

# Attributes and Causes of Contract Disputes in the Egyptian Construction Industry Before 2011

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**Abstract**—A significant feature of most of the recent construction projects is: they need a long period of time to be completed, during which many economical, legislative, and administrative amendments may happen. Many of these amendments may result in some project scope change which leads to different types of contract claims. When there aren't clear and fast mechanisms to respond to claims, they become disputes; leading to longer time of completion, higher cost of the project, and may be termination of contract. The scope of this research is to analyze the disputes that occurred in the Egyptian construction industry during the period (1992 - 2010), as a trial to understand the attributes and causes of these disputes before the revolution of 2011. Thus, (49) dispute cases were collected from two arbitration centers in Cairo, and two groups of information (General - Technical & legal) were proposed to help in the analysis process. Excel spread sheets were used to tabulate and illustrate the statistics of the obtained data. The results show that housing projects result in more disputes, a governmental authority was defendant in 40% of the cases and most of the dispute parties are contractor - owner. Also, delay was the main reason of disputes and the majority of contracts were design – bid – build with an arbitration clause included in the agreement.

**Keywords**—Construction claims, Construction disputes, Construction arbitration.

## I. INTRODUCTION

A contract is a codification of the private law which governs the relationship and the business environment between the contracting parties. It defines the responsibilities, conditions of its operations, the rights of the parties in relation to each other, and grants the remedies to a contracting party if the other one breaches its obligations [1]. Contract claims are common in construction projects and may happen as a result of several reasons that can contribute to delaying a project and /or increasing its costs [2]. Despite that, claims are considered to be one of the most disruptive events by many project participants [3]. Once a claim has been presented, the owner and the claimant can come to an agreement concerning the claim, and thereby create a change order or a modification, or they may disagree and create a construction contract dispute. Hence, disputes often arise from the poor claims resolution in the course of construction projects [4]. In the Egyptian construction industry (as in many other countries); disputes are considered to

be one of the inevitable outcomes of construction contracts, and one of the most unpleasant events that may happen through the lifecycle of a construction project, which has significant effects on its time, cost, and quality and may lead to project termination in some cases. Through an analytical study of real dispute cases, this research is intended to introduce a comprehensive understanding of the main attributes and causes of the contact disputes in the Egyptian construction industry before the revolution of January 2011.

## II. THE DILEMMA (RESEARCH PROBLEM)

It is understandable that conflicts, disputes, and adversarial relationships exist within the Egyptian construction industry as it has become a very complex, high –risk, and multiparty business. Although the symptoms are well known, root causes and associated negative effects with the problem of response to contract claims, and dispute resolution are not well understood. Most of the researches in the field of construction management focused on managing the time, cost, and quality.... etc. There was always insufficient data about the nature and attributes of the construction disputes and their effects on the construction industry in Egypt. This paper is intended to find the proper answers for the following questions:

What are the most common attributes of the Egyptian construction disputes?

What are the main causes that may lead to a construction dispute?

Is there a relation between the selected form of contract and the potential of dispute occurrence?

## III. THE RESEARCH OBJECTIVES

The main objective of the research was to study and analyze the attributes of the contract disputes in the Egyptian construction industry. Thus, reflecting the research questions and the insufficient data about the nature and attributes of the construction disputes in Egypt, the objectives of this research are:

Identify the general attributes of the disputes arising during the construction project's life cycle.

Identify the relation between the attributes of the construction contract (type of project, delivery system, and the contract conditions and clauses) and the arising of certain disputes.

Determine the main types of disputes, and the frequent reasons which may causes these disputes to arise.

Determine whether the Governmental contracts have

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significant effects on the nature and frequency of certain disputes.

The achievement of the research objectives could be done through the examination of real dispute cases that were presented to arbitration centers in Egypt during more twenty years' period (1991-2010). It was important to choose the research period prior to the date of the 2011 revolution as many political, financial and legislative changes has been occurred (and still), thus may have many unpredictable reflections on the construction industry, and may require another research work after a longer period.

#### IV. THE RESEARCH METHODOLOGY

To achieve the pre-mentioned objectives, this research was divided into three main phases:

##### A. Data collection

The purpose of this phase was to overview the arbitration centers in Cairo, review their rules of arbitration, and collect the maximum possible number of dispute cases, forty-nine cases were collected from two arbitration centers in Cairo; these cases were presented to arbitration during the period starting from 1992 till 2010:

- Arab Center for Arbitration (ACA): It is a private center for arbitration established in Egypt (Cairo – Maadi) by Egyptian and Saudi arbitrators [5]. All the cases presented to the center are subject to the Egyptian law (unless it was agreed to subject the disputes to other laws).
- Cairo Regional Center for International Commercial Arbitration (CRCICA): (CRCICA) is an independent non-profit international organization established in 1979 under the auspices of the Asian African Legal Consultative Organization ("AALCO"), in pursuance of AALCO's decision taken at the Doha Session in 1978 to establish regional centers for international commercial arbitration in Asia and Africa. Since its establishment, CRCICA adopted, with minor modifications, the Arbitration Rules of the United Nations Commission on International Trade Law (the "UNCITRAL"), approved by the General Assembly of the United Nations by resolution No. 31/98 on December 15, 1976 [6].

##### B. Data Analysis

The researchers faced some difficulties during sorting and analyzing the collected data, one of the most important difficulties was the lack of some details in many cases. These details had been deliberately withheld from the available documents because of the privacy reasons. Thus, a questionnaire was sent to both centers for two reasons:

###### **To validate the analyzed data.**

To get the missing data in the published documents. These missing data were: the total sum of the contract in some cases, the project delivery system, the exact starting and finishing dates of dispute in some cases, and the complete form of contract "especially with governmental authorities".

Sorting the data: Data collected from the CAC were (41)

cases, each one has a serial number starting from 1 to 41. Cases where examined and (3) cases were excluded (one is not a construction dispute, and two are repeated cases). Data collected from the CRCICA were (8) cases, each one has a distinct number consists of two parts, the case number and the year of starting the dispute (49/1994). Hence, total number of (46) cases were prepared to analysis.

##### C. Analyzing the Data

Two groups of factors were prepared to fulfill the objectives of this research (table 1):

Group (1) is the general information of dispute:

The code number of the case.

The entity and role (claimant-defendant) of each dispute party.

The type of the project, the starting and completion dates (if applicable) and the sum of the contract (if available).

These factors have a great importance to identify the relation between the frequency of disputes and the type of the project; also it determines the frequency of disputes when one of the parties is a governmental authority.

Group (2) is the technical and legal information of dispute:

##### D. Contract parties

(Owner, Contractor...etc.), this will help to determine the relation between the frequency of disputes and the different contract parties.

Main contract obligations: this factor was useful to complete the missing data related to the project delivery system, and to illustrate the relation between the frequency of disputes and a certain delivery system.

##### E. Type of dispute

It is important to declare the main types of disputes in the Egyptian construction industry.

The actions of both parties: to illustrate the effect of the actions of both parties on the arising of disputes.

Arbitration clause: the presence of an arbitration clause or/and an arbitration agreement.

The demands (Claims) of both parties: this is an important factor to determine the most frequent claim types which may lead to a dispute.

The arbitral tribunal findings: this factor assures the claims of one party against the other, and declares the main causes of the dispute.

Arbitral award: here we reach the final step of the dispute resolution, and each party gets his rewards and/or his sanctions.

##### F. Findings

This section presents the analysis and results derived from the information and data obtained from the previous two phases. Excel spread sheets were used to tabulate and illustrate the statistics of the obtained data. All the results were presented in tables or bar-charts with two ways of illustrations (the number of frequency compared to the total number of cases, and the percentage of each number).

TABLE I: EXAMPLE OF ANALYZING BOTH OF GENERAL & TECHNICAL INFORMATION FOR A DISPUTE CASE PRESENTED TO CRCICA

Case No. : (69/1995)	Start of Dispute	Final Arbitration:
65,000,000\$	1995	1996
Type of Project:	Claimant:	Defendant:
Tourism (Hotel)	Egyptian Contractor	Tourist Co.

Dispute Parties	Claimant (Contractor)	Defendant (Owner)
Main Contract Obligations	The construction of the project according to the drawings and specifications given from the owner.	The Design and full working drawings of the project
Type of Dispute	Suspension of the Work (During the Excavation Work for the Foundations, Different Soil Profile was Found, and It was Expected to Have Significant Effects on The Building's Safety)	
Actions of Both Parties	<ul style="list-style-type: none"> <li>New soil investigations were made.</li> <li>Asking for alternative foundation design.</li> <li>Suspension of the work.</li> </ul>	Other soil investigations were done and different results were obtained which resulted in the dispute between the contract parties.
Arbitration Clause	The contract included an arbitration clause	
Demands of Both Parties	<ul style="list-style-type: none"> <li>New designs for foundations, which will be followed by new cost estimates.</li> <li>Extension of time, and higher price for all the contract unites.</li> <li>Compensation for the suspension of work.</li> </ul>	<ul style="list-style-type: none"> <li>The bank interests for the first payment sum.</li> <li>Liquidated damage sum of 27,000,000 \$ as a result of delay.</li> <li>Delay penalty of 9,750,000 \$.</li> <li>Compensation for raising suspicions about the safety of the project (50,000,000 \$).</li> </ul>
The Arbitral Tribunal Findings	<ul style="list-style-type: none"> <li>The Architect (or the consultant) and the contractor are responsible for the project's safety for 10 years (Cl. 651, Egyptian civil law).</li> <li>The claimant and the defendant share the responsibility for not making the accurate soil investigations before signing the agreement.</li> <li>The defendant didn't introduce any design alternatives according to the new soil investigation reports.</li> </ul>	
Arbitral Award	<ul style="list-style-type: none"> <li>All the demands for both parties were refused.</li> <li>The contract is still bending after arbitration.</li> <li>Both parties share the arbitration fees.</li> </ul>	

V. FINDINGS

A. Distribution of Project Types

(Fig.1) shows the distribution of the projects types in relation to the frequency of disputes related to each project type (45 from the 46 projects were examined as the project type of case no. 38 was not identified). The results indicate that the housing projects had the higher percentage of disputes (this is logic due to its higher repetition), the industrial, educational, hotels & touristic, infrastructure, and public facilities had average frequency, while the other types of projects had the minor frequency.

B. Project Delivery Systems

The results of analyzing the project delivery systems show that 86.6% of the projects adapted the design bid build DBB Delivery system, while 6.7 % adapted the design build DB

system, and the rest of the projects (6.7%) were other systems (Fig.2).

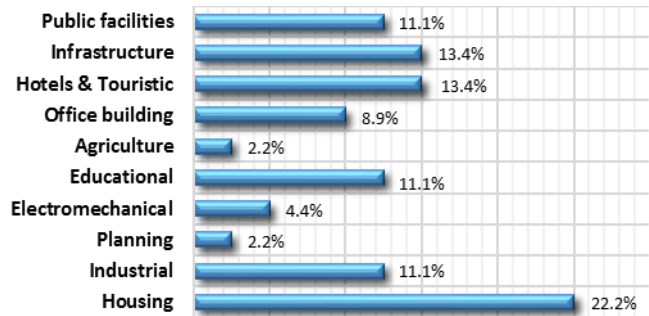


Fig. 1. The relation between project type and frequency of disputes.

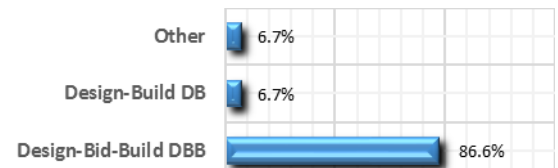


Fig. 2. Relation between the project delivery system and frequency of disputes.

C. Distribution of dispute parties

Dispute parties of the 46 cases were grouped into main four groups: (Contractor / Owner), (Consultant / Owner), (Contractor / Sub-Contractor) and (Consultant / Sub-Consultant). It was found that: Contractor was the claimant party in 27 cases in the first group with a percentage of 82%, the consultant was the claimant in 6 cases in the second group with a percentage of 86%, the sub-contractor was the claimant in 3 cases in the third group with a percentage of 60%, and the sub-consultant was the claimant in the last group with a percentage of 100% (Table 2).

TABLE II: THE RELATION BETWEEN DISPUTE PARTIES AND FREQUENCY OF DISPUTES

	Dispute Parties			
	Contractor Owner	Consultant Owner	Contractor Sub-contractor	Consultant Sub-consultant
Frequency	33/46	7/46	5/46	1/46
Percentage	72%	15%	11%	2%
Claimant	Contractor	Consultant	Sub-contractor	Sub-consultant
Frequency	27/33	6/7	3/5	1/1
Percentage	82%	86%	60%	100%

Also, it was found that a governmental authority was a dispute party in 18 cases against a private sector party, who was the claimant in 17 cases of the 18 cases (Table 3).

TABLE III: THE FREQUENCY OF A GOVERNMENTAL AUTHORITY AS A DISPUTE PARTY

	Dispute Parties (Governmental – Private sector)	
	Governmental	Private sector
Owner	17/18	1/18
Percentage	94%	6%
Claimant	1/18	17/18
Percentage	6%	94%

**D. Presence of clause of arbitration and/or arbitration agreement**

During the analysis of the 46 cases, two of them were excluded (were settled). It was found that most of the contracts included an arbitration clause (27 from 44), in addition to 8 contracts included an arbitration clause while an arbitration agreement that was issued after the arising of dispute. Only 9 contracts didn't include an arbitration clause and needed an arbitration agreement to be issued (Fig. 3).

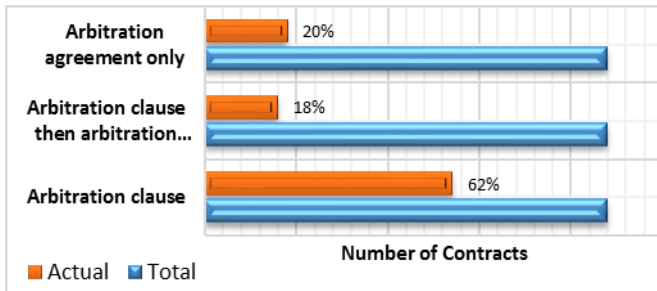


Fig. 3. Presences of Arbitration clause and/or arbitration agreement in dispute contracts.

**E. Winner and loser (party/parties)**

The analytical study of the 46 cases showed that in the majority of the cases the claimant is the party who executes the work. Also, the claimant is the winner in most of the cases. In the (owner / contractor) disputes (33 cases from 46), the contractor was the claimant in 27 cases and the winner in 20, while both parties lost a part of their claims in 7 cases (Table 4). It is important here to mention that the winner party is not only the party who gains all his demands (Claims) but also the party who gains most of his claims. If both parties win some of their claims and lose others, then both of them are equal. Also the distribution of arbitration fees in the majority of the cases is equal between the dispute parties; in some cases, the loser pays more and may be 100% in few cases (Fig. 4).

TABLE IV: THE ARRANGEMENT OF CHANNELS

	Owner	Contractor	Owner	Consultant	Consultant	Sub-Consultant	Contractor	Sub-contractor
Frequency	33/46		7/46		1/46		5/46	
Percentage	72%		15%		2%		11%	
Claimant	7/33	26/33	2/7	5/7	0	1/1	2/5	3/5
Percentage	21%	79%	29%	71%	0%	100%	40%	60%
Settled	1/33		0		0		1/5	
Winner	5/33	20/33	0	4/5	0	0	1/2	3/3
Percentage	15%	61%	0%	80%	0%	0%	50%	100%
Both	7/33		3/7		1/1		0	
Percentage	21%		43%		100%		0%	

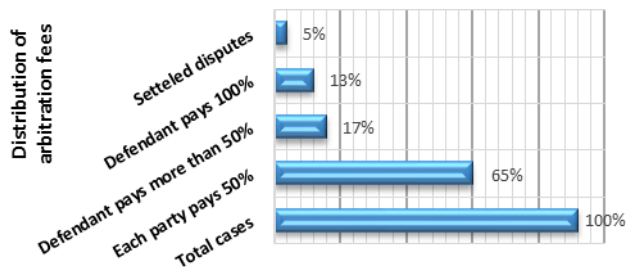


Fig. 4. Distribution of arbitration fees between dispute parties.

**F. Causes of disputes**

Analyzing the causes of disputes of 44 cases from 49 (where 2 were settled, 2 were repeated, and 1 is not a construction dispute) showed that: Fourteen causes of disputes were detected. The delay from the owner (delay of payment, or any other obligation stated in contract) was a reason of dispute in 19 cases from 44 (43%) followed by the delay from the contractor (12 cases, 27%), while the termination of the contract was the main reason of dispute in 11 cases from 44 (25%). Force majeure and different site conditions were the main reason of dispute in 8 cases (for each). The analysis showed also that: the problems with third party, changing of the consultant, different interpretation of contract clauses and the interference of work were the less frequent causes of disputes (Fig. 5).

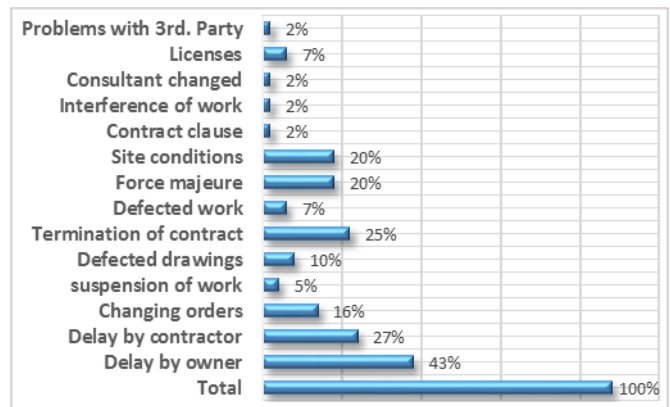


Fig. 5. Frequencies of causes of disputes.

**G. The used form of contract**

In 7% of the cases, the dispute parties used the FIDIC forms of contracts, while other forms were used in 93% of the cases (Table 5).

TABLE V: FREQUENCIES OF USING DIFFERENT FORMS OF CONTRACTS

	Forms of contract		
	FIDIC	Others	
		With arbitration clause	Without arbitration clause
Frequency	3/44	32/44	9/44
Percentage	7%	72%	21%
<b>Total</b>		<b>93%</b>	

**VI. CONCLUSION**

The analytical study of (49) dispute cases that were presented to two arbitration centers in Cairo during nineteen years' period (1992-2010) showed that the housing projects results in more disputes due to its higher repetition when compared to other types of projects, and that the contractor – Owner relationship has a significant potential of producing much more disputes than the relation between the other project parties. Delay (from the owner to pay or from the contractor to complete the work) is a major reason that leads to disputes while the claimant is the

winner in most of the cases. There is a strong relation between the adopted project delivery system and the potential of producing significant disputes, as the design – build (DB) delivery system appeared to be the most appropriate system from this point of view. FIDIC forms of contracts resulted in much less disputes when compared to other forms that were adopted in the Egyptian construction industry. While the Egyptian forms of contracts included arbitration clause (in most of the cases), there still a necessity to make a comprehensive and deep study of the arbitration clause in these forms and compare it to that one in the FIDIC forms.

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