Effective Communication as a Panacea for Conflict Avoidance in Public Building Construction Project Delivery

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Abstract: This research work deals on strategies for managing conflicts that arise during project delivery in Nigeria. The need for the research arose because of the fact that construction projects work are becoming increasingly tasking due to the complex set of contract documents governing the parties, cost increases of materials, labour, equipment and client's over expectations from contractors performance, and so on. The likelihood of disputes arising therefore, increases, with the ways of resolving them becoming very expensive in terms of time, personnel, finances, project delays and abandonment. It becomes necessary therefore, to carry out this research work to examine how conflicts can be prevented through effective communication in order to eliminate unnecessary costs, delays, straining of relationships among team members, and outright abandonment of projects. Data for the research was sourced through questionnaire and the collected data was analysed using the Analysis of Variance statistical tool (ANOVA). Also two hypothesis were formulated to guide the research. The results obtained from the ANOVA analysis and the hypothesis reveals that effective communication is the most critical success factor for project delivery. This was justified by the fact that all null hypotheses were rejected and the alternatives were accepted. Based on the results obtained, the study concludes that communication has to be effective in order to achieve its aim of reducing conflicts among project team members and stakeholders involved in a project. The study recommends among others that management should not allow conflicts to degenerate into conflicts before they are addressed, effective information and communication management and development of management information systems are to be used to reduce conflict situations.

Keywords: Effective Communications; Conflict Avoidance; Public Building; Construction Project; Project Delivery.

I.   INTRODUCTION

The purpose of this research work is to explore effective communications and its effects on conflict resolution in project delivery in Nigeria. This is in the quest for looking for answers as to the courses of the problem of project abandonment, project delays, project failure and their attendant outcomes of cost and time overruns in Nigeria. According to experts, during project execution, conflicts occur due to communication gaps, lack of information dissemination to the parties involved in the project and so on. Communication is one key element which has to be applied effectively throughout a building project's life cycle, from the beginning till the end.

Project communications refer to the specific behavior and techniques used to motivate, lead, delegate, and report back to all stakeholders working on the project (Jason, 2002).
Jason believes that there are three clear communication channels that managers need to establish once a project has started, and that handling these channels well can dramatically increase the chances of project success. The channels are (i) Upward Communication, which refers to Communication with senior executives involved in the project, and (ii) Downward Communication which is about providing communication for the personnel involved

in project namely, the direct field staff. The third one is Lateral Communication which is communications with clients, vendors and functional managers.

In his own opinion, Fati, 2010 states that communication affects performance. Therefore, if high performance from teams working on a project is desired, then effective communication should be entrenched to make sure the kinds of results desired are obtain. Without well-established channels, it is likely that the project will fail. Successful project managers typically have good communications skills that can include being able to effectively present the issues, listen to staff and act on feedback; these foster harmony among team members. Therefore, there is need for project managers to use communication aids effectively. According to Jason (2002), the following table shows the mechanisms used to carry out effective communications:

Table 1: Communication Aids

Type/technique	Description
E-Mail	Allows project teams to communicate text, audio and video files between the team members
Inter-office memos	Provides a formal forum to communicate key dates, policies and procedures
Instant messaging (IM)	Allows team members to communicate real-time
Project status meetings	Provide regular status updates and reviews of the project
Telephone/video conferences	Provides a medium to involve team members located in other geographic regions
Intranet, internet boards	Formal communication status, progress, highlights and objectives to all
Project road show	Provides feedback to stakeholders or users
Walk-about	Involves a hands-on face-to-face approach with the team and clients

Source: Jason Charval, (2002)

Effective communication occurs when a desired thought as a result of intentional or unintentional information sharing, which is interpreted between multiple entities, is acted on in a desired way. This effect also ensures that messages are not distorted during the communication process. Effective communication should generate the desired effect and maintain the effect, with the potential to increase the effect of the message. Therefore, effective communication serves the purpose for which it was planned or designed. Possible purposes might be to elicit change, generate action, create understanding, inform or communicate a certain idea or point of view. When the desired effect is not achieved, factors such as barriers to communication are explored, with the intention being to discover how the communication has been ineffective.

Thus, the purpose of this research is to explore communication and its effects on conflict resolution in projects delivery in Nigeria. This is the quest for looking for answers as the causes of the problem of project abandonment, project delays, project failure and their attendant outcomes of cost and time overruns, in Nigeria.

II. STATEMENT OF THE PROBLEM

Not all projects end up successfully. On the average, two out of five projects do not usually meet their original goals and business intents, and one-half of those unsuccessful projects can be traced to communication gaps. Due to the complex nature of and personnel involved in some public building project in Nigeria, project team members often involve themselves in unnecessary conflicts.

Accusations and allegations of neglect, oppression, domination, exploitation, victimization, discrimination, marginalization, nepotism and bigotry are all common situations in Nigerian project delivery, and they can be traced to communication breakdown, once information is not passed through the required channel to all parties skilled and unskilled labour, involved in a project, there is the likely occurrence of disagreements, quarrels, unnecessary rival struggles, and so on.

Consequences of conflicts in a construction project can lead to abandonment of project, litigation and to some extent serious physical interrogations (Dada, 2013). Most project managers are generally good communicators but are they communicating effectively? In the recent PMI, 2013 Pulse of the profession report, it was revealed that the most crucial success factor in project management is effective communications to all stakeholders.

The issue of conflict has become a major cause of concern in many construction organizations in Nigeria. Definitely, conflicts arise in any interaction between human beings. In a construction project, there are

a lot of personnel involved in one part of the project or the other. They include architects, civil engineers, contractors, project managers and other skilled and unskilled labour. Conflict may ensue due to personal differences, improper communication plan or structure, and so on. In most cases, conflicts are inevitable. This is so because human beings and human behavior are different and vary as a result of differences in language, ethnic nationality, education, tolerance levels, emotional stability and so on.

Therefore, conflicts always tends to occur because of these differences. Due to the nature of projects and the individuals involved, it becomes increasingly important for organizations to include a project communication management plan as a major framework to ensure the success of a project.

A building construction project in Nigeria for example, usually involves the translation of designs into reality. A formal design team may be assembled to plan the physical proceedings and to integrate those proceedings with other parts. The design usually consists of drawings and specifications, usually prepared by a design team including surveyors, civil engineers, cost engineers or quantity surveyors, mechanical engineers, electrical engineers, structural engineers, fire protection engineers, planning consultants, architectural consultants and archaeological consultants (Cronin, 2005). The opinions of these people certainly will vary and they may not agree on the same idea. It is then obvious that conflict can arise from construction projects if the required information/communication channel is not established to develop a feedback mechanism in which all the members of the construction team interact and share ideas together and as such lead to the successful completion of the project.

III. RESEARCH OBJECTIVES

The following objectives are to be accomplished for this research work:
i.   To examine the nature of conflict management in building project delivery.
ii. To examine the causes and effects of conflict in building project delivery.
iii. To examine effective communications as a strategy for minimizing conflict in building projects delivery.

IV. RESEARCH QUESTIONS

The following research questions were designed to achieve the purpose and objectives of this research work:
i.   Do conflicts exist during building project delivery in Nigeria?
ii. What are the causes and possible effects of conflict during building project delivery in Nigeria?
iii. In what ways can effective communications be used to avoid conflict in building project delivery?

V. RESEARCH HYPOTHESIS

i. HO_1: Conflicts have no adverse effects in building project delivery.
ii. HO_2: Effective communications is not a strategy for the avoidance of conflicts in building projects delivery.

VI. SCOPE OF THE RESEARCH WORK

This research was mounted to examine the role played by effective communications in the management of conflicts in building project delivery. The study used on going public building projects in specific locations in the south-south region of Nigeria as a case study. The choice of building construction projects for this research work was informed by the variety of individuals involved in it.

VII. LIMITATIONS OF THE RESEARCH WORK

In the course of carrying out this research work, some problems were encountered. The first one was getting enough respondents to fill out the questionnaire some of the respondents refused to participate, with the excuse that they did not have enough time. Never the less, majority of them cooperated, due to the researcher's public relations strategy on them. Majority of the professionals cooperated, as they were found in the site, were the researcher was usually shuttling to patiently wait for them. This was time consuming and costly on the part of the research.

VIII. LITERATURE REVIEW

A lot of research work has been carried out on conflict management and conflict resolution by some researchers, although in different fields of endeavour. In the words of Opata, et al (2015), one of the main goals of the construction industry is to contribute to national socio-economic development by providing the buildings

which are used in the production of all goods and services in the economy. Moreover, the physical infrastructure, built through construction activity, is the nation's economic backbone as it forms the arteries for the facilitation of productive activity by enabling goods and services to be distributed within and outside the country. The items built also offer social and welfare benefits. For example, housing fulfills one of the most basic needs of people by providing shelter from the physical elements. But items also offer people the opportunity to improve their living standards. The quality of the design and construction can affect productive activities and provision of services undertaken. Thus construction projects can influence the competitiveness of enterprises within the economy. However, in an attempt to achieve its goal, construction projects have a setback from the rise of conflict during building construction projects. According to Verma (1998) Conflict is defined as a serious disagreement between two people or a number of people, which usually end up in a positive result if properly managed and conversely negative if not properly managed to the satisfaction of stakeholders. N.Jaffar et al (2011) highlighted that conflict is doubt or questioning, opposition, incompatible behavior, controversy or antagonistic interaction and disputes is one of the range of events considered as conflict. With respect to the construction industry, Ng et al (2007) asserted that project conflicts can be described as a spiral between various parties in a designed and construction project. The causes of conflict among the project team members as posited by Olalekan (2013) are difference in belief, orientation, demands, prospects, views, imagination and ego, which is not far from what most researchers have mentioned in respect of other areas of life. Olalekan (2013) looked at conflict as the internal discord that exist between project team, which usually arises from misaligned ambitions, communication breakdown and not having the right players in key positions as the most prevalent causes of conflict in the construction industry.

The attendant effects created by these problems includes increasing project cost, project delays, reduction in productivity, loss of profit or damage in business relationships and so on Nwambui, (2015).

In response to this problem, this study proposes to investigate the nature of professional conflict and dispute and ways of eradicating it for effective and successful completion of construction projects.

A. Conflict Management Models

Conflict management involves implementing strategies to limit the negative aspects of conflict and to increase the positive aspects of conflict, at a level equal to or higher than where the conflict is taking place. Furthermore, the aim of conflict management is to enhance learning and group outcomes like effectiveness or high performance in organizational setting (Rahim, 2010). It is not concerned with eliminating all conflicts or avoiding conflicts. Conflict can be valuable lo groups and organizations. In fact, it has been shown to increase group outcomes when managed properly (Alper et. al, 2011).

Blacke and Mouton Conflict Management Model: Blake and Mouton (1964) were among the first to present a conceptual scheme for classifying the styles for handling interpersonal conflicts into five types namely; forcing, withdrawing, smoothing, compromising, and problem solving.

Khun and Poole's Conflict Management Model: Khun and Poole (2000) established a similar system of group conflict management. In their system, they split Kozan's confrontational model into two sub models namely; distributive and integrative models.

Distributive: Here conflict is approached as a distribution of a fixed amount of positive outcomes or resources, where one side will end up winning and the other losing, even if they do win some concessions.

Integrative: Groups utilizing the integrative model see conflict as a chance lo integrate the needs and concerns of both groups and make the best outcome possible. This model has a heavier emphasis on compromise than the distributive model. Khun and Poole found that the integrative model resulted in consistently better task related outcomes than those using the distributive model.

DeChurch and Marks's Meta-Taxonomy Conflict Management Model: DeChurch and Marks (2001) examined the literature available on conflict management at the time and established what they claimed was a "meta-taxonomy" that encompasses all other models. They argued that all other styles have inherent in them two dimensions namely; activeness which refers to the extent to which conflict behaviors make a responsive and direct rather than inert and indirect impression and agreeableness which is the extent to which conflict behaviors make a pleasant and relaxed rather than unpleasant and strainful impression. High activeness is characterized by openly discussing differences of opinion while fully going after their own interest. High agreeableness is characterized by attempting to satisfy all parties involved

In the study they conducted to validate this division, activeness did not have a significant effect on the effectiveness of conflict resolution, but the agreeableness of the conflict management style, whatever it was, did in fact have a positive impact on how groups felt about the way the conflict was managed, regardless of the outcome.

B. Causes of Conflict

Conflict starts because people do not agree about an issue. Issues of disagreement in recent large-scale conflicts include territory, language, religion, natural resources, ethnicity or race, migration and political power. Sometimes there is more than one issue of disagreement. (Fati, 2010).

There are several causes of conflict. Conflict may occur when:

(i)   A party is required to engage in an activity that is incongruent with his or her needs or interests.

(ii)   A party holds behavioral preferences, the satisfaction of which is incompatible with another person's implementation of his or her preferences.

(iii)   A party wants some mutually desirable resource that is in short supply, such that the wants of all parties involved may not be satisfied fully.

(iv)   A party possesses attitudes, values, skills, and goals that arc salient in directing his or her behavior but are perceived to be exclusive of the attitudes, values, skills, and goals held by the other(s).

(v)   Two parties have partially exclusive behavioral preferences regarding their joint actions.

(vi)   Two parties are interdependent in the performance of functions or activities (Rahim, 2002).

C. Conflict Resolution

Conflict resolution involves the reduction, elimination, or termination of all forms and types of conflict. In practice, when people talk about conflict resolution they tend to use terms like negotiation, bargaining, mediation, or arbitration (Fati, 2010).

There are many ways to resolve conflicts - surrendering, running away, overpowering your opponent with violence, filing a lawsuit, etc. The movement toward Alternative Dispute Resolution (ADR), sometimes referred to simply as conflict resolution, grew out of the belief that there arc better options than using violence or going to court. Today, the terms ADR and conflict resolution are used somewhat interchangeably and refer to a wide range of processes that encourage nonviolent dispute resolution outside of the traditional court system (Fati, 2010).

Common forms of conflict resolution include the following:

Negotiation: This is a discussion among two or more people with the goal of reaching an Agreement.

Mediation: This is a voluntary and confidential process in which a neutral third-party facilitator helps people discuss difficult issues and negotiate an agreement. Basic steps in the process include gathering information, framing the issues, developing options, negotiating, and formalizing agreements. Parties in mediation create their own solutions and the mediator does not have any decision-making power over the outcome.

Arbitration: This is a process in which a third-party neutral, after reviewing evidence and listening to arguments from both sides, issues a decision to settle the case. Arbitration is often used in commercial and labor/management disputes.

Mediation-Arbitration: This is a hybrid that combines both of the above processes. Prior to the session, the disputing parties agree to try mediation first, but give the neutral third party the authority to make a decision if mediation is not successful.

Early Neutral Evaluation: It involves using a court-appointed attorney to review a case before it goes to trial. The attorney reviews the merits of the case and encourages the parties to attempt resolution. If there is no resolution, the attorney informs the disputants about how to proceed with litigation and gives an opinion on the likely outcome if the case goes to trial.

Community Conferencing: This is a structured conversation involving all members of a community offenders, victims, family, friends, etc.), who have been affected by a dispute or a crime. Using a script, the facilitator invites people to express how they were affected and how they wish to address and repair the harm that resulted.

Collaborative Law: This refers to a process for solving disputes in which the attorneys commit to reaching a settlement without using litigation.

Negotiated Rulemaking: This is a collaborative process in which government agencies seek input from a variety of stakeholders before issuing a new rule.

Peer Mediation: This refers to a process in which young people act as mediators to help resolve disputes among their peers. The student mediators are trained and supervised by a teacher or other adult (Fati, 2010).

D. Effects of Effective Communication

Communication is the glue that holds a project team together. Communication is not just talking. It is also listening. Without clear, timely, unambiguous communication, even a small team working together will have major problems. In the case of a virtual team, poor communication will render an already challenging situation nearly impossible to control.

The project status needs to be tracked and monitored effectively using various tracking tools. A project manager should ensure timely and appropriate generation and collection of information. He/she should follow email ethics during formal written communication. Being precise and clear while communicating helps achieve better understanding Amade, (2012). As a project manager, one should know there are potentially hundreds of communication channels. The larger the project, the greater opportunity for communications to be broken down.

Effective communication includes a well-designed infrastructure and the processes. messages, and documents that use that infrastructure to exchange informal-ion among project stakeholders and keep them aligned with the project goals and informed of the project's progress (Jyothi, 2010).

E. Barriers to Effective Human Communication

Barriers to effective communication can retard or distort the message and intention of the message being conveyed which may result in failure of the communication process or an effect that is undesirable. These include filtering, selective perception, information overload, emotions, language, silence, communication apprehension, gender differences and political correctness (Robbins el. al, 2011).

This also includes a lack of expressing "knowledge-appropriate" communication, which occurs when a person uses ambiguous or complex legal words, medical jargon, or descriptions of a situation or environment that is not understood by the recipient.

Physical barriers: Physical barriers are often due to the nature of the environment. An example of this is the natural barrier which exists if stalls arc located in different buildings or on different sites. Likewise, poor or outdated equipment, particularly the failure of management to introduce new technology, may also cause problems. Staff shortages are another factor which frequently causes communication difficulties for an organization.

System design: System design faults refer to problems with the structures or systems in place in an organization. Examples might include an organizational structure which is unclear and therefore makes it confusing to know whom to communicate with. Other examples could be inefficient or inappropriate information systems, a lack of supervision or training, and a lack of clarity in roles and responsibilities which can lead to staff being uncertain about what is expected of them.

Attitudinal barriers: Attitudinal barriers come about as a result of problems with staff in an organization. These may be brought about, for example, by such factors as poor management, lack of consultation with employees, personality conflicts which can result in people delaying or refusing to communicate, the personal attitudes of individual employees which may be due to lack of motivation or dissatisfaction at work, brought about by insufficient training to enable them to carry out particular tasks, or simply resistance to change due to entrenched attitudes and ideas.

Ambiguity of words/phrases: Words sounding the same but having different meaning can convey a different meaning altogether. Hence the communicator must ensure that the receiver receives the same meaning. It is better if such words are avoided by using alternatives whenever possible.

Individual linguistic ability: The use of jargon, difficult or inappropriate words in communication can prevent the recipients from understanding the message. Poorly explained or misunderstood messages can also result in confusion. However, research in communication has shown that confusion can lend legitimacy to research when persuasion fails.

Physiological barriers: These may result from individuals' personal discomfort, caused for example, by ill health, poor eyesight or hearing difficulties.

Cultural differences: Cultural differences affect communication between people from different departments in the organisation. It occurs frequently between people who have experienced different social and religious environments. For example: words, colours and symbols have different meanings in different cultures. In most parts of the world, nodding your head means agreement, shaking your head means no, except in some parts of the world.

IX. RESEARCH METHODOLOGY

This research was designed to explore effective communications as a panacea for conflict avoidance in public building construction project delivery in Nigeria. The research effort included examining the nature of conflict management, the causes and effects of conflict, and how effective communications can be used to address the problem.

A. Research Design
1. Area of the Study

The respondents used in this research are the staff of Bukus Construction Company, a private construction company in Port-Harcourt, Rivers State, Nigeria. Port-Harcourt is the capital city of Rivers State, Nigeria, with a lot of developmental projects going on in and around the city.

2. Population of the Study

A total population size of one hundred and sixteen (116) respondents was used in the study. Project staff/stakeholders at three different project sites that the company was handling were used for distributing the questionnaire.

3. Sample size

Yaro Yameni population sample size formula was used to obtain the sample size as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where n = sample size; N = population size; e = margin of error (usually 5%); 1 = a constant.

Thus:
$$n = \frac{116}{1 + 116(0.05)^2}$$

$$n = \frac{116}{1 + (116 \times 0.0025)}$$

$$n = 89.92 = 90$$

Based on the above sample size figure, 90 copies of the questionnaire were distributed to the respondents as shown in table 2(a). These included 30 respondents from each project site. Out of the 90 distributed questionnaire, 3 were not returned and 2 were incorrectly filled out. This meant that we had 85 correctly filled copies of the questionnaire, and which the data analysis was based on.

Table 2 (a) Distribution of respondents by designation

STAFF	NUMBER
Project manager	3
Supervisor	3
Project engineer	9
HSE Manager/Officers	3

Human resources	3
Project staff	21
Logistic & Procurement	6
Admin Staff	3
Project monitoring & control (NDDC staff)	3
Community staffs/CLO	6
Suppliers/sub-contractors	30
Total	90

Source: Field Data, 2017

The respondents were further separated into two namely, internal and external respondents as shown in table 2(b).

Table 2 (b): Further distribution of the respondents as internal and external staff/stakeholders

TYPE	FREQUENCY	PERCENTAGE
Internal	51	56.7
External	39	43.3
Total	90	100

Source: Field Data, 2017

Internal respondents are all the company staff and they include the project managers, supervisors, project engineers, HSE Managers, logistics & procurement staffs and admin staff. External respondents include project monitoring and control staff from NDDC (Niger Delta Development Commission/Ministry of works, community Liaison Officer and suppliers/sub-contractors. The distribution of the respondents show a fair balance between the internal and external project stakeholders.

4. Sources and Method of Data Collection
The data for the research was obtained from two major sources namely, primary and secondary sources.
a. **Primary source:** These consisted of information obtained from the questionnaire responses and personal interviews.
i. **Personal Interview:** The researchers had a face to face interview with the different classes of personnel and management staff at the project sites. The questions asked were open ended questions. The use of this enabled the researchers to study the psychological state of mind of those being interviewed.

Questionnaire: The Questionnaire involved structured questions that enabled the researchers to obtain the information sought for. The questionnaire was dichotomous, multiple choice, and provisions were made to give respondents freedom in answering the questions. This implied an open-ended question for a free response of more than a few words.

b. **Secondary source:** These were second hand information obtained from textbooks, journals articles from the internet, and the libraries.

The set of questionnaire was for the entire personnel involved in the case study. The questionnaire was divided into two sections, A and B. The first section A, contained personal data of the respondents, while section B, contained direct questions relating to the problem statement and the objectives of the research work.

5. Validity and Reliability of the Research Instrument
The questions asked in the questionnaire corresponded with the objectives and research questions of the study. The responses of the respondents were expected to be consistent in the sense that a general questionnaire structure was used.

6. Method of Data Analysis

The data collected from the questionnaire were organized and analyzed by means of percentage, tables, and the Analysis of Variance (ANOVA) statistical tool in the SPSS software for data analysis. Table 3 is the ANOVA table that was used for the analysis.

Table 3: ANOVA Table

Source of Variation	Sum of square	Df	Variance of mean square	F-Ratio
Between row classes	SSB	k-1	$\frac{SSB}{k-1} = MSB$	$\frac{MSB}{MSE}$
Between column cases	SSE	n-k	$\frac{SSB}{n-k} = MSE$	
Total	SST	n-1		

Source: Nworuh, 2009

X. DATA ANALYSIS AND INTERPRETATION

1. Demographic Analysis

95 copies of the questionnaire were distributed; 90 were returned. 5 were not properly filled out from the number returned and that means we had a response rate of 94% . This information is detailed in table 4.

Table 4: Distribution of questionnaire

Respondent Group	Distributed	Returned
Internal	51	49
External	39	36
Total	90	85

Source: Field Data, 2017

Table 5: Sex distribution of the respondents

Sex	Frequency	Percent (%)
Male	72	85
Female	13	15
Total	85	100

Source: Field Data, 2017

The analysis of above table shows that 85% of the respondents are male while 15% are female.

Table 6: Age distribution of the Respondents

Age	Frequency	Percent (%)
21-30	12	14
31-40	38	45
41-50	20	23
51 & Above	15	18
Total	85	100

Source: Field Data, 2017

Analysis of table 6 shows that 14% of the respondents are 21-30 years of age, 45% are 31-40 years of age, 23% are 41-50 years of age and 18% falls within 51 years of age and above.

Table 7: Marital Status distribution of the Respondents

Status	Frequency	Percent (%)
Single	20	24
Married	65	76
Total	85	100

Source: Field Data, 2017

Analysis of the above table indicate that 24% of the respondents are single while 76% are married.

Table 8: Educational Qualification of Respondents

QUALIFICATION	FREQUENCY	PERCENT (%)
O' Level (WAEC, GCE, NABTEB)	11	13
OND	15	18
HND	24	28
B.Sc	25	29
Above B.Sc	10	12
Total	85	100

Source: Field Data, 2017

Table 8 shows the educational qualification of the respondent; 13% have education up to O' Level (WAEC, GCE and NABTEB), 18% OND (Ordinary National Diploma), 28% have HND (Higher National Diploma), 29% have B.Sc (First Degree), while 12% have above B.Sc.

Table 9: Working experience of Respondents

QUALIFICATION	FREQUENCY	PERCENT (%)
1 – 5	15	18
5 – 10	9	11
10 – 15	20	23
15 – 20	29	34
Above 20	12	14
Total	85	100

Source: Field Data, 2017

Table 9 shows the working experience of the respondents. 18% have 1-5 years experience 11% have 5 – 10 years experience, 23% have 10 – 15 years experience, 34% have 15-10 years experience while 14% have above 20 years working experience.

2. **Data Analysis of Research Questions**

 Question 1: Is there any communication medium specially designed for information dissipation in your project site?

Table 10: Response to question 1

Attribute	Frequency	Percent (%)
Yes	54	63
No	10	12
Yes to some extent	21	25
Total	85	100

Source: Field Data, 2017

Analysis of table 10 indicates that 63% of the respondents say there is a special communication medium in the project sites, 25% said yes to some extent while 12% said no.

Question 2: Is there any feedback mechanism between top management officials and the lowest cadre of workers in this project

Table 11: Response to question 2

Attribute	Frequency	Percent (%)
Yes	46	54
No	7	8
Yes to some extent	32	38
Total	85	100

Source: Field Data, 2017

Analysis of table 11 indicates that 54% of the respondents say there is a feedback mechanism between management and lowest cadre of workers, 38% said yes to some extent while 6% said no.

Question 3: How frequent does the personnel involved in this construction project meet?

Table 12: Response to question 3

Attribute	Frequency	Percent (%)
Daily	77	91
Weekly	8	9
Monthly	0	0
Not at all	0	0
Total	85	100

Source: Field Data, 2017

Analysis of table 12 shows that 91% said personnel in the project meet daily while 9% said they meet weekly.

Question 4: So far, have conflicts resulted in this construction project?

Table 13: Response to question 4

Attribute	Frequency	Percent (%)
Yes	50	59
No	2	2
Yes to some extent	33	39
Total	85	100

Source: Field Data, 2017

Analysis of table 13 indicates that 59% of the respondents say conflicts have resulted in the project, 39% said yes to some extent while 2% said no.

Question 5: Do you think that information gap and poor communication can create room for conflict?

Table 14: Response to question 5

Attribute	Frequency	Percent (%)
Yes	59	69
No	1	1
Yes to some extent	25	30
Total	85	100

Source: Field Data, 2017

Analysis of table 14 indicates that 69% of the respondents say information gap and poor communication can create room for conflict, 30% said yes to some extent while 1% said no.

Question 6: Are there other factors you think that can lead to conflicts in a working environment like this?

Table 15: Response to question 6

Attribute	Frequency	Percent (%)
Yes	59	69
No	1	1
Yes to some extent	25	30
Total	85	100

Source: Field Data, 2017

Analysis of table 15 indicates that 69% of the respondents say there are other factors that can lead to conflicts in working environment like this, 30% said yes to some extent while 1% said no.

Question 7: Have you been segregated or left in the dark on information regarding the welfare or success of this project staff?

Table 16: Response to question 7

Attribute	Frequency	Percent (%)
Yes	36	42
No	22	26
Yes to some extent	27	32
Total	85	100

Source: Field Data, 2017

Analysis of table 16 indicates that 42% of the respondents say they have been segregated or left in the dark on information regarding the welfare or success of this project, 32% said yes to some extent while 26% said no.

Question 8: In the case of conflict resolution, does management in this project site solely depend on information available from you?

Table 17: Response to question 8

Attribute	Frequency	Percent (%)
Yes	45	53
No	12	14
Yes to some extent	28	33
Total	85	100

Source: Field Data, 2017

Analysis of table 17 indicates that 53% of the respondents say that management solely rely on information available in managing conflicts, 33% said yes to some extent while 14% said no.

Question 9: Are you given the room to express yourself in this construction project site in terms of contribution of ideas or is it just a function of management only?

Table 18: Response to question 9

Attribute	Frequency	Percent (%)
Yes	40	47
No	18	21
Yes to some extent	27	32
Total	85	100

Source: Field Data, 2017

Analysis of table 18 indicates that 47% of the respondents say that they are given the room to express themselves in the construction project in terms of contribution of ideas, 32% said yes to some extent while 21% said no.

Question 10: Are you properly informed about the objectives of this construction project?

Table 19: Response to question 10

Attribute	Frequency	Percent (%)
Yes	54	63
No	10	12
Yes to some extent	21	25
Total	85	100

Source: Field Data, 2017

Analysis of table 19 indicates that 63% of the respondents say they are properly informed about what goes on in this construction project, 25 5 said yes to some extent while 12% said no.

Question 11: Do you think if management policies are properly communicated to all staff, it will reduce conflicts between parties involved in this project execution?

Table 20: Response to question 20

Attribute	Frequency	Percent (%)
Yes	46	54
No	7	8
Yes to some extent	32	38
Total	85	100

Source: Field Data, 2016

Analysis of table 20 indicates that 54% of the respondents say proper communication of policies will reduce conflicts, 38% said yes to some extent while 8% said no.

Question 12: Do you think conflicts have advance effects that can affect project execution?

Table 21: Response to question 12

Attribute	Frequency	Percent (%)
Yes	55	65
No	25	29
Yes to some extent	5	6
Total	85	100

Source: Field Data, 2017

Analysis of table 21 indicates that 65% of the respondents say that conflicts can fully affect project execution success, while 29% said it can affect it partly. Just a few respondents, 5%, said it cannot affect it at all.

Question 13: Do you think effective communication positively affects project delivery?

Table 22: Response to question 2

Attribute	Frequency	Percent (%)
Yes	59	69
No	1	1
Yes to some extent	25	30
Total	85	100

Source: Field Data, 2016

Analysis table 22 indicates that 68% of the respondents say effective communication positively affects project delivery, 30% said yes to some extent while 1% said no.

3. Test of Hypothesis

This section of the research tests already stated hypothesis using ANOVA at 5% level of significance as thus:

i. **Hypothesis One,** Ho_1: Conflicts have no adverse effects in building project delivery.
H_A: Conflicts do indeed have adverse effects in building project delivery.

Data from table 21, question 12, was used to test this hypothesis. The analysis of data with the ANOVA statistical tool revealed that the Fcal is greater than the Ftab. Since our decision rule says if Fcal > Ftab (in this case 7.95 is greater than 5.71) the null hypothesis (HO) should be rejected and the alternative hypothesis (HA) accepted, we therefore conclude here that conflicts have adverse effect on project delivery. This is in line with information unveiled from literature review, which showed that negative effects such as project delays, cost overruns, time overruns, and outright project abandonment occur as a result of conflicts in project delivery.

ii. **Hypothesis Two,** $H0_2$: Effective communications is not a strategy for avoiding conflicts in building project delivery.
H_A: Effective communications is a strategy for avoiding conflicts in building project delivery.

This second hypothesis was tested with data obtained from table 17 question 11of the questionnaire and also analyzed with ANOVA statistical tool. Again, the null (HO) hypothesis was proven wrong, while the alternative (HA) hypothesis had an Fcal as 8.53 as opposed the Ftab of 6.50 (i.e. Fcal, 8.53 > Ftab, 5.50). These results shows that effective communications is a good strategy for the avoidance of conflicts during project delivery.

XI. Discussion of Results

The findings from this research work are presented in tables 5 to table 14 of this research work. The results of hypothesis were based on the decision rule that if Fcalculated is greater than Ftabulated, we reject the null hypothesis and accept the alternative hypothesis, and vice versa. The first hypothesis showed that indeed conflicts do have adverse effects in building project delivery. This was proven by the F-tab value of 5.71 as oppose to the F-cal value of 7.95 ($F_{cal} > F_{tab}$) = 7.95 > 5.71. Since the calculated value is higher than the tabulated value, the null hypothesis was rejected and the alternative hypothesis was accepted. Therefore effective communication is the most critical factor in project delivery at 5% level of significance.

The second hypothesis gave F-tab value = 5.71 while F-calculated = 7.98 (F-cal > F-tab) = 7.98>5.71

We therefore accept the alternative hypothesis (H_A) which says that effective communication is a strategy for avoiding conflict during project delivery.

XII. Conclusion

This research principally strived to investigate the information and communication gap that exists between the workforce of a construction project execution and hence to determine the role that effective communication plays in conflict that ensues during project delivery.

Results from the analysis all points towards the fact that effective communication is an indispensable asset to managers at all levels for successful project delivery. Managers make discussion depending on information available to them. The following can be summarized from this study;

i. Though an information unit exists in the construction project, effective communication is lacking and that accounts for repeated occurrence of crisis that lead to project delays and abandonment.
ii. In every endeavor involving human beings, there is bound to be conflicts and disagreements.
iii. Managers rely solely on the limited information available to them for their decision making.
iv. The research also showed that information dissemination is encouraging among project managers and the various professionals involved in a project, such as architects, civil engineers, cost engineers, electrical, mechanical engineers, and so on.
v. The respondents, both skilled and unskilled, believe that effective communication can help avoid conflicts in the construction project delivery efforts.

Again in a construction project, a lot of professionals are needed and as such proper consultation is required in order to access their ideas, communicate it over to other and as such make reasonable decisions.

Based on the findings of the research, the following are recommended:

i. Effective communication is very important in conflict resolution; project managers should ensure effective information management to reduce the chances of crisis occurrence.

ii. Personnel involved in a project should be duly consulted with, before taking decisions that affect them and the project.

iii. Management should not allow conflict situations to degenerate into crisis before addressing the issues involved.

iv. Managers involved in any sphere of life should make use of latest information technology discoveries to make their workplace friendlier and hence aid interaction between staff. This may involve the use emails, mobile phones (calls and messages), bill boards, fax e.t.c.

v. Construction companies should fund and develop information and communication centres to aid dispatch of information needed for their day to day activities.

XIII. References

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