AN ANALYTICAL STUDY OF DISPUTE RESOLUTION IN CONSTRUCTION PROJECT OF GUJRAT

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ABSTRACT

India is developing country and Indian government are investing in infrastructure day by day for the country. Construction project are very complex and crucial and long period of time which involve many parties and include different components of work like civil, mechanical and electrical and they are work together. These projects require highly skill construction method, design, plan, risk, fund, and check ground reality day by day. IN the construction project there are many claims and dispute than any other industry. These disputes are undesirables because of they consume more time to resolve because its directly affecting to the workers and company who are involving in the project. Dispute in construction project is happen and after that the conclusion is to delay project. Analysis the general claims and their types of disputes and find to reason and method to reduce dispute. This study presents that dispute resolution method types and the general reason in the construction industry. This study will help to contractor and different consultant firm who are involve in construction industry.

Keyword: Dispute, Construction, Types, causes

INTRODUCTION

✓ There is serval on going real-estate projects in India of crores were delay of work or some breakdown due to any reason cannot be accepted at this time. In this quickly growing construction area, many ways dispute and claim between developer, client, contractors and labour Construction dispute can be defined as a requested to responders, mostly the subcontractor, for recompense of damage reason by defeat to the party and his/her bit of commitment as mention in contact or deal. The repayment is generally it means that extra payment or an addition of time. Claims of construction are quantify for serval projects adjutant among the most unpleasing and disturbing and time consuming regarding based on project. In these days development project is mainly more dispute excepting any other industry. Competitor of contractors are finalizing projects with less amount of profits for the purpose to stay in profession. Inclusion of multilateral, project going to be complex day by day and time consuming. These mistakes are going crucial on parties to build experienced and dangerous projects with less material and projects profit with respect to timely manner. These it is not amaze that the disputes will pursue to expand. In excitation of deal numbers of dispute and resolve by responders and applicant. Many reasons are directly involved of parties are appeal for some amount of time or money. Numbers of request from the parties are mention as dispute. In Contrary, Owner is not agreeing to the dispute publish by the parties and there are differences in explanation. Disputes is an unavoidable, stress in big project require new technology, details and supposition from the holder. There are many reasons behind dispute like manpower, Resource, , time, cost excess, tragedy on project, design changes multiple times and other factors between other parties which out come as a dispute.

✓ Conflict:

“It is important difference of opinion and concurrence about something serious” ¹ Definition of conflict is struggle between parties who achieve goals”.

✓ Claim:

Claims are just normal allegation between two party. Assuming serval definitions, regarding of claim means ‘a appeal by applicant to the agreement this repayment for destruction reason and defeat of the responder to require as describe in the agreement. “Declaration of a right to payment, possession or treatment” Powell and Smith these two are author told that, “A dispute as “A appeal for repayment for destruction incurred by any party”

¹ Conflict means struggle or opposition (Collins 1995) , (Willmot and Hocker (1998))
Dispute:

“Numbers of cases must be settled beyond the jobsite management”², dispute that endure after completing the claims course of action become disputes in the middle of the contracting I responders and applicant. The process is come after is most off the times recognize in the legal documents. Disputes might be conveying through process like arbitration, litigation. Sigitas Mitkus authors of this definition had justified that Conflicts happen if danger part are not clearly allocate, Dispute happen when Conflicts are not manage adequately than Disputes might be happen if Claims would not be resolve.

Change:

Opportunity of the agreement work is changes or not the contractor fault. Changes are repaying money and time too.

Difference between Dispute and Conflict Concept

Research in the questionary dispute or conflict in construction disclose delima. “conflict”, “dispute”, and “claim” will utilize separately or in pairs and frequently manner without explicit way of usage. There are many unresolve likely the researcher is mention to “claims” per se, “disputes” or it’s called “conflict” that is not either appeared as claim or dispute. Any difference between conflict and dispute? Our author interchanges basic term. In additionally, “dispute’ or a “Conflict” are both well-defined notions. Conflict means exists wherever there is incompatibility of engrossment. Conflict can be resolve with I time and cost manner without any disruption, but to extent of conflict is called a dispute. Mostly, this method of dispute resolution own itself to third party interference. In nut shell management of disputes and conflicts would be two different parts, and especially by implement a more demanding ³.

Objectives

✓ In this study the objective is to Research and analyse in various aspect of claims and dispute and negligence of claim. The claim types, claims and their reason behind construction projects dispute and also to find out reason and analysis reason of Dispute and then after Impact of method and need to settle these disputes. In additionally to find one real cases of the Dispute in construction area.

Need for study

✓ Dispute is basically result of damage happened. Generally, both parties are finding to resolve the claim. Both parties hardly ever put together in past. To Estimate the exact value of damage happened due to the excess of cost and time. But the Most off, circumstances in the construction area method of to resolve the dispute and what need to be done before and after dispute arise. Last but not the least numbers of method to solve dispute and to be resolved during the working project.

Research Questions

1) Which is the main reason to guide them in construction dispute?
2) Impacts after solve or during the construction disputes?
3) Which method used in construction industry for disputes resolution?

LEARNING FROM LITRATURE

As per review of disputes and their method of resolution need to take main point after dispute arise on construction project. The main reason has to dig out like dispute strategy and method of resolution. A survey done by cakmak (Cakmak, 2014) author who are in this industry and to analyse that the construction dispute was categorize in three different segments like first is contractual reason on ground reason cause of legal matter. The most favourite technique to resolve dispute is intervention and arbitration. They analyse and conclude that the best approach to resolve dispute is to manage. this paper was handling by author to analyse the common reason of disputes in construction industry. Author said that the major 7 segments are write down and mostly related to the developer or client side and on the other hand some reason behind like contractor side, design, time, quality factors These all factors are in construction industry and their reason and claim or disputes resolution method listed in paper.

✓ The main reason of Dispute:

✓ Delay in Drawings,
✓ Delay over site handling,

² (Diekmann and Girard(1998))
³ (Peter, Michael and Edward, 1998).
✓ Slowup in providing of materials
✓ Delay in finance,
✓ Delay in initial work,
✓ Delay in achieve target,
✓ Work actually not done but get paid,
✓ Slowup to paid Security deposit,
✓ Loss of extra payment due to time limit
✓ Loss due to proper machinery and proper labour,
✓ Design errors,
✓ Incomplete specification
✓ Lack of information about project
✓ Inadequate tender information,
✓ Insufficient time for tender preparation,
✓ Lots of change in work order,
✓ Major changes in plans and specifications after constructing part,
✓ Additional item in bill,
✓ Part rate work by contractor and client,
✓ Impractical Actions,
✓ Lack of management of construction project,
✓ Changes and lack of in contract documents,
✓ Proper inspection of site,
✓ Unbalanced bidding,
✓ Bid lower rate of Tender,
✓ Extension of time (EOT),
✓ Payment failure by the contractor and by client,
✓ Technical and manual error by the contractor,
✓ Fail to maintain quality work and utilise wrong equipment at wrong time,
✓ Break the rule and follow authorized procedures,
✓ Lack of Construction Knowledge,
✓ Damage during the work,
✓ Strike done by Workers,
✓ Major Accidents,
✓ Natural Calamity,
✓ Excess in Material / Fuel Cost

➢ **Reason of dispute**

The above noted claims are settled down between two parties by their mutual understanding and so on Negotiation but some of the dispute which are create and which may not settle create the disputes between the parties are involve. These types of claims which do not set and change into the dispute can be solved by the Advanced Dispute Resolution Methods. The major reason like Payment Related Claims, change of work order, Hold up project, Additional material, Quantify construction, Price fluctuates, Damage and loss and last but not the least agreement rejection.

![Dispute Resolution Method](image-url)
**RESEARCH METHODOLOGY**

- Basically, two methods to find data collection to research. Fieldwork study is the first method data accumulation on the other hand is desk study is other part of data accumulation method. Due to this circumstance (corona pandemic) I had to go with other one desk study.
- Study by using questionnaires survey form to cumulate the data within consideration time frame. This research paper has been cumulating by using survey method. These questionnaires survey has been give out to the which are interconnected to this industry like arbitrator, contractors and consultant.

**Sample size**

- The numbers data collected from numbers of way through like mail, questionary form, interview is as given number of arbitrator and Contractors and in Ahmedabad according to Ahmedabad Urban Development Authority (AUDA) = 1140 Sample size required for the present study. Source from Auda.org.in
- Total member in Ahmedabad based on Ahmedabad Urban Development Authority (AUDA) = 1140 Sample size required for the research work is calculated as given below
- Find out the sample size of population (Creative Research Systems, 2001):

\[ SS = \frac{Z^2 \times P \times (1-P)}{C^2} \]

Where,

- \( SS \) means sample size,
- \( Z \) means Z Value (example is to take 1.44 for 70% confidence interval).
- \( P \) means Percentage of choice, expressed as
- \( C \) means Confidence interval take (10% so s0.1)
- \( POP \) means Population
- \( C \) means Confidence interval (0.1)

\[ SS = \left[ 1.44^2 \times 0.5 \times (1-0.5) \right] / (0.1)^2 = 51 \]

Corrections for finite population

\[ SS_{New} = \frac{SS}{1 + SS - 1/POP} \]

\[ SS_{New} = \frac{51}{1 + 51 - 1/1140} \]

\[ SS_{New} = 49 \]

- So, total responses required are 49. In the data accumulation process, 110 number of people were circulating form and 41 answers. Total responses, 20 Contractors, 6 builders, 1 from Architects and 4 from arbitrator.

**DATA COLLECTION**

- It was floating a questionary form to cumulate the answer from different parties of construction industry from Gujrat city which is located in Gujrat. In this survey arbitrator, Architects, Contractors and Developers are only necessary for this research work.
- There are two different methods to adopt for data collection Average Weighted (W.I) and Relative Importance Index
- In the data collection process, total responses required are 60. In the data accumulation process, 110 number of people were circulating form and 41 answers. Total responses, 20 Contractors, 6 builders, 1 from Architects and 4 from arbitrator.
Response Rate

<table>
<thead>
<tr>
<th>No</th>
<th>Responder</th>
<th>Total Questionnaire Distribute</th>
<th>Received</th>
<th>Percentage of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arbitrator</td>
<td>12</td>
<td>10</td>
<td>75%</td>
</tr>
<tr>
<td>2</td>
<td>Builder</td>
<td>6</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>Contractor</td>
<td>53</td>
<td>20</td>
<td>32%</td>
</tr>
<tr>
<td>4</td>
<td>Architect</td>
<td>5</td>
<td>2</td>
<td>45%</td>
</tr>
<tr>
<td>5</td>
<td>Mail/Interview on phone call</td>
<td>15</td>
<td>5</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>91</td>
<td>43</td>
<td>47.25%</td>
</tr>
</tbody>
</table>

DATA ANALYSIS

- For thesis work we used EXCEL Software for calculate and statical analysis which i was gathered by the questionary form in additionally to complete arithmetic data was use in excel. The data which collected from the questionary form need to examine with use of EXCEL so which we use for data analysis.

OVERALL RANKING IN GENERAL

A. RANK TO REASON OF CONSTRUCTION DISPUTE

<table>
<thead>
<tr>
<th>Number</th>
<th>Options</th>
<th>Wei. Avg Index</th>
<th>Wei. Avg. Rank</th>
<th>RII Index</th>
<th>RII. Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Payment</td>
<td>4.60</td>
<td>4</td>
<td>0.95</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Time</td>
<td>4.40</td>
<td>3</td>
<td>0.65</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Cost</td>
<td>4.70</td>
<td>1</td>
<td>0.94</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Work Order</td>
<td>3.80</td>
<td>6</td>
<td>0.75</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Poor Communication</td>
<td>3.90</td>
<td>7</td>
<td>0.85</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Extra Items</td>
<td>4.12</td>
<td>5</td>
<td>0.80</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Work Quality is Poor</td>
<td>4.26</td>
<td>2</td>
<td>0.91</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>insufficient information in Tender</td>
<td>4.56</td>
<td>8</td>
<td>0.89</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Design Errors</td>
<td>3.85</td>
<td>9</td>
<td>0.79</td>
<td>9</td>
</tr>
</tbody>
</table>

- From present study it is found that “Cost” is getting earliest class in the middle of all reason for construction dispute. After the first class was got to “Poor work quality”. “Time” is getting after and “Payment” is getting 4th class in reason of construction dispute. “Incomplete information” is getting lowest rank. “Design of error” is getting second lowest rank while “poor communication” is getting third lowest rank.

B. IMPACT OF CONSTRUCTION DISPUTE

<table>
<thead>
<tr>
<th>Number</th>
<th>Options</th>
<th>Wei. Avg Index</th>
<th>Wei. Avg. Rank</th>
<th>RII Index</th>
<th>RII. Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Damage relation</td>
<td>4.75</td>
<td>2</td>
<td>0.96</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Increase Project Cost</td>
<td>4.65</td>
<td>3</td>
<td>0.92</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Damage Company Reputation</td>
<td>4.75</td>
<td>1</td>
<td>0.89</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Delay In Project</td>
<td>4.30</td>
<td>4</td>
<td>0.85</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Poor client satisfaction</td>
<td>3.25</td>
<td>5</td>
<td>0.80</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Project Delay</td>
<td>4.00</td>
<td>6</td>
<td>0.90</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Poor Work Quality</td>
<td>4.01</td>
<td>7</td>
<td>0.91</td>
<td>7</td>
</tr>
</tbody>
</table>
Participant answer that the reputation damage of parties. In this method of research getting top most class is “Damage Reputation”, “Relationship Damage” position of after the damage reputation. In additionally, respondents gave last rank to “Undetermined team spirit” matter.

C. RANK OF DISPUTE RESOLUTION METHOD USED

<table>
<thead>
<tr>
<th>Number</th>
<th>Options</th>
<th>Wei. Avg Index</th>
<th>Wei. Avg Rank</th>
<th>RII Index</th>
<th>RII. Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arbitration</td>
<td>2.69</td>
<td>5</td>
<td>0.60</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Litigation</td>
<td>1.96</td>
<td>8</td>
<td>0.25</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Negotiation</td>
<td>4.96</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Mediation</td>
<td>4.86</td>
<td>2</td>
<td>0.96</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Conciliation</td>
<td>2.69</td>
<td>7</td>
<td>0.30</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Adjudication</td>
<td>2.96</td>
<td>4</td>
<td>0.50</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Dispute Review</td>
<td>3.96</td>
<td>6</td>
<td>0.70</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Expert determination Board</td>
<td>4.50</td>
<td>3</td>
<td>0.80</td>
<td>3</td>
</tr>
</tbody>
</table>

Respondents gave top most class to “Negotiation”, after that to “Mediation” 3rd to “lowest rank was given “Litigation”, and after arbitration class given to “Conciliation”, while “Arbitration” has place fourth class.

CONCLUSION

As per research, here is a conclusions Payment is the most common reason of dispute because of facing a Short of money and disputes between the client and the contractor or between two parties who are involve in construction project. The most significant result is damaging company prestige of company and the Negotiation method is generally use to solve the dispute in construction industry. Company who are involving in construction project and their Legal papers which related to the project are a very important part in a contract. When agreement write everything allowable for all parties. Because client are generally make an effort to debit in bill because of the most common reason is quality of work or few mistakes in implementation and Both Client and contractors situate effort in planning before start the project. Client usually does not know what he actually needs.

Future Study Scope

In the future scope the infrastructure will be executed in more number compare to present and in Infrastructure projects generally a big number of dispute and claim can take place so it will be required future to study and research about the reason of dispute, their impact on project and Dispute resolution method to solve the problem. So on This study shall be carried out at every 3 to 4 years by approve institute of survey to identify the reason of dispute and impact method of resolution, and publish the result to Architect, Contractor and Developer for their consciousness in construction industry. Due to project topic requirement this study carried out in the Ahmedabad area of Gujarat state only which can be done in different regions of the country.

Limitations of the study

The sample size collected during the survey which I was conducted of the contractors, clients and consultants and arbitrator is not as per required size due to constraint of time and nonresponsive due to (corona pandemic) at this time. In additionally it is restricted to the city of Ahmedabad only and the response get to the questions of the survey form are basically on the interpretation of the arbitrator, contractors, consultants, and client.

REFERENCE