

# Knowledge Management in Support of Crisis Response

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## ABSTRACT

*Most organizations face difficult challenges in managing knowledge for crisis response, but it is crucial for response effectiveness that such challenges be overcome. Organizational members must share the knowledge needed to plan for emergencies. They also must be able during an emergency to access relevant plans and communicate about their responses to it. This article examines the role and relevance of knowledge management (and knowledge management systems therein) in support of crisis response. We begin by discussing what knowledge management and crisis response mean. We move on to suggest why crisis response efforts within an organizational context, might benefit from knowledge management initiatives. Specific examples of how knowledge management efforts have supported crisis response in the past are then presented. We end by offering researchers with some suggestions for future research work in light of this subject domain. [Article copies are available for purchase from InfoSci-on-Demand.com]*

*Keywords: Crisis Response; Crisis Response Systems; Emergency Response; Emergency Response Systems; Knowledge Management; Knowledge Management Systems*

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## INTRODUCTION

Knowledge management (KM) is about capturing knowledge created in an organization and making it available to those who need it to make decisions. Crisis response is about making decisions under stress and time pressure. While it would seem natural to use KM to support crisis response decision making; a review of the literature pertaining to implementation of KM and

KM systems finds that the emphasis in KM research is focused on KM impacts on organizational performance and competitive enhancement (Von Krogh 1998; Hackbarth 1998; Davenport and Prusak 1998; Alavi and Leidner 2001, Jennex and Olfman, 2006, Raman et al., 2006). However, events such as the 9/11 terrorist attacks, the London subway bombings, the 2004 tsunami, and Hurricane Katrina have spurred interest in research in crisis/disaster/emergency

preparation/response (henceforth referred to as crisis response). This has led to a small but growing body of research focused on examining KM and KMS support for crisis response. Accordingly, the purpose of this article is to help researchers and managers to better appreciate and understand the relationship between KM, KMS, and crisis response.

The objective of this article is to discuss how knowledge needed for crisis response can be managed more effectively by integrating KM into crisis response efforts. We offer several examples of how KM has been used to support crisis response efforts and the issues that were faced therein.

The article proceeds as follows. Section 2 examines fundamental aspects of KM and KM systems. Next we offer an overview of what crisis response is particularly with reference to the core issues involved in crisis management from a decision making perspective. Section 4 provides a brief account of the history and functions of emergency response systems, which leads to a logical discussion about how and why crisis response can benefit from KM principles. Sections 6 highlight the role of KM in different phases of a crisis situation. This is followed with several examples of prior work about KM systems applied to the context of crisis response. We end with several suggestions of future research that can be done to extend the ideas that we have presented here.

practice of selectively applying knowledge from previous experiences of decision-making to current and future decision making activities with the express purpose of improving the organization's effectiveness. Alavi and Leidner (2001, p. 114) define a KM System, KMS, as "IT (Information Technology)-based systems developed to support and enhance the organizational processes of knowledge creation, storage/retrieval, transfer, and application." They observed that not all KM initiatives will implement an IT solution, but they support IT as an enabler of KM.

The purpose of implementing KMS in organizations varies. Von Krogh (1998) takes a business perspective, stating that KMS help increase competitiveness. Hackbarth (1998) suggests that KMS lead to greater innovation and responsiveness. Davenport and Prusak (1998) provide three reasons why KMS are implemented in organizations: (i) to enhance visibility of knowledge in organizations through the use of maps, hypertexts, yellow pages; directories, etc., (ii) to build a knowledge sharing culture, i.e., create avenues for employees to share knowledge, and (iii) to develop a knowledge infrastructure, not confined to technology solely, but create an environment that permits collaborative work. Work by Hackbarth (1998) and Davenport and Prusak (1998) imply that KMS can support an organization in planning for and dealing with crises.

## **KNOWLEDGE MANAGEMENT AND KNOWLEDGE MANAGEMENT SYSTEMS**

Jennex (2005) used an expert panel to generate a composite definition of KM as the

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Princeton University defines an emergency as "a sudden unforeseen crisis (usually involving danger) that requires immediate

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