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Research Methodologies used in Knowledge Management: A Literature Review

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ABSTRACT

The concept of knowledge management is becoming increasingly interesting to both academia and practitioners. The aim of the research is to answer a question 'what type of research methodologies are used in conducting the knowledge management research in the past'. A comprehensive review of literature in knowledge management was conducted to answer this question. To achieve this, thorough reviews of 49 articles are done. A significant body of literature on knowledge management is summarized. Based on the review of the literature it has shown, all the three major research methods, such as qualitative, quantitative and mixed methods are used evenly.

Keywords

Knowledge Management, Research Methods, Quantitative Methodology, Qualitative Methodology.

INTRODUCTION

The information age has resulted in major structural changes on economic and social front and Global trends have resulted in a shift towards a knowledge-based economy necessitating knowledge management. The concept of knowledge management (KM) is becoming increasingly prevalent in academic and vocational' literature. The objective of this article is to review the conceptual foundations of KM starting with a conceptual clarification of knowledge relative to data and information. As Kankanhalli (2003) correctly said "the growing importance of knowledge as a critical business resource has compelled executives to examine the knowledge underlying their business, giving rise to knowledge management (KM) initiatives" (p. 25). This research also seeks to establish the nexus between knowledge management research and the types of research methodologies used in the past.

PROBLEM STATEMENT

Literature reviewed related to issues with KM reveal that research the methods adopted is one of the most prominent issues. It is not known how, and to what extent, the research methods used are affecting the KM research. As the concept of knowledge management is becoming increasingly studied, it would be valuable to know 'what type of research methodologies have been used in conducting the knowledge management research in the past'.

DEFINING KNOWLEDGE

Knowledge is a difficult concept to define. Over period of time, in the knowledge management literature knowledge is defined as follows:-

1. An object that can be codified, distributed, understood, and applied in order to achieve a set of goals (Al-hawari, 2004).

2. Information which can be experienced, or communicated or shared (Allee, 1997).

3. Framed experiences, values, expert insights, and contextual information (Davenport & Prusak, 1998)   .

4. A collection of rules and information to fulfill a specific function (Den & Huizenga, 2000).

5. Imbuing data and information with decision and action-relevant meaning (Fahey & Prusak, 1998).

6. Relevant, actionable information based at least partially on experience (Leonardo & Sensiper, 1998).

KNOWLEDGE MANAGEMENT AND ITS EVOLUTION

The 'knowledge management' evolution has been traced by many scholars (Ponzi, 2002; Wiig, 1997). According to Ponzi (2002), knowledge management was born in the early 1980s and grew very slowly until 1995. The KM literature (refer Table 1.) grew exponentially from 1980 through 2000 and beyond. A key word "Knowledge Management" search (in the article title) in the databases "ABI/INFORM Global, Academic Search Premier and ERIC" along with the research type have resulted 49 articles and considered for this study.

Table 1. Distribution of selected KM articles over period of time

	1960's	1970's	1980's	1990's	2000's	Non Dated	Total
Number of articles considered for this study	1	1	2	17	26	2	49

In the year 2000, the KM literature contracted by about 10 percent. The decreased interest in KM in the popular press was attributable to two factors: KM investments were not yielding returns and the dot-corn bubble had burst. However, the academic literature continued to grow at a steady rate (Ponzi, 2002). The selected 49 papers are categorized into various research categories as described in the Table 2.

Table 2. Distribution of selected KM articles by article type

	Seminal Works	Literature Review	Research Articles	Theory	Qualitative	Quantitative	Other	Total
Number of articles considered for this study	2	3	3	2	5	4	30	49

LITERATURE REVIEW

One of the very important characteristic of scholarly writing is making connections to and building upon the work of others. These processes will enhance the understanding of the phenomena examined by the researcher. Alavi and Leidner's (2001) article represents the seminal review on knowledge management and information systems; this seminal work is often cited in subsequent works.

Research Methodologies

According to Crotty (2006) the three general sociological theories are positivistic, interpretive and critical theory. As discussed earlier, the positivism is based on the epistemology where objective reality exists versus interpretivism which is based on the subjective lens of the researcher's perspective and experience. Qualitative Research is collecting, analyzing, and interpreting data by observing what people do and say. Whereas, quantitative research refers to counts and measures of things, qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things.

Creswell (2007) says, the design of any research study begins with the selection of a topic and a research methodology. There are three orientations to research: post-positivist research (quantitative), interpretive research (qualitative) and critical research (critical theory). Every research tradition makes four key assumptions: ontology (nature of reality), epistemology (knowledge), axiology (role of values), and methodology (research strategies). Positivist and constructivist ontology's underlie quantitative and qualitative methods, respectively.

Quantitative and Qualitative category literature review

Serenko and Bontis's (2004) article has five elements (1) Introduction, 2) Methods, 3) Results, 4) Discussion and 5) conclusion). The main focus of their study is to conduct a review of the knowledge management literatures by investigating research productivity. According to Serenko and Bontis (2004), the number of publications about knowledge management and intellectual capital has increased and the trend indicates that, by 2010, there will be 10,000 such publications.

Tanriverdi's (2005) objective of the study is to advance the understanding of the relationship of IT and Knowledge Management and firm's performance (p. 312). Tanriverdi (2005) defined the problem statement as "despite widespread belief that IT enables KM and KM improves firm performance" (p. 313).

The main purpose of the article under the "qualitative category", the authors Korin and Laura (2004) have discussed on KM project success factors considered from literature review contributed to KM project's being on time, on budget, and high quality.

CONCLUSION

This paper has explored the areas knowledge based views of the firm, and knowledge management. The authors discussed the concept of knowledge management and what type of research methodologies were used in the past. The KM literature grew exponentially from 1996 through 2007 and the focus greatly increased in many areas of application of the KM. As we have seen in this review and analysis of the literature, it is clearly evident that the earlier research was predominantly on defining the knowledge and knowledge management and gradually the focus had moved towards solving business problems. Also, the literature review indicated that all the three major research methods, such as qualitative, quantitative and mixed methods have been used evenly in conducting the KM research.

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