

## **An Evaluation of the use of ADR in the Nigerian Public Construction Project Disputes**

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### **Abstract**

Today's construction projects are becoming more complex and more capital intensive. Governments of developing countries of the world are responsible for the provision of infrastructural facilities to its citizenry. Many researchers have however found that these projects are delivered late by contractors and disputes have been found as a major cause of such late deliveries. Disputes have also been found as a cause of cost overruns on construction projects. Therefore the use of ADR (Alternative Dispute Resolution) in resolving construction disputes cannot be over emphasized. This study examines the issues which militate against the use of ADR as well as the ADR techniques which give satisfaction to disputants in terms of cost, time and maintenance and sustainability of relationship. The study gathered information from both primary and secondary sources. Data from primary sources were collected from fifty seven construction and legal practitioners in the public and contracting organisations with the use of questionnaires. The sampling technique that was employed was stratified simple random sampling and data was analysed with the use of SPSS. The study found Lack of awareness of ADR as one of the factors that militate against the use of ADR. The ADR techniques which give satisfaction to disputants in terms of cost, time and maintenance and sustainability of relationship are adjudication and negotiation respectively. The study recommends that awareness of ADR techniques in resolving construction dispute should be increased in order to maximize the full benefit of the use of ADR in construction projects.

*Keywords: ADR, construction industry, disputes resolution, public client*

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### **1.0 Introduction**

Acharya and Lee [1] argue that there would be no conflicts in a perfect construction world. The study argued further that no perfect construction world exists. Construction disputes have therefore been found to be inevitable by many researchers, and despite the whole lot of studies which have been carried out on construction disputes, the industry still suffer greatly from disputes. Recent studies are in agreement with the old ones on the fact that disputes are unavoidable on construction projects. Conflicts are therefore seen to be inherent in construction projects while disputes are ubiquitous and difficult to avoid in such projects [2]. It has also been found that it is difficult, if not impossible, to completely avoid construction conflicts [3]. Cheung [4] described disputes in the construction industry as an endemic problem. Hence, a construction project is considered by many a dispute waiting to happen (Patterson & Seabolt, 2001 cited in [5]).

The construction industry is also characterised, according to [6] by particular complexity as a result of the industry's specific uncertainties and interdependences. This is due to the fact that construction contracts are usually executory in nature and that they often contain anticipatory language for future occurrences. The parties to such contracts are therefore expected to perform their part of the contract in future. However, not all eventualities can be prepared; for and consequently, disputes have become inevitable in the construction process [4]. This shows that

disputes have become a known characteristic of construction projects as a result of the complex nature of these projects as well as the dependency nature of human beings, more so that a construction project involves a large number of participants for its successful completion. Disagreements may therefore ensue as a result of so many factors which may arise from the futuristic events of construction activities.

The terms dispute, conflict and claim are often used interchangeably in construction, but their meanings are very different [7]. According to [8], conflicts would occur on construction projects when incompatible interests exist in the contract. In the opinion of [9], a dispute can emanate from unresolved conflicts. Moreover, conflict has been defined as serious disagreement and agreement about something important [10]. Reid and Ellis [11] argue that there is no definitive meaning of a dispute, and that its existence is a subjective issue which requires a common-sense approach and relies on the facts, the law and policy considerations. Construction disputes have also been defined as “all kinds of disputes arising out of projects for construction work, in particular those relating to the execution of services (e.g. mechanical and engineering services), and work necessary for the implementation of a construction project” [12]. Furthermore, [13] and [11] in attempting to define a dispute refer to the Halki Principle (*Halki Shipping Corporation v Sopex Oils Ltd*) where it was stated that a dispute does not exist until a claim has been submitted and rejected; a claim being a request for compensation for damages incurred by any party to the contract. A claim which has not been agreed to by the parties will therefore result into a conflict which, if not resolved by the parties, will result into disputes. Disputes can be seen to arise on construction projects as a result of unresolved conflicts; while conflict itself is dependent on a claim that is controversial between the parties to the contract. In other words, a construction dispute is preceded by a claim which has not been commonly agreed to by the parties involved in the construction transaction.

## **2.0 Causes of Disputes on Construction Projects**

The causes of disputes on construction projects have been identified by many researchers and in the opinion of [2], disputes are not something that magically appears during the project construction stage. The seeds of disputes, according to the study are usually planted during the design stage but emerge during construction. Love et al [14] posits that the causes of disputes in construction are numerous and that it is not possible to identify a specific cause due to the complexity which is associated with the procurement of construction projects. Modern construction projects are also becoming more complex and can likewise often result in complex disputes, which predominantly arise from the intricacies and magnitude of the work, multiple contracting parties, poorly prepared and/or executed contract documents, inadequate planning, financial issues, and communication problems [15]. Cheung and Yiu [16] and [17] commonly agree that dispute is the manifestation of the underlying conflicts and is linked to difference in perspectives, interests and agenda of human beings. “Disputes result not only result from destructive or unhealthy conflict, but also when claims are not amicably settled” (Kumaraswamy, 1998, cited in [5]). Kumaraswamy et al. [18] and [19] also observed that disputes occur when a claim is rejected and the rejection is not accepted by the other party.

A study carried out in the USA on comparative analysis of 24 construction disputes on selected projects produced a model which showed that problem situation on construction projects are based on three elements [20]. These elements are project uncertainty, contract working relations and problem solving effectiveness. Construction projects are normally futuristic in nature and are surrounded by uncertainties which may create disputes due to poor understanding of the end results by the project participants. Such uncertainty may include the degree of error contained within contract documentation, and also changes in project scope which can later contribute to a claim and dispute [20]. This may however be compounded by the working relations among the participants and their inability to solve problems as they arise may eventually lead to misunderstandings.

Furthermore, [21]'s study in China suggests contractual, cultural, and legal matters as the primary sources of disputes on construction projects. In a similar study conducted in United Arab Emirate, changes made to the contract and extra-work ordered by the client were identified as the common type of claims that may lead to dispute in construction [22]. Moreover, [1] identified six factors as the causes of disputes in Korean construction. These include change of site condition, public interruptions, change order evaluation, design errors, excessive quantity variation and double meaning in specifications. Blake Dawson Waldron [23]'s study also identified variations to contract scope, contract interpretation, extension of time claims and site conditions as factors that may lead to dispute on construction projects. The study's findings also include late, incomplete or substandard information on the project, problems of obtaining approvals, site access, and quality of design and availability of resources as disputing factors on construction projects. All the studies that have been identified above have been consistent in their findings on extra works or variations ordered by the clients as a factor that may lead to disputes in construction. This is particularly true in that a sudden and significant change made to the project may bring about a reduction in the expected cash inflow of the contractor and subsequently affecting the anticipated profit on the job. The contractor will therefore like to resist such changes; hence disagreements may result from such resistance, which may eventually lead to a conflicting situation and disputes.

In the opinion of [24], the sources of dispute in construction include errors, defects and omissions in the contract documents, underestimating the real cost of the project in the beginning, and changed conditions and stakeholders involved in the project. Mitropoulos and Howell [20] also argued that the development of a dispute on construction projects are driven by three factors which are project uncertainties, contractual problems and opportunistic behavior. Moreover, while considering disputes arising from contractual relationships in the client organization, Poh (2005, cited in [25]) classified such types of disputes into three main groups. These are:

- (a) Time related (claims from the contractor for extension of time for completion of the project),
- (b) Money related (claims from the contractor for payment of the value of variations and/or reimbursement of loss and expense), and
- (c) Quality related (assertions by the client of defective materials and workmanship).

This implies that clients would react negatively to claims from contractors for unrealistic extension of project completion time and claims for payment for extra works or loss and expense especially where such claims appear to be excessive. Disputes will also arise in circumstances where contractors have completed the works using defective materials and workmanship due to the fact that clients want to get value for the money expended on the execution of the project. This however implies that clients will not be willing to compromise the quality of the works, and will resist any attempt by the contractor to deliver a job that does not conform to the specifications contained in the contract documents.

Furthermore, [26]'s survey on the causes of delay on public projects in Jordan revealed that design, change orders, weather, site conditions, late deliveries, economic conditions, and increase in quantity of work are the main causes of dispute and consequently delay the construction schedule. This study however agreed with the previous researchers' work and it showed that there is no difference in the factors which are responsible for disputes on public or private client' projects. Moreover, common disputes related to public work projects in Thailand were also found to include violating the conditions of the contract, insufficient work drawing details, delays in the progress payments by the owner, poor evaluation of completed works, inaccurate bill of quantities and unrealistic contract durations were all critical dispute problems during the project construction phase [25] . This study established that dispute will arise on a public client's project where the parties do not abide by the conditions of the contract, and where the project work drawings have not been well detailed. Poor evaluation of completed works which is precedent to payment for work done would also be a critical dispute factor in the sense that this will affect the contractor's cash flow plan.

Inaccurate bill of quantities may result in claims by the contractor and re-measurement of works by the client's quantity surveyors, which may also affect the contractor's cash flow especially where there had been an under-measurement of the quantities of works in the contract bills. Unrealistic contract durations may also affect the project delivery date and subsequently leading to the inability of the public client to claim liquidated damages from the contractor for late completion. This however will lead to dispute where the contractor fails to agree to such deductions from his money. The nature and magnitude of the work to be undertaken will also have an effect on the nature of disputes which may prevail during the progress of the projects. Complex construction can likewise often result in complex disputes, which predominantly arise from the intricacy and magnitude of the work, multiple contracting parties, poorly prepared and/or executed contract documents, inadequate planning, financial issues, and communication problems arising in the course of the project execution.

## **2.1 Effects of Disputes on Construction Projects**

The main goal of all parties involved in a construction project is that the project be successful, with success being defined as a project completed within the original time span and costs [15]. According to [27], timely delivery of projects within budget and to the level of quality standard specified by the client is an index of successful project delivery. In an attempt to identify the effects of disputes on construction projects, many researchers have found dispute as a factor which can derail a project and prevent successful completion of such project. Cheung and Yiu [28] opine that disputes in the construction industry consume a lot of resources which could otherwise be used in a more productive manner. Disputes have also been ranked high as a cause of project time and cost overruns in the industry ([29], [30], [31]). Fenn [32] argues that disputes and conflicts in projects divert valuable resources from the overall aim, which is completion of the project on time, on budget and to the quality specified. He argues further that they generally cost money, take time and destroy relationships, which may have taken years to develop. In the opinion of [33], disputes are insidious, often resulting in time overrun, cost overrun, litigation, and complete abandonment of projects. Na Ayudhya [25] also states that disputes often result in drawbacks and disharmonise the completion of the construction projects with considerable cost. Disputes can also derail a project and lead to complicated litigation or arbitration, increased costs, and a breakdown in the parties' communication and relationship [15].

The effects of disputes on construction project can be seen as one which cannot be ignored. This is because; a project which has suffered any of the problems identified by the above mentioned studies cannot be seen to be successful. Both parties may, at the end be adversely affected by the unpleasant effects of construction disputes. Timely delivery of construction projects is highly desirable and beneficial to the parties. The cost of executing construction projects is so enormous and when completed to time, the client can start to realise the returns from the project early enough. The contractor on the other hand may have to pay liquidated damages if he delays the project completion unjustifiably. His capital may also be tied down where there exist outstanding cases on disputes before its final resolution.

## **2.2 Methods of Dispute Resolution**

Dispute resolution, in its widest sense, includes any process which can be employed to bring about the conclusion to a dispute. Acharya and Lee [1] concluded that most conflicts may appear to be minor in nature at the initial stage, and if not handled well, could result in claims, counter claims, troubles, and bad relationships between project participants. The importance of dispute resolution in the construction industry is also recognised by The Royal Institution of Chartered Surveyors (RICS). This professional body has elevated conflict avoidance, management and dispute resolution procedures to a mandatory competency level for assessing candidates for chartered and technical membership [34]. This indicated the commitment of the RICS towards a successful project completion by eradicating disputes which is an impediment

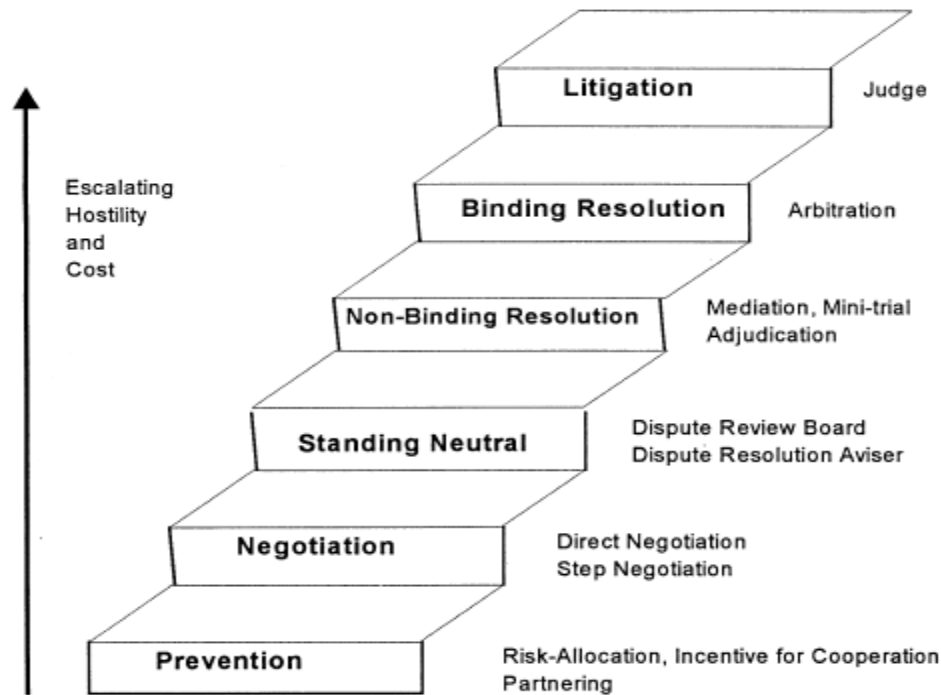
that could prevent the realisation of this goal. The main objective of any dispute-resolution mechanism according to [35] therefore is to ensure that the duties under the contract are fulfilled and to provide compensation for any breaches of these duties. Taylor and Carn [36]'s research indicates that construction disputes must be resolved as quickly as possible to preserve professional relationships and the perpetuity of the commercial construction business. However, in the opinion of [37], dispute prevention is always better than dispute resolution. Cheung et al [38] also posit that it is practical to prevent aggravation of the negative impacts on project performance, and to manage the dispute proactively and aim for early settlement. In this way, the parties will be able to prevent claims and conflict from escalating to disputes. Although dispute resolution is supported by many researchers, it is desirable to be prevented and effected in the early days of the claims in order to save time and cost. The work can then progress while the parties may seek further resolution in cases where total and final resolution has not been achieved.

Dispute resolution techniques have been seen by many researchers as a spectrum ranging from the most informal negotiations between the parties themselves, through increasing formality and more directive intervention from external sources, to a full court hearing with strict rules of procedure (Office of government Commerce, 2002 cited in [39]). These procedures include negotiation, mediation, conciliation, neutral evaluation, expert determination, adjudication, arbitration and litigation. Arbitration and litigation however, appear to be the oldest forms of dispute resolution techniques. Carmichael (2002 cited in [40]) suggested that the step of approaches to disputes resolution should be as follows:

- 1) Making a timely attempt to resolve the problem at the level at which it occurs.
- 2) If this fails to work out, involving people with decision making authority at the higher level to intervene into the dispute.
- 3) Where this fails, the parties should proceed to an ADR approach using an independent third party.
- 4) If this also fails, the disputants may use arbitration or litigation.

Construction litigation has been described as expensive, time consuming, fraught with flaws and a debilitating process that ends with the "winner" sometimes being the "loser [15], there may be situations in which avoiding litigation is more costly than engaging in it [41] and Arditi et al. 1998 cited in [15]). Many experts for example, Construction Industry Institute (CII) 1995 cited in Harmon [15] however believe that litigation is especially inappropriate for resolving conflicts in construction and should therefore be seen as the last resort.





**Figure 1:** Construction Dispute Resolution Step  
(Adapted from [4])

### 2.3 Issues Which Impact upon Successful Outcomes of Dispute Resolution

Although the benefits of ADR have extensively been researched on, successful outcomes of dispute resolution may not be readily achievable even with the use of the most effective techniques. According to [42], the non-binding and voluntary nature of many ADR methods could render the more economic and speedy ADR methods ineffective. The use of ADR for construction projects in Kuwait was also found to be impaired by the shortage of experience in the use of ADR as well as the lack in training and education [43]. Cheung [44] found that the adoption and implementation of ADR methods is obstructed by the relevant laws, regulations and the absence of an adequate institutional framework.

Furthermore, [45] also confirmed that lack of an institutional framework can serve as a hindrance on the acceptance of ADR in the industry. In the United States however, ADR has been specifically prohibited in certain circumstances. Rubin and Quintas [46] stated that the 1990 Act in the United States prohibits implementation of an ADR program under the following circumstances:

1. Where a definitive resolution of the matter is required to set precedent for future proceedings and ADR is not likely to be accepted as authoritative precedent;
2. Where the matter involves significant questions of government policy that cannot be resolved without additional agency input;
3. Where Maintaining established policies are of special importance, and ADR is not likely to produce consistent results among individual decisions;
4. Where the matter significantly affects persons or organizations who are not party to the proceeding;
5. Where a full public record of the proceeding cannot be guaranteed; and
6. Where the agency must maintain control over the ultimate outcome of the dispute and make its decisions responsive to changed circumstances.

Moreover, certain cases such as those involving intentional wrongdoing like fraud, abuse of power, public law, Human Rights and vexatious litigants may not be entirely suitable for settlement through ADR. For example, in *Halsey v Milton Keynes General NHS Trust*, the Defendant who refused mediation was held justified, as the Judge stated that all cases are not suitable for mediation, especially when fraud is alleged. Disputes where a legal precedent is needed to clarify the law, or where it would be contrary to the public interest to settle cannot also be amicably settled through ADR. However, the major hindrances to widespread adoption of ADR methods in Nigeria according to the survey conducted by [47] are general lack of awareness of their existence and unfamiliarity with their workings among stakeholders in the industry.

## **2.4 Stakeholders' Satisfaction with the Use of ADR for Construction Disputes' Resolution**

Achieving satisfactory dispute resolution has attracted considerable attention among construction practitioners and researchers [48]. The need for stakeholders' satisfaction with dispute resolution methods have been considered to be important. Unsatisfactory dispute resolution according to Werderitsch and Krebs, 2000 cited in [49]) would jeopardize project success. This is highly supported by [48]'s study that stated that satisfactory dispute resolution reduces antagonism and uncertainty, thereby improving working relationships; hence contributing positively towards project success. The study also suggested that the contracting environment would be less confrontational and antagonistic with satisfactory dispute resolution. It is one thing to resolve a dispute and it is another to be satisfied with the technique or method employed in the resolution process. "The effect of dissatisfaction with the traditional systems of dispute resolution has led to interest in the idea of alternative dispute resolution (ADR) in the United Kingdom" [50]; Stipanowich and Henderson, 1993 cited in [43]) In construction, project participants' satisfaction is therefore one of the major factors to be considered in assessing project success and should always be considered by the participants when making a decision about dispute resolution mechanism to be employed.

## **3.0 Research Methodology**

Literature review and the use of questionnaire survey were carried out in order to achieve the aim of this study. The research questions are: What are the factors that militate against the use of ADR? What are the ADR techniques which give satisfaction to disputants in terms of cost, time and maintenance and sustainability of relationship? The research questions and the questionnaire were refined through a pilot study comprising two practicing professional in the area of construction law and project management and two other academics with extensive knowledge in the subject area. Based on the feedback received in the pilot survey the questions were modified. A full scale survey was then conducted following the pilot test exercise. Data for this study was gathered from two main sources which are secondary and primary sources. Secondary data were gathered from related literature on previous studies while primary data were gathered from fieldwork. The questions are divided into 3 sections: section 1 consists of the general information about the respondents. Section 2 of the questionnaire was to stimulate responses from the respondents on the factors that militate against the use of ADR. Section 3 of the questionnaire was to gather data from the respondent on the ADR techniques which give satisfaction to disputants in solving public construction disputes in Nigeria. This was designed to be measured in terms of the cost, time and the sustainability and maintenance of relationships between the parties after [23]'s study. For this study, office of the Federal Ministry of works, the state ministry of works and ten local government offices were identified within Lagos Metropolis in Lagos State, Nigeria. Six institutions of higher learning were also identified and a list of contractors was obtained from the federation of construction industry in Nigeria.

#### 4.0 Results and Discussions

As shown in Table 4.1, 100 questionnaires were distributed to construction professionals in the public and contractors' organisation. Sixty eight (68) responses were returned, while only 57 questionnaires were properly filled and found usable for this study. This gave 57% response rate.

**Table 4.1** Survey return

	Number	Percentage (%)
Total number of questionnaire received	57	57
Total number of questionnaire unreturned	53	53
Total number of questionnaire distributed	100	100

Table 4.2 shows that lack of awareness of ADR existence ranked highest while government policy on the use of ADR ranked lowest among the factors which militate against the use of ADR techniques for resolving disputes on public construction projects in Nigeria.

**Table 4.2** Factors which affect the use of ADR on public construction projects

Factors affecting the use of ADR	Mean score	Rank
General lack of awareness of ADR existence	4.00	1
Shortage of experience in the use of ADR	3.58	2
Non binding / voluntary nature of many ADR methods	3.53	3
Lack of training and education on ADR	3.53	3
Absence of an adequate institutional framework	3.37	5
Obstruction by relevant laws and regulations	3.11	6
Government policy on the use ADR methods	3.05	7

From table 4.3, arbitration with a mean score of 3.47 ranks highest as the ADR technique which gives satisfaction to the disputants in terms of the cost spent on the resolution of disputes on public construction projects. This is closely followed by negotiation which has a mean score of 3.42. Dispute review/ resolution board and mini trial both rank last with a score of 2.68.

**Table 4.3** Disputants' satisfaction with the use of ADR in terms of cost

ADR Methods	Mean score	Rank
Adjudication	3.47	1
Negotiation	3.42	2
Mediation	3.37	3



Conciliation	3.32	4
Arbitration	2.95	5
Dispute review/resolution board	2.68	6
Mini trial	2.68	6

Table 4.4 ranks negotiation highest as the ADR technique which gives satisfaction to the disputants in terms of the time taken for the resolution of disputes on public construction projects. This is closely followed by conciliation while mini trial ranks lowest in the table.

**Table 4.4** Disputants' satisfaction with ADR in terms of time spent

<b>ADR methods</b>	<b>Mean score</b>	<b>Rank</b>
Negotiation	3.84	1
Conciliation	3.58	2
Mediation	3.47	3
Mini trial	3.32	4
Dispute review/resolution board	2.84	5
Adjudication	2.58	6
Arbitration	2.37	7

From table 4.5, negotiation with a mean of 4.11 ranks highest as an ADR technique which gives satisfaction to the disputants in terms of maintenance and sustainability of relationships. Mini trial however ranks lowest with a mean of 1.95.

**Table 4.5** Disputants' satisfaction with ADR in terms of maintenance and sustainability of relationships

<b>ADR methods</b>	<b>Mean score</b>	<b>Rank</b>
Negotiation	4.11	1
Conciliation	3.63	2
Mediation	3.63	3
Arbitration	3.26	4
Dispute review/ resolution board	2.74	5
Adjudication	2.68	6
Mini trial	1.95	7

#### **4.1 DISCUSSION**

On research question what are the factors that militate against the use of ADR, the study found general lack of awareness of existence of ADR techniques as the highest factor that militate against the use of ADR by public clients in Nigerian construction industry. This is followed by shortage of experience in the use of ADR and the non binding nature of many ADR techniques. This finding agrees with [47] which also found general lack of awareness on the existence of ADR as the greatest factor that militate affect the adoption of ADR in Nigeria. This study also agreed slightly with [43]'s finding that the use of ADR for construction projects in Kuwait was impaired by shortage of experience in the use of ADR as well as the lack in training and education. It also agreed slightly with [42]'s finding that the non-binding and voluntary nature of many ADR methods could render the more economic and speedy ADR methods ineffective.

In order to know how effective the ADR methods are in resolving public construction disputes in Nigeria, the frequency at which these methods are used as well as how effective they are in bringing about a lasting/ final resolution to the disputes was assessed. From the analysis, it was found that the ADR method that is mostly adopted in resolving public project dispute in Nigeria is negotiation. This is followed by arbitration and mediation while mini trial is the least adopted. In assessing the ADR method that is effective in terms of putting an end to construction disputes, adjudication was found to be the method which always put an end to construction disputes on public projects. This is followed by arbitration while mediation is the least factor that will lead to final resolution of such disputes.

#### **5.0 Conclusions**

Alternative dispute resolution (ADR), which is any means of dispute resolution that takes place outside of a court room have been employed in resolving construction disputes in many countries of the world. Disputes and conflicts in construction projects have been considered by many researchers as unpleasant events that occur in the execution of projects and they both have negative effects on cost, performance and completion targets. Such disputes have been resolved through arbitration and litigation proceedings which ultimately destroy business relationships.

ADR processes such as negotiation, dispute review board, mediation and adjudication have been found by many researchers to be cost effective and less time consuming. Furthermore, with the use of ADR processes, the shortcomings of litigation and arbitration have been overcome because Alternative Dispute Resolution procedures are entered into voluntarily by the parties in construction disputes. They have also been found to be faster and less costly than litigation and arbitration. However, litigation and arbitration are still popular in the Nigerian construction industry despite their documented shortcomings, and this indicates that ADR is yet to gain common acceptance. The major hindrances to widespread adoption of ADR methods in Nigeria are general lack of awareness of their existence and unfamiliarity with their workings among stakeholders in the industry. It is critical that disputes are handled appropriately and expeditiously in order to maintain lasting relationships among the parties. This is because the construction industry thrives on relationships which had been built from previous interactions on past projects. If disputes are not handled properly or dealt with expedience, it can also have a major impact on the success of a project such as delayed completion with its attendant costs.

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