Chapter 13
Managing Lessons Learned:
A Comparative Study of Lessons Learned Systems

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ABSTRACT

An organization’s knowledge is built on the experience of its human resources, such as individual competencies, group working experiences, problem-solving abilities, and the lessons learned, which these resources use during the execution of tasks or processes. This organizational knowledge is stored in individual minds, or implicitly encoded in organizational processes, services, and systems. In the context of knowledge intensive organizations or learning organizations, besides labor, capital, and land, this experience-based knowledge has been recognized as an important productivity factor. For example, Lessons Learned (LL) are crucial to the learning organization’s continued success. LL were originally conceived as guidelines, tips, or checklists of what went right or wrong in a particular event or organizational business process. A Lessons Learned System (LLS) is a type of knowledge management system that serves the purpose of capturing, storing, disseminating, and sharing an organization’s verified LL, but Lessons Learned Systems have not been well studied and researched. Based on the literature review, the authors develop an evaluation framework for understanding LLS research. The framework identifies six dimension areas of emphasis in LLS research: LL process, LL representation, LL content, LL architecture, organization type, and type of processes. This chapter introduces the evaluation framework and concludes with a discussion of emerging issues, new research directions, and the practical implications of LLS research.

DOI: 10.4018/978-1-4666-1993-7.ch013
INTRODUCTION

It is important for employees in any organization to acquire a base of knowledge from professional experience to improve organizational processes, but without a formal mechanism to retain and preserve this knowledge much of this experience and knowledge could be lost. Unfortunately, “reinventing the wheel” has become a frequent phenomenon in organizations, with mistakes recurring and successes not continued in future projects. In the knowledge-based economy, many organizations have invested considerable time and money seeking to capture potentially useful knowledge through Knowledge Management (KM), and to make it accessible to employees who can use it in the course of their daily work to positively influence organizational processes, tasks, decision-making and ultimately organizational performance.

Lessons Learned System (LLS) support the processes of organizational Lessons Learned (LL), which are to create, collect, verify, store, disseminate, and reuse experiential working knowledge (Weber, Aha, & Becerra-Fernandez, 2001) and which, when used and applied effectively, can substantially benefit targeted organizational business processes (Davenport & Prusak, 1998; Markus, 2001).

LLS, as a category of Knowledge Management System (KMS), have been used in military organizations since the mid-1980s. State crises and military conflicts are costly events: from the humanitarian point of view, they can cause casualties and fatalities; financially, they waste a huge amount of money and resources (Fong & Yip, 2006). In the commercial and governmental sectors, LLS continued to be used during the 1990s. Growth in the use of LLS is apparent, as firms or organizations seek to assess and identify their knowledge resources and capabilities to strategically address any gaps and to learn and apply learning to gain competitive advantage (Davenport, 1997; Nejatian, Sentosa, Piaralal, & Bohari, 2011; Pruthi, Wright, & Meyer, 2009; Zack, 1999).

LLS, as a KM approach, see validated experiential working knowledge as an asset to be well managed and aim to reduce the problems of knowledge sharing and reuse across organizations. Lessons learned in any organization are knowledge assets that relate to the experiences of its human resources such as its project experiences and problem-solving applications. LLS enable the integration of this diffused organizational knowledge and enhance its reuse and dissemination. Thus, the LLS is the means by which knowledge from past experience is brought to the present activities (Stein & Zwass, 1995). The LLS becomes one of the best approaches to enabling organizational learning and continuous process improvement.

Surprisingly, LLS have not been well studied and scientifically analyzed from the KM point of view since Weber and her colleagues conducted a survey in 2001 reporting the failure of most LLS and proposing an artificial intelligence solution to the problematic processes. Research on LLS decreased since 2003 but the problems that impede lesson sharing and reuse have not yet been resolved (Liebowitz, 2011; Wellman, 2007). It is beneficial for research on LLS to be guided by the well-established traditions, philosophies, and theoretical and conceptual frameworks of other fields including Information Systems (IS).

In this chapter, we describe the results of a comparative study by developing a framework for five organizations to better understand the underlying issues. The method of comparative study, based on the evaluation framework in this chapter, is similar to other studies (such as Ahmad & Colomb, 2007; Duineveld, Stoter, Weiden, Kenepa, & Benjamins, 2000; Noy & Hafner, 1997). In the next section, we explain and justify the reasons why we have selected these criteria.