential building projects, 80% of the building engineer were involved in the in the delivery of residential typology of building. Furthermore the findings revealed that 50% of the Architects were involved in residential project and 13.3%,20%, QS got involved in office complex and institutional projects respectively. The table revealed that all the respondents has been involved in the delivery of different type of building projects.

The respondents were asked on what extent does the following factors contributes to clients satisfaction in building construction projects in likert rating of 1-5 (1= not very important (NVI) 2= Not Important (NI), 3= Neutral (N), 4= Important (I), 5=very important (VI)).

Table 6: Attributable factors that contributes to clients satisfaction

Factors	**unsure**	**1**	**2**	**3**	**4**	**5**	**MS**
		NVI	**NI**	**N**	**I**	**VI**	
Pre-construction stage							
Development of brief for the project	0.0	0.0	0.0	8.3	19.4	66.7	4.30
Procedures and coordination requirement before communication	4.5	14.8	25.0	34.1	13.9	5.7	2.71
Plan of work and method statement	0.0	0.0	1.2	4.2	66.7	28.0	4.01
Contractors past experience	0.0	0.0	0.0	13.9	20.8	65.3	4.50
Construction stage							
Site organization and cleanliness	0.0	1.1	11.4	0.0	31.9	55.6	4.28
Project control monitoring process	0.0	1.1	12.2	2.2	41.1	43.3	4.20
Cost control	0.0	1.0	5.6	0.6	17.8	58.3	4.10
Provision of updates on work as it progress	1.4	1.7	19.0	2.8	31.8	44.7	4.20
Adherence to Schedule	0.0	0.0	5.1	8.7	49.1	36.5	4.23
Conducting value engineering to reduce cost optimizing available alternatives	0.0	0.0	0.0	13.9	65.3	20.8	4.50
Meeting and exceeding all specifications conformance requirement	0.0	0.0	0.0	13.9	27.8	58.3	4.40
Giving importance to aesthetics	0.0	4.2	5.6	23.6	37.5	26.4	3.87
Giving priority to operational performance characteristics of the facility	0.0	0.0	0.0	29.2	59.7	9.7	3.8
Compliance to safety regulations on site	0.0	0.0	0.0	2.8	16.7	62.5	4.0
Availability of safety director/officer	0.0	0.0	23.6	2.8	52.8	15.3	3.94
Availability of safety plan	0.0	18.1	0.0	4.2	22.6	55.2	3.92
Accounts or investigation and documentation site.	0.0	0.0	0.0	9.7	56.9	33.4	4.30
Perceiving quality as an essential foot or overall clients satisfaction	0.0	0.0	1.1	11.1	55.6	32.3	4.30
Personal protection equipment	0.0	0.0	1.1	11.1	28.0	66.7	4.0
Management and coordination of subcontractors and suppliers	0.0	1.1	1.1	1.1	36.5	40.3	4.30
Strength of contractors site team	0.0	0.0	6.9	8.3	75.0	9.7	4.20
Material Management	0.0	0.0	1.4	1.4	32.4	64.8	4.81
Equipment and plant management	0.0	0.0	0.0	27.3	34.3	54.5	4.32
Skills of contractors workers	0.0	0.0	0.0	0.0	9.10	72.7	3.73
Project management performance and authority	0.0	9.1	18.2	0.0	27.3	15.4	4.08
Handover							
Completion of defects (spend and quality)1	0.0	0.0	0.0	4.0	56.0	40.0	4.4
Process variation	0.0	0.0	10.3	21.5	32.2	35.6	3.93
Quality of hand over documentation	0.0	8.0	33.0	0.0	33.0	78.2	3.43
Completing stage, finishing and ease of handover	0.0	0.0	2.30	21.6	25.0	51.2	2.43
Settlement of final account	0.0	1.1	11.5	10.3	35.6	41.4	3.22
Smoothness of operation and handover	0.0	0.0	6.0	6.0	50.0	38.0	4.30
Responsiveness to clients	0.0	0.0	0.0	15.2	56.2	28.6	4.3
Corporate hospitality and generosity in relating with the client and his representation	0.0	0.0	1.1	1.1	51.8	46.0	4.2

The respondents are of the opinion that each factor generates clients satisfaction in building construction projects. However, where the MS>3.00, the factor is deemed to satisfy from not very important(NVI) to Very important (VI).These suggests that the attributable factors does contribute to clients satisfaction in building construction projects. In table 6.0, it is note worthy given the percentage response that Thirty two (32) factors out of thirty three(33) which makes 96% have their MSabove 3.0. Thus 3% of the factors have their MS

falls below 3.20 while 18(54%) factors falls within the range ≥3.20≤4.20 between important and very important. 42% of the factors falls within the range ≥4.20≤5.20. This suggests that the factors deemed to contribute to the clients satisfaction with its high rate of importance (Very important) scale.

The factors were subjected to inferential and descriptive statistics with a significance level of 5% with reference to H_o(null hypothesis) and H_1(alternate hypothesis). The table below presents the mean relative to the hypothesis.

Table 7:Mean relative to hypothesis

Attributable Factors in construction stages	N	Mean	STD Deviation	Std error Mean
Pre-construction stage				
Development of brief for the project	90	4.30	0.703	0.091
Procedures and coordination requirement before communication	90	2.71	0.688	0.096
Plan of work and method statement	90	4.01	0.566	0.092
Contractors past experience	90	4.50	0.612	0.094
Construction stage	90			
Site organization and cleanliness	90	4.28	0.639	0.064
Project control monitoring process	90	4.20	0.566	0.079
Cost control	90	4.10	0.573	0.086
Provision of updates on work as it progress	90	4.20	0.581	0.091
Adherence to Schedule	90	4.23	0.653	0.079
Conducting value engineering to reduce cost optimizing available alternatives	90	4.50	0.612	0.086
Meeting and exceeding all specifications conformance requirement	90	4.40	0.722	0.104
Giving importance to aesthetics	90	3.87	0.707	0.099
Giving priority to operational performance characteristics of the facility	90	3.80	0.728	0.102
Compliance to safety regulations on site	90	4.00	0.456	0.065
Availability of safety director/officer	90	3.94	0.781	0.109
Availability of safety plan	90	3.92	0.728	0.102
Accounts or investigation and documentation site.	90	4.30	0.454	0.064
Perceiving quality as an essential foot or overall clients satisfaction	90	4.30	0.454	0.064
Personal protection equipment	90	4.00	0.566	0.081
Management and coordination of subcontractors and suppliers	90	4.30	0.722	0.104
Strength of contractors site team	90	4.20	0.544	0.077
Material Management	90	4.81	0.775	0.062
Equipment and plant management	90	4.32	0.712	0.053
Skills of contractors workers	90	3.73	0.815	0.061
Project management performance and authority	90	4.08	0.753	0.105
Handover				
Completion of defects (spend and quality)1	90	4.40	0.918	0.129
Process variation	90	3.93	0.809	0.129
Quality of hand over documentation	90	3.43	0.707	0.099
Completing stage, finishing and ease of handover	90	2.43	0.807	0.113
Settlement of final account	90	3.22	0.688	0.096
Smoothness of operation and handover	90	4.30	0.784	0.110
Responsiveness to clients	90	4.3	0.781	0.109
Corporate hospitality and generosity in relating with the client and his representation	90	4.2	0.895	0.125

The result of the significant level for the attributable factors with the value $p<0.05$ indicates that thanull hypothesis is rejected and if $p>0.05$ the alternative hypothesis is accepted. However with the sample mean value of 3.00 (constant reference value) it should be noted that the validnumber (N) refers to theactual responses while the df presented is the degree of freedom (df=n-1).

Thus in the analysis 95% confidence interval of the mean difference was adopted for the sample test.

Table 8: Significant level

One sample statistics				
	N	**Mean**	**Std deviation**	**Std error mean**
The attributable factors contributing to clients satisfaction	90	4.32	0.325	0.046

Table 9: Test of means against test Value (reference constant)

One Sample Test						
	T	**Df**	**Significance (2-tailed)**	**Mean difference**	**95% confidence interval of the difference**	
					Lower	**Upper**
The attributable factors contributing to clients satisfaction	24,529	89	0.000	1.118	1.03	1.21

In the analysis as presented in the tables above. The relative mean is significantly higher than the reference constant value 3.00 and with p value ($p<0.05$).H_o deemed to be rejected and H_1 deemed to be accepted indicating that the factors does have a significance influence in contributing to the clients satisfaction in building construction project.

IV. CONCLUSION

The study carried out an exploratory survey on the perceptions of clients and the professionals in the construction industry. Thirty three (33) factors were identified from the literature review and the questionnaire were administered.

These factors covers stages of construction that influences the satisfaction of the client in different context. Thus, it was evident from the literatures that satisfaction can only be measured by combination of factors with subjective responses.

The literature highlighted that client satisfaction is ultimate and as well defines subjective quality as well and therefore considered that the ultimate is the completion of defects as a priority. Therefore client satisfaction in construction should be understood as a relationship specific rather than transaction specific construct.

Having recognised that client satisfaction is an important phenomenon of the construction delivery process, contractors and organisation are to differentiate themselves from their competitors and create a sustainable advantage through quality delivery. Therefore it is evident from the analysis that there is a wide gap in the conference interval which implies that there is high influence of the factors as it contributes to client satisfaction in building construction project.

However based on the findings of this research, it is recommended that client satisfaction with quality must be sought in the delivery of building construction project. The management of construction should be mindful of factors that can contribute to job dissatisfaction. All project participants should endeavor to promote success of their project execution and promote mostly the factors that can influence job satisfaction for the clients.

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