

SYSTEMATIC LITERATURE REVIEW: IMPLEMENTATION OF KNOWLEDGE MANAGEMENT IN THE ORGANIZATION

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Abstract— Knowledge management is an activity that organizations use to achieve goals and gain competitive advantages. This study features a systematic literature review that discusses the implementation of knowledge management in organizations covering 39 articles published from 2015 to 2020. This study aims to answer four research questions. The results show that the trend of knowledge management research in Indonesia is dominated by research related to the designing of knowledge management systems. The application of knowledge management in Indonesia has been applied in various fields. Some various models and methods can be used in creating a knowledge management system.

Keywords: systematic literature review, knowledge management, knowledge management system.

Intisari—Manajemen pengetahuan merupakan suatu aktivitas pengelolaan pengetahuan yang digunakan organisasi untuk mencapai tujuan dan memperoleh keunggulan. Penelitian ini menampilkan sebuah *systematic literature review* yang membahas implementasi manajemen pengetahuan di dalam organisasi yang mencakup total 39 artikel yang diterbitkan dari tahun 2015 hingga 2020. Penelitian ini bertujuan untuk menjawab lima pertanyaan penelitian. Didapatkan hasil bahwa tren penelitian manajemen pengetahuan di Indonesia, didominasi dengan penelitian terkait perancangan *knowledge management system* (KMS). Penerapan manajemen pengetahuan di Indonesia telah diterapkan di berbagai bidang. Ada berbagai model dan metode yang bisa digunakan dalam membuat *knowledge management system*.

Kata Kunci: *systematic literature review*, manajemen pengetahuan, sistem manajemen pengetahuan.

INTRODUCTION

Recently there have been changes in all areas of life, as a result of which technology has grown faster. This condition requires how to respond to all these changes to survive. Of course, only with knowledge, all changes can be addressed appropriately. Knowledge is the result of a process through social interaction with other people and the environment to become the goal of truth [1].

By the development of organizations and information technology in organizations and using knowledge, knowledge becomes an important asset in the organization [2]. The knowledge should make progress of the organization itself. Therefore, it is necessary to have knowledge management in the organization. With knowledge management, knowledge can be put to good use within the organization, coupled with good infrastructure support that will help disseminate information within the organization.

A systematic literature review is a research method for evaluating, evaluating, and interpreting all relevant research results related to specific

research questions, specific topics, or phenomena of concern [3]. This method is used by reviewers to search for research journal articles published through electronic databases[4].

This study features a systematic literature review that discusses the implementation of knowledge management in Indonesia. This study aims to determine how the implementation of organizational management, designing a knowledge management system, and its effects, and what factors affect knowledge management.

Knowledge Management

Knowledge management is a system designed to create, document, classify, and knowledge within the organization. According to [5], in carrying out knowledge management four things must be considered, namely: knowledge acquisition, knowledge conversion, knowledge application, and knowledge protection.

Organizational management can be seen operationally and strategically. Operational KM is an organizational activity based on efforts to develop and utilize knowledge within an



organization. Meanwhile, strategic KM is a step to strengthen the efforts of each individual and organization to become a knowledge-based organization[6].

Organization

Organization comes from the word *organon* which means tool in Greek. The organization can be defined as a group consisting of two or more people who work together to achieve certain goals together. Organizations use all resources and facilities and infrastructure that are used effectively and efficiently to achieve organizational goals [7]. One of the organizational effectiveness can be seen from the organizational culture [8].

Organizational culture refers to the norms of behavior, assumptions, and beliefs of an organization, while organizational climate refers to the perceptions of people in the organization that reflect those norms, assumptions, and beliefs. It can be said that organizational culture is a set of rules and regulations agreed upon and implemented by its members. Organizational culture can shape the behavior patterns of its members.

Knowledge Management and Organization

In implementing knowledge management several things need to be considered, including organizational culture. The importance of organizational existence in the implementation of knowledge management is described in the literature [9]. According to Walker, there are several elements of implementing knowledge management, namely:

1. Knowledge creation, the creation of knowledge is facilitated through job design, namely by assigning tasks to work teams, not individuals.
2. Knowledge Transfer / Knowledge Sharing, in organizations sharing knowledge, is crucial in organizations where this process involves individuals, teams, departments, or divisions who are influenced by the experiences of others.

According to [10], knowledge management is how to manage organizational processes to create, store and reuse organizational knowledge.

MATERIALS AND METHODS

The methodology uses the systematic literature review method where the stages in this systematic review are adopted from [11].

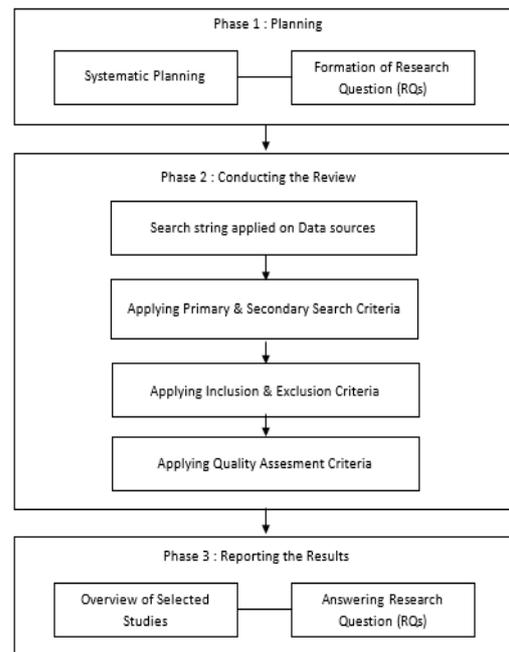


Figure 1. Systematic Literature Review Phase[11]

1. Planning phase

a. Research questions

To determine the extent of the concept of knowledge management in organizations in Indonesia, this study has several research questions:

- RQ1: What is the trend of knowledge management research in Indonesia?
- RQ2: What are the perspectives and applications of knowledge management in Indonesia?
- RQ3: How does knowledge management affect and what does it affect knowledge management?
- RQ4: What methods or models are used in forming a knowledge management system (KMS)?

2. Conducting the review phase

a. Search strategy

The keywords used in this literature search were "Knowledge Management in Organizations". The Source of literature data is obtained from Google Scholar which is limited by publications published from 2015-2020.

b. Study selection criteria and procedures

The list of primary literature that has been obtained will be selected and re-evaluated to separate the literature that fits the criteria and those that are excluded.

Table1. Inclusion Criteria and Exclusion Criteria

No	Inclusion Criteria	Exclusion Criteria
1	Literature uses Indonesian or English	Literature that only provides theories related to knowledge management.
2	Literature where knowledge management concepts are applied in organizations	Literature that does not apply knowledge management in organizations
3	The literature answers at least one research question	Literature that only displays and provides abstracts or slideshows
4	Literature indexed under S1, S2, and S3 in Sinta (Science and technology index)	Literature indexed S4, S5, and S6 in Sinta (Science and technology index)

c. *Included and excluded studies*

Using a Google Scholar search, approximately 62,300 results were obtained. After the first stage selection through literature criteria selection, a total of 302 pieces of literature were obtained. Furthermore, the second stage of selection was carried out and 39 total kinds of literature were obtained.

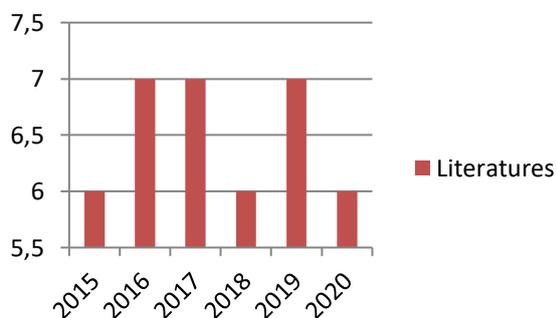


Figure 2. Selected literature statistics

d. *Study quality assessment*

The articles obtained were then evaluated for quality based on several criteria: (1) The articles matched the inclusion and exclusion criteria, (2) The literature search included all relevant studies, (3) The data/baseline studies were sufficiently explained.

e. *Data extraction strategy*

The following information is collected in data extraction: (1) Source (journal or conference) and complete references, (2) Classification of study types and research scope, (3) Main topics, (4) Author and institution, (5) Research summary, (6) Research questions, (7) Quality evaluation, (8)

Practitioner-based and guided studies, (9) Number of major studies used.

RESULTS AND DISCUSSION

1. RQ1: What is the trend of knowledge management research in Indonesia?

From 2015 to 2020, the trend of research related to knowledge management, the literature that examines the design of KMS dominates the focus of the study with a percentage of 51%. The research theme of knowledge management perspective and its application as a percentage of 39%, and the theme of the influence of knowledge management and the factors that influence it has a percentage of 10%.

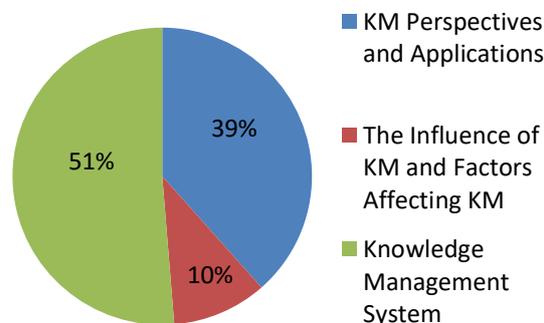


Figure3. Research Trends by Field, 2015 - 2020

2. RQ2: What are the perspectives and applications of knowledge management in organizations in Indonesia?

In public sector organizational reform, good organizational performance is needed. The effectiveness of knowledge and technology management is the key to increasing the competitiveness of public sector organizations [12]. One of the applications of knowledge management is applied in government institutions [13]. In government organizations, knowledge management is used to carry out regional development planning [14], [15]. Knowledge management is applied in the field of education, for example in the field of education such as libraries [16],[17],[18],[19]. Also, in higher education, knowledge creation and application of knowledge can improve lecturer performance[20]. Knowledge management is also applied in banking organizations [21]. The application of knowledge management is not only applied by large companies but can be applied in Small and Medium Enterprises (SME)[22].

Strategy-based knowledge management can be applied to gain a competitive advantage[23],[24],[25]. Knowledge management

implementation is carried out by establishing a knowledge management system along with a repository and database that begins with the SECI process (socialization, externalization, combination, and internalization)[26]. Therefore, it is necessary to have good internet network facilities and the quantity of computers in the organization to maximize the use of information technology to support a good knowledge management process.[27].

3. RQ3: How is knowledge management affected and what does it affect knowledge management?

Knowledge management affects employee performance. In [28] research, employee performance is determined by three independent variables, namely knowledge management, skills, and employee attitudes. Collaboration between employee empowerment and knowledge management has a positive effect on employee performance [28]. Determination, supervision, and knowledge management affect employee performance [29]. Knowledge management is influenced by organizational culture as described in the research [30]. There are 4 enablers in knowledge management, namely culture, technology, infrastructure, and measurement [31]. Trust influences positively on knowledge sharing[32].

4. RQ 4: What methods or models are used in forming a knowledge management system (KMS)?

The Nonaka model or what is called the SECI model, in addition to being used for knowledge creation, is used to identify and map knowledge within organizations [33], [34]. The SECI model can be combined with a soft system methodology that concentrates on stakeholder perspectives in system development [35]. Refinements of the SECI model resulted in the Inukshuk model. Inukshuk model can be used to map knowledge which also emphasizes aspects of leadership, technology, and culture [36][37], [38], [39].

The 10-step KM roadmap model is a framework developed by AmritTiwana, research [40][41], [42], [43][44]use this framework in developing KMS. In addition to the SECI model, knowledge mapping can use Zack's KM Cycle model. Knowledge Management System Life Cycle (KMSLC) can also be used in designing knowledge management systems [45]. Knowledge extraction can be done using a clustering approach [46]. Making business process-oriented KMS can use Strohmaier's organizational knowledge process framework [47].[48], [49], [50].System development methods such as SCRUM,

Waterfall, and the System Development Life Cycle (SDLC) can also be used in the design of knowledge management systems.

CONCLUSION

There are 39 pieces of literature found from 2015 to 2020 that discussed the implementation of knowledge management in organizations. The research theme trend for the implementation of knowledge management in organizations is dominated by research related to the design of knowledge management systems (KMS). From 39 pieces of literature, it is found that knowledge management can be implemented in various fields such as government institutions, education, and banking. Not only in large institutions but can also be applied in small industries such as in Micro, Small, and Medium Enterprises (MSMEs). Knowledge management affects employee performance and the competitive advantage of an organization or company. Several methods and models are used in designing a knowledge management system, namely: the SECI model, the Inukshuk model, and the 10-step KM roadmap model. Meanwhile, the KMS development method can be done with SCRUM, Waterfall, and the System Development Life Cycle (SDLC).

Based on the review that has been carried out, the authors convey several suggestions, namely: (1) organizations should manage knowledge management optimally so that it can get maximum employee performance, and (2) increase research related to the influence of knowledge management and the factors that influence it.

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