

AN ASSESSMENT OF CLIENT SATISFACTION RELATIVE TO BUILDING PROJECT DELIVERY IN NIGERIA

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ABSTRACT

Purpose: The concept of customer satisfaction is regarded as the reason for companies' existence and operations. The underlying factor being continued improvement on quality and production. This study assessed the factors that are responsible for client satisfaction in building project delivery in the Lagos State of Nigeria.

Methodology: The primary data for this study was collected through a structured questionnaire survey, distributed to a total sample of 86 clients. Probability sampling techniques were employed for the selection of samples. Simple random sampling was used to select the actual sample size. The questionnaire was administered to the target population by post. Inferential statistics were used for the analysis of data.

Findings: The study revealed that high quality of final product is the most important factor responsible for client satisfaction. Next is project cost within budget, followed by project functionality and fitness for purpose. Top among the factors responsible for client dissatisfaction are cost and time overrun, inability of contractor to fully establish client's needs, and construction mistakes and defective works. These factors of client dissatisfaction lead to a considerable amount of rework.

Practical implications: Adequate attention to the factors responsible for client dissatisfaction by contractors will lead to prompt delivery of projects and continued patronage of the client.

Value: The application of the recommendations will lead to client satisfaction relative to the delivery of building construction projects.

KEYWORDS

Building project, Clients, Project delivery, Satisfaction, Dissatisfaction

INTRODUCTION

Construction processes are complex and the industry is becoming increasingly competitive in nature. Based on this, firms and organisations focus on meeting customer needs and expectations. Therefore, to have a competitive advantage over others, improved performance has become essential. Mbachu, and Nkado declare that the reason for a company's existence and operation is to satisfy the need of the customer [1]. In the construction industry, the client is the initiator of projects and requests the services of professionals to construct his intentions. The construction industry professionals that the client engages are architects, builders (contractor), engineers (electrical and mechanical) and quantity surveyors. The patronage of the client and the organisation's survival hinge on the quality of service and customer satisfaction provided to the client by the construction industry professionals engaged. According to Yasamis, Arditi and Mohammadi [2] and Palaneeswaran [3], customer satisfaction is considered as a dimension of quality in the construction industry. It is an indicator of project success. The minimal expectations of clients from construction professionals are accurate representation of inten-

tions from the architects, the translation of drawing to physical facility, cost within budget and construction duration as specified by the contractor. From the quantity surveyor, the client expects accurate estimating, and from the engineers, the client expects high quality service relative to installations and others. Customer satisfaction affords good organisation image, repeat purchase, a factor indicating project's success, increased market share and profitability levels. The concept of customer satisfaction is largely developed in the production sector and consumer services markets, and should be encouraged in the construction industry, as it engenders high quality products, which are of great importance in establishing a good client-firm relationship to foster greater success. In construction, customer satisfaction has been considered as a factor to measure project quality [2; 3] and an important factor indicating a project's success.

CLIENTS IN THE CONSTRUCTION INDUSTRY

The word client is subjective in definition, depending on the perspective in view. Boyd and Chinyio [4] state that a client is someone who freely chooses to avail himself of a service, and who contracts with other parties for the supply of construction goods or services. There are two types of clients; public and private. Private clients can further be divided into private private (home dwellings) and private commercial. It is important that private clients understand the design, procurement and construction processes. Clients provide valuable information which may help various participants to improve their performance on a project. Clients are either experienced or inexperienced. Client attributes and their project management approaches can have a significant effect on the attainment of project objectives. The importance of a client's influence in project performance can be accessed from factors identified by Lim and Ling [5], summarised as the client's understanding of the project constraints; ability to effectively brief the design team; ability to contribute ideas to the design and construction processes; and finally, ability to make authoritative and stable decisions quickly. Clients are central to the construction process and are considered the driving force in the construction industry.

FACTORS RESPONSIBLE FOR CLIENT SATISFACTION

In an effort to gain advantage in a competitive marketplace, improved quality has become one of the key issues companies have to work on for customer satisfaction [6] and [2]. Customer satisfaction is key to securing customer loyalty and generating superior long-term financial performance.

High quality product

Quality can be defined in two ways: conformance to requirements and customer satisfaction [7]. This definition explains that quality can refer to internal structure and outward appearance. In order to satisfy the customer both requirements of quality must be met.

On-time delivery

Timeliness is a basis for evaluating the success of a project and the efficiency of the project organisation. Completion of projects

on time is symbolic of an efficient construction industry. On-time delivery becomes an important factor for construction projects due to high competition [8]; continuous demand to build faster [9] forms the base to evaluate project successfulness and efficiency of the project organisation [10].

Cost within budget

Clients have become increasingly concerned with the overall profitability and accountability of projects generally. Cost overruns, in conjunction with project delays, are frequently identified as one of the principal factors leading to high cost of construction. Firms that manage construction costs and the ability of project teams to meet the clients' needs in terms of cost, and successfully integrate these components, may afford construction projects the realisation of significant, measurable and observable improvements in achieving clients' objectives.

Project functionality and 'fitness for purpose'

Chan [11] and Chan, Scott and Chan [12] consider project 'functionality' as one of the success measures in the post-construction phase once the project has been finished and delivered. According to them, project functionality correlates with expectations of project participant and can best be measured by the degree of conformance to all technical specifications. Kometa, Olomolaiye and Harris [13] regard client satisfaction in terms of the functionality of the finished product, meeting safety requirements, flexibility, time, and quality. A study conducted by Chinyio and Akintoye [14] recognise project functionality as building that is operationally efficient with the intended purpose, durable building and keeping existing buildings operational during construction.

Product free from defects

Construction defects are works performed that fall below the standard promised or expected by the client or purchaser. According to Mazier [15] construction defect is a broad term used for a wide range of conditions such as leaky, improperly installed windows or the presence of so-called toxic mould.

Value for money

Value for money is the optimum combination of whole life cost and project quality to meet a client's need and expectation, and value management aims to maximise the functional value of a construction facility to the clients.

Absence of any legal claims and proceedings

Whenever a project is completed without using jurisdiction to settle conflict, the construction project can be deemed successful and satisfactory to participants. Claims could arise from a breach of contract, additional works and so on. The absence of any claims or proceedings on projects is the major criterion to all parties (client, designer, and contractor) for measuring project satisfaction.

Level of effectiveness (achievement of outcomes)

Effectiveness measures refer to client satisfaction and the use of the project. It is the measure of the objectives earlier set by the client organizations [16]. A system (Building) is effective if it achieves its objectives and since construction projects are directed towards client's objectives, an effective construction project is one that meets its objective.

Labour productivity

Labourer efficiency and effectiveness is a measure of level of client satisfaction. An inefficient labour force will lag behind schedules and result in late delivery and increased project cost. Improved labour productivity, close supervision and good working relationships may be remedial measures for improving client satisfaction in the construction industry.

Information flow on site

The way and manner in which information flows from client to the project team may be poor or good. Poor information flow will adversely affect project delivery and this may not be in the interest of the client.

EFFECT OF CLIENT SATISFACTION ON CONSTRUCTION PROJECT DELIVERY

Based on the importance of the client's role in the delivery of projects, his/her satisfaction will greatly influence activities, either positively or negatively, in the industry. The following outcomes could result from client satisfaction:

- Growth and development of the industry;
- An atmosphere for growth and development of the nation; Torbica and Stroh [17] claim that a quality improvement effort will lead to higher product and service quality;
- Willingness to build, resulting from quality product production [2];
- New entrants into the industry;
- Increased number of skilled workers in the industry; and
- Increased activity in the industry.

FACTORS RESPONSIBLE FOR CLIENT DISSATISFACTION

There are serious implications relative to client dissatisfaction of construction products. Client dissatisfaction could stem from many factors, including poor workmanship, poor quality of product, late delivery of project, project cost overrun, bad communication between client and other professionals. These could lead to claims and litigation, disputes between client and other professionals, poor industry image and so on.

Several authors have identified the factors responsible for client dissatisfaction. These are, inability of contractor to fully establish client's needs, manifestation of defect, time overrun [18], lack of knowledge, cost overrun, poor contract management [19], poor team selection, unrealistic scheduling [20], unclear or understated objectives [5], lack of change control mechanism, poor material management techniques [21], poor site management, and construction mistakes and defective works.

THE EFFECT OF CLIENT DISSATISFACTION ON PROJECT DELIVERY

Client satisfaction is an important factor in construction process and client relationship. As the construction industry continues to face increasing competition, client dissatisfaction poses greater threat to the development and success of the industry. The effects of client dissatisfaction relative to project delivery include, negative reputation, claims and disputes between client and contractor, rework [22], project abandonment, project failure, lack of patronage [18], and late payment of interim certificate [23].

RESEARCH METHODOLOGY

This study was conducted in Lagos state of Nigeria. The sampling frame consisted of private, public and corporate clients registered with the state ministry of housing. A total of 100 questionnaires were administered to respondents, and 86 were returned filled, representing 86% response rate achieved. The sample frame consisted of private (50), public (30) and corporate (20) clients. Data for the study was collected through a well-structured open-ended questionnaire. The random sampling technique was employed in the selection of samples relative to the sample size. The questionnaire was administered via post and retrieved through posting. Most of the respondents (47.7%) were private clients. Respondents with years of experience between 6 - >30 represented 79%. Respondents with qualifications of HND, B.Sc, and PhD predominate (32.6%, 37.2%, and 15.1 % respectively). Most of the respondents have handled residential and commercial dwellings (67.4%). Descriptive statistics were employed in the analysis of data for the study.

Table 1: Factors responsible for client satisfaction.

Factors	Mean Score (MS)	Rank
High quality of final product	4.67	1
Cost within budget	4.58	2
Project functionality and 'fitness for purpose'	4.55	3
On-time delivery of final product	4.49	4
Value for money	4.48	5
Level of effectiveness (achievement of outcomes)	4.37	6
Information flow on site	4.37	6
High level of labour productivity	4.35	8
Product free from defects	4.09	9
Absence of any legal claims and proceedings	3.88	10

Table 2: Factors responsible for client dissatisfaction.

Factors	Mean Score (MS)	Rank
Cost overrun	4.58	1
Time overrun	4.49	2
Inability of contractor to fully establish client's needs	4.33	3
Construction mistakes and defective works	4.33	3
Manifestation of defect	4.31	5
Delay in delivery of materials	4.28	6
Poor site management	4.21	7
Lack of technical and managerial knowledge	4.21	7
Unrealistic scheduling of activities	4.16	9
Unclear or understated project objectives	4.10	10
Poor contract management	4.08	11
Poor workmanship	4.07	12
Lack of change control mechanism	4.06	13
Poor team selection	4.00	14
Poor material management techniques	3.87	15

DATA PRESENTATION AND ANALYSIS

This section presents the data obtained for this study and the analysis.

Table 1 presents the factors that are responsible for client satisfaction. High quality of final product with an MS = 4.67 is the factor with the most rating. The reason for this can be deduced to be organisation or individual investing money in a venture will expect value for money. Client will always prefer the best kind of service for his money. Quality of workmanship and standard of work will improve the quality of final product and this will increase the satisfaction level of the client. Cost within budget with an MS = 4.58 is the second rated factor of client satisfaction. This situation does not put client in the disadvantageous position of having to source additional funds to complete the project. Next in rating is project functionality and fitness for purpose with an MS = 4.55. The functionality of a project is an indication of good design, successful project, and money well spent. The least factor of client satisfaction is absence of any legal claims and proceedings. This factor has an MS = 3.88 and also measures the success rate of projects. Next to this factor is product free from defects with an MS = 4.09, although, this normally does not appear until the building has been in use for some time, which may be the reason for its rating.

Table 2 indicates the factors responsible for client dissatisfaction. Cost overrun, with an MS = 4.58 is rated as the highest of all the factors. The reason can be deduced to be as a result of the problem created. The rigour of going through borrowing from financial institutions, coupled with uncertainty and high interest rates, all discourage the client in the process of construction. Time overrun, with an MS = 4.49, is rated as the second highest factor of this construct. If the contractor cannot realise the project within stipulated time, returns on investment for the client will be deferred, client may be forced to spend money that was not planned for and this may not be in the interest of the client and have a negative impact on the project. Construction mistakes and defective works with an MS = 4.33 is the third most rated factor

of client dissatisfaction. Mistakes and defective works result in reworks, which lead to waste of materials and time, with a resultant adverse effect on the cost of project. It is an indication of poor quality product and low strength of components. The least factor of client dissatisfaction is poor materials management techniques with an MS = 3.87. This factor engenders waste, which increases cost. Next is poor team selection with an MS = 4.00. It leads to lack of understanding among team members and results in time wastage and delay which may dissatisfy the client.

Table 3 reveals the factors of the effect of client dissatisfaction on project delivery. Additional work, with an MS = 4.49, is rated highest of all the factors. This may stem from mistakes, defective work and change in taste of the client (as a result of not being able to correctly establish the needs of the client). Rework with an MS = 4.37 is rated next to additional work. Clients may request a rework when a contractor tries to cut corners leading to defective work. Lack of patronage with an MS = 4.33 is the third most rated effect of client dissatisfaction. When clients are dissatisfied with the level of the workmanship of the contractor, the client may decide not to patronise the contractor again. Project failure (MS = 4.06) and project abandonment (MS = 4.08) are the two least rated factors of client dissatisfaction. Client not receiving returns on investment, poor quality workmanship and product, and having to source additional funds to complete the project may be the source of these ratings.

DISCUSSION

The finding of this study when compared with those of other studies in developing countries, based on the fact that construction is carried out in a similar way and economy, having close GDP and foreign exchange value. Comparison was made with the study in [1]. This study assessed factors that lead to client satisfaction based on the services of each professional in the industry, namely, architects, construction project managers, and engineers. The following were the findings from the study of [1], which stems from three strands, architects, construction project

Table 3: Effect of client dissatisfaction on project delivery.

Factors	Mean Score (MS)	Rank
Leads to additional works	4.49	1
Leads to rework	4.37	2
Lack of patronage	4.37	2
Lack of loyalty	4.34	4
Leads to claims and dispute between the client and the contractor	4.33	5
Generate negative reputation (poor image)	4.28	6
Late payment of interim certificate	4.15	7
Delay in progress payment by owner	4.14	8
Leads to project abandonment	4.08	9
Leads to project failure	4.06	10

managers, and engineers. Relative to the architects, design tailored to suit client's budget, yet adequately addressing client's main needs. From the construction project managers, delivery within time, quality and cost targets, and from the engineers, safe and economic design. The top three factors leading to client satisfaction are, high quality of product, cost within budget, and project functionality and fitness for purpose. These findings are similar, suggesting that these factors have a major influence on satisfaction of client regarding project delivery. Professionals in the industry should pay adequate attention to achieving these factors during the processes of construction, as these could result in greater patronage of client, reflection of high quality products, and a good image of the industry to the public.

CONCLUSIONS AND RECOMMENDATIONS

Quality of products is mostly responsible for client's satisfaction. Other factors, such as cost within budget and project functionality and fitness for purpose, are factors that substantially lead to client satisfaction. These afford the opportunity for continued patronage and increase in industry activities.

Client dissatisfaction has adverse consequences on contractors and the image of the industry. These adverse consequences include: cost and time overruns, inability of contractor to fully establish client's needs, and construction mistakes and defective works. Prominent among the effects of client dissatisfaction are additional work, rework, lack of patronage and loyalty, and claims and dispute between client and the contractor.

Based on the conclusions, the following recommendations were made:

- Contractor should be quality conscious in order to ensure high standard products and mitigate mistakes and defective work;
- Contractor should ensure good administration and planning of the project to mitigate cost overrun;
- Designer should ensure that designs are functional and fit for purpose; and
- These measures will eliminate claims and disputes and ensure a healthy construction industry.

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