

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

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Abstract

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

Findings for the study revealed that high quality of final product is the most important factor responsible for client satisfaction, and 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's dissatisfaction will lead to considerable amount of rework. Therefore, recommends include that attention should be paid/given to the factors responsible for client dissatisfaction by contractors to completely eliminate them during construction.

Keywords

Building Project, Clients, Project Delivery, Satisfaction

1. Introduction

Construction processes is complex and the industry is becoming increasingly competitive in nature. Based on these, firms and organizations focus is on meeting customer needs and expectations. Therefore, to have a competitive advantage over others, improved performance has become essential. Nkado and Mbachu (2006) declare that the reason for companies' existence

and operation is: to satisfy the need of customer. 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 their services are, architects, builders (contractor), engineers (electrical and mechanical), and quantity surveyors. The continual patronage of a client and organization survival is hinged on the quality of service and customer satisfaction obtained of the Client, from the construction industry professionals engaged. According to Yasamis (2002) and Palaneeswaran (2006), customer satisfaction has been considered as a dimension of quality, in the construction industry. It is an indicator of project success. The minimal expectation of clients from the construction professionals are, accurate representation of intentions from the architects, the translation of drawing to physical facility, cost within budget and construction duration as specified from 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's satisfaction afford good organization 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 it should be encouraged in the Construction Industry, because it engenders high quality products and of great important to establish a good client- firm relationship to foster a greater success (Adams 2005). In construction, customer satisfaction has been considered as a factor to measure project quality (Yasamis, 2002, and Palaneeswaran, 2006) and an important factor indicating a project's success.

2. CLIENTS IN THE CONSTRUCTION INDUSTRY

The word Client is subjective in definition, depending on the perspective in view. Boyd & Chinyio (2006) quote Herm, (2001) who states that a client is someone who freely chooses to avail himself of a service, they contract with other parties for the supply of construction goods or services. There are two types of clients; public and private clients. Private clients could further be divided into private private (home dwellings) and private commercial. It is important that private clients understand the design, procurement, and construction processes. The clients provide valuable information which may help various participants to improve their performance on a project. Clients are either experienced or inexperienced. The client attributes and their project management approach can have a significant effect upon the attainment of project objectives. The enormous importance of clients influence in project performance can be accessed from factors identified by (Lim and Ling, 2002) given in summary as the clients 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 decisions quickly, and the stability of these decisions. Clients are central to the construction process and are considered as the driving force in the construction industry.

2.1 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 (Maloney 2002; Yasamis. 2002). Customer satisfaction is the key to securing customer loyalty and generating superior long-term financial performance.

2.1.1 High quality product

Quality can be defined through two main ways: conformance to requirements and customer satisfaction Barrett (2000). This definition explains that quality could be of internal structure and outward appearance. In order to satisfy the customer both requirements of quality must be met.

2.1.2 On-time delivery

Timeliness is a basis for evaluating the success of a project and the efficiency of the project organization. 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 (Kumaraswamy and Chan1995); continuous demand to build faster (Gidado, 1996) forms the base to evaluate project successfulness and efficiency of the project organization (Nkado, 1995).

2.1.3 Cost within budget

Clients have been increasingly concerned with the overall profitability of projects and the accountability of projects generally. Cost overruns, in association with project delays, are frequently identified as one of the principal factors leading to high cost of construction. Firms that are inherent in the management of construction cost and the ability of the project team to meet the client`s need in term of cost. The successfully integrated of these components, it may afford construction projects the realization of significant, measurable and observable improvements in achieving clients` objectives.

2.1.4 Project functionality and ‘fitness for purpose’

Chan (2000) and Chan, (2002) considers project ‘functionality’ as one of the success measures in the post-construction phase when the project is finished and delivered. According to them, project functionality correlates with expectations of project participant and can be best measured by the degree of conformance to all technical specifications. Kometa (1995) regards client satisfaction in terms of the functionality of the finish product, meeting safety requirements, flexibility, time, and quality. A study conducted by Chinyio (1998) recognises project functionality as building to be operationally efficient with its intended purpose, durable building and keeping existing buildings operational during construction.

2.1.5 Product free from defects

Construction defects are works performed that falls below the standard promised or expected by the client or purchaser of the work or services. According to Mazier (2001) construction defects is a broad term used for a wide range of conditions at a building such as leaky, improperly installed windows or the presence of so-called toxic mould.

2.1.6 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 maximize the functional value of a construction facility to the clients.

2.1.7 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.

2.1.8 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 (Abdel-Razek, 1997). 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.

2.1.9 Labour productivity

Labourer's efficiency and effectiveness is a measure of level of satisfaction of client. 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 relationship may be remedial measures for improving client satisfaction in the construction industry.

2.1.10 Information flow on site

The way and manner information flow from client to the project team members may be poor or bad. Bad information flow will adversely affect the delivery of project, and this may not be in the interest of the client.

2.2 Effect of Client Satisfaction On Construction Project Delivery

Based on the importance of clients as a result of his role in the delivery of projects, his / her satisfaction will greatly influence activities in the industry either positively or negatively. The following are some effect that could result in the industry as effects from clients' satisfaction.

They are:

Growth and development of the industry;

Creates an atmosphere for growth and development of the nation, Torbica and Stroh (2001) claim, that a quality improvement effort will lead to a higher product and service quality;

Willingness to ever build, resulting from quality product production Yasamis (2002);

Increase new entrants into the industry;

Increased the number of skilled workers in the industry, leading to non shortage of skilled workmen, and

Increase activities in the industry.

2.3 Factors Responsible For Client Dissatisfaction

There are serious implications relative to client's dissatisfaction of construction products. Client dissatisfaction could stem from many factors. Some of the factors that may result into this are poor workmanship, poor quality of product, late delivery of project, project's cost overrun, bad communication between client and other professionals. These may lead to claims and litigations, 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 (Mbachu, 2003), manifestation of defect, time overrun (Al-Momani, 2000), lack of knowledge, cost overrun, poor contract management (Frimpong, 2003), poor team selection, unrealistic scheduling (Trigunarysyah, 2004), unclear or understated objectives (Boyd and Chinyio, 2006), lack of change control mechanism, poor material management techniques (Kaming, Olomolaiye, Holt, and Harris 1997), poor site management, and construction mistakes and defective works.

2.4 The Effect of Client Dissatisfaction On Project Delivery

Client's satisfaction is an important factor in the development of the 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 are many. They include, negative reputation, lead to claims and disputes between client and contractor, rework (Barber. 2000 and Love, 2000), project abandonment, project failure, lack of patronage (Al-Momani, 2000), and late payment of interim certificate (Odeh and Battaineh, 2002).

3. RESEARCH METHODOLOGY

This study was conducted in Lagos state of Nigeria. The sampling frame consisted of private, public, and corporate clients'. These are registered with the state ministry of housing. A total of 100 questionnaires were administered to respondents, and 86 was returned filled, representing 86% response rate achieved. The sample frame consisted of private (50), public (30), and corporate (20) clients. Data for the study were collected through a well structured open ended questionnaire. The Random sampling techniques was employed in the selection of samples relative to the sample size. Questionnaire was administered via post and retrieved through posting. Most of the respondents (47/7%) are private clients. Respondents with years of experience between 6 - >30 represents 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 was employed in the analysis of data for the study.

4. Data Presentation and Analysis

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

Table 1: Factors responsible for client satisfaction

	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 1 presents the factors that are responsible for client satisfaction .High quality of final product with a MS = 4.67 is the factor with the most rating. The reason that can be aduced to this is, organisation or individual investing money in a venture will expect value for money. Client will always prefer the best kind of service for their money. Improved 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 a MS = 4.58 is the second rated factor of client satisfaction. This situation does not put client at a disadvantage position, on having to source for additional funds to completehis project. Next in rating is project functionality and fitness for purpose with a MS = 4.55. The functionality of a project is an indication of a good design, success of the project, and money well spent. The least factor of client satisfaction is absence of any legal claims and proceedings. This factor has a MS = 3.88. it is a factor that also measure the success rate of projects. Next to this factor is product free from defects with a MS = 4.09, although, this normally do not appear until some times in use. This may be the reason for its rating.

Table 2: Factors responsible for client dissatisfaction

	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

Table 2 indicates the factors responsible for client dissatisfaction .Cost overrun with a MS = 4.58 is rated as the highest of all the factors .The reason that can be aduced to this is as a result of the problem created. The rigour of going through borrowing from finance institution, couple with the uncertainty and high interest rates, all of these discourages the client in the process of construction. Time overrun with a MS = 4.49 is rated as the second highest factor of this construct. If the contractor can not realise the project within stipulated time, returns on investment for the client will be deferred, client may be engendered to spending more money, which was not planned for and may not be in the interest of the client, and have a negative impact on the project. Construction mistakes and defective works with a MS = 4.33 is the third most rated factor of client dissatisfaction. Mistakes and defective works ae a source of reworks, which leads to waste of materials and time, with a resultant adverse effect on cost of project. It is an indication of poor quality product and low strenght of components. The least factor of client dissatisfaction is poor materials management techniques with a MS = 3.87. This factor engenders waste, which increases cost. Next is poor team selection with a MS = 4.00. It leads to lack of understanding among team members and result in time wastage and delay of the project and may dissatisfy the client

Table 3: Effect of client dissatisfaction on project delivery

	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

Table 3 reveals the factors of the effect of client dissatisfaction on project delivery. Additional work with a 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 set the needs of the client right. Rework with a MS = 4.37 is rated next to additional work. Clients may request for rework when a contractor tries to cut corner and it becoming obvious of defective work. Lack of patronage with a 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

patronize 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 for additional funds to the completion of the project may be the source of these rating.

Discussion

The finding of this study when compared with those of other studies in developing countries, base on the fact that construction is carried out in similar way and economy, having close GDP and foreign exchange value. Comparison was made with the study of Mbachu and Nkado (2006) titled 'Conceptual Framework for Assessment of Client Needs and Satisfaction in the Building Development Process' conducted in South Africa. This study assessed factors that leads to client satisfaction based on the services each professional in the industry, namely, architects, construction project managers, and engineers. The following were the findings from the study of Mbachu and Nkado's study. The finding stems from three strands, architects, construction project 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 that leads to clients 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

Conclusion

Quality of products is responsible the most of clients satisfaction. Other factors, such as, cost within budget and project functionality and fitness for purpose, are factors that substantially lead to clients satisfaction.

Client dissatisfaction have grave consequences on contractor and the image of the industry: cost and time overrun, inability of contractor to fully establish clients needs, and construction mistakes and defective works. Prominent among the effects of clients dissatisfaction are, additional work, rework, lack of patronage and loyalty, and leads to claims and dispute between client and the contractor.

Recommendation

Based on the conclusions, the following recommendations were made:

- Contractor should be quality conscious on site, 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 the purpose it is intended.

- When these measures are in place, it will eliminate claims and dispute and ensure a healthy construction.

5. REFERENCES

- Abdel-Razek, R.H. (1997). "How Construction Managers would like their Performance to be evaluated". *Journal of Construction Engineering and Management*, 123(3), 208-213
- Al-Momani, A.H. (2000). "Examining service quality within construction process". *Technovation*. 20, 643-651
- Barret, V., Torbical, T., and Stroh, Y. (2002). *An Article on Customer Satisfaction*. RICS Journal. London
- Barrett, P. (2000). "Systems and Relationships for Construction Quality". *International Journal of Quality and Reliability Management*. (17) 4. 377-392.
- Boyd, D. and Chinyio, E. (2006). *Understanding the Construction Client*. 1st Ed Blackwell Publishing, UK. 1-17
- Gidado, K. I. (1996). "Project complexity: The Focal Point of Construction Production Planning". *The Journal of Construction Management and Economics*, (14), 213-225.
- Kaming, P. F., Olomolaiye, P. O., Holt, G. D., and Harris, F. (1007). "Factors Influencing Time and Cost Overrunning on High Rise Project in Indonesia". *Construction Management and Economics* 15, 83-94.
- Kometa, S.T., Olomolaiye, P.O., and Harris, F.C. (1995). "An Evaluation of Clients' Needs and Responsibilities in the Construction Process". *Engineering, Construction and Architectural Management*, 2 (1), 57-76
- Lim, H, and Ling, F. Y. Y. (2002). "Model for Predicting Clients' Contribution to Project Success". *Journal of Engineering Construction and Architectural Management*. 28(1), 31-44.
- Maloney, W. F. (2002). "Construction Product/Service and Customer Satisfaction". *Journal of Construction Engineering and Management*. 128(6) 529
- Mazier, E.E. (2001). "Construction Defects Battles Widespread". *National Underwriter*, 105 (21), 323- 327.
- Mbachu, J. and Nkado, R (2006). "Conceptual Framework for Assessment of Client Needs and Satisfaction in the Building Development Process". *Construction Management and Economics*. (24), 31-44.
- Nkado, R.N and Mbachu, J.I.C. (2002). "Investigation into Causes of Client Dissatisfaction in the South African Building Industry and Possible Strategies for Improvement". *Proceeding of 1st International Conference of CIBW107, Stellenbosch, 11th -13th November*, 349-35.
- Nkado, R.N. (1995). "Construction Time Influence Factors: The Contractor's Perspective". *The Journal of Construction Management and Economics*, (13), 81-89.
- Nkado, R.N. and Mbachu, J.I. (2001). "Modeling Client Needs and Satisfaction in Built Environment". *Proceeding of ARCOM Conference, Salford, UK, 5th – 7th September*.
- Nkado, R.N. and Mbachu, J.I.C. (2002). "Comparative Analysis of the Performance of Built Environment Professionals in Satisfying Clients' Needs and Requirements". *Construction Innovation and Global Competitiveness*, Cincinnati (1) 408–25.
- Palaneeswaran, E., and Kumaraswamy, M. (2006). "Client Satisfaction and Quality

- Mmanagement Systems in Contactor Organizations”. *Building and Environment*. 41(11),1557-1570.
- Rwelamila, P.D. and Hall, K.A. (1995). “Total Systems Intervention: an integrated Approach to Time, Cost and Quality Management”. *Construction Management and Economics*. (13), 81-89.
- Smith, D.J., (2005). “Reliability, Maintainability and Risk: Practical Methods for Engineers”. 7th edn, Oxford, Butterworth-Heinemann. Strategies for Improvement, *Proceeding of 1st International Conference of ARCOM4th – 6th September*.
- Torbica ZM, Stroh RC. (2001). Customer Satisfaction in Home Building. *Journal of Construction Engineering and Management*, 127(1):82–97
- Yasamis, F., Arditi, D. and Mohammadi, J. (2002). “Assessing Contractor Quality Performance”. *Construction Management and Economics*. (20), 211-223.