Construction claims in United Arab Emirates: Types, causes, and frequency

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Abstract

The construction industry in the United Arab Emirates is considered the largest single industry, yet, it is also very complex and the most fragmented industry as it involves multidisciplinary participants. In this multidisciplinary environment, claims appear to hinder the completion of construction and cause delays in delivering projects. This research presents the results of a study of the types, causes, and frequency of construction claims in the emirates of Dubai and Abu Dhabi in UAE using a data from 124 claims for a variety of projects in the two emirates. The data were analyzed and the results of this analysis along with recommendations on how to reduce/prevent claims in construction are then presented.

Keywords: Claims; Construction industry; Contracts; International projects

1. Introduction and background

The United Arab Emirates (UAE) government is investing billions of dollars every year in new facilities to improve the infrastructure of the country. Modern cities have risen from the barren desert, connected by a vast network of first-class roads and linked to the outside world by modern airports and ports. Housing compounds, schools, hospitals, shopping malls, telecommunications, electricity and water, luxury hotels, and recreational facilities have all been provided in a short space of time. The majority of these projects are being constructed in Dubai and Abu Dhabi Emirates.

In view of the above, and considering the giant size of these projects, it is not surprising that the number of claims continues to increase. Construction claims are considered by many project participants to be one of the most disruptive and unpleasant events of a project [1]. According to Vidogah and Ndekgri [2], however, claims are becoming a way of life and, indeed, an indispensable part of modern contract systems. In UAE, construction claims, normally seen in almost every construction project, are direct results of the ongoing growth in the construction industry in the country. In general, claims are common in construction projects and can happen as a result of several reasons that can contribute to delaying a project and/or increasing its costs. Finishing a project on schedule is a difficult task to accomplish in the uncertain, complex, multiparty, and dynamic environment of construction projects [3]. To enhance the chances of success, contractors submitting claims must closely follow the steps stipulated in the contract conditions, provide a breakdown of alleged additional costs and time, and present sufficient documentation [4]. On the other hand, project owners need to follow an overall comprehensive step-by-step procedure for tracking and managing the claims submitted by contractors [5–7].

Once a claim has been presented, the owner and contractor 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. Analyzing the various types and causes of claims is an important task to resolving these claims [8,9]. Since pro-
ject participants are becoming more aware of the high costs and risks associated with claims and their litigation, the construction industry needs to develop methodologies and techniques to reduce or prevent claims. Even though construction claims are frequent and their resolution is difficult, many times legal advice is not sought because it is not available or because it is expensive [10,11].

Several attempts were made in the literature to study the types of construction claims and determine their main causes and ways of avoiding them. Scott [7] conducted a survey to investigate the causes and mechanisms that are used to prepare and evaluate delay claims in United Kingdom. Hartman and Snelgrove [12] evaluated the effectiveness of written contract language to communicate risk apportionment between contracting parties. Al-Khalil and Al-Ghafly [13] determined the most important causes of delay claims in public utility projects in Saudi Arabia based on the frequency and severity of these causes.

There is still, to a great extent, a lack of information related to the causes of construction claims in UAE and the ways to prevent or minimize them. This research, therefore, presents the results of a study of the types and causes of claims in the emirates of Dubai and Abu Dhabi using a data collected for 124 claims related to different projects in the two emirates. The data are analyzed to identify problem areas and recommendations to reduce claims in construction projects are then presented.

2. Scope of this study

Information for 124 claims related to different construction projects in Dubai and Abu Dhabi Emirates in UAE were collected. The data were collected from 71 different entities (29 contractors, 33 consultants, and 9 owners) in the two emirates. The reason of choosing these two emirates is that they represent around 78% of all investments in the country (see Fig. 1), according to the UAE industrial statistics report [14]. Based on their main area of specialty, the profiles of the 71 entities are shown in Table 1. The 71 owners and firms were asked to provide information related to types of projects, amounts of claims requested by contractors, amounts awarded by owners, and the method used to resolve each claim. The data for the 124 claims were mainly extracted from owners, consultants, and contractors’ claims database. Data of claims that were resolved by arbitration were examined against those listed in the UAE Arbitration Committee database while data of claims that were resolved by litigation were examined by reviewing Abu Dhabi and Dubai court rulings.

Owners and firms were also asked to provide information related to types of claims, causes of claims, and frequency of each type and cause by filling a questionnaire, in which they choose one of five possible options for the frequency of each type and cause of claims: (1) never; (2) rare; (3) average; (4) frequent; and (5) very frequent. The data were then analyzed and a detailed analysis of the data is shown in the following section.

3. Data analysis

The data collected represent various types of projects constructed over a period of around five years (from 2000 until 2004, inclusive). The types of projects include buildings, roads and highways, water and sewer lines, power plants, airports, in addition to a variety of other types. The distribution of the types of projects is shown in Fig. 2 with road and building projects having the highest percentage among all other types (34.7% and 30.6%, respectively). The data collected were analyzed and a detailed discussion of the analysis is shown in the following subsections.

3.1. Types of claims and their frequency

The data received indicated that the types of claims in construction projects in UAE can be classified into six main types: (1) contract ambiguity claims; (2) delay claims; (3) acceleration claims; (4) changes claims; (5) extra-work

<table>
<thead>
<tr>
<th>Type of respondent</th>
<th>Number of respondents</th>
<th>Number of claims</th>
<th>Company main area of specialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>9</td>
<td>18</td>
<td>Residential and commercial: --</td>
</tr>
<tr>
<td>Designer/consultant</td>
<td>33</td>
<td>57</td>
<td>Residential and commercial: 12</td>
</tr>
<tr>
<td>Contractor</td>
<td>29</td>
<td>49</td>
<td>Residential and commercial: --</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>124</td>
<td>Residential and commercial: --</td>
</tr>
</tbody>
</table>

Fig. 1. Percent of investments in all emirates in UAE.
claims; and (6) different site condition claims. To provide a realistic idea about the frequency of each type of claims, firms were asked to fill a questionnaire in which they choose one of five possible options for the frequency of each type of claims, as mentioned in the previous section. A weight in a scale from 0 to 4 was given for each of the five frequencies with a weight of 0 for “never”, 1 for “rare”, 2 for “average”, 3 for “frequent” and 4 for “very frequent”. No weight was given when no response was provided. The frequencies for each type of claims received are listed in Table 2. Responses for the “changes” type of claims, for example, indicated that one firm did not respond, 4 firms responded as “never”, 9 responded as “rare”, 22 responded as “average”, 21 responded as “frequent”, and 14 responded as “very frequent”. Data of Table 2 were analyzed and a weighted average was calculated for each type of claims as follows:

\[
\text{Weighted Average} = \frac{\sum W_i X_i}{N},
\]

where \(W_i\) is the weight assigned to the \(i\)th option; \(X_i\) is the number of respondents who selected the \(i\)th option; and \(N\) is the total number of respondents (71 in this study).

To better understand the importance of each type of claims, an importance index percentage was then calculated as follows:

\[
\text{Importance Index} = \frac{\text{Weighted Average}}{4} \times 100.
\]

The importance index values for each type of claims are shown in Table 3. For example, the weighted average for the “changes” type of claims = \((0 \times 4 + 1 \times 9 + 2 \times 22 + 3 \times 21 + 4 \times 14)/71 = 2.42\). The importance index for this type of claims = \((2.42 \times 4)/100 = 60.5\%\). The results of this analysis indicate that “changes” claims are the most frequent type of claims. This type of claims was ranked first with an importance index of 60.5\%. “Extra-work” claims

\begin{table}[h]
\centering
\caption{Frequency of each type of claims}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
Types of claims & No response & Never & Rare & Average & Frequent & Very frequent \\
\hline
Contract ambiguity claims & 7 & 14 & 23 & 15 & 8 & 4 \\
Delay claims & 3 & 6 & 14 & 20 & 21 & 7 \\
Acceleration claims & 5 & 14 & 19 & 15 & 10 & 8 \\
Changes claims & 1 & 4 & 9 & 22 & 21 & 14 \\
Extra-work claims & 2 & 4 & 10 & 18 & 23 & 14 \\
Different site conditions claims & 1 & 11 & 22 & 23 & 9 & 5 \\
\hline
\end{tabular}
\end{table}
were ranked second with an importance index of 60.2% while “contract ambiguity” claims were ranked last with an importance index of 32.70%. The ranks of all types of claims are listed in the last column of Table 3.

3.2. Causes of claims and their frequency

The data received indicated that there are 26 possible causes of claims. Similar to what is explained in the previous subsection for types of claims, firms were asked to choose one of five possible options for the frequency of each cause of claims: never, rare, average, frequent, and very frequent with a weight for each in a scale from 0 to 4. Responses for the frequency of the “change orders” cause of claims, for example, indicated that 4 firms did not respond, 4 responded as “never”, 13 responded as “rare”, 18 responded as “average”, 21 responded as “frequent”, and 11 responded as “very frequent”.

A weighted average was calculated using Eq. (1) for each cause of claims and the importance index percentage was then calculated using Eq. (2), as shown in Table 4. The results of this analysis indicate that “change orders” are the most frequent cause of claims with an importance index of 55% while “delay caused by owner” was ranked second with an importance index of 52.5%. “Planning errors” cause of claims was ranked last with an importance index of 32.7%. The ranks of all causes of claims are listed in Table 4.

3.3. Claim amounts requested by contractors and awarded by owners

Further analysis was also performed to find the frequency of claims for different amounts requested by contractors and awarded by owners. In general, claim amounts requested by contractors range from $111,350 to $167,245,000. Fig. 3 shows the frequency of claims for different amounts requested by contractors. The figure indicates that the majority of claims (44 claims) are less than or equal to $2.5 million. The next highest frequency (30 claims) is in the range from $2.5 to $5 million. A total of only 11 claims are above $20 million. The solid line plotted in Fig. 3 shows the cumulative percentage for the number of claims for each range of claim amounts requested by contractors. It can be observed from the figure that the amounts requested by owners for around 60% of the claims are less than $5 million.

![Fig. 3. Frequency of claims for amounts requested by contractors.](image1)

![Fig. 4. Frequency of claims for amounts awarded by owners.](image2)
On the other hand, the amounts awarded to contractors by owners range from $0.00 to $21,674,650. Fig. 4 shows the frequency of claims for different amounts awarded by owners. As illustrated in the figure, the majority of claims (65 claims) are below $0.5 million. The next highest frequency (16 claims) is in the range between $0.50 and $1 million followed by 14 claims in the range from $1 to $1.5 million. The solid line of Fig. 4 shows the cumulative percentage for the number of claims for each range of claim amounts awarded by owners. As can be depicted from the figure, the amounts awarded by owners for more than 76% of the claims are less than $1.5 million.

To give a better understanding of these numbers, claim amounts were grouped based on the type of project and the ratios of the amounts requested by contractors and those awarded by owners were then calculated, as shown in Table 5. These ratios indicated that, on average, only 16% of claim amounts requested by contractors are awarded by owners, as shown in the bottom of the last column of Table 5. This can also provide an idea about the risk associated with each type of project. To owners, it can be assumed that the higher the ratio, the higher the risk associated with this type of projects. Based on this assumption, sewer-line projects with only 0.04 ratio provided the lowest risk to owners while power-plants with a ratio of 0.78 provided the highest risk.

4. Case study

A sample case study of a claim is presented in this section. The case is about a contractor specialized in the construction of residential and commercial buildings. The contractor was asked by an owner to build a 42-story residential building using a lump-sum type of contract. The building consists of five different apartment types. During construction, the owner changed the internal layout of one type and made changes to the internal finishes of three types of apartments. The contractor submitted a claim to the owner asking for $5,895,000 as a compensation for the additional costs resulting from the owner’s changes. This amount is due to the changes in the specifications of the internal finishes and, therefore, the contractor did not ask for any time extension. After studying and analyzing the contractor’s claim, the owner found that these changes do not worth more than $950,000. After several meetings to negotiate this issue, the two parties agreed to settle this claim for an amount of $1,050,000. Although this represents only 17.8% of the original amount requested, the contractor accepted this amount as they are normally loath to use arbitration or go to court to resolve disputes. This is because of the long time and high costs associated with these two methods of resolution. Several other cases of claims were also studied and it was found that changes made by owners represent the most frequent type and cause of claims in construction projects in UAE, which supports the findings of this study.

5. Methods used to resolve claims in UAE

According to the UAE Civil Procedure’s Code, disputing parties in any construction project may resolve and settle any claim using the normal resolution channels: (1) negotiation; (2) mediation; (3) arbitration; or (4) litigation. According to this study, the majority of construction claims in UAE (77.1%) are resolved using negotiation, as shown in Fig. 5. The figure also shows that only 4.9% of claims were resolved using litigation. This confirms that firms are quite reluctant to go for litigation because of the long time and high costs and risks associated with this method of resolution.
6. Recommendations of industry practitioners

Industry practitioners and experts from Dubai municipality and Abu Dhabi Planning Department were asked to provide recommendations on how to prevent/reduce claims and how to deal with such claims in case they happen. Based on their recommendations, the following are some rules-of-thumb on how to reduce/prevent claims in construction projects:

1. Allow reasonable time for the design team to produce clear and complete contract documents with no or minimum errors and discrepancies.
2. Establish efficient quality control techniques and mechanisms that can be used during the design process to minimize errors, mismatches, and discrepancies in contact documents.
3. Have a clearly written contract with no ambiguity.
4. Read the contract several times before signing it to understand any unclear clauses.
5. Have a third party to read contract documents before the bidding stage.
6. Use special contracting provisions and practices that have been used successfully on past projects. Useful information can be found in ASCE booklet [15], which is about avoiding and resolving disputes during construction.
7. Develop cooperative and problem solving attitudes on projects through a risk-sharing philosophy and by establishing trust among partners (e.g., the owner and the contractor). This concept is known in the literature as partnering.
8. Implement constructability during the different stages of a project.
9. Establish a strategy on how to deal with tighter scheduling requirements.
10. Have signed change orders before starting doing these changes on site.
11. Maintain proper job records on a timely manner including time sheets, diary records, reports, photographs, records of labors and weather and its effect on progress, progress of the construction, site instructions, etc.

7. Concluding remarks

This study can be used to identify several problem areas in the construction process in UAE. Steps should be taken to clarify any issues or conflicts that may arise in these common problem areas. One of the common problem areas is the “changes” type of claims which, according to this study, was the most frequent type of claims and needs special consideration. “Extra-work” type of claims came second and “contract ambiguity” was ranked last. It can also be concluded from this study that “change orders” are the most frequent cause of claims while “delay caused by owner” was ranked second. “Planning errors” were ranked last, indicating that it is the least frequent cause of claims.

According to the results of this study, it is recommended that special consideration should be given to contract clauses dealing with change orders, disputes, variations and extra works conditions, and delay. The best means to cope with risk of construction claims is to reduce or avoid them altogether. There are certain fundamental means of reducing the number of claims encountered. The main and essential steps that can be taken to minimize risks and deal with the aforementioned identified causes include: (1) allowing reasonable time for the design team to produce clear and complete contract documents; (2) having a clearly written contract with no ambiguity by using special contracting provisions and practices that have been used successfully on past projects; (3) developing cooperative and problem solving attitudes on projects through a risk-sharing philosophy between the owner and the contractor.

It is expected that the findings of this research will assist all parties to a contract reduce liability by avoiding the main causes of claims and, accordingly, minimize delays and cost overruns in construction projects. The suggested comments are also necessary for proper project management, which is far more advantageous and profitable than seeking advice of a construction claim consultants after the dispute is entrenched. The latter course often takes place too late and is too costly.

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References


