The Impact of Knowledge Management in Human Resources Department: A Systematic Literature Review

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Abstract— **The organization continually endeavors to create and improve the information on representatives associated with key business measures. It expects to make organization information in accomplishing upper hand. Inside an organization, the division that assumes the main part in obliging representatives' information needs is the Human Resource Department (HRD). Prior to building up information the board framework in an organization, particularly the Human Resources Department, it is important to direct a more inside and out investigation in regards to the effect that the organization has in the wake of executing the information the executive's framework, so partners can comprehend the effect that information the board has on an organization, particularly the HR Department. Subsequently, to control the HR Department to execute Knowledge Management, this precise writing survey (SLR) will try to address this inquiry: "what is the positive and negative impact that Knowledge Management brings to an organization, particularly Human Resource Department?". We led a Systematic Literature Review of 3006 remarkable papers distributed until 2020, and we included 25 essential investigations. The outcome shows Knowledge sharing carries the most effect on association execution, in spite of the fact that there are still moves identified with how people connect and utilize information.**

Keywords—knowledge management, human resource department, impact.

I. INTRODUCTION

Advancement is a multidimensional idea, which includes authoritative and procedural parts of an organization, pointed toward improving execution as far as creation efficiency, or potentially lessening creation costs [1]. Receptiveness to advancement quantifies an organization's affinity for change, through a methodology pointed toward acquiring an upper hand got from the abuse of novel thoughts and new advances [2].

The company constantly strives to develop and improve the knowledge of employees involved in strategic business processes. It aims to create company knowledge in achieving competitive advantage. The company encourages employees to be involved in the process of basic knowledge management (knowledge management) and build infrastructure, especially a supportive culture and communication facilities to gain and share knowledge in order to expand the company's human resources and knowledge base. Knowledge Management is the process of capturing, distributing, and effectively using knowledge [3]

According to open innovation theory [4], a holistic cognitive approach should allow the company to exploit efficiently internal knowledge, and absorb external knowledge concerning the dynamic environment [5]. On the
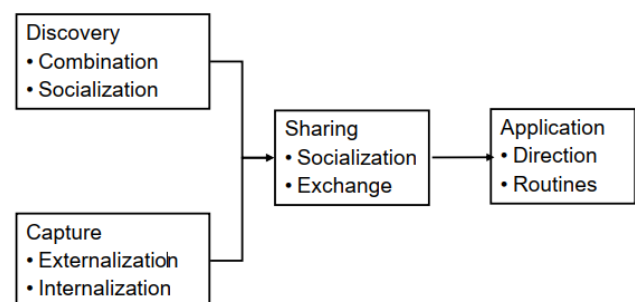

Figure 1 Knowledge management processes

other hand, innovation has been defined as a tool that "recombines existing knowledge in new ways" [6], highlighting the limits and potential of the organization's cognitive substrate to encourage development and sustainable innovations.

Within a company, the department that plays the most important role in accommodating employees' knowledge needs is the Human Resource Department (HRD). HRD is a department within a company that is tasked with managing individual capabilities and talents to achieve company objectives [7] Before developing a knowledge management system in a company, especially the Human Resources Department, it is necessary to conduct a more in-depth study regarding the impact that the company has after implementing the knowledge management system, so that stakeholders can understand the impact that knowledge management has on a company, especially the HR Department. Therefore, to guide HR Department to implement Knowledge Management, this systematic literature review (SLR) will seek to answer this question: "what is positive and negative impact that Knowledge Management bring to a company, especially Human Resource Department?".

The structure of this paper is as follows: Section Two introduces the theoretical background and motivation for SLR. Then, section Three summarizes the SLR methodology, including the inclusion and exclusion criteria. Section Four presents the results and discussion of the research, outlines the

distribution of articles by year and tabulates a synthesis of the results of the SLR. Section Five refers to our recommendations and discussion. Finally, Section Six presents the limitation of this study and summarize the paper.

II. BACKGROUND THEORY AND THEORITICAL FOUNDATION

The availability of information and knowledge management directs corporate innovation processes towards a more significant competitive advantage [8]. Knowledge management facilitates the collective and systematic creation, distribution and utilization of knowledge by individuals, teams and entire organizations to reach their strategic and operational goals. Knowledge management leads, on the one hand, to improving the effectiveness and performance of operations and, on the other hand, to innovating and improving the level of competition. Knowledge-based management aims at creating information knowledge and turning this expertise into a sustainable competitive advantage so that it becomes part of business success [9].

Nonaka and Takeuchi (1995) define KM as a management tool that makes individual knowledge an asset with which to enhance organizational effectiveness through dynamic interactions [10]. KM is a management function that is aimed at strategies of formulation, implementation, and evaluation which can guarantee the process of disseminating the appropriate knowledge and format, to the right individuals, at the correct place and time [11]. Serrat [12] defines KM as a combination of explicit and systematic information management with learning organizations that allow the identification, creation, storage, sharing and utilization of knowledge resources, both individual and collective. Knowledge Management has 4 processes that will construct the Knowledge Management solution as shown in Figure *1* [3].

The previous studies suggested that people-oriented KM practices are highly associated with innovation, and several studies note that the use of people-oriented KM improves the knowledge processes (i.e., acquisition, distribution, and creation), which influence on innovation skill. Notwithstanding, people-oriented KM practices appeared to stimulate and promote a sense of innovative by owning a positive impact on the individual's affective engagement and impersonal trust. Strategic are primarily associated with innovations. If all of the necessary management process-oriented KM practices were actually in place, it would advance the organization's performance. Some of the examples of process-oriented KM practices include the concept of KM for management at the top of the pyramid, a broadness of knowledge strategy targets and KM tools, and implementation support elements (i.e., cultural principles and leadership) [9].

III. METHODOLOGY

A critical literature review is an important stage before conducting any research study [13]. It establishes the groundwork for knowledge accumulation, which in turn enables the theories' extensions and developments, closes the gaps existing in research, and uncovers areas where previous research has missed [14]. A literature review can be viewed as a systematic literature review only when the review is based on explicit research questions, determines and analyzes relevant research studies, and evaluates their quality based on specified criteria [15]. In this review study, Kitchenham and Charters's guidelines [16] for conducting a systematic review were followed in addition to the procedures of other systematic reviews that were carried out in the KM context [17]. In that, the review was conducted in four distinct phases: the identification of inclusion and exclusion criteria, data sources and search strategies, quality assessment, and data coding and analysis. The details of these phases are demonstrated in the following sub-sections.

A. Inclusion/Exclusion Criteria

The articles that will be critically analyzed in this review study should meet the inclusion and exclusion criteria described in Table *1*.

Table 1 Inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Should include the impact of knowledge management to the Company	Not include the impact of knowledge management to the Company
Should include the impact of knowledge management to Human Capital	Not include the impact of knowledge management to Human Capital
Should include the impact of knowledge management to Human Resources Department	Not include the impact of knowledge management to Human Resource Department
Should be written in English	Non English language
Published between 2010-2020	Published outside 2010-2020

B. Data sources and search strategies

The research articles involved in this systematic review were collected through an extensive search of existing studies via the subsequent databases: IEEE, ScienceDirect, Springer, Scopus, ACM Digital Library, and ProQuest. The search of these studies was undertaken in October 2020. The search terms include the keywords ("Knowledge Management" AND (challenge* OR problem* OR threat* OR solution* OR "impact") AND (human capital OR human resources OR sector* OR organization* OR organization* OR company OR companies OR enterprise* OR corporate OR corporation OR firm*)). The selection of the keywords is an essential step in any systematic review as it determines which articles are to be retrieved [17]. The search results retrieved 3010 articles using the above mentioned keywords. 6 articles were found as duplicates, and thereby, they were filtered out. Hence, the overall number of remaining articles becomes 3004. The authors confirmed the inclusion and exclusion criteria for each study. Accordingly, 25 research articles were found to meet the inclusion criteria, and thereby, were included in the analysis process. The search and refinement stages in this review study were carried out according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) [18].

C. Quality assessment

One of the crucial factors that needs to be examined along with the inclusion and exclusion criteria is the quality assessment A quality assessment [13] checklist with 8 criteria

was prepared and used to afford a means for appraising the quality of the research articles that were retained for further analysis (N = 25). The quality assessment checklist is illustrated in Table *2*. The checklist was not intended to be a form of criticism of any scholars' work [16]. The checklist was adapted from those suggested by [16]. Each question was scored according to the three-point scale, with a "Yes" being worth 1 point, "No" being worth 0 point, and "Partially" being worth 0.5 point. Hence, each study could score between 0 and 8, with the higher the total score a study attains, the higher the degree to which this study addresses the research questions. Table 3 demonstrates the quality assessment results for all the 25 studies. In that, it is clear that all the studies have passed the quality assessment, which in turn, reveals that all the studies are qualified to be used for further analysis.

Table 2 Quality assessment checklist

#	Question
1	Does the article clearly describe the research objectives?
2	Does the article explain the literature review, background and research context?
3	Does the article feature related works from previous research that show the main contribution of the research?
4	Does the article describe the architecture or methodology used?
5	Does the article have research results?
6	Does the article present a report that is relevant to the research objectives / concerns?
7	Does the article provide recommendations or improvements for the reader?
8	Are articles indexed in Scopus?

Table 3 Quality assessment results

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Total	Percentage
S1	1	1	0	1	1	1	1	0	6	75%
S2	1	1	1	1	1	1	0	0	6	75%
S3	1	1	1	1	1	1	0	0	6	75%
S4	1	0	1	0	1	0	1	0	4	50%
S5	0	0	1	0	0	0	1	0	2	25%
S6	1	1	1	1	1	1	0	0	6	75%
S8	1	1	1	1	1	1	1	0	7	87.5%
S7	1	0	0	1	1	1	0	0	4	50%
S8	1	0	0	1	1	0	1	0	4	50%
S9	1	0	0	1	1	0	0	0	3	37.5%
S10	1	1	0	1	1	1	1	0	6	75%
S11	1	1	0	1	1	1	1	0	6	75%
S12	1	1	0	1	1	0	0	0	4	50%
S13	1	1	0	0	1	0	0	0	3	37.5%
S14	0.5	1	1	0	0	0	0	0	2.5	31.25%
S15	1	1	1	1	1	1	0	0	6	75%
S16	0.5	1	1	0	0	0	0	0	2.5	31.25%
S17	1	1	1	1	1	1	1	0	7	87.5%
S18	1	1	1	1	1	1	1	0	7	87.5%
S19	1	1	1	1	1	1	1	0	7	87.5%
S20	1	1	0	1	0	0	0	0	3	37.5%
S21	0	0	1	1	0	0	0	0	2	25%
S22	0	1	1	0	1	0	0	0	3	37.5%
S23	0	1	1	1	1	0	0	0	4	50%
S24	1	1	1	1	1	1	1	0	7	87.5%
S25	1	1	0	1	1	1	1	0	6	75%

IV. RESULTS

With respect to the published 25 research studies about KM Positive and Negative Impact from 2001 to 2020, the findings of this systematic review are reported based on the research question: "what is positive and negative impact that

Knowledge Management bring to a company, especially Human Resource Department?". Several research were carried out to examine the positive impact, negative impact, challenge, and solution but not a single literature discuss about the negative impact of Knowledge Management. We noticed that most of the research concluded positive impact of KM to organization (n = 11), only 1 study exclusively study about the challenge [19], but we also found 5 literatures that include the challenge to the application of knowledge management in addition to its positive impacts.

To produce a clearer visualization of the impact generated by Knowledge Management on a company, Table *4* explains what Knowledge management processes can have a positive impact on the company. Many study conclude that Knowledge Discovery can directly impact individual performance [20]–[23], but only one study conclude Knowledge Capture can directly impact the company performance [23].

Table 4 Knowledge management process positive impact

Knowledge Discovery	Combination	Abbas[20] Sensuse[21] Gunawan[22]
	Socialization	Abbas[20] Muthuveloo[23]
Knowledge Capture	Externalization	-
	Internalization	Muthuveloo[23]
Knowledge Sharing	Socialization	Gunawan[22] Abbas[20] Al-Zoubi[24] Sensuse[21] Al-Dmour[25] Choi[26] Rodgers W[27] Chen[28] Torabi[29]
	Exchange	Abbas[20] Al-Zoubi[24] Sensuse[21] Al-Dmour[25] Choi[26] Rodgers W[27] Chen[28] Torabi[29]
Knowledge Application	Direction	Abbas[20]
	Routines	Abbas[20]

Based on the summary of the study shown in Table *4*, it shows that Knowledge Sharing is the most common process that will provide positive impact to the company [20]–[22], [24]–[29].

Table 5 Knowledge Management Challenge

Challenge	Abbas[20] Torabi[29] Chen[28] Choi[26] Pirkkalainen[19]

Some challenge captured in Table *5* emphasized in knowledge creation, and knowledge acquisition. It is clear that in many industries knowledge capture is a process that is happening before any manufacturing happened [20]. Others said that human factor need to be considered challenging [28][29] when implement knowledge management, and this includes the intention of the employee to share that knowledge. Other challenge captured in this study in geographical challenge [19].

V. DISCUSSION

The main aim of this review study is to systematically review and synthesize the studies published on this topic in an attempt to enhance the understanding of the contextual aspects of KM processes and their relationships to Human Resource Department. Table *4* shows the knowledge management process that directly impact performance, and Table *5* shows the challenge that should be anticipated when implementing the Knowledge Management.

VI. CONCLUSION

We conducted SLR to investigate the direct impact of Knowledge Management to organization performance. The result of our review show that Knowledge Sharing is the most impactful process that will give positive impact to organization, although there are still challenges related to how humans interact and make use of knowledge. Human resource department need to consider which process they wanted to implement first before another.

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