

Assessing the Underlying Strategies for Effective Minimization of Disputes in Nigerian Construction Industry

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Dispute has been observed as a common phenomenon in the construction process and has constituted several problems to project actors and the construction industry. The dilemma has led to project delays, time/cost overrun and poor project delivery in the global construction industry. This research was conducted to find out the underlying strategies that can be adopted for effective minimization of disputes in the Nigerian construction industry. To achieve this aim, a survey research design was adopted in the study. The approach was adopted for robust data collection. In the survey research design, oral interview and questionnaire were the instrument used for data collection. The oral interview was first conducted with 16 construction stakeholders in five selected firms in Abuja. The data obtained in the interview study were analysed through content analysis. The findings from the interview exercise served as the basis for preparation of a questionnaire that was later administered to some randomly selected construction firms in the study context. The data obtained from the questionnaire study were analysed through descriptive statistics. The findings from the study show that lack of understanding and agreement on the type of contract, contractual payment, bridge of contract, and differing site condition are the main causes of disputes in the Nigerian construction industry. The study concluded that adequate knowledge of contractual document before the start of a project, bringing up contract conditions that are fair to all parties and maintaining a good relationship between the clients, professionals and workers are the underlying strategies that can be adopted to overcome disputes in Nigerian construction projects.

Keywords: Actors, Construction, Disputes, Projects, Strategies

Introduction

The quest for firms' survival in global and competitive economy necessitate firms' to continuously develop new and innovative processes for product design and development, and to provide quality services towards the provision of satisfaction to clients or customers (Bilau *et al.*, 2015). The construction industry relies markedly on employee inputs to drive qualitative and innovative design and product development processes (Chen *et al.*, 2017). To achieve target expectations and

organizational goals, construction industry workers conduct several of their demanding tasks at preconstruction, construction and post-construction phases physically under stringent timelines (Rwamamara *et al.*, 2010) and strenuous work conditions (Leung and Liang, 2018; Chakraborty *et al.*, 2018). Most of which results in complex situations that often lead to disputes among projects actors (Chern, 2009; Ashworth, 2012). This has led to project delays, time/cost overrun and poor project delivery

develops if a conflict is not properly attended to (Mba, 2013). When a conflict escalates into dispute, the project undertaken will be vulnerable to delay (Khanaki & Hassanzadeh, 2010; Griffiths *et al.*, 2010). Therefore, it is important to resolve any grievance among parties involved in a conflict before it escalates into a dispute.

Further, study by Cheng *et al.*, (2009) revealed that the nature and complexity of construction project contribute primarily to disputes. Hence, the causes of disputes can be summarised as refusal to pay specified sums, delay, termination, variation and misunderstanding in payment procedures (Chern, 2009; Farooqul *et al.*, 2014). Other causes of dispute in construction projects are predominantly from the intricacies and the magnitude of the work, multiple contracting parties, poorly prepared and/or executed contract documents, inadequate planning, financial issues, and communication problems (Idowu *et al.*, 2015). Harmon (2003) also observed that disputes occur when a claim is rejected and the rejection is not accepted by the other parties.

Strategies that can be applied to prevent disputes in construction projects

Study by Idowu *et al.* (2015) revealed that alternative dispute resolution (ADR) strategy originated from the United States of America is commonly used as a mean of resolving disputes on site. However, lack of awareness of ADR and government policies have made its adoption in the developing nations such as Nigeria to be very slow (Idowu *et al.*, 2015). In addition, ADR is broad and incorporates various processes, which are different from litigation system of dispute resolution (Fitriyanti & Widodo, 2019). Therefore, studies on further strategies that can be effectively adapted to minimize disputes in construction projects are continuously needed.

Research Methodology

The aim of this study is to develop strategies that can be adopted to reduce disputes among construction stakeholders in

construction projects. To achieve this aim, sequential mixed-methods research design was adopted. A mixed-methods research design is a procedure for collecting, analysing and mixing both quantitative and qualitative research strands and methods in a single study to understand a research problem (Creswell, 2012). In the research design, interview and questionnaire were used to obtain the necessary data from the participants of the study. The interview was first conducted before the questionnaire exercise in the study. The interview was conducted among 16 managers that were purposively selected among registered construction firms in Abuja the capital city of Nigeria in the year 2019. Abuja was selected as the researchers perceived that there were more ongoing projects in the context than any other city in Nigeria during the study. The academic qualification of the interview participants ranges from BSc to master's degree. All the participants of the interview exercise were well experienced as they have been involved in different projects and have been working with different construction firms for more than 10 years. Face-to-face semi-structured interview was conducted with each participant of the study in their respective offices. The main questions that were asked during the interview exercise are: the various forms of dispute in construction projects; the causes of dispute in their previous executed projects, and the strategies that can be adopted to overcome disputes in projects. Each interview lasted for 30 to 45 minutes and took approximately three weeks in duration. Each of the interviews was tape recorded and later transcribed accordingly. The data obtained in the interview study was analysed using content analysis, and the themes that were drawn were used to prepare structured questionnaire that formed the second phase of the study. The essence of the questionnaire was to affirm the findings of the interview phase to a larger sample size in the study context. One hundred and fifty (150) questionnaires were distributed to randomly selected staff of the 16 case study firms. Out of the 150 distributed, 112 were returned which gave a response rate of 74.7% for the study. This

response rate is considered to be adequate for a survey study that intends to obtain information from industry practitioners (Lucko and Rojas, 2010). The academic qualifications of the respondents in the survey study range from BSc/B Tech to Master's degree. In the questionnaires distributed, the respondents were asked to indicate on a Five-point Likert scale the extent of their agreement on the information obtained in the interview phase of the study (Doloi *et al.*, 2012). The information obtained in the questionnaire was analysed using descriptive statistics. Therefore, variables with mean item score (MIS) of 3.5 and above in the analysis were all considered to be very significant (Sekaram & Bougie, 2010).

Data Presentation and Discussion

The interview phase

The purpose of the interview study was to find out the extent in which dispute can be prevented in construction projects. This was achieved by seeking the opinions of the participants on the various forms of disputes they have come across or experienced in their previous projects. The causes of the various disputes and the strategies that can be adopted to overcome the disputes were also identified through the participants of the study. The themes obtained from the exercise are explained in the following headings:

The various forms of disputes in construction projects

In the interview conducted, seven forms of disputes were identified by the participants. These include contractual, land, internal, financial, payment, management, and economic disputes. All the participants agreed that some of these disputes specifically financial and land occur frequently in projects, while some of them such as management and economic seldom experienced in the process. The opinions of the participants on the various forms of disputes and the frequency of their occurrence in construction projects are consisted with the views of Farooqui *et al.* (2014) and Dada (2012) on the various

forms of disputes such as land and financial disputes in projects.

Causes of dispute in construction projects

In the interview conducted, inadequate procurement/tendering method, bridge of contract, inadequate brief, poor communication, lack of understanding and agreement on the type of contract, differing site and incomplete design information condition were emphasized by six of the participants as the major causes of disputes in construction projects. While four of the participants identified change order, absence of team spirit among members of the project, misplacement of priority, discrepancies/ambiguities in the contract documents, inadequate descriptions of the preliminary items in the bill of quantity (BOQ), improper planning/site management and failure to use specified material, skilled operatives/ recognized methods as the main causes of disputes in construction projects.

Further, three of the participants affirmed government intervention, fraud act of the party and parties failing to identify and deal with issues on time as the main factors responsible for disputes in projects. Whilst, the remaining three of the participants emphasized that inaccurate response to the problems presented by one party to another party in the contract, failure of sharing risks, unrealistic claims for variation of works by contractors, limited resources (scarcity) and the contractor's failure to price properly for the works as the causes of disputes in projects. The opinions of all the participants are synonymous with the findings of Missis (2012), Peansupap and Cheang (2015) on the causes of disputes in construction projects. Similarly, Mba (2013) had earlier identified inadequate procurement/tendering method, bridge of contract and poor communication as the major causes of disputes in construction projects.

The strategies that can be applied to prevent disputes in construction projects.

According to the participants of the interview study, seven strategies can be adopted by project actors to prevent disputes in construction projects. These strategies are:

1. Design or make contract conditions fair enough for all parties;
2. Understand contractual document before proceeding into agreement;
3. Proper planning and organization of payment and schedule;
4. Make payment as at when due;
5. Maintain a good relationship between the clients, professionals and workers;
6. Engage organization professionals, and
7. Engage the organization trained artisans/labours.

These findings are consistent with the opinions of Sinha and Wayal (2007) and Ntiyakunze (2011) on the various strategies that can be applied to reduce disputes in construction projects.

The survey phase

The questionnaire survey was conducted to compare the collective perceptions of clients and construction professionals from the themes that were drawn in the interviews section of the study to a large sample size. The academic qualifications of the respondents in the survey study ranges from BSc/BTech to Master degree. All the

respondents were registered construction professionals, and were well experienced as they have been working with different firms (large and medium) for more than 10 years in the study context. The outcomes of the exercise are presented as follows:

Ranking of the respondents' perceptions on various forms of disputes in construction projects

The MIS of all the respondents in the survey study ranges from 4.66 to 3.78 (Table 1). These imply that all the respondents agreed on the variables discovered in the interview phase as the main form of disputes in construction projects.

Ranking of the causes of disputes in construction projects

The MIS of all the respondents in this question also ranges from 4.65 to 4.13 (Table 2), which also indicate total agreement in the findings of the interview and questionnaire sections of the study.

Methods of preventing disputes in construction projects

Based on the MIS obtained in this question (Table 3), it can be emphasized that the information obtained in the questionnaire section is in agreement with the interview study.

Table 1: Perception on forms of disputes in projects

S/N	Forms of Disputes	NR	TS	MIS	RANK
1.	Contractual Dispute	112	531	4.66	1 st
2.	Payment Dispute	112	505	4.51	2 nd
3.	Land Dispute	112	504	4.50	3 rd
4.	Internal Dispute	112	503	4.49	4 th
5.	Financial Dispute	112	485	4.33	5 th
6.	Management Dispute	112	468	4.18	6 th
7.	Economic Dispute	112	423	3.78	7 th

KEY: NR= Number of respondents, TS= Total score, MIS= Mean Item Score.

Table 2: Perception on the causes of disputes in construction projects

S/N	Causes of Disputes	NR	TS	MIS	RANK
1.	Lack of understanding and agreement on the type of contract	112	521	4.65	1 st
2.	Differing site condition	112	516	4.61	2 nd
3.	Bridge of contract	112	511	4.56	3 rd
4.	Inadequate procurement/ Tendering method	112	509	4.54	4 th
5.	Incomplete design information	112	503	4.49	5 th
6.	Poor communication	112	501	4.47	6 th
7.	Improper planning and site management	112	494	4.41	7 th
8.	Failure to use specified materials, skilled operatives and recognized methods	112	491	4.38	8 th
9.	Discrepancies/ ambiguities in contract documents	112	487	4.35	9 th
10.	Inadequate brief	112	486	4.34	10 th
11.	Inadequate descriptions of the preliminary items in the BOQ	112	483	4.31	11 th
12.	Change order	112	479	4.28	12 th
13.	The absence of team spirit among members of the project	112	470	4.20	13 th
14.	Government intervention;	112	465	4.15	14 th
15.	Misplacement of priority	112	462	4.13	15 th

KEY: NR= Number of respondents, TS= Total score, MIS= Mean Item Score

Table 3: Perception on methods of disputes prevention in projects

S/N	Methods of preventing Disputes in projects	NR	TS	MIS	RANK
1.	Understanding contractual document before proceeding into agreement	112	531	4.74	1 st
2.	Designing contract conditions that are fair to all parties (allocating projects risks fairly to all parties) to unstable price of materials)	112	529	4.72	2 nd
3.	Proper planning and organization of payment and schedule	112	526	4.70	3 rd
4.	Maintaining a good relationship between the clients, professionals and workers	112	518	4.63	4 th
5.	Payment as at when due	112	493	4.40	5 th
6.	Engaging the organization trained artisans/labours	112	475	4.24	6 th
7.	Engaging the organization professionals	112	473	4.22	7 th

KEY: NR= Number of respondents, TS= Total score, MIS= Mean Item Score

Discussion of results

The study conducted reveals that seven forms of disputes exist in Nigerian construction projects. Typical forms of these disputes are contractual, land, internal, financial, payment, management, and economic disputes. As some of these disputes specifically financial and land

occur frequently in projects, it can be said that such disputes are the significant causes of delay, time and cost overrun often experienced in projects in the study context. While other disputes such as management and economic are the less significant causes. The causes of disputes were also discovered in the study. Some of these causes such as

breach of contract, poor communication, improper planning and inadequate project briefing can be classified as the main causes of disputes. Therefore, while trying to propose for disputes reduction strategies, adequate attention should be placed on such causes.

Based on the causes of disputes identified in the study, the research proposed seven strategies for effective minimization of disputes in Nigerian construction projects. These strategies are to design or make contract conditions fair enough to all parties, understand contractual document before proceeding into agreement, proper planning and organization of payment/schedule before the commencement of any project, make payment as at when due, maintain a good relationship between the clients, professionals and workers, engage organization professionals, and engage the organization trained artisans/labours. If all these strategies are adequately implemented, it is anticipated that disputes will be minimal in Nigerian construction projects. Consequently, delay, time and cost overrun will be tremendously reduced and projects will be effectively delivered in the global construction industry.

Conclusion and Recommendations

Adoption of ADR on construction sites will lead to effective dispute resolution, reduce delay, time and project cost overrun, which will consequently improve the performance of global construction industry. However, lack of awareness of ADR, government policies and complexity of ADR have made its adoption in the Nigerian construction industry to be very slow. Therefore, this study investigated the various forms of disputes and their causes in Nigerian construction projects. The study also examined the strategies that can be adopted to effectively overcome disputes in the study context.

Based on the study conducted, it can be concluded that seven forms of disputes are liable to arise in the Nigerian construction projects. Among these are contractual,

payment and land disputes which are prevalent in every project in the study context. While management and economic disputes are not that common. It can also be said that there are twenty-two causes of disputes in projects. The identified causes such as lack of understanding and agreement on the type of contract, differing site condition, breach of contract, inadequate procurement/tendering method and incomplete design information were observed as the main factors responsible for disputes in construction projects. Based on the identified causes of disputes discovered in this study, understanding contractual document before proceeding into agreement, designing contract conditions that are fair to all parties, proper planning and organization of payment and schedule are the underlying strategies for effective minimization of disputes in the study context construction projects. Based on the findings of this study, the research recommends that project parties to a contract should understand the contractual document before proceeding into agreement; contract conditions should be designed to be fair to all parties involved in a project; there should be proper planning and organization of payment and schedule by both clients and contractors before the commencement of projects, and clients should engage construction professionals in project execution.

This study is limited to construction firms in Abuja, Nigeria that were selected for the study based on the researchers' perception that there might be more ongoing projects, well experienced professionals/experts in the context than any other city in the country. Therefore, to generalize the findings of the study, similar research may be conducted in other cities such as Ibadan and Port Harcourt where there may be several ongoing projects. The challenges of the identified strategies in dispute resolution may also be investigated by prospective researchers.

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