

# Knowledge Management as a Consensus for Strengthening the Research and Development Agency of the Ministry of Home Affairs

Herie Saksono<sup>1</sup>, Imam Radianto Anwar Setia Putra<sup>2</sup>

<sup>1,2</sup> Research and Development Agency of the Ministry of Home Affairs, the Republic of Indonesia

<sup>1</sup> herie.saksono26@gmail.com, <sup>2</sup>imamradianto@gmail.com

## ABSTRACT:

Knowledge used to increase the value and performance of organization through the laboration of its intellectual resources. For this reason, knowledge management is important for Research and Development Agency in improving their quality. This research aims to ensure that the knowledge management approach can be used as a foundation for strengthening Research and Development Agency. Qualitative research procedures and methods have chosen in exploring various phenomena of activities of the R & D Agency which react closely with the concept of knowledge management. A qualitative approach is a study conducted by researchers which used to find and understand hidden things behind a phenomenon that sometimes difficult to understand. Using a symbolic approach, it is assumed that the object of people, situations and events does not have their own understanding through collecting in-depth interview data, and data analysis in qualitative research was carried out in a narrative. R & D the Ministry of Home Affairs has a conformity with the application of knowledge management to be further strengthened in terms of agencies, including procedures in the interaction between research and development networks as well as innovation and human resources. Furthermore, this research formulates several conclusions, namely; 1) Development of three other dimensions of knowledge management in the performance system in order to achieve organizational output, given the capacity of knowledge through the use of tacit abilities and implicit knowledge. 2) reconstructing interactions to support learning organizations through the use of generative organizational criteria to strengthen consensus of knowledge management. 3) the use of a flexible structure and the development of organizational competencies in the implementation of activities in order to seek various knowledge development and innovation.

## Keywords:

*Knowledge Management, Intellectual Capital, Learning Organization, intangible asset; RnD Management;*

*Article Received: 18 October 2020, Revised: 3 November 2020, Accepted: 24 December 2020*

## INTRODUCTION

Organizational capabilities, which are the result of knowledge processing, are sourced from the use of available intellectual capital for organizations to continue to grow and develop and have a competitive advantage. Knowledge is obtained through developing the concept of the results of research analysis activities and it leads to the availability of an innovation framework which is an effort to manage the knowledge that is owned. Knowledge management is the deliberate and

The knowledge management approach is a strategy to increase output from the results of research and development activities carried out by the R&D Agency, this is confirmed by the results of the analysis conducted by (Alusi, 2013, p. 23). The National Institute of Aeronautics and Space as an institution requires knowledge management system of high potential quadrant, this means that

systematic coordination of an organization's people, technology, processes, and organizational structure in order to add value through reuse and innovation (Dalkir, 2011, p. 3). Institutions that manage research activities are a very important part of the successful adoption of knowledge management in order to carry out various coordinative efforts to utilize the innovations resulting from research-analysis.

implementing a knowledge management system has high potential to improve the performance of the institution. Knowledge management is very crucial to support the process of creating innovation in processes and products, especially in the Information technology industry, which has the characteristics of changes and updates that are very fast and massive to the demands of digital

needs in the world (Siagian & Ikatrinasari, 2019, p. 79). Responsive to change through a process carried out by involving various resources who have reliable knowledge.

Knowledge management strives for innovation in institutions by disseminating technology results that have been produced through the formulation of models and applications in the field, involving field officers, both researchers, extension agents and local government officials (Sirnawati & Syahyuti, 2019, p. 14). Research institutes are only one actor that plays a role in the innovation process (Hall et al. 2003, 2004) in (Sirnawati & Syahyuti, 2019, p. 20). The innovation process is created through the activities of a knowledge management organization (Organizational Knowledge Creation), namely the ability of an organization to create new knowledge and distribute it throughout the organization and make it happen in the form of products, services and systems. Knowledge management is closely related to creation and sourcing, compilation and transformation, dissemination and application realization (Wig, 1993) in (Tung, 2018, p. 5). The involvement of knowledge in creating innovation, which is the output of activities, guarantees the functioning of the mechanism for utilizing intellectual capital that comes from individual researchers or the R&D Agency in solving problems.

On the other side, there are still problems arising from the management of research and development institutions that occur in the form of the impact of output targets. The Research and Development Agency does not understand the needs and problems of users and on the other hand, users do not know their abilities (Surminah, 2013, p. 102). The needs and problems in question are how to use research results to describe having missing links in the use of research results. The difference in the views of researchers with the use of research results is a form of barriers to the use of research and development results. This is due to two main things; firstly, the partial use of research and development results, and secondly because of the information asymmetry (Sunarjanto, Kristadi,

& Dati, 2013, p. 42). The difference in views between researchers and users of the results lies in the substance of the research results obtained from the process and the ability to think about managing data in developing knowledge. The difference in views of the research results presented is an illustration of the cross-knowledge possessed between researchers and users. It also explains that, the output of the research results is a lack of intellectual capacity regarding the views produced, which also contains several other contributing factors. In spite of the fact that IC is a strategic resource that increases the performance and creates value, there is still problem with measuring, managing and controlling of IC in an organization (Amin & Aslam, 2017, p. 2).

Administrators / supervisors who carry out office administration dominate the structure of the Research and Development Agency. The composition of 15 administrators / supervisors serving 1 functional officer with expertise is finally created by this structure. Thus, a tiered pattern of communication between employees is also formed at each task. This becomes part of intellectual capital which is used to provide benefits in achieving performance by involving the expertise and experience that comes as an organizational asset. Intellectual capital is defined as intangible assets which include technology, employed information, brand name, reputation and corporate culture that are invaluable to a firm's competitive power (Low and Kalafut, 2002) in (Kanigolzar, Savari, & Motee, 2013, p. 322). Even work that is still done manually without involving reliable technology is still being carried out today.

Knowledge management refers to the processes and practices that enable firms to manage their intellectual assets and to achieve knowledge-based competitive advantages (Alavi and Leidner, 2001; Davenport and Prusak, 1998; Heisig, 2009; Nonaka and Takeuchi, 1995; Von Krogh, 1998) in (Hussinki, Ritala, Vanhala, & Kianto, 2017, p. 4). Having experience and expertise from the organization is a managed asset to open up opportunities to explore competitive

advantages in facing challenges. Intellectual capital management is an effort to maintain knowledge as an invisible asset in an organization. The term is synonymous with intellectual assets, intangible resources and knowledge capital (Guthrie, 2001, p. 29). The following sections present some examples of knowledge assets under each intellectual capital category: human capital (people), structural capital (organizational capital) and relational capital (customer capital) (Handzic & Durmic, 2015, p. 54). Furthermore, in getting closer to understanding from reading research results, it is necessary to strengthen the concept of learning organizations, so that the results can be utilized properly in solving problems through innovation. knowledge reuse increases knowledge creation among team members with a strong learning orientation (Jamal & Khedhaouria, 2015, p. 1). The importance of organizational learning is an effort to strengthen the knowledge that is conveyed to other parties to be applied. The difference in views between researchers and research users on research results requires the ability of a team with a strong understanding of the knowledge used in problem solving.

The concept of the substance of knowledge possessed by human resources in research institutions is a challenge for intellectual capital in supporting knowledge management (Leni, Alexandri, Ismanto, & Widyaningsih, 2018,

p. 80). These three knowledges (scientific, political, and practical knowledge of implementation) are needed for researchers to reduce the gap between researchers and policy makers so that research results can be more easily understood by policy makers and implementers. Resources owned in managing work processes to mobilize knowledge management in organizations have challenges in facing change. For example, research resources owned by the R&D Agency of the Ministry of Home Affairs have total number of 155 employees or 21.94% of their resources. It's indicated that the gap between the number of available functionalities apparatus to increasing the organizational capacity in supporting research and development assignments (Putra & Iskandar, 2013, p. 178). According to Sience and Technology Index (SINTA) published by Ministry of Research and Technology/National Research and Innovation Board (Kemenristek/BRIN), the R&D Agency of the Ministry of Home Affairs is ranked nationally at position 722 among. It is evident that the institution requires knowledge management consensus as a strategy to increase organizational value and performance. This index describes the ability of the institution to utilize the ability to manage knowledge possessed by individuals in the institution.

Table 1. National Ranking of Research and Development Agency of the Ministry

<b>Research and Development Agency</b>	<b>National Rank</b>	<b>Total Score</b>	<b>Ministerial Rank</b>
R&D Agency, Ministry of Agriculture	34	19.190	1
R&D Agency, Ministry of Health	87	8.527	2
R&D Agency, Ministry of Industry	119	4.791	3
R&D Agency, Ministry of Public Work & Public Housing	371	238	4
R&D Agency, Ministry of Justice and Human Rights	532	61	5
R&D Agency, Ministry of Energy & Mineral Resources	638	104	6
R&D Agency, Ministry of Home Affairs	722	120	7

Source: processed data, 2020

(<http://sinta.ristekbrin.go.id/home/search?search=1&mp;q=Badan+penelitian+dan+pengembangan>, accessed 30/06/2020)

A study conducted by (Pauleen & Wang, 2017, p. 5) explains the conclusion that knowledge management, theoretical base, and the practical experience to decide what data is needed for the organization to run efficiently and effectively, how that data should be analyzed to provide information most useful for organizational processes and decision making, and how to develop knowledge based feedback loops so that changes in data collection and analysis can be made in response to changes in the business environment, both internal and external. Furthermore, study by (Alusi, 2013, p. 23) Developing an innovative knowledge management system at the National Institute of Aeronautics and Space, the development as a research institution will be faster because with the knowledge management cycle pattern, every knowledge created can be well preserved, so that it can be used as best practice in research and knowledge culture sharing to support increased performance. Other researchers recommend that competency and knowledge management together positively and significantly affect the performance of Nuclear Energy Regulatory Agency employees (Hanum, Munandar, & Purwono, 2020, p. 258). Previous research has transformed the use of knowledge management into a culture to support decision making in responding to changes in the business environment with the involvement of competent employees. Research conclusions from (Sirait, Sukmawati, & Sumertajaya, 2017, p. 302) explained that the implementation of learning organizations an influence on innovation and performance improvement of Small and medium-sized enterprises in Bogor in line with increasing competence and creativity of human resources so as to create innovative processes and products, and able to compete both local competitors and competitors from abroad. Competence ownership results in innovation and competitiveness in order to support organizational strengthening in empowering the knowledge possessed by the organization.

Other research results related to knowledge management with intellectual capital

give a conclusion. The model also emphasizes the importance of continuous feedback from projects for innovative knowledge creation (Handzic & Durmic, 2015, p. 59). In addition, the results of research related to learning organizations in research and development institutions conclude that in realizing the desired learning organization, there is a need for a clear division of authority between functional researchers and structural officials and the exemplary role of structural officials (Rusilowati, 2013, p. 500).

The goals of knowledge management are the leveraging and improvement of the organization's knowledge assets to effectuate better knowledge practices, improved organizational behaviors, better decisions and improved organizational performance (King, 2009, p. 4). For this reason, this study describes various phenomena of the topics presented in order to answer a fundamental question, namely: Why should strengthening knowledge management adopted by R&D Agency of the Ministry of Home Affairs? The aim of this study was to ensure that the knowledge management approach can be used as a foundation in strengthening R&D institutions through support for the use of intellectual capital and learning organizations. It makes the study different from scientific study that has been published.

## LITERATURE STUDY

### Knowledge Management

That firms can experience sustained competitive advantage when they apply knowledge in new and significantly improved products and services, organizational practices, production processes, marketing strategies and innovation (Costa & Monteiro, 2016). support for performance with knowledge management provides added value to the organization in the form of a competitive advantage. support for performance with knowledge management provides added value to the organization in the form of a competitive advantage. Knowledge management is a process which helps organizations to find important information,

select, organize and publish them and it is a proficiency which is necessary for activities such as problem solving, dynamic learning and decision making (Nazari & Emami, 2011, p. 28).

According to another approach, the knowledge management is an integrated and systematic approach which contains databases, documents, policies and procedures including the current expertise and experience and which is related to determining, managing and sharing all information assets of the enterprise (Çakar and Yıldız,) at (Fındıklı, Yozgat, & Rofcanin, 2015, p. 380). The use of various sources of knowledge possessed by experience becomes a raw material for use in the next process. (Ferdous Azam, Tham, & Ahmad, 2020, p. 3501) processes of knowledge management can be divided into five main types: knowledge acquisition, knowledge sharing, knowledge creation, knowledge retention as well as knowledge transfer. The use of knowledge management for the Research and Development Agency takes into account the process carried out with the availability of raw materials and ownership of competencies

### **Learning Organization**

Organizational capacity becomes a driving force for learning organizations to face challenges in achieving major goals in the future. The learning organization is essentially “an organization that is continually expanding its capacity to create its future (Bratianu, 2015). Organizational learning has been regarded as one of the strategic tools of achieving long-term organizational success (Argote, 2013). The processes of making a Learning organization challenges employees and communities to use their cooperative intelligence, ability to learn,

creativity, transfer of knowledge continuous professional development (Mammona, Fahmeeda, & Ahmed, 2015, p. 94). Organizational capacity development becomes a strategy that must be worked on so that the organization can be responsive to various factors of change

Learning Organizations pay attention to environmental conditions around the organization in order to meet the demands of change in taking advantage of various opportunities. Learning organization examines external factors on their learning and adapts their internal organizational framework to match the opportunities that arise (Hapenciuc, Bratianu, Roman, & Bejinaru, 2014, p. 225). Flourishing learning organizations require strategies to empower employees and assist them in assimilating new knowledge and applying problem solving abilities (Klinge, 2015, p. 162). The opportunities identified are the basis for human resource engagement through employee empowerment activities to hone and improve skills

### **Intellectual Capital**

Intellectual Capital is an inherent part of the organization in order to achieve the targets and goals set. (Nuryaman, 2015, p. 293) Experts in the field of intellectual capital divide intellectual capitals into three dimensions : (1) human capital, (2) structural capital, and (3) external (customer) capital. Knowledge becomes an invisible asset, so that it needs to be managed in order to increase organizational value through the development of the concept of intellectual capital described (Bontis, 1999, pp. 444–445) as described in figure 1.



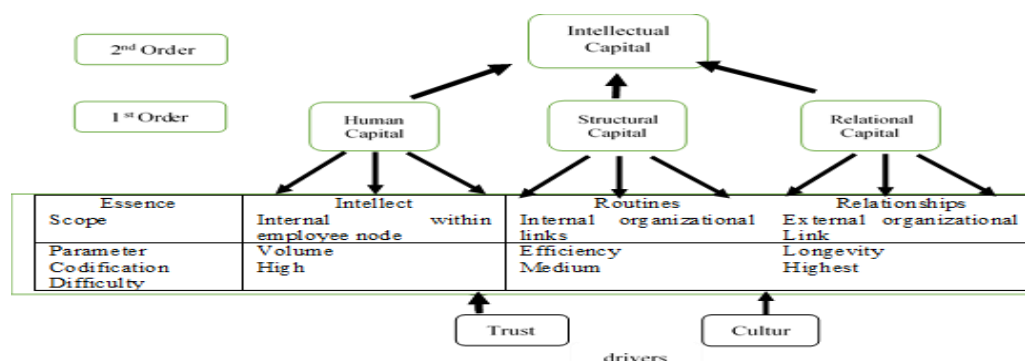


Figure 1. Source: (Bontis, 1999, p. 445)

Intellectual capital has three components with the following explanation. Human capital, which is embedded in employees, is the sum of employees competence, knowledge, skills, innovativeness, attitude, commitment, wisdom, and experience (Wang, Wang, & Liang, 2014, p. 234). The explanation of structural capital is a includes management relationship, organization structure, development, and the relationship capital refers to the marketing relationship and organizations that have a strong structural capital will have a supportive culture that permits their employees to try new things, to learn and to practice them (Gogan, Duran, & Draghici, 2015, pp. 1140–1141) Relational capital is based on the idea that firms are considered not to be isolated systems but as systems that are, to a great extent, dependent on their relations with their environment (Hormiga, Batista-Canino, & Sánchez-Medina, 2011). The dimension of relational capital is based on the notion that firms are considered not to be isolated systems but as systems that are, to a great extent, dependent on their relations with their environment (de Castro, Sáez, & López, 2004). intellectual capital can work involving resources and interactions with the actors.

## RESEARCH METHODS

The study used qualitative method in explaining various factors related to knowledge management, intellectual capital, and learning organizations on R n D Agency of the Ministry of Home Affairs as the object of this research. One of the reasons for using a qualitative approach is

the experience of researchers where this method is used to find and understand hidden things behind a phenomenon which sometimes difficult to understand. Also using a symbolic interaction approach it is assumed that the object of people, situations and events does not have their own meaning, on the contrary the understanding. it is given to the experience and its essential and decisive process of interpretation (Rahmat, 2009, pp. 2–3). Data presentation and analysis in qualitative research was carried out in narrative (Subandi, 2011, p. 173). The most basic data collection method in qualitative research was in-depth interviews, thus encouraging researchers who wish to learn everything from respondents, so they can share about the research topic (Laksono, 2015, pp. 25–26).

## RESULTS AND DISCUSSION

### 1.1. Results

The activities of the R&D Agency of the Ministry of Home Affairs are divided into 2 major activities, namely, 1) conducting research and development (research, preparation of academic papers, engineering, operations) and 2) replication and adoption (innovation), but doing more R&D activities. rather than doing innovation creation activities (knowledge implementation/reuse). One of the basic concepts of knowledge management is the emergence of innovation (Almah, 2013, p. 93). Furthermore, considering that the R&D Agency still has a strict hierarchical structure, the responsibility for activities is divided into substance and administration. The implementation of research and development activities is substantially attached to the functional officer of

the researcher who is fully responsible for producing knowledge development through the use of methodologies and various other techniques in decision making. However, both of them in process and require competence and knowledge in the organization which are used for the creation of new activities or innovations.

The point of view of a knowledge management are the process of creating knowledge is the part of the innovation process that requires knowledge management support because it is heavy based on Knowledge (Ermine, 2018, p. 200). Innovation activities are still small in number compared to research, this is due to limited understanding of the way of thinking which still depends on the organizational structure box in addressing the tasks of institutional functions. The perspective on the preparation of activities at the R n D Agency needs to be expanded again, innovation activities can be carried out by all units within it by utilizing the abilities of researchers and the involvement of experts in joint activities.

Research activities whose results can be used as a platform for innovation as mentioned by Minister of Home Affairs Regulation Number 17 of 2016 concerning research and development guidelines at the Ministry of Home Affairs and Regional Government which produce new knowledge from the results of further research used to support government administration policies. The results of research conducted by the R&D Agency contain various policy recommendations conveyed in a policy brief. The results of the research are only used for the internal needs of the ministry, only a few results that meet external needs in the form of policies. The results of the research obtained are conveyed to the leadership of the ministry into consideration in policy making. The next process depends on the availability of a leadership decision to follow up. (Saksono, 2019a, p. 16) Its performance is also more measurable because it is based on scientific considerations as a necessity that must be preserved in governance. Knowledge distribution refers to the process by which new information

from different sources are shared and eventually can drive the creation of new knowledge, understanding and information (Huber, 1991) in (Valio & Gonzalez, 2017, p. 255).

The researchers group carried out an understanding of the material on the issue to be studied in order to know the details of the problem. The definition of knowledge in the context of organization may illustrate that: (1) knowledge exists in every individual, group and organization, and (2) knowledge may be considered an asset that can be resided, and a process to know something (Budiarti, 2017, p. 149). The management of the research group comes from the desire to increase the capacity to increase knowledge so that it becomes an implicit asset of the researchers.

The group discussion became a necessity that came from the research group in an effort to spread the knowledge that each researcher had. Knowledge sharing is the process where individuals mutually exchange their (implicit and explicit) knowledge and jointly create new knowledge (Van Den Hooff & Ridder, 2004, p. 118). Likewise in the R&D Agency this process develops and occurs in exploring various ideas of research implementation obtained from interactions with other work units related to the theme along with the results of previous research in order to create new knowledge through implicit knowledge sharpening. knowledge assets in the form of research results, policies, and regulations become useful raw materials in carrying out tasks. This becomes a continuous process in the use of knowledge in organizations Research and development as of learning organizations. (Dixon, 1994, p. 6) in describing an "organizational learning cycle," suggested that "accumulated knowledge is of less significance than the processes needed to continuously revise or create knowledge". Learning organizations prioritize the process of developing knowledge carried out in a sustainable way.

Furthermore, researchers also compete in obtaining research funding, these activities are intentionally provided to explore various ideas

and creativity of human resources in order to find alternative concepts of problem solving. This departs from the availability of knowledge they have. Learning organization is an organization where people continuously develop the capacity to form an outcome that was truly coveted, where a new and broad mindset was maintained, group aspirations were freely regulated and people were constantly learning to see everything as a whole.

The ability of organizations to provide access to various scientific documentation and knowledge dissemination activities is getting smaller every year. The title of books that are available in the library is limited in number, presumably not only in printed form but also in digital form. In addition, it was also found that there was a minimum number of references in each research report preparation. Organizational learning, as described has been thought of as the flow of knowledge in a firm; it follows then that intellectual capital is the stock of knowledge in the firm (Bontis, 1999, p. 444). Knowledge assets that have never been managed properly to be used in the future. Various research results such as cannot be used again, the completion of research activities carried out and the fate of the research results, are closed and never used again. Sometimes they still rely on assumptions rather than concepts given from research results. This can be seen in the ability to analyze as a skill that continues to be honed in a self-taught manner and does not also involve current technology. Learning organization is the organizational ability to learn both adaptively and generatively through knowledge management, so that it is able to survive and grow (Budihardjo, 2017, p. 87). The activities carried out encourage the creation of creativity through the interaction of stored knowledge.

Knowledge management at R&D Agency also need to construct a learning culture in their organizations. The learner culture described in The Dimensions of Learning Organization Questionnaire (DLOQ), which consists of seven learner dimensions and two performance dimensions. (Marsick & Watkins, 2003, p. 133)

The DLOQ measures important shifts in an organization's climate, culture, systems, and structures that influence whether individuals learn. This dimension explains that the implementation of research and development activities reflects activities that were often routinely carried out from year to year, the activities in question were only research and assessment activities that were often carried out including assistance in research sites. The implementation of these activities also shows activities that must always be adjusted to the provisions that have been set and take advantage of past experiences.

The R&D Agency with its knowledge ownership is spread out in a strict organizational structure in emphasizing the implementation of tasks based on research or innovation themes. The organizational structure framework narrows the space for limited knowledge on the theme of the field of work that is owned by the organization. Intellectual capital management generates a new idea that becomes a development perspective from the knowledge used in creating organizational value. Intellectual capital assets possessed by a firm (e.g. human, structural and relational capital) and the activities conducted for managing them (Kianto, Ritala, Spender, & Vanhala, 2014, p. 365).

The R&D Agency generates knowledge from development carried out through research and innovation, but management is obtained from the activities of the organizational structure having the capacity. The Research and Development Agency has a dense structure with many having subsections in one work unit that are in charge of managing office administration compared to the number of researchers it has. The width of the structure explains a tiered communication culture and a fairly long hierarchy, so that the management of activities becomes less effective with higher employees costs compared to activity costs. With a wide organizational structure makes administrative costs the largest rather than the main costs in utilizing knowledge assets. The implementation of Rn D begins with an exploration of various



themes involving other work units. This joint involvement will later generate research ideas by directing the need for policy formulation or regulatory substance. However, sometimes joint involvement does not direct the substance to the actual problem with the phenomenon that occurs.

The competence of employees at the R&D Agency with variants that are still part of the functional group of confirmed skills and expertise is still limited. This is in line with the need as stated in the Minister of Home Affairs regulation to seek the three required functional positions, unfortunately, until now there is only one functional research group. In addition, the activities carried out were limited to research and study activities only. The lack of competence poses a challenge for organizations to enrich their skills and knowledge. Competency improvement must be continued so that every employee can work in accordance with their duties and responsibilities (Sirait et al., 2017, p. 253). Has not had the opportunity to develop research results at a later stage such as intellectual property rights and other types of intellectual models other than scientific articles.

Furthermore, explaining intellectual capital was also closely related to organizational work relations both internally and externally. So far, the work relationship of the R&D Agency has also involved regional governments with the involvement of extracting information related to research data, regional data processing and objects of government digitalization replication. The working relationship of the R&D Agency is an effort to create a balanced understanding in utilizing knowledge in finding various alternative government policies. Knowledge managed by research and development was closely related to the administration of decentralization and government management. Apart from the local government, the R&D Agency also collaborates with several ministries in an effort to organize investments. External relations that were owned by the R&D Agency are well-established in the elaboration of activities

## 1.2. Discussion

Budget allocation has an impact on the mobilization of resources in realizing a knowledge management consensus in the R n D Agency. Knowledge management is the planning, organizing, motivating, and controlling of people, processes and systems in the organization to ensure that its knowledge-related assets are improved and effectively employed (King, 2009, p. 4). Knowledge management seeks to maximize the ownership of knowledge in the organization that comes from each individual. Minimal funding to encourage knowledge management consensus in research and development agencies creates a limited implementation practice only on research and assessment activities as a form of employee empowerment, knowledge creation, and knowledge sharing. This is very close to the practical implementation of knowledge management described by Gottschalk (2005) in (Alusi, 2013, p. 18) defines knowledge management as a method for simplifying and enhancing, creating, capturing, the process of sharing, distributing, and understanding

Research and innovation activities are developed throughout the organization, resulting in equal competence in the organization and better mastery of knowledge by researchers and other employees. Developing the organization competencies with the use of such standards will provide an opportunity to design an organizational knowledge management system (Voitenko, Achkasov, & Timinsky, 2019, p. 111). Researcher's competence to analyze requires a lot of knowledge. The efforts made by the research group are a form of support in improving the quality of organizational work by exchanging information and data. We all know that knowledge sharing become a need for every organization to improve their employee performances and organization's productivity (Shabrina & Silvianita, 2015, p. 199).

The Research and Development Agency has an interest in creating a work environment where knowledge is the main asset. This is formed by making the management of knowledge assets

through learning organizations. Knowledge management activities for learning organizations can be described in the following activities: 1) Building a knowledge repository. 2) Improve access to knowledge. 3) Improving the knowledge environment, and 4) Managing knowledge as an organizational asset (Rusilowati, 2013, p. 489 Syh et al, 2019). Four learning organization activities that become references are placed as necessities in each of the Research and Development Agency's activity agenda. However, the size of the organizational structure makes it difficult to create an environment that can adapt to the use of knowledge. Simplification of the organizational structure will eliminate office administration costs and focus more on the use of knowledge through strengthening competencies as one of the mechanisms for the success of developing knowledge management in the future (Saddhono et al, 2020).

He intellectual capital development of the R&D Agency of the Ministry of Home Affairs was explained by seeking the ability to manage and utilize the available knowledge assets. Intellectual capital is used as an increase in organizational value in achieving performance targets through an elaborative process between the capacity of the institution and its knowledge assets. Knowledge management is a form of intellectual asset management in realizing an organization's competitive advantage. Stewart (1997) in (Dalkir, 2011, p. 3) defines intellectual capital as "organized knowledge that can be used to produce wealth. Intellectual capital for knowledge asset management comes from individuals who involve competencies as part of the organization's resources as well as actors from outside the organization in the activities of the Research and Development Agency. A rigid and tiered organizational structure and limited competency development make research bodies and must recompose to ensure the assurance of knowledge management consequences in strengthening institutions. The involvement of other stakeholders in the activity agenda is

sufficient to illustrate the relational capital that has been formed.

## CONCLUSIONS

Knowledge management at the R&D Agency which held through research, development and investment activities while still emphasizing the use of knowledge creation. This, needs to be developed on the use of 3 dimensions in the performance system in order to achieve organizational output, given that the knowledge capacity possessed by the organization was good enough for the use of knowledge in activities by utilizing tacit abilities and implicit knowledge. Matching research and development activities with design and innovation to be inevitability to do in plan and implement development (Saksono, 2019b, p. 218)

Currently, the R&D Agency is a conservative organization that is still with repeated activities at each activity by emphasizing trying to control its activities. This effort needs to be reconstructed in order to facilitate support for consensus knowledge management by forming learning organizations through the use of generative organizational criteria. (Budihardjo, 2017, p. 95) Generative learning produces change by emphasizing continuous experimentation and feedback for that organizational leaders have an open attitude, think systematically, were creative and have empathy, achievement motivation and high self-efficacy.

The R&D Agency strives to use intellectual assets of human resource capabilities at minimal variety of competencies and vulnerability to rigid organizational structures. For this reason, it was necessary to use a flexible structure in the implementation of activities in order to strive for various development activities as well as investment in the use of knowledge management in the fundamental consensus of the R&D Agency of the Ministry of Home Affairs.

From the findings and discussion above, this study concludes that knowledge management is very useful in supporting the consensus of institutional strengthening of the Research and

Development Agency. Thus, the institution emphasizes the adoption of a dynamic institutional bodies through the involvement of many reliable competencies and obtaining the support of institutional networks

## REFERENCES

- [1] Almah, H. (2013). Membangun Inovasi Di Perpustakaan Perguruan Tinggi Melalui Konsep KM (Knowledge Management). *Khazanah Al-Hikmah*, 1(2), 91–100.
- [2] Alusi, F. (2013). Kajian Pengembangan Knowledge Management System (KMS) Untuk Litbang Kedirgantaraan Pada Lembaga. *Berita Dirgantara*, 14(1), 17–24. Retrieved from [http://jurnal.lapan.go.id/index.php/berita\\_dirgantara/article/viewFile/2061/1872](http://jurnal.lapan.go.id/index.php/berita_dirgantara/article/viewFile/2061/1872)
- [3] Amin, S., & Aslam, S. (2017). Intellectual Capital, Innovation and Firm Performance of Pharmaceuticals: A Study of the London Stock Exchange. *Journal of Information and Knowledge Management*, 16(2), 1–20. <https://doi.org/10.1142/S0219649217500174>
- [4] Argote, L. (2013). *Organizational Learning Creating, Retaining and Transferring Knowledge. Cognition in the Wild* (2nd ed.). New York: Springer. <https://doi.org/10.7551/mitpress/1881.003.0010>
- [5] Bontis, N. (1999). Managing organizational knowledge by diagnosing intellectual capital: Framing and advancing the state of the field. *International Journal of Technology Management*, 18(5), 433–462. <https://doi.org/10.1504/ijtm.1999.002780>
- [6] Bratianu, C. (2015). Organizational Learning and the Learning Organization. In *Organizational Knowledge Dynamics: Managing Knowledge Creation, Acquisition, Sharing, and Transformation* (pp. 286–312). Hershey: IGI Global. <https://doi.org/10.4018/978-1-4666-8318-1.ch012>
- [7] Budiarti, I. (2017). Knowledge Management and Intellectual Capital - A Theoretical Perspective of Human Resource Strategies and Practices. *European Journal of Economics and Business Studies*, 8(1), 148. <https://doi.org/10.26417/ejes.v8i1.p148-155>
- [8] Budihardjo, A. (2017). *Knowledge Management: (A Guide Book) Efektifitas Berinovasi Meraih Sukses* (2nd ed.). Jakarta: Prasetya Mulya Publishing.
- [9] Costa, V., & Monteiro, S. (2016). Key knowledge management processes for innovation: a systematic literature review. *VINE Journal of Information and Knowledge Management Systems*, 48(3), 1–34. <https://doi.org/10.1108/VJIKMS-02-2015-0017>
- [10] Dalkir, K. (2011). *Knowledge Management in Theory and Practice*. (J. Liebowitz, Ed.), Massachusetts Institute of Technology Press (Second Edi). London: The MIT Press. <https://doi.org/10.4324/9780080547367>
- [11] de Castro, G. M., Sáez, P. L., & López, J. E. N. (2004). The role of corporate reputation in developing relational capital. *Journal of Intellectual Capital*, 5(4), 575–585. <https://doi.org/10.1108/14691930410567022>
- [12] Dixon, N. M. (1994). *The Organization Learning Cycle*. McGraw-Hill Book Company. New York.
- [13] Ermine, J.-L. (2018). *Knowledge Management Innovation, Entrepreneurship, Management Series* (5th ed.). London and New York: ISTE Ltd.
- [14] Ferdous Azam, S. M., Tham, J., & Ahmad, A. (2020). Psycho-social perspectives of knowledge sharing and job performance in Malaysia: Conceptual articulation. *International Journal of Scientific and Technology Research*, 9(4), 3500–3509.
- [15] Findikli, M. A., Yozgat, U., & Rofcanin, Y. (2015). Examining Organizational Innovation and Knowledge Management Capacity The Central Role of Strategic Human Resources Practices (SHRPs). *Procedia - Social and Behavioral Sciences*, 181, 377–387. <https://doi.org/10.1016/j.sbspro.2015.04.900>
- [16] Gogan, L. M., Duran, D. C., & Draghici, A.

- (2015). Structural Capital A Proposed Measurement Model. *Procedia Economics and Finance*, 23(October 2014), 1139–1146. [https://doi.org/10.1016/s2212-5671\(15\)00503-1](https://doi.org/10.1016/s2212-5671(15)00503-1)
- [17] Guthrie, J. (2001). The Management, Measurement and The Reporting of Intellectual Capital. *Journal of Intellectual Capital*, 2(1), 27–41.
- [18] Handzic, M., & Durmic, N. (2015). Knowledge Management, Intellectual Capital and Project Management: Connecting the Dots. *The Electronic Journal of Knowledge Management*, 13(1), 51–61.
- [19] Hanum, N., Munandar, J. M., & Purwono, J. (2020). The Influence of Competence and Knowledge Management on Performance. *JAM: Jurnal Aplikasi Manajemen*, 18(2), 252–260.
- [20] Hapenciuc, V., Bratianu, C., Roman, C., & Bejinaru, R. (2014). Dynamics of the Learning Organization Within the Romanian Knowledge Economy. *International Conference on Intellectual Capital and Knowledge Management and Organisational Learning*, 225–233. Retrieved from [http://search.proquest.com/docview/1674840210?accountid=10978%5Cnhttp://sfx.vu.nl/31VJE?url\\_ver=Z39.88-2004&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&sid=ProQ:ProQ%3Aabiglobal&atitle=Dynamics+of+the+Learning+Organization+Within+the+Romanian+K](http://search.proquest.com/docview/1674840210?accountid=10978%5Cnhttp://sfx.vu.nl/31VJE?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&sid=ProQ:ProQ%3Aabiglobal&atitle=Dynamics+of+the+Learning+Organization+Within+the+Romanian+K)
- [21] Hormiga, E., Batista-Canino, R. M., & Sánchez-Medina, A. (2011). The role of intellectual capital in the success of new ventures. *International Entrepreneurship and Management Journal*, 7(1), 71–92. <https://doi.org/10.1007/s11365-010-0139-y>
- [22] Hole, Y., & Snehal, P. & Bhaskar, M. (2018). Service marketing and quality strategies. *Periodicals of engineering and natural sciences*, 6 (1), 182-196.
- [23] Hole, Y., & Snehal, P. & Bhaskar, M. (2019). Porter's five forces model: gives you a competitive advantage. *Journal of Advanced Research in Dynamical and Control System*, 11 (4), 1436-1448.
- [24] Hussinki, H., Ritala, P., Vanhala, M., & Kianto, A. (2017). Intellectual capital, knowledge management practices and firm performance. *Journal of Intellectual Capital*, 18(4), 904–922. <https://doi.org/10.1108/JIC-11-2016-0116>
- [25] Jamal, A., & Khedhaouria, A. (2015). Knowledge Sourcing, Reuse and Creation in Innovation Project Teams. *Journal of Knowledge Management*, 19(5), 1–21.
- [26] Kanigolzar, F. M., Savari, M., & Motee, N. (2013). The Effect Of Intellectual Capital On Knowledge Management: Study On Agriculture Organization Experts In Kurdistan Province. *Journal on Efficiency and Responsibility in Education and Science*, 6(1), 14–23. <https://doi.org/10.7160/eriesj.2013.060102>
- [27] Kianto, A., Ritala, P., Spender, J. C., & Vanhala, M. (2014). The Interaction of Intellectual Capital Assets and Knowledge Management Practices in Organizational Value Creation. *Journal of Intellectual Capital*, 15(3), 362–375. <https://doi.org/10.1108/JIC-05-2014-0059>
- [28] King, W. R. (2009). Knowledge Management and Organizational Learning. *Annals of Information Systems*, 4, 3–13. <https://doi.org/10.1007/978-1-4419-0011-1>
- [29] Klinge, C. M. (2015). A Conceptual Framework for Mentoring in a Learning Organization. *Adult Learning*, 26(4), 160–166. <https://doi.org/10.1177/1045159515594154>
- [30] Laksono, A. D. (2015). *Penelitian Kualitatif di Bidang Kesehatan*. (Kasnodihardjo, Ed.), PT Kanisius Publisher. Jakarta: PT Kanisius Publisher.
- [31] Leni, N. E., Alexandri, M. B., Ismanto, S. U., & Widyaningsih, I. (2018). Pemanfaatan Hasil Penelitian Dalam Kebijakan Publik Studi Kasus Pada Badan Penelitian Dan Pengembangan Provinsi Sumatera Barat. *Responsive*, 1(2), 75–80.



- <https://doi.org/10.24198/responsive.v1i2.20677>
- [32] Mammona, D., Fahmeeda, D., & Ahmed, A. (2015). LEARNING ORGANIZATION-Conceptual and Theoretical Overview. *International Journal of Humanities Social Sciences and Education*, 2(4), 93–98. Retrieved from [www.arcjournals.org](http://www.arcjournals.org)
- [33] Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the Value of an Organization's Learning Culture: The Dimensions of the Learning Organization Questionnaire. *Advances in Developing Human Resources*, 5(2), 132–151. <https://doi.org/10.1177/1523422303251341>
- [34] Nazari, K., & Emami, M. (2011). Knowledge Management: From Theory To Practice. *Australian Journal of Business and Management Research*, 1(11), 22–30.
- [35] Nuryaman. (2015). The Influence of Intellectual Capital on The Firm's Value with The Financial Performance as Intervening Variable. *Procedia - Social and Behavioral Sciences*, 211(September), 292–298. <https://doi.org/10.1016/j.sbspro.2015.11.037>
- [36] Pauleen, D. J., & Wang, W. Y. C. (2017). GUEST EDITORIAL: Does big data mean big knowledge? KM perspectives on big data and analytics. *Journal of Knowledge Management*, 21(1), 1–6. <https://doi.org/10.1108/JKM-08-2016-0339>
- [37] Putra, I. R. A. S., & Iskandar, D. S. (2013). Peningkatan Kapasitas Organisasi Badan Litbang Kementerian Dalam Negeri. *Jurnal Bina Praja*, 5(3), 177–187. <https://doi.org/10.21787/jbp.05.2013.177-188>
- [38] Rahmat, P. S. (2009). Penelitian Kualitatif. *Journal Equilibrium*, 5(9), 1–8. Retrieved from [yusuf.staff.ub.ac.id/files/2012/11/Jurnal-Penelitian-Kualitatif.pdf](http://yusuf.staff.ub.ac.id/files/2012/11/Jurnal-Penelitian-Kualitatif.pdf)
- [39] Rusilowati, U. (2013). Analisis Organisasi Pembelajaran (Learning Organization) (Studi Kasus Pada Lembaga Penelitian Dan Pengembangan Pemerintah). In *Seminar Nasional FEKON-UT 2013* (Vol. 21(3), pp. 484–511). Retrieved from <http://repository.ut.ac.id/5029/1/fekon2012-40.pdf>
- [40] Saddhono, K., Lestari, P., & Sari, Y. (2020). Aspects of Literacy in Vision and Mission of University Libraries in Indonesia. *Library Philosophy and Practice*, 1-13. Retrieved from <https://search.proquest.com/scholarly-journals/aspects-literacy-vision-mission-university/docview/2447006052/se-2?accountid=44945>
- [41] Saksono, H. (2019a). Badan Penelitian dan Pengembangan Daerah sebagai Think Tanks dan Akselerator Perubahan Peradaban di Era Digital. *Jurnal Kebijakan Pembangunan*, 14(1), 1–18.
- [42] Saksono, H. (2019b). Manajemen Perencanaan Pembangunan Daerah Berbasis Penelitian & Pengembangan dan Desain & Inovasi. *Jurnal Kebijakan Pembangunan*, 14(2), 213–226.
- [43] Shabrina, V., & Silvianita, A. (2015). Factors Analysis on Knowledge Sharing at Telkom Economic and Business School (TEBS) Telkom University Bandung. *Procedia - Social and Behavioral Sciences*, 169(August 2014), 198–206. <https://doi.org/10.1016/j.sbspro.2015.01.303>
- [44] Siagian, G. S., & Ikatrinasari, Z. F. (2019). Pengaruh Manajemen Pengetahuan Terhadap Inovasi: Kasus Industri IT di Indonesia. *Operations Excellence: Journal of Applied Industrial Engineering*, 11(1), 71. <https://doi.org/10.22441/oe.v10.3.2018.017>
- [45] Sirait, M. L., Sukmawati, A., & Sumertajaya, I. M. (2017). Pengaruh Organisasi Pembelajaran Dan Inovasi Terhadap Peningkatan Kinerja UKM Di Kota Bogor. *Jurnal Manajemen*, 19(2), 290. <https://doi.org/10.24912/jm.v19i2.127>
- [46] Sirnawati, E., & Syahyuti, N. (2019). Evolusi Inovasi Pembangunan Pertanian di Badan Litbang Pertanian: Dari Transfer Teknologi ke Sistem Inovasi. *Forum Penelitian Agro Ekonomi*, 36(1), 13.



- <https://doi.org/10.21082/fae.v36n1.2018.13-22>
- [47] Subandi. (2011). Deskripsi Kualitatif Sebagai Satu Metode Dalam Penelitian Pertunjukan. *Harmonia - Journal of Arts Research and Education*, 11(2), 173–179. <https://doi.org/10.15294/harmonia.v11i2.2210>
- [48] Sunarjanto, D., Kristadi, H. J., & Dati, W. (2013). Kontribusi Manajemen Pengetahuan (Knowledge Management) dalam Mendorong Pemanfaatan Hasil Litbang Migas. *Lembaran Publikasi Minyak Dan Gas Bumi*, 47(1), 36–47.
- [49] Surminah, I. (2013). Pola Kerjasama Lembaga Litbang dengan Pengguna dalam Manajemen Litbang (Kasus Balai Penelitian Tanaman Pemanis dan Serat). *Jurnal Bina Praja*, 05(02), 101–112. <https://doi.org/10.21787/jbp.05.2013.101-112>
- [50] Syah, L. Y., Nafsiah, S. N., & Saddhono, K. (2019, December). Linear regression statistic from accounting information system application for Employee integrity. In *Journal of Physics: Conference Series* (Vol. 1339, No. 1, p. 012131). IOP Publishing.
- [51] Tung, K. Y. (2018). *Memahami Knowledge Management*. (B. Sarwaji, Ed.) (I). Jakarta: PT. INDEKS.
- [52] Valio, R., & Gonzalez, D. (2017). Knowledge Management Process : a theoretical-conceptual research. *Gest. Prod., São Carlos, V.*, 24(2), 248–265.
- [53] Van Den Hooff, B., & Ridder, J. A. (2004). Knowledge sharing in context: The influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8(6), 117–130. <https://doi.org/10.1108/13673270410567675>
- [54] Voitenko, O., Achkasov, I., & Timinsky, A. (2019). Competence-based knowledge management in project oriented organisations in bi-adaptive context. *IEEE 2019 14th International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT 2019 - Proceedings*, 3, 111–115. <https://doi.org/10.1109/STC-CSIT.2019.8929806>
- [55] Wang, Z., Wang, N., & Liang, H. (2014). Knowledge sharing, intellectual capital and firm performance. *Management Decision*, 52(2), 230–258. <https://doi.org/10.1108/MD-02-2013-0064>
- [56] Yogesh Hole et al 2019 J. Phys.: Conf. Ser. 1362 012121