Chapter X

Evaluation of Knowledge Management: A Review and Agenda for Future Research

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Abstract

Evaluation methods are essential for the advancement of research and practice in an area. In knowledge management (KM), the process of measurement, evaluation, and development of metrics is made complex by the intangible nature of the knowledge asset. Further, the lack of standards for KM business metrics and the relative infancy of research on KM evaluation point to a need for research in this area. This chapter reviews KM evaluation methods for research and practice and identifies areas in which there is a gap in our understanding. It classifies existing research based on the units of evaluation such as user of knowledge management system (KMS), KMS, project, KM process, and organization as a whole. The importance of considering differences across industries in assessing KM is also discussed. The chapter concludes by suggesting avenues for future research in KM and KMS evaluation based on the gaps identified.
Introduction

Knowledge management (KM) has become an accepted part of the business and academic agenda. Organizations have high expectations for KM to play a significant role in improving their competitive advantage (KPMG, 2000). Measuring the business value of KM initiatives has become imperative to ascertain if the expectations are realized.

Evaluation of KM involves developing measures to assess the phenomenon. Such measures are key to advancement of research and practice in an area. In research, they provide comparability of studies between individuals, time periods, organizations, industries, cultures, and geographic regions (Cook & Campbell, 1979). They also provide a basis for empirical validation of theories and relationships among concepts. Measures that are reliable and valid enable cumulation of research in a topic area and free subsequent researchers from the need to redevelop instruments (Boudreau, Gefen, & Straub, 2001).

For practitioners, evaluation measures are a way of learning what works and what does not. In fact, measuring firm performance is the focus of the entire field of management accounting. In KM, performance measures serve several objectives, including securing funding for KM implementation, providing targets and feedback on implementation, assessing implementation success, and deriving lessons for future implementation. Measures can assist in evaluating the initial investment decision and in developing benchmarks for future comparison.

Measurement is typically a complex process fraught with errors. What is easy to measure is not always important, and what is important is often difficult to measure (Schiemann & Lingle, 1998). KM measures are particularly distinct from other measures due to the intangible nature of the knowledge resource (Glazer, 1998). Something such as knowledge that is difficult to define and has multiple interpretations is likely to be difficult to value and measure. Due to such considerations and the complexity of assessing organizational initiatives in general, research (Grover & Davenport, 2001) and practice (Bontis, 2001) on the assessment of KM initiatives and knowledge management systems (KMS) are not well developed.

In light of the previously mentioned motivations, this study seeks to review KM evaluation in practice and research and to identify areas for further investigation. Previous research on measures for KM and KMS is classified based on the elements of evaluation, such as user of KMS, KMS, project, KM process, and organization as a whole. Further, the importance of considering differences across industries in assessing KM is discussed. The chapter concludes by providing avenues for future research based on the gaps identified during the review. In the next section, some basic concepts related to KM and KMS are described. This is followed by the review of practice KM measures, classification of research on KMS and KM evaluation, and finally, a discussion of areas for further investigation.

KM and KMS Basics

KM involves the basic processes of creating, storing, retrieving, transferring, and applying knowledge. The ultimate aim of KM is to avoid reinventing the wheel and to leverage cu-
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