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Innovative Crisis Management in Construction: Approaches and the Process

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Abstract

Crisis management is a process that includes catching and evaluating crisis signals and needs to take and implement necessary precautions in order to overcome a crisis with a minimal damage. Detecting the early warning signals of a crisis contributes firms to hinder the occurrence of the crisis and to survive without huge financial losses. Other factors that contribute construction firms to survive with zero defect can be listed as follows: (i) catching indirect signals before a crisis, (ii) developing proactive methods to defend themselves against the crisis by means of these signals, (iii) taking the crisis under control, (iv) taking required measures after the crisis for the recovery of the firm, and lastly (v) recording the lessons learned from the crisis. Construction firms that can successfully manage a crisis can quit it with a minimum loss and can expand their market shares after the crisis. In other words, firms that can escape from a crisis with zero or minimum damage may strategically have competitive advantages over existing rivals. Considering all these issues, this study describes the concept of crisis management in terms of the construction industry and introduces related objectives and characteristics. In addition, both innovative crisis management approaches and the corresponding process were discussed in detail from the perspective of construction companies. In fact, this is a virgin area in the construction management literature and thus can contribute to the creative and innovative management of companies under potential crises in micro and macro levels. Consequently, this study attempts to reveal how construction firms can manage crises better and turn to their former positions in the short term through innovation-based means.

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1. Introduction

Negative events in today's globalized world may lead to crises and thereby affect construction companies in time gradually. These events may occur suddenly or after a long process. Process-based crises usually send early warning signals, and construction companies that can catch these signals can prepare against the forthcoming 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 concept, properties, objectives, approaches, and the process of crisis management were explained in a detailed manner from the perspective of the construction industry to 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.

2. Literature Review

In the construction management literature, there are a dozen of research studies concerning crisis management. However, these are far from investigating management practices of construction companies in the crisis process. In fact, they are specifically about theory formulation (Loosemore, 1999), communication structure (Loosemore, 1998e), contractual conditions (Loosemore and Hughes, 1998), real estate-based analysis (Kaklauskas et al., 2011), triple constraints composed of communication, sensitivity, and responsibility (Loosemore, 1998c), environmental and organizational factors (Ocal et al., 2006), organizational behavior (Loosemore, 1998b), reactive communication and behavior (Loosemore, 1998a), disorganization (Loosemore and Hughes, 2001), preparedness (Loosemore and Teo, 2000), social adjustment (Loosemore, 1997), and social network analysis (Loosemore, 1998d). Accordingly, the current study presents the first attempt in this regard.

3. Crisis Management

Crisis management is a process and management model applied in extra-ordinary situations. It includes particular activities such as detecting crisis signals, preventing its possible negative effects on construction firms, surviving with a minimum loss, and applying and controlling preparation activities for recovery. Aims of crisis management can be listed as follows,

- Informing about the level of the crisis,
- Giving some time to managers to define and evaluate the crisis,
- Providing alternative methods to improve plans for escaping from the crisis,
- Creating crisis management abilities,
- Being always ready against possible crises.

However, it should be noted that the aim of crisis management is not to try to prevent crises absolutely, but to minimize negative results, to have quick and high quality responses, and to make preparations against all types of crises as much as possible. Construction companies can easily be affected by a crisis because initial investment costs are quite high in construction projects and thus may lead to huge financial damages. Therefore, construction companies should analyze the internal and external environment constantly, catch early warning signals to be ready

against crises, and perform an effective struggle during a crisis for their survival. Crisis management that should be applied in construction companies has some specific characteristics that differ from the traditional management approach. These are presented below,

- Such companies that can manage crises can estimate crises and distinguish them by their types, take preventive measures, learn lessons, and recover as soon as possible.
- Potential events that can result in a crisis are perceived as threatening ones.
- Crises are managed according to their types since each type of them has its own particular signals, process, and treatments.
- Managers and employees are flexible, creative, objective, courageous, decisive, patient, strong mentally, sensitive, self-sacrificing, team members, active, open for innovation, and ready against unknown or undesirable events in unexpected times.
- Some factors (i.e., communication, audit, business culture, and planning) have utmost importance.
- Crisis management is a continuous process that includes normal times, which provides to be always ready against crises.

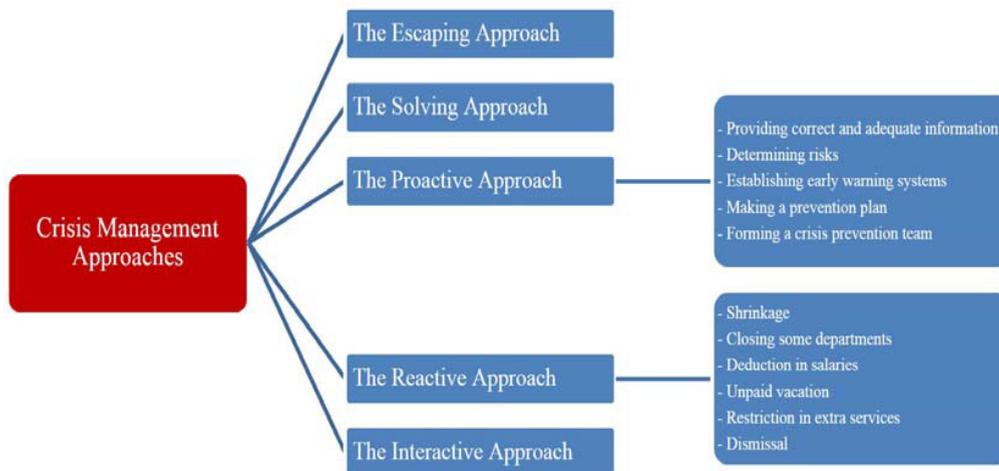


Fig. 1. Crisis management approaches.

4. Crisis Management Approaches

In practice, construction companies can use different approaches to prevent crises. These can be summarized as follows,

- The escaping approach,
- The solving approach,
- The proactive approach,
- The reactive approach,
- The interactive approach.

Fig. 1 compiles and illustrates these five approaches.

4.1. *The Escaping Approach*

In this approach, it is necessary to follow the internal and external environment constantly and improve prediction methods about the future before a crisis. In order to prevent negative effects of crises, top management should determine the needs and key values of the construction company to establish the projected objectives. It is also essential for top management to inform personnel about the policy, share the values, and transfer its philosophy. Moreover, it is a prerequisite to identify problems, find effective solutions, and establish a flexible, dynamic, and enthusiastic company structure for easy practices (Milburn et al., 1983). Especially, catching early signals that indicate negative macroeconomic conditions (inflation rate, interest rate, unemployment rate, etc.), dramatic variations in the foreign currency, and political/international crises may provide insights about investment decisions to be made.

4.2. *The Solving Approach*

This approach depends both on the prediction of conditions before a crisis and on a timely move for the problem resolution during a crisis. During a crisis, current conditions should be perceived and identified clearly and behaved in a realistic and patient manner. In addition, some efforts such as the systematic compilation of information for effective decisions, extra opportunities for staff in different levels, the reduction of the time pressure, and the detailed identification of sources of a crisis should be made (Milburn et al., 1983). Construction companies should take into account the following criteria to take advantage during a crisis,

- A crisis can also bring opportunities.
- Competition strategies should be determined exactly.
- Strengths in the strategic competition should be analyzed deeply.
- Internal savings should be paid attention.
- Investments that can provide a high financial return in the short term should be given priority.
- Personnel should be motivated against crises.
- Competitors and changes in real estate and construction markets should be followed.
- The customer satisfaction should be the main philosophy.
- Long term investments should be refrained.
- Advertisement and promotion activities should be performed.
- Qualified labour should be preferred.
- Defensive strategies should be followed.
- Costs should be decreased instead of the amount of production.
- Trading activities should be based on cash instead of the amount of sales.

Besides these criteria, construction companies can analyze strengths, weaknesses, opportunities, and threats (SWOT), and make strategies during a crisis according to their strengths to turn it to an opportunity.

4.3. *The Proactive Approach*

According to this protective approach, top management should produce alternative solutions against potential crises. Because of preventive measures, construction companies that can adapt their production and marketing activities to crisis conditions can financially be successful while their competitors are in a panic. For developing such an approach, items presented below should be fulfilled,

- Providing correct and adequate information,
- Determining risks,
- Establishing early warning systems,
- Making a prevention plan,

- Forming a crisis prevention team.

4.4. *The Reactive Approach*

This restoring approach can be chosen by top managers or suitable for construction companies in an unexpected crisis. Such companies usually make aggressive decisions by means of an immediate meeting of board of directors during the crisis. In general, short-term measures in these decisions are

- Shrinkage,
- Closing some departments,
- Deduction in salaries,
- Unpaid vacation,
- Restriction in extra services,
- Dismissal.

By these measures, however, they may lose the trust of personnel, experienced employees, and customers. The reactive crisis management is the most risky approach, among others. Although it can be adequate to overcome small-scale and short-term crises, it is an unsuccessful method in the struggle with large-scale and middle-/long-term crises. This is because construction companies which are not ready against potential crises have considerably limited abilities.

4.5. *The Interactive Approach*

This integrated approach evaluates the crisis process before, during, and after the crisis. Because of the information obtained in this process, it includes the continuous organizational learning and self-control mechanism. A permanent communication and information flow is provided for the benefit and reputation of all stakeholders. Construction companies that are willing to apply this approach should be clear, share the effects of the crisis with their stakeholders honestly, and determine a common policy against the crisis. The contribution of stakeholders can be helpful in the survival of these companies.

5. **The Crisis Management Process**

Crisis management is a process including a number of activities such as prediction, prevention and preparation, property determination and control, recovery, and learning (Mitroff, 1993). In this context, it can generally be divided into five different stages as shown in Fig. 2. However, in Fig. 3, a more detailed version of the crisis management process is given.

5.1. *Prediction*

Crises definitely send some early warning signals before they occur. These signals are very important because they can give useful and vital information about crises (Mitroff and Pearson, 1993). Determination and identification of them in a timely manner can prevent the occurrence and potential damages of crises. If top managers do not follow and evaluate them carefully, it will be inevitable to struggle with crises.

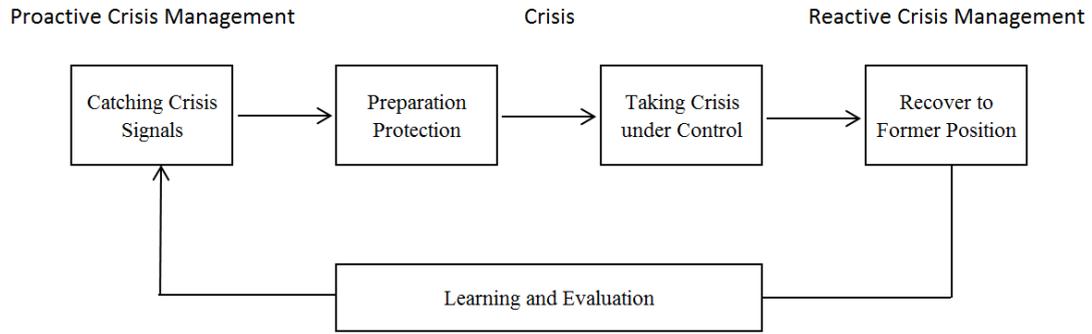


Fig. 2. The flow of the crisis management process (Mitroff and Pearson, 1993).

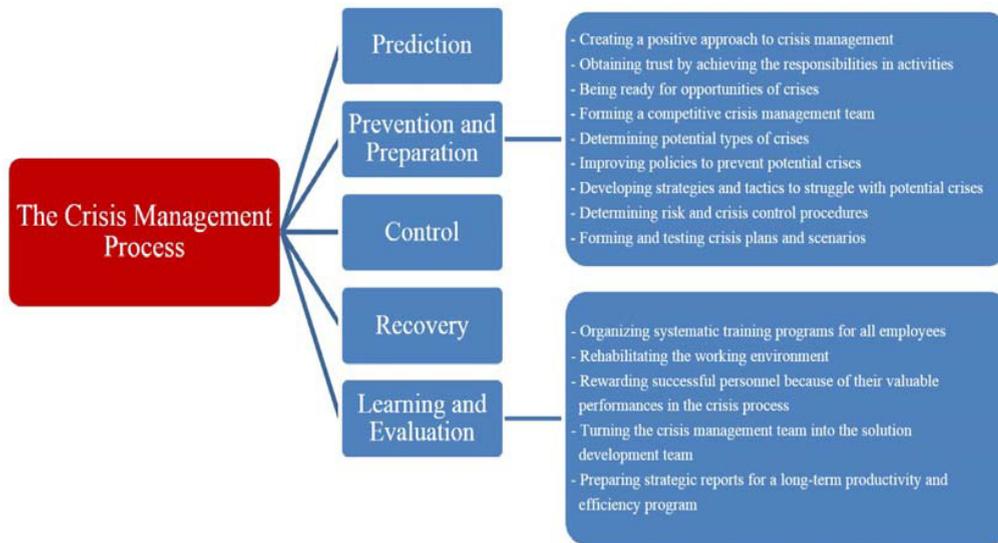


Fig. 3. The crisis management process.

5.2. Prevention and Preparation

Following early warning signals systematically is not adequate for a solution against a crisis. Top management should make some preparations with the crisis management team to protect the construction company from potential damages of a crisis according to the significance of these signals. In this stage, managers should try to minimize the risks and can compensate risky decisions with expected profits. If a crisis is inevitable, the preparing activities will help to control the crisis. These activities that should be performed by managers during the preparation stage can be listed as follows (Regester, 1989),

- Creating a positive approach to crisis management,
- Obtaining trust by achieving the responsibilities in activities,
- Being ready for opportunities of crises,
- Forming a competitive crisis management team,

- Determining potential types of crises,
- Improving policies to prevent potential crises,
- Developing strategies and tactics to struggle with potential crises,
- Determining risk and crisis control procedures,
- Forming and testing crisis plans and scenarios.

5.3. Control

Although in some cases early warning, prevention, and protection mechanisms work effectively, the controlling procedures should also be fulfilled to overcome crises exactly. On the one hand, motivation should be provided among personnel. On the other hand, policies that can produce anxiety and stress should be avoided as much as possible.

5.4. Recovery

In this stage, short- and middle-term recovery mechanisms should be executed. In other words, this stage contains the replacement of losses with new earnings. A construction company that could overcome a crisis should act immediately for normalisation. Toward this aim, resources, processes, and personnel should be directed according to strategies determined before. Here, the purpose is to solve the crisis and obtain possible benefits. Restricted expenditures, centralized management, and low-level managers' suspended authorities should turn to their pre-crisis positions step by step.

5.5. Learning and Evaluation

Activities presented below should be performed after crises to remove their negative effects and follow a new direction,

- Organizing systematic training programs for all employees,
- Rehabilitating the working environment,
- Rewarding successful personnel because of their valuable performances in the crisis process,
- Turning the crisis management team into the solution development team,
- Preparing strategic reports for a long-term productivity and efficiency program.

After a crisis, a construction company should record the lessons learned. To this aim, both data obtained in the crisis process and mistakes done should be noted. In this stage, relationships with low-performance personnel, suppliers, and customers may also be reviewed.

6. Conclusions

Crises that can affect construction companies occur either periodically or suddenly. Such companies in the pursuit of an innovative crisis management approach should be ready against any types of crises. Because of the fact that construction companies should deal with high investment costs, crises can adversely and significantly influence these companies. Survival of them with with a minimal loss depends greatly on establishing an early warning system, struggling with the crisis effectively, and turning pre-crisis conditions in a short period of time. In the early warning system of a construction company, a number of analyses such as (i) internal and external environment, (ii) macro-economic data about foreign exchange, interest rate, and unemployment, and (iii) new legal and political regulations. Construction companies should also perform a SWOT analysis and thus can have various opportunities that the crisis brings in areas of their strengths. Moreover, they should attach a considerable importance to advertisement activities, put the quality in the first priority, and try to decrease costs instead of the amount of production. Besides these precautions, they should make some planning efforts against crises, form a crisis

management team, improve several crisis scenarios, and test them together with their solutions. From the perspective of social relationships, personnel should be motivated and behaviors that can produce anxiety and stress should be avoided. In terms of external affairs, effects of the crisis on the construction company should clearly be shared with stakeholders to keep their trusts.

Construction companies that can overcome a crisis with a minimum loss should turn to pre-crisis conditions in terms of restricted expenditures, centralized management, and low-level managers' suspended authorities. They should also record information obtained and lessons learned by crises and note mistakes done in the crisis process. In addition, high-performance personnel may be rewarded while low-performance ones may be fired. Finally, permanent commercial relationships with suppliers and customers should be reviewed for an innovative crisis management process.

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