

## **“IMPLEMENTATION OF CONSTRUCTION PERFORMANCE BY IDENTIFY CRISIS FACTOR IN SOUTH GUJARAT REGION”**

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**Abstract:** *A crisis is "a situation faced by an individual, group or organization which they are unable to cope with by the use of normal routine procedures and in which stress is created by sudden change". crisis is an unexpected event in an organization's life and in construction project , for which there are no contingency plans in place, which threatens high priority goals and demands a time-pressured response. Negative events in today's globalized world may lead to crises and there by affect construction companies in time gradually. These events may occur suddenly or after a long process. These paper aim is to identify the crisis factor from the literature and site survey. Questioner survey is carry out is south Gujarat region. The main target of this research is identify crisis factor on construction project without any delay on a whole. This research work is based on MEAN SCORE METHOD to find out the crucial factors on multi construction project.*

**Keywords:** Crisis , Factor affecting crisis.

### **1 INTRODUCTION**

**A crisis is "a situation faced by an individual, group or organization which they are unable to cope with by the use of normal routine procedures and in which stress is created by sudden change". Crisis is an unexpected event and thereby affect construction companies in time gradually. These events may occur in Proactive or Reactive Manner during organization's life, for which there are no contingency plans in place, which threatens high priority goals and demands a time-pressured response.**

**Negative events in today's globalized world may lead. Process-based crises usually send early warning signals, and construction companies that can catch these signals can prepare against the forth coming crises. One of the most important processes in crisis management is to establish an early warning system. This provides some time to take the required precautions against potential crises. After catching early warning signals, construction companies that can successfully manage crises inform their personnel about approaching crisis to prepare, organize a crisis team before the crisis, and perform an effective struggle during the crisis. Construction companies which can survive in a crisis may evaluate opportunities of the crisis and start to make recovery studies after the crisis to turn to their former positions. If a construction company estimates a crisis well and executes crisis management efficiently, they can overcome crises with zero or minimal damage. Construction companies should learn crisis and crisis management concepts to escape from crises.**

Therefore, in this study, key points such as the problem statement , objectives, scope and identify the crisis factor that increase performances of construction companies during crises. Thus, the current study can contribute to construction companies to catch early warning signals of a crisis, to motivate the personnel against the crisis, to perform an effective struggle during the crisis, and to turn to the former position in a short time after the crisis.

## 1.2 Problem Statement

There has been lots of research done on risk factors and risk management for construction industry but crisis is very unpredictable event occurrence at construction site which will force construction work either to stop or to Pause. Effect of Crisis will be on money, labor, organization or in any phase of construction and its effect is very much abrupt so if we are already having in mind that these are the reasons for crisis so we can be ready to avoid or to solve when the Crisis occur. So for that we need to first be aware with factors and effects of crisis.

## 1.3 Aim of Study

To study the awareness and response of construction stakeholders towards the crucial crisis factors.

## 1.4 Objectives of Study

- To identify and priorities the factors responsible for Crisis in Construction Industry.

## 1.5 Scope of Study

- The data collection for study has been done using questioner survey from stakeholders like Architect. Collected data was analysed through Mean Rank method.

## Crisis

A crisis is an unplanned change, a sudden or evolving unanticipated event that may harm the organization, its stakeholders, or the public in general. Generally it requires immediate and decisive action and usually on less than complete information. On a worksite, this may involve a medical emergency, a natural disaster, a fire, a structural failure, a terrorist act, or any situation that endangers the project or the people on site.

The construction firm may also have a crisis situation involving information or technology breakdowns, economic and market impacts, and relationship or management issues. There may also be a crisis of malevolence, misdeeds, or fraud. These, too, may present threats to the organization's reputation, its bottom line, its people, and ultimately its ability to conduct business. No matter the kind of emergency, a crisis requires action to control and minimize the potential impact of such an event.

To effectively deal with such potential eventualities, the organization should have a plan and a process. The organization should try to identify any potential crisis it may face, the resources required to effectively deal with it, and the people best able to deal with such a situation. Categorize the types of crises in order to have predetermined response levels. Establish channels of communication and chains of command to deal with such events. Have a plan, not only to deal with the realities, but also with the perceptions of the crisis. Crises also provide the opportunity to change "standing" means and methods or accepted practices. "You never let a serious crisis go to waste. And what I mean by that, it's an opportunity to do things you think you could not do before," said Rahm Emanuel.

Obviously, it is best to avoid the crisis situation. The crises that are handled poorly get the greatest attention, cause more harm, and leave a longer lasting effect. One never hears about crises that do not occur, however gratifying it is to know that one was avoided!

**Mean score method**

- The Mean Score method was used to obtain the level of significance and importance of factors occurring crisis on construction site in south Gujarat construction. The rating of the respondents was converted into actual scores.
- This can be illustrated mathematically as follows.
  - Rank sum (s) =  $\sum_n W$  Equation 1
  - Mean Score (MS) =  $\frac{\sum_n W}{N}$  Equation 2
- (Where S = Rank sum, S = summation, n = the highest attainable rating and W = corresponding weight of rank category, N = total number of respondents, m. s = Mean score).
- The decision rule is that any factor whose mean falls between 0.5 – 1.49 is regarded as “not important”, 1.5 – 2.49 is slightly important, 2.5 – 3.49 is moderately important, 3.5 – 4.49 is very important and 4.5 – 5.0 is regarded as extremely important.

**Ove all ranking to Identifying crisis factor from the mean score method**

RANK	CAUSE OF CRISIS FACTOR	MEAN SCORE
1.	Lack of financial support	4.7600
2.	Labor shortage	4.5667
3.	Improper planning and design	4.5533
4.	Non Payment	4.4800
5.	Unclear scope & object of organization	4.3733
6.	Inadequate Human Resources	4.3667
7.	Government Policies	4.3133
8.	unskilled supervisor	4.3067
9.	Inadequate Organization Structure	4.2933
10.	Market Crash	4.1867
11.	Taxation Issues	3.8667
12.	Inflation	3.7667
13.	False Information	3.7533
14.	failure of temporary structure	3.4800
15.	Too Much Centralization	3.4733
16.	manager leaving project	3.4400
17.	Natural Disaster	3.3000

18.	Change In Government	3.2800
19.	Transportation damage	3.2733
20.	Job Security	3.2000
21.	Bankruptcy	3.1667
22.	Pressure Build Overtime	3.1400
23.	Tampering With Computer Record	3.0267
24.	Change In Project Team	2.9733
25.	Wrong & Inadequate Information Medium	2.9267
26.	break down of key equipment	2.9000
27.	loss of key equipment plant & material supply	2.8733
28.	No Insurance From Higher Authority	2.8133
29.	Death Of Key Person	2.8067
30.	Rumors	2.7333
31.	Too Much Confidence	2.7200
32.	Major Plant Disruption	2.6533
33.	Fire On Site	2.5867
34.	Long Working Shift	2.5333
35.	Gossip And Sick Jokes	2.5200
36.	Product Tampering	2.1733
37.	Strike	1.9733
38.	Death Of Union Leader	1.9333
39.	Shutdown	1.8333
40.	Sabotage	1.7533
41.	Work Place Violence	1.6667

As per Architecture view top 10 factor of most crucial crisis factor in south Gujarat region are:

RANK	CAUSE OF CRISIS FACTOR	MEAN SCORE
1.	Lack of financial support	4.7600
2.	Labor shortage	4.5667
3.	Improper planning and design	4.5533
4.	Non Payment	4.4800
5.	Unclear scope & object of organization	4.3733
6.	Inadequate Human Resources	4.3667

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7.	Government Policies	4.3133
8.	unskilled supervisor	4.3067
9.	Inadequate Organization Structure	4.2933
10.	Market Crash	4.1867

**CONCLUSION**

Crisis is unpredictable event which is occur at construction site without any pre waring signal. Due to the crisis construction project may be stopped or delay. Impact of crisis on planning, scheduling, organization and resources.

- The concluding remark of mean score method shows the top 10 crisis factor Lack of financial support , Labour shortage , Improper planning and design , Non Payment , Unclear scope & object of organization , Inadequate Human Resources , Government Policies , unskilled supervisor , Inadequate Organization Structure , Market Crash.