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CAUSES OF CONTRACTUAL DISPUTES IN CONSTRUCTION PROJECTS IN CHILE

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This article reports on the main causes of contractual disputes in Chilean construction projects, a subject not much studied in the country. The research included an extensive review of the international literature looking for the main causes of contractual disputes in construction as a reference and framework. Then, a detailed study of 98 dispute arbitrations processes of construction projects was carried out in search of the main causes of disputes. It was found that the main causes of contractual disputes were those related to the category of design and information and that the most frequent cause in general was non-payment or delay in payment. This result is consistent with causes of contractual disputes as reported in the international literature. From the 98 arbitrations studied it was possible to establish that the duration of an arbitration was of 531 days in average, but that this depends on the cause of termination of the arbitration. It was also observed that the amount requested from the arbitrator by the plaintiff was 80% of the original amount of the contract in average and that the compensation after the sentence was 28% in average of what was initially requested. This information might be useful for companies that anticipate carrying out construction works in Chile and in Latin-American countries to reduce the potential for claims in their works.

Keywords: Arbitration Processes, Design, Contracts, Conflicts.

1 INTRODUCTION

The commercial relationships between participants in a construction project are established by means of a contract, which is a legal document that, in a simplified way, determines that one party must provide a service to the other party, which, in turn, agrees to pay for this service (Semple et al. 1994). The high complexity and uncertainty of construction projects and the fragmentation of the industry give rise to claims that arise when one party to the contract feels that the other did not comply with the contractual obligations and requests a compensation (Kululanga et al., 2001; Semple et al., 1994). Complaints are already a natural part of the industry and occur on most construction projects (Mitkus & Mitkus 2014, Vidogah & Ndekugri 1997). If claims are not resolved in their early stages, they escalate into disputes and may even lead to litigation that is resolved by the courts (Lu et al. 2015). Disputes and litigations tend to increase hostility between the client and the contractor, affecting the overall performance of the project and the trust between parties (Jannadia et al. 2000, Mitkus & Mitkus 2014). These problems have become a widespread feature of the construction industry (Soni et.al., 2017).

This paper presents a synthesis of the results obtained from an investigation that sought to identify the causes of contractual claims in construction projects in Chile. The importance of this

study lies in the fact that it discloses the main causes of contractual claims that, in general, were not sufficiently reported in Chile, except by the works of Escudero (1999) and Palma (2007).

2 GENERAL BACKGROUND

In general, there is a consensus in the literature regarding causes that generate construction disputes. Using an affinity criterion, causes were categorized in families as follows: 1) financial related; 2) time related; 3) execution and site related; 4) design and information related; 5) relations between actors and with third parties; 6) contractual documents; and 7) force majeure.

Many of individual causes within each family, were repeated several times and could be considered general causes of construction conflicts. On the other hand, there were causes cited by few studies and which are specific to a particular study or project. A classification criterion was applied as follows: if a cause was mentioned in more than 10% of the reviewed literature, the cause was considered as a general cause. On the contrary, those mentioned less than 10% were classified by the team as others. Table 1 shows the results of this analysis.

Table 1. Classification of families of causes used in the study, as per the bibliographic review.

Families of causes						
Financial related	**Time related**	**Execution of work and site related**	**Design and information related**	**Relations between actors and with third parties**	**Contractual documents**	**Force Majeure**
No payment / late payment	Acceleration	Poor quality	Design changes, change orders, or scope changes	Adversarial relationships and low team spirit	Misallocation of risk	Weather
Company bankruptcy/ financial problems	Work stopped or delayed by law or ordinances	Coordination/ programming problems	Defective, ambiguous, or late drawings or technical specifications	Involved parties delay or damage the project	Bidding documents / contracts unclear, ambiguous, or with errors	Others
Significant changes in resources cost	Site access delay	Delay for deficient performance	Different ground conditions	Bad communications	Others	
Others	Others	Estimation errors and unrealistic bidding		Unrealistic clients' expectations		
		Poor management		Others		
		Negligence by contractor or subcontractors				
		Late delivery or poor quality of materials				
		Others				

The literature review was carried out using a set of search keywords as follows: claims; contractual disputes; causes; causes of claims in construction projects, analysis of claims in construction projects.

The next step was to find out which was the family of causes that produces the greatest number of contractual claims in the construction industry as reported in the literature. The total number of mentions of each family was divided by the total number of causes present in that family to obtain the average number of mentions for each individual cause. As an example, time-type causes were mentioned a total of 22 times and given that there are four types of causes within this family (acceleration, work stopped or delayed by law or ordinances, delay due to access to site and others), the time cause type was mentioned 5.5 times (22/4) on average. The result is shown in Table 2.

Table 2. Average number of mentions of each type of cause in each cause family.

Type of cause of the conflict						
Financial	**Time related**	**Execution of work and site related**	**Design and information related**	**Relations between actors and with third parties**	**Contractual documents**	**Force Majeure**
6.8	5.5	7.6	19.0	9.2	8.7	7.0

As seen in Table 2 above, design and information related causes are the ones most repeated on average in all studies reviewed with a value of 19. The importance of knowing the most common causes in advance is of great help to make strategic decisions and prevent what can become a possible conflict. As explained by Francis et al., (2022) the potential causes of disputes should be addressed as per the project contexts at an early stage to avoid the disputes, and to mitigate the resulting effects on the construction industry.

3 METHODOLOGY

To find the main causes of contractual conflict in Chilean construction, the research team analyzed every arbitration that had a main claim or a counterclaim, since otherwise, it was impossible to know the causes that led to the arbitration. If the arbitration had a verdict, then it was sufficient to read the latter, since its expository part contained a small summary of the demands, counterdemand, replies and rejoinders. If the arbitration had concluded without a judgment, the rest of the file was reviewed and both, the demands and the counterdemands were read. To find out which was the most common cause, causes were enumerated and related to the arbitrations that included that cause as the reason for the conflict. Finally, to identify the most common type of cause, the average number of mentions that each family of causes had, was used.

4 DATA ANALYSIS AND DISCUSSION OF RESULTS

In general, arbitration is a late settlement measure. However, Commission (2014) recommends resorting to arbitration instead of ordinary justice since the latter “does not provide a quick and optimal solution to the parties.”

Of the ninety-eight cases studied, an analysis of which were the most common causes of contractual conflicts in these cases using the same categories of causes previously listed in Table 2 was performed. Table 3 displays the results of this analysis and Table 4 shows the information with the detailed individual causes for each family.

Table 3. Average number of mentions for each type of cause.

Type of cause	Financial	Time related	Execution of work and site related	Design and information related	Relations between actors and with third parties	Contractual documents	Force Majeure
Average number of mentions	29.3	10.0	32.4	40.0	30.6	17.0	6.0
Total number of mentions	117.0	40.0	259.0	120.0	153.0	51.0	12.0

Table 4. Number of times that each cause is mentioned in the 98 Chilean cases.

Families of causes and its individual type of cause	Number of mentions
Financial	**117**
No payment /late payment	70
Company bankruptcy/ financial problems	10
Significant changes in resources cost	2
Others	35
Time related	**40**
Acceleration	5
Work stopped or delayed by law or ordinances	7
Site access delay	24
Others	4
Execution of work and site related	**259**
Poor quality	50
Coordination/ programming problems	17
Delays for deficient performance	56
Estimation errors and unrealistic bidding	12
Poor management	16
Negligence by contractor or subcontractors	49
Late delivery or poor quality of materials	21
Others	38
Design and information related	**120**
Design changes, change orders, or scope changes	58
Defective, ambiguous, or late drawings or technical	45
Different ground conditions	17
Relations between actors and with third parties	**153**
Adversarial relationships and low team spirit	54
Involved parties delay or damage the project	30
Bad communications	22
Unrealistic clients' expectations	6
Others	41
Contractual documents	**51**
Misallocation of risk	12
Bidding documents / contracts unclear, ambiguous, or	25
Others	14
Force Majeure	**12**
Weather	3
Others	9

The individual cause that is most repeated in Table 4 is "No payment/delay in payment by one of the parties." It is important to highlight that the withholding of bonds or payments is a cause which is very often mentioned in construction arbitrations in Chile and not so frequently in the international literature where it was mentioned in barely 28% of the cases reviewed.

It is also important to mention that design and information related causes are, on average, mentioned more than the rest of the causes. This is consistent with the international literature, since the individual cause that is most repeated in the literature is "plans or EE.TT. defective, ambiguous, or delivered late" followed by "design changes, change orders/scope changes." (see for example Bakhary et al., (2015) or Mitkus & Mitkus, (2014)). The reason this cause is so controversial is that the real impact of a design change is often not thought of, especially in the late stages of construction projects where these changes produce higher time and cost impacts. In addition, it is the project owner who generates the design change problem in most of the cases. Although it is evident that changes are something normal within a project, it is striking also to corroborate that clients do not plan/design their own projects well as shown by the high number of mentions of this cause.

Causes shown in Table 4 confirm also that the hostility between the various construction parties is a very common source of conflicts as is mentioned repeatedly as a cause of arbitration in Chilean cases. This condition is also found in the international reality as was learned from the literature.

The most mentioned family of causes in the total of causes is the one related to execution of work and land. This is not surprising given the extremely high level of complexity of the construction work, the number of tasks that depend on each other, and the speed of construction that is required today. If the presence of various subcontracts and low qualifications of workers are also contemplated, it is not strange that these many problems arose during the execution of a project. Among the execution problems, the ones that have the most mentions are the delays for deficient performance. The reasons that may exist for these delays are many, but among the most frequently mentioned were the lack of site personnel, lower productivity than expected, a very optimistic estimate, or greater complexity than expected.

5 CONCLUSIONS

The reality of claims in construction in Chile is very alike what happens abroad and, in general, the global causes of the literature are recurring in the arbitrations investigated. Also, the most mentioned family of causes in Chile is also the same reported in the literature: "Design and Information related."

Another important cause is the non-return of bonds or withholdings. This cause is not found as recurrently as in the international literature, but it is common in Chile in cases where a party (normally the owner) feels that the contract is not being fulfilled, the party does not pay as a way of exerting pressure on the other party, i.e., the contractor.

To avoid design changes, clients must be more certain of what they want and make a more complete and in-depth design to avoid excessive modifications so that the project can be carried out without many problems. If modifications are still necessary, they should understand and accept their consequences for the counterparty.

Arbitrations are generally lengthy and expensive compared to other early claim resolution methods. It is preferable to avoid reaching this instance and if not possible, try to resolve the claim as soon as possible. Other methods may be used such as Disputes Resolution Boards or mediations as they have exhibited increasing success lately.

The cost of arbitration can be used as a leverage for resolving claims. If one of the parties knows that the cost of going to arbitration is very high, and the compensation potential amount is quite low for the other party, then the latter will try to solve the problem in another way or give up the demand.

Arbitration verdicts tend to be very similar to what is proposed in expert reports. For contractors, before starting an arbitration, it is always convenient to ask an expert to analyze the case and provide his/her advice. If this advice is favorable for the contractor, then it would be more likely for the contractor to obtain some compensation after the arbitration since the arbitrator will probably judge the facts in a way that will be very similar to the expert's view. It seems that experts' opinions bias the arbitrator's decision.

The documentary evidence is the evidence that is most often mentioned when an arbitrator rules. This confirms the critical importance of documentation to support a demand for compensation.

Also, keep in mind that in in average, in the arbitrations studied, 80% of the original amount of the contract was requested, but in average, only 28% of what was requested was obtained as compensation by contractors. In other words, an average of a little more of a 22% of the total original contract amount was compensated. If the arbitration and other related costs exceed that amount, then, it might be not convenient to initiate the arbitration. In this regard, Gebken et al. (2005) indicate that in average the cost of a dispute for contractors is 58% of the amount requested and 12% of the amount requested for owners. Therefore, losses for the contractors and owners in case of not receiving compensation would be 46.4% and 9.6% of the original amount of the contract respectively.

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