Chapter 4.19
Effects of Knowledge Management Implementations in Hospitals:
An Exploratory Study in Taiwan

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ABSTRACT

From the knowledge management point of view, the fundamental mission of hospital management is the delivery of quality medical services, utilizing highly specialized knowledge to solve healthcare problems within various resource constraints. Similar to other knowledge-intensive industries operating in highly challenging business environments, hospitals of all sizes must view the creation, organization, distribution, and application of knowledge as a critical aspect of their management activities. Knowledge management represents a viable strategy as hospitals strive simultaneously to provide quality medical services, improve operational efficiency, and conform to the government's documentation and reporting regulations. This study examines the correlation as well as the causal relationships among knowledge characteristics, knowledge acquisition strategy, implementation measures, and performance of knowledge management implementations in the context of hospital management. Using primary data collected in Taiwan, our analyses show that the characteristics of knowledge affect the ways in which knowledge management is implemented, and the implementation measures, in turn, have a significant impact on the results of knowledge management implementations.*

INTRODUCTION

Hospitals of all sizes currently are faced with a multitude of management pressures, including industry competition, customer satisfaction, shortage of specialized personnel, compliance with government regulations, cost reduction, and the ever-increasing demand for more effective cures (Camilleri & O'Callaghan, 1998; Porter & Teisberg, 2004). In coping with these challenges, hospitals actively are experimenting with various management initiatives and programs, such as total quality management and knowledge management, with varying performance results. Emerging as a new multidisciplinary management field, knowledge management (KM) promises to enhance competitive advantage in the highly dynamic knowledge economy by treating valuable and scarce knowledge as a critical organizational asset and by managing it in a systematic manner (Sharkie, 2003; Ulrich & Smallwood, 2004). From the knowledge management point of view, many hospital services involve knowledge-intensive processes that are carried out to solve patient health-related problems. Because of the knowledge-intensive nature of healthcare services, much of a hospital's success depends on effective and efficient creation, organization, validation, dissemination, and application of its highly specialized medical knowledge.

Traditional knowledge management mechanisms in most hospitals typically include morning meetings, apprenticeships, internships, professional seminars, research partnerships with outside research institutions, and other forms of human interaction. Sophisticated information technologies also are being deployed in some hospitals in order to manage medical images and to capture scarce expertise (e.g., medical expert systems) (Davenport & Glaser, 2002). The addition of Internet technologies to the portfolio of information processing technologies offers a new set of powerful tools in order for hospitals to implement knowledge management programs.

In light of the strategic value of professional knowledge, hospitals increasingly recognize a need to manage more actively their intellectual capitals. The field of knowledge management provides the frameworks and techniques that are required to transform a hospital into a learning organization (Adams & Lamont, 2003; Awad & Ghaziri, 2004; Becera-Fernandes, Gonzales & Sabherwal, 2004; Gupta & Govindarajan, 2000; Hansen et al., 1999; Leonard-Barton, 1995). These frameworks and techniques emerge from the inquiries conducted and the experiences acquired in a variety of contexts, including manufacturing (Kim, Hwang & Suh, 2003), customer relationship management (Gebert, Geib, Kolbe & Brenner, 2003), consulting (Sarvary, 1999), retail chain (Tsai, Yu & Lee, 2005), and health care (Powers, 2004). Much of the literature, however, has been either case studies or conceptual discussions. Empirical studies based on the primary data collected in the field, however, are important for advancing the field of knowledge management toward maturity.

Motivated by the dearth of empirical inquiries in knowledge management that address issues in hospital management, we conduct this study to identify the relationship between some factors that play a significant role in successful knowledge management implementations in the healthcare environment. Our purpose is to understand how knowledge management is practiced and the result of implementation in this knowledge-intensive sector. We also seek to contribute to hospital management by offering empirical evidence for the value of knowledge management in coping with the multi-faceted management challenges faced by today's hospitals.

The remainder of the article is structured as follows. The next section describes an interview process conducted with hospital executives and medical doctors for the purpose of selecting the constructs for our research model. We review some of the existing knowledge management literature that relates to our research constructs. We also

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