The Importance Knowledge Management for the Improvement of Crisis Management

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The current economic crisis has prompted great interest in the relatively new management discipline crisis management and pointed out the necessity for its further development and greater applying. This contributed to the review of the possibility of its improvement based on the application of concepts from other management disciplines. One of them is the knowledge management. The fields of crisis management and knowledge management have been evolving separately despite their potential for synergistic integration. With that in mind, the goal of this paper is to point out the importance of developing capacity and improving the capabilities of organizational learning from crisis in order to contribute to the effective implementation of crisis management. Thus, we survey, classify and synthesize different theoretical concepts and empirical studies that examine the process approach of crisis management in order to identify knowledge appropriate to each stage of crisis.

Keywords: crisis management, knowledge management, organizational learning

Introduction

In the course of modernisation and globalisation the demands in crisis management have changed rapidly. Both public and private sector organizations have to prepare for potential crises. It is no longer a question of if a major crisis will strike an organization, but only when. The effects of crises and disasters are often multiple, so interdisciplinary and scientific methods are required.

Although it is known much about the types and modes of learning and recognizes the connection between learning and crisis management, what appears to be missing in current knowledge of managers is how learning can be applied and how it contributes to effective crisis management. With that in mind, in this paper it would be examined how organizations learn from the crises and present a three-stage approach to organizational learning in crisis management. In the first stage, it would be explained how an organization adapts during an initial crisis event to an extreme situation. In the second stage, it would be examined how an organization adjusts its

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established plans and procedures to achieve a desired outcome during the crisis. In the third stage, it would be considered how an organization develops a new course of action to achieve a desired outcome before, during, or after an extreme situation, and how they learn from the crisis. There would be also presented a model of crisis management system in order to ensure a new management mechanism for enterprises to effectively deal with the crisis.

Defining the Term Crisis

In the contemporary literature, crises have been conceptualized as an event and a process. Shrivastava (1995) opposed clearly the event versus process approach of crisis. As he (1995, p. 2) stated, "Crises are not events but processes extended in times and space". In spite of efforts to distinguish these twofold aspects of crises, what remains striking is that most of the authors understate that crises are processes but still treat them as if they were events (Roux-Dufort, 2007a).

The Event Approach of Crisis

In the event approach, crises are usually defined as a major occurrence with a potentially negative outcome affecting an organization, company or industry as well as its publics, products, services or good name (Fearn-Banks, 1996). Pearson and Clair (1998, p. 60) suggests that: "An organizational crisis is a low-probability, high-impact event that threatens the viability of the organization and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly". Definitions focus on the triggering properties of the event (Shrivastava, 1992). Preconditions for this triggering event are created by organizational and environmental conditions. Triggering events are seen as an active constituent that put the organization to the test.

The very nature of crisis is precisely defined by the inability to plan or to measure the probability of occurrence and the potential risks. A crisis is a sudden and unexpected event that threatens to disrupt an organization's operations and poses both a financial and reputational threat (Coombs, 2007). The surprise effect is therefore a key feature of the event view (Reilly, 1993).

The event perspective is helpful to grasp the dynamics of a crisis in its acute phase and contributes to nourish the literature on how to react in times of crisis in order to reduce its impact and resume activity as soon as possible. In spite of this contribution, this view privileges a reactive stance amongst managers and is not the most adapted approach to improve prevention measures and learning capacities (Roux-Dufort, 2007a).

The Process Approach of Crisis

In the process approach, crises are seen as being the result of a long period of incubation which bluntly occur through the influence of a triggering event (Roux-Dufort, 2007b). They are composed of many loosely coupled interdependent events, each of them setting the stage for the next one to occur in a chain reaction. Krystek (1987) defines crisis as an unwanted and unplanned process of limited duration and influence ability with an ambivalent starting point which ends in non-achievement of dominant goals and may ruin the company.

The tenets of the process perspective mostly lie on the idea that crises manifest in phases. This view suggests the existence of a genealogy of crises that may be potentially tracked long before the acute phase. The process perspective thus acknowledges that crises are the ultimate moment of a continuous cumulative process of organizational failures (Bowonder & Linstone, 1987).

Mitroff and Pearson (1993) argued that a business crisis was composed of five main crisis phases of signal detection, prevention/preparation, containment/damage limitation, recovery, and learning. The first four phases are sequentially arranged, while the last phase of learning feeds back into the first phase of signal detection. Mitroff and Pearson (1993) also pointed out the main tasks of an organization at each of the different phases to cope with a particular crisis, and the strategies decision makers could employ to achieve these tasks. In the signal detection phase, organizations focus on seeking signals that might warn of a crisis. Organizations need to take steps to isolate these warning signals from the normal signals that occur in the daily operations of organizations. The main task of the second phase of prevention/preparation is to eliminate or minimize organizational weaknesses based on the warning signals from the previous phase. The purpose of this phase is to prevent a crisis from happening or to be well prepared if it does occur. The third phase, the containment/damage limitation phase, occurs when a crisis is unavoidable. Having well-prepared plans is crucial to efficiently and effectively prevent the damage that can result when a crisis begins to spiral out of control, since organizations usually have limited time to make an intensive crisis management plan for damage control while a crisis is unfolding. In the fourth phase of recovery, organizations mostly focus on fixing the damage caused by the crisis by consideration of two important issues. The first is to determine the most crucial procedures and operations needed to ensure that the organization will survive, and the second concerns what the organization should do in order to serve its most important customers well after the crises. During the final phase of learning, organizations should examine what happened before, during, and after the crisis, and then identify what lessons have been learned. In this way, organizations can use the experience of a crisis to enhance their capacity to prevent and mitigate the effects of a similar event. Learning is particularly important among these five phases, since it is crucial for organizations to avoid making the same mistakes as they deal with similar crises in the future. By means of appropriate learning practices, organizations can use the experience of a crisis to enhance their ability to prevent and mitigate the effects of a similar event.

Treating crises as processes rather than events influences the analysis of consequences. As abovementioned, in the event view, consequences are mostly treated according to their negative outcomes and threats. In a process approach, rather than considering the outcomes as entirely negative, the systemic study of crises seems particularly relevant to show that crises have revealing properties and uncover hidden factors that the organization would not have been aware of if the crises had not occurred (Shrivastava, 1995). Crises bring forth changes and transformations at different levels. These revealing and transformation properties are triggered by a sudden collapse of the basic assumptions of the organization that prove to be inefficient to cope with the crisis situation (Pauchant & Mitroff, 1992).

The event and process-oriented approaches are naturally complementary. Nonetheless, the crisis management literature has mostly developed the first approach. The event perspective has the advantage of being directly operational inasmuch as it encourages individuals to develop reflexes and ways of reducing the consequences of the event. The process approach of crisis requires that we understand how organizational conditions build up to lay a favorable ground for crisis to be triggered (Roux-Dufort, 2007a).

Crisis Management

Economic development and the dynamic environment of enterprises today make crisis management more

and more important. It is essential to implement effective strategies of problem-solving, appropriate prevention strategies and a comprehensive crisis management. Fearn-Banks' (2001, p. 480) definition of the concept is as follows: "Crisis management is strategic planning to prevent and respond during a crisis or negative occurrence, a process that removes some of the risk and uncertainty and allows the organization to be in greater control of its destiny".

The objective of organizational crisis management is to make timely decisions based on best facts and clear thinking when operating under extraordinary conditions (Pearson, 2002). Companies have to develop adaptation strategies for discontinuously shifting conditions in short term. A dynamic management of strategic and operational risks is necessary to be able to solve complex problems. An environmental analysis (identification of potentially threatening external influencing factors in the macro-economic, ecological, sociocultural, political, legal and technological field) as well as a business analysis (identification of threats within a business) are necessary to develop effective strategies of prevention and intervention. By having the right plans and capabilities in place before a crisis occurs, crisis damage to an organization can be minimized and the time to recover from it can be shortened immensely (Mitroff & Anagnos, 2001). Organizational crisis management effectiveness is evidenced when potential crises are averted or when key stakeholders believe that the success outcomes of short- and long-range impacts of crisis outweigh the failure outcomes (Pearson & Clair, 1998).

Organizational Learning in Crisis

Developing strategies to mitigate vulnerability is organization learning in its most basic form (Toelken, Seeger, & Batteau, 2005). Organizational learning theory is an extension and refinement of systems perspectives (Seeger, Sellnow, & Ulmer, 2003) and is rooted in a balance between stability and change (March, 1991). Concepts of organizational learning can be placed along a continuum with cognition at the one end and behavior at the other.

Argyris and Schon (1978) define organizational learning as the process of detection and correction of errors. In their view organizations learn through individuals acting as agents for them: "The individuals' learning activities, in turn, are facilitated or inhibited by an ecological system of factors that may be called an organizational learning system" (Argyris & Schon, 1978, p. 117). Argyris and Schon (1978) were among the first to propose models that facilitate organizational learning. They distinguish between single-loop and double-loop learning. In single-loop learning, individuals, groups, or organizations modify their actions according to the difference between expected and obtained outcomes (Argyris & Schon, 1978). In double-loop learning, the entities (individuals, groups, or organization) question the values, assumptions, and policies that led to the actions in the first place. If they are able to view and modify those, then second-order or double-loop learning has taken place (Argyris & Schon, 1978). Huber (1996) detailed a synthesis of processes and kinds of organizational learning. Learning involves four basic processes: (1) acquisition of knowledge; (2) distribution of information among various sources; (3) interpretation of information when commonly understood interpretations are available; and (4) storing knowledge for future use in organizational memory. Within this framework, learning is a change behavior through information processing.

Learning is crucial in order for organizations to improve their chances of surviving future crises. Although the literature on organizational learning is vast, the amount of literature that focuses on learning for crisis

management is relatively small. Since organizational learning is a dynamic process that occurs over time and across levels of the organization, and creates a tension between exploration and exploitation, crises may present a unique opportunity for organizational learning (Crossan, Lane, & White, 1999).

Drawing upon Argyris and Schon's (1978) notion of single and double-loop learning, Simmons (2009) develops a three-stage crisis management model that facilitates the mitigation of extreme crisis events, utilization of standard operating procedures, and detailed planning procedures before, during, and after crisis events. Namely, organizations must develop systems, which enable them to execute tasks rapidly. Simmons (2009) proposes that in extreme situations, organizational learning occurs during three distinct stages: stage I—adaptive learning, organizations are responding to situations as they occur; stage II—single-loop learning, organizations modify their actions according to the difference between expected and obtained outcomes; and stage III—double-loop learning, organizations modify the state based on prior events, experience, and training to develop a new course of action. According to Simmons (2009), organizations can learn in three ways from crisis situations. First, organizations can learn by adapting to extreme events, as they occur, which leads to mitigation of the crisis events. The mitigation of extreme circumstances prevents the situation from escalating and creating additional financial loses, physical property loses, or worst case loses of life. Second, organizations can use established standard operating procedures and adjust them using single-loop learning to achieve the desired outcome. It is in line with findings of J. E. Hale, D. P. Hale, and Dulek (2006), who argued that the presence of a written crisis management plan, even one created for a dissimilar event, aids in quickly identifying feasible actions. Without such a plan, organizations function less efficiently and may spend precious time attempting to create solutions that they cannot identify (Hale et al., 2006). Third, organizations can create new standard operating procedures based on lessons learned from a crisis situation. Double-loop learning enables organizations to analysis adaptive and single-loop learning that occurred during a crisis event.

Robert and Lajtha (2002) proposed that performing structured and continuous learning activities could help organizations to minimize uncertainty about business crises and equip key managers with the capability, flexibility and confidence to deal with unusual events. A structured learning activity should lead to the restructuring of company policies and actions to correspond to the changes in both the internal and external environments of organizations (Wang, 2008). Furthermore, a structured learning activity must be capable of embedding what is learned into elements of organizational systems, such as rules, regulations, or technology. Individuals are then empowered by not only their own perceptions, but also these external control agents to make use of their acquired knowledge in the real operations of the organizations. By performing this learning activity, the organization can continuously enrich its understanding about its prospective crises and enhance its capacity to anticipate and either prevent or mitigate their impact if they do occur (Wang, 2008).

In the purpose of supplying a new management mechanism for enterprise to deal with crisis effectively, Li and Wang (2009) have developed a crisis management system model architecture that is based on three layers: knowledge resources layer, management process layer and organizing layer. Knowledge resource system includes expert panel and database storing crisis management knowledge. Process layer consists of process system of crisis management. According to knowledge acquisition method and utilization, crisis management process system is divided into three subsystems: crisis early-warming subsystem, crisis processing subsystem based on knowledge demand and crisis evaluation subsystem, respectively. As a whole system, every subsystem

and function module joins each other during the crisis lifecycle with knowledge transferring (Li & Wang, 2009). A knowledge-based management organization system is the base and guarantee of crisis management, which involves many departments (Li & Wang, 2009). Previous research results support the importance of the existence of crisis management teams in organizations (Smits & Ally, 2003). Taking business crises as opportunities to bring new configurations into play in order to facilitate change of organizational structures for improvement is a preferable result of an organization's learning practice in responses to a business crisis. Namely, change/improvement of organizational structures is an appropriate indicator to assess an organization's learning effectiveness in times of crisis (Wang, 2008).

Conclusion

In the uncertain market situation, knowledge becomes more and more important. Thus, the theory and technology of knowledge management that are used in enterprises have potential application in the management of crises. Applying knowledge management to crisis management is significant to both enterprise and theoretical studies. However, research on knowledge management in crisis management is still at its start level, and needs more scholars research on it. The perspective of organizational learning effectiveness concerns how well an organization can manage to eliminate its weaknesses by taking the occurrence of a business crisis as an opportunity for organizational changes and learning. How to make good use of knowledge management to improve the efficiency of crisis management will become an issue in strengthening enterprise management capability.

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