The Knowledge Management Concept: Towards an Operational Definition

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ABSTRACT

The Knowledge Management (KM) concept continues to be a topic of discussion and research, especially within the last 10 years. This exposure has been postulated through topical periodicals, books, conferences and workshops in an effort to further the KM idea. Unfortunately, there are several competing concepts. There has been a pronounced "bandwagon" effect as many vendors, professional services firms, and academics have entered the field with their varying perceptions and perspectives. Thus, most of the published material remains ambiguous and provides little empirical evidence to support conclusions. This paper discusses the methodology used and reports on the preliminary study conducted in an effort to develop an operational definition of Knowledge Management.

INTRODUCTION

Many would agree that Knowledge Management (KM) has emerged as a strong and well-respected organizational necessity. Company executives have discussed the value of Knowledge Management (KM) systems within the organization, however, few would agree upon a common definition of the concept of KM. This issue is compounded by the numerous definitions of KM presented in the literature. It is quite evident to academicians and practitioners alike that there is no standard definition of the term.

Currently, there is not a clear and agreed upon definition for Knowledge Management. For example, KM has been defined as the use of knowledge, getting the right information to employees, understanding work flows, assistance in making business decisions, assessment of intellectual capital or assets, knowledge exchange, knowledge retention, and locating or creating useful knowledge. Although the definition of KM may not be agreed upon, KM remains an important topic in the literature. A perusal of the various special issues, i.e. Decisions Sciences Journal, MIS Quarterly, on the topic will collaborate these differing perspectives. This article is intended to provide researchers and practitioners with a conceptual definition that is surmised from literature.

Since the KM process provides a foundation for an organization to understand and nurture its knowledge resources and activities, it has become imperative that a standard or operational definition of KM be developed and promulgated. This should allow organizations to share experiences of success and failure using the same construct. The preliminary study reported here uses content analysis of existing KM literature to develop a standard operational definition of the KM concept. The authors aim to create a baseline for future research that can be used to track the evolution of KM within the organization. Therefore, this paper represents the preliminary study to develop an operational definition of KM.

DEFINING KNOWLEDGE MANAGEMENT

The concept of knowledge management is quite controversial in literature and practice. The lack of effective management of knowledge could be because most organizations are still struggling to comprehend the KM concept (Holsapple and Joshi, 1997). "Knowledge Management (KM) is the discipline that focuses on capturing, organizing, filtering, sharing, and retaining key corporate knowledge as an asset" (McManus & Snyder, 2002, p. 87). Knowledge management is a practice that finds valuable information and transforms it into necessary knowledge critical to decision-making and action by integrating techniques from the fields of organizational learning, performance management, and quality management. (Kirrane, 1999).

Furthermore, many authors agree that KM must be defined in terms of business objectives. Once these goals are defined, organizations can determine what corporate knowledge should be harvested, organized, managed and shared. This is well stated by Bixler (2002, pg. 18), "...managing the leadership, organization, technology and learning aspects of internal and external intellectual assets through retention and collaborative sharing of knowledge for the purpose of improving performance and inspiring innovation throughout an enterprise." In addition, Bixler (2002) believes that to effectively manage the intellectual assets of the company, they must analyze and understand the workflow and business processes of the organization. Hult (2003) describes his definition as a broad framework for defining KM: "as the organized and systematic process of generating and disseminating information, and selecting, distilling, and deploying explicit and tacit knowledge to create unique value that can be used to achieve a competitive advantage in the marketplace by an organization.

To the contrary, Davis (2002) argues that the strategy of KM must encompass the four pillars of KM success: content, process, culture and technology. Auditore (2002, p. 4) agrees with the technology aspect of the four pillars:

We view KM as a suite of enabling technologies, with the foundation usually being a document, content or record management-centric enterprise information system that is seamlessly integrated with information retrieval technology (Auditore, 2002, p.4)

In addition, Graham (2001) states that KM is used to generate, share and store intellectual capital. This subset of differing viewpoints clearly indicates the need to develop a metric that assist in determining an operational definition of KM. Furthermore, there is clear evidence to indicate that there is a lack of empirical models in the KM literature and there is a specific need for a better research base in refining and defining the KM concept.

METHODOLOGY

There have been several studies on measuring fundamental concepts (Lewis, 1993, Pearson, 1977). Since the Lewis' (1993) model, which measured IRM concepts, builds upon the Pearson (1977) model, which measure end user satisfaction, we have adopted this same methodology. The first step is to gain a better understanding of the KM

concept. Therefore, we have adopted and propose the research questions used by Lewis (1993):
1. What is the domain of the KM concept?
2. How can the extent of KM implementation be measured?
3. What is the current state of KM implementation?

This study will focus specifically on the first question concerning the domain of the KM concept. This study should be viewed as preliminary research to be followed by a more comprehensive study of KM.

In accordance with the Lewis (1993) model, the premise of the KM concept will be established by conducting a content analysis of the KM literature. Next, a definition is to be created from the numerous definitions presented in the literature and a list of characteristics of the KM concept will be extracted. The resulting premise, definition, and characteristics comprise the content domain of KM (Lewis, 1993).

An examination of the literature was conducted to ascertain an initial list of KM definitions. The resulting list of definitions confirmed the lack of a standard operational definition of KM. As previous researchers have noted content analysis is a useful technique to draw inferences from text (Weber, 1985). Content analysis extracts attributes from manuscripts (Carney, 1972), and analyzes the extracted text (Budd, 1967). For this study, a content analysis of the KM literature was conducted, with the goal of establishing the premise, the definition and a list of characteristics of KM.

This initial examination included both academic and professional journals in MIS and other disciplines. Following the procedures of Lewis (1993), the literature was examined for specific pieces that directly addressed the topic of KM. The screening process reviewed all titles that included knowledge management, resulting in the known definitions of KM. A list was constructed that included any mention of a definition, premise, or characteristics of KM. "The list was reviewed to create new items, combine similar items, and eliminate duplicate entries"(Lewis, 1993, p. 58). This process resulted in a final list of KM items that are discussed in the following sections.

KNOWLEDGE MANAGEMENT PREMISE, DEFINTION, AND CHARACTERISTICS

In this preliminary investigation, the content analysis process involved a sample pass of the literature, resulting in 16 pieces, which addressed the premise (Lewis, 1993) underlying the KM concept. As displayed in Table 1, a list of KM characteristics were extracted from these pieces of literature. The KM definition from six of these pieces is listed in Table 2.

Upon completion of this literature analysis and search, the creation of new categories, reassignment of characteristics in each category, and the combining of similar characteristics will be completed. As content analysis proceeds, more factors may be added to the characteristics. Once the literature search has been completed, exploratory factor analysis should help in refining the list. Thereafter, the KM domain should be defined. The primary goal of this study is to establish the necessary methodology, conduct this preliminary investigation and determine if there is a utility for a formal operational definition of KM.

FUTURE RESEARCH

The results of this project provide a foundation for the domain of KM. Following the Lewis (1993) methodology and using the definition developed in this study, a measurement instrument can be developed for future studies; thus, providing an opportunity to investigate the relationship between KM and other organizational factors. The knowledge gained from this study can be used to assist in the continued effort of defining KM and finding a good measurement technique.

CONCLUSION

The definition of KM has become important to academicians and practitioners. The purpose of this preliminary research was to conceptually define KM and report the findings as we strive to create an operational definition of KM. The authors' intent of this research is

Table 1: Knowledge Management Characteristics

Knowledge Management Characteristics
Agency collaboration
Benchmarking
Chief Information/Learning Officer
Collaboration
Creating a knowledge sharing environment
Cross-Department sharing of information and learning
Data mining
Data Retrieval
Data Storage
Databases of best practices
Disseminating knowledge around the firm
Document Management
e-Business
e-learning
E-mail
Employee Knowledge retention
Enabling the conversion of information to knowledge
Enterprise-wide information management
Environmental Scanning
Expert Systems
Improving CRM
Information Technology
Integration of best practices
Intellectual property
IT infrastructure
KM advisory board
Knowledge Acquisition
Knowledge Capture
Knowledge distribution
Schema resources
Shortened Learning Curve
Tacit Information
Tacit Knowledge

to lay the foundation for a more widespread study of KM. Importantly, the task for empirically developing an organizational measure and for the KM construct may proceed. As KM is acknowledged to be important to competitive advantage and organizational survival, it should be of great value to develop an operationalized definition so that researchers can perform empirical research with a clear understanding and agreement about the topic under investigation.

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Table 2:Knowledge Management Definitions and Premise

KM Source	KM Definition	KM Premise
Buhler, Patricia, 2002	The ability to effectively use knowledge to develop new products and services or make important changes in the way business is conducted.	Only by developing learning organizations that use the knowledge they acquire can organizations continue to adapt and respond to their changing environment.
Dusseldorp, Van, 2003	A general definition of KM has been 'getting the right information to the right people at the right time' in order for them to make better decisions	The fundamental reasons for adopting KM have not disappeared. Retention of expertise of key personnel and improved interaction between technology, people and processes continue to drive investments in a variety of software and services to support KM initiatives
Dzinkowski, Ramona, 2001	KM has to do with locating or creating useful knowledge and transmitting it throughout the company	The ability to manage knowledge will stay as one of the durable competitive advantages a company has over time
Barth, Steve, 2001	Systematic approaches to help information and knowledge flow to the right people at the right time so they can act more efficiently and effectively	KM is about creating a corporate culture that learns from experience, so if mistakes do happen, they will never be repeated
Koch, Hope, 2002	The application of knowledge manipulation skills in performing knowledge manipulation activities that operate on the organization's knowledge resources to achieve organizational learning and projection; this process is both facilitated and constrained by KM influences and is triggered by a knowledge need	an organization's ability to manage knowledge may be the only remaining source of competitive advantage
Martin, Bill, 2000	Process of identifying, capturing and leveraging knowledge to help the company compete	Knowledge management aims at adding value for customers through the acquisition, creation, sharing and re-use of any aspect of knowledge relevant to the organization and its environment, internal and external

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