International Journal of Information Systems in the Service Sector
Volume 10 • Issue 1 • January-March 2018

Knowledge Management Models:
A Summative Review

Dana Indra Sensuse, Faculty of Computer Science, University of Indonesia, Depok, Indonesia
Elin Cahyaningsih, Faculty of Computer Science, University of Indonesia, Depok, Indonesia

ABSTRACT

Knowledge and knowledge management started to be an option of organizational strategic step for reach organizational objectives and goals. Knowledge management believed to resolve organizational problem in managing their organizational and individual knowledge. Implementation of knowledge management (KM) has received increased interests. This paper aims to discuss KM models based on KM related definitions, concepts, functions, activities and approaches. Literatures on knowledge management models were collected from a number of sources. Each document then was analyzed and categorized in a certain group. The study shows that there are four categories of KM models i.e.: process, strategy, knowledge type, and maturity based knowledge management models.

KEYWORDS

Knowledge Management Implementation, Knowledge Management Model, Knowledge Management Process, Knowledge Management Strategy, Knowledge Management, Knowledge, Mapping Knowledge

INTRODUCTION

Knowledge and knowledge management (KM) have become prominent issues in organizational development and management. Knowledge as intangible asset of an organization drives organizational enhancement in every objective focus. Unconsciously, organizational knowledge continues to grow together with individual and organizational experiences.

Organizational knowledge can be divided into tacit and explicit knowledge. Tacit knowledge is in individual mind, difficult to be articulated. Explicit knowledge has been articulated into memo, letter, guidebook, manual book and reference (Bercerra-Fernandez & Sabherwal, 2004; Dalkir, 2005). KM is known as a new concept to manage, develop and retain organizational knowledge. KM can prevent losing of organizational knowledge, by combining data, information and knowledge (Dalkir, 2005). Finally, (Rao, Com, Phil, & Ph, 2012) say that KM involves a set of management activities that develop, transfer, transmit, store and apply knowledge in order to support decision making for all organization members to reach organizational effectiveness and efficiency.

In line with the KM theory, many researchers discuss KM models and their purposes for supporting KM implementation in organizations in different perspectives. KM models as mentioned in some research focus on creating new organizational knowledge from individual knowledge through some transformation process was describes in NONAKA and TAKEUCHI KM model, modified Ex-ex Model MARCH and BONTIS, DEMAREST'S KM model, and

DOI: 10.4018/IJISSS.2018010105

Copyright © 2018, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.

MCLNERNEY KM model (Chitto, Nowbutsing, & R.Ramchurn, 2010; Cristea & Capatina, 2009; Curado & Bontis, 2011; Dalkir, 2005; Demarest, 1997; Haslinda & Sarinah, 2009; Kasimu, A, & A, 2012). While, other discussed that KM models focus in managing process of knowledge in organization. The process can be such activities like collection, transfer, transform, storing, simulation and reuse which can be used for decision making, increase product, and organizational competitive advantages to achieve customer satisfaction. The models are CHOO KM model, ICAS of KM, KOGUS and ZANDER'S KM model, holistic view of KM model, activity based and map based KM model, KM process model ALAVI, Model of KM and the N-form corporation (Chitto et al., 2010; Cristea & Capatina, 2009; Dalkir, 2005; Haslinda & Sarinah, 2009; Hedlund, 1994; Kasimu et al., 2012; Yang, Zheng, & Viere, 2009; Zack & Hall, 2002). The previous research also determines KM models which focused in mapping and classify the organizational knowledge based on the knowledge resources and the purpose of knowledge as organizational asset. The models are WIIG model, BOISOT I-Space KM model and Skandia intellectual capital model of KM (Chitto et al., 2010; Cristea & Capatina, 2009; Curado & Bontis, 2011; Dalkir, 2005; Haslinda & Sarinah, 2009). Hence, some other researcher discussed KM models that focus in developing the organizational strategy which align with knowledge management strategy in each organization. Some of the models are IMPAKT model, EMBRAPA's KM model, KM model in Chinese government and knowledge SWOT analysis (Duan, Wang, & Zhang, 2002; Kasimu et al., 2012; Neto & Vieira, 2010; Zack & Hall, 2002). The last KM model is focus in level of KM maturity is FRID's KM model (Chitto et al., 2010; Haslinda & Sarinah, 2009).

The objectives of this research are to answer the research question bellow:

What kinds of the existing KM models based on their objectives, concept and element of the model?

Determining the classification of KM models is substantial for research, because it can describe the objectives, concept, constituent elements in KM model development. This study conducted with two stages. The first collected the literature of previous study from the online library. The author discovers the literature using the text mining method by some keywords. The library resources are science direct, JSTORE, IEEE, EBSCO host, and Springer Link. Those findings literature will be filtered and check related to the KM models.

The next stage analyzes KM models that have been discovered and developed by previous researchers. Each paper will compare, contrast them one by one, criticize each difference, synthesize the element category and report the summaries of the literature review process. Those models will be analyzed to determine the concept, aim and objectives. Then, the author also defines the process of each models by identify input, process and output from the KM models to find the categories of KM model.

A summary of this study can be used by other researcher to define the suitable KM model for their future research based on their requirement and objectives. The models can be determines regarding to the similarity on research object, concept, aim and objectives base on the model classification.

LITERATURE REVIEW

Knowledge management model is known as essential process of knowledge that important for knowledge management initiative in order to achieve an organization's strategic goals. Knowledge management model have been reviewed, criticize, discussed among expert, academic and researcher based on some literature review. Some of them also has been implemented and field trials (Dalkir, 2005).

The following section discusses knowledge management models identified in the literature.

28 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/article/knowledge-management-models/193041

Related Content

Configuration of Non-Functional Properties in Embedded Operating Systems: The CiAO Approach
Wanja Hofer, Julio Sincero, Wolfgang Schröder-Preikschatand Daniel Lohmann (2011). *Engineering Reliable Service Oriented Architecture: Managing Complexity and Service Level Agreements (pp. 84-103).*
www.irma-international.org/chapter/configuration-non-functional-properties-embedded/52192

Verification of Non-Functional Requirements by Abstract Interpretation
Agostino Cortesiand Francesco Logozzo (2012). *Handbook of Research on Service-Oriented Systems and Non-Functional Properties: Future Directions (pp. 22-35).*
www.irma-international.org/chapter/verification-non-functional-requirements-abstract/60880

Perceptual Metrics Quality: Comparative Study for 3D Static Meshes
Nessrine Elloumi, Habiba Loukil Hadj Kacem, Nilanjan Dey, Amira S. Ashourand Med Salim Bouhlel (2017). *International Journal of Service Science, Management, Engineering, and Technology (pp. 63-80).*
www.irma-international.org/article/perceptual-metrics-quality/169752

Framework for Managing Features of Open Service Ecosystems
Toni Ruokolainenand Lea Kutvonen (2012). *Handbook of Research on Service-Oriented Systems and Non-Functional Properties: Future Directions (pp. 491-523).*
www.irma-international.org/chapter/framework-managing-features-open-service/60899

Assessment of the Purpose of the Use of GAS: A Perspective of Internal Audit Functions in Australia
Louis Smidt, Leandi Steenkamp, Aidi Ahmi, D. P. van der Nestand David Schalk Lubbe (2021). *International Journal of Information Systems in the Service Sector (pp. 65-82).*
www.irma-international.org/article/assessment-of-the-purpose-of-the-use-of-gas/273645