

How Knowledge Base View (KBV) Strategy Affects Competitive Advantage in The Energy Sector

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Abstract

This study aims to examine the Knowledge Base View (KBV) Strategy Practice in achieving the competitive advantage of PT. Pertamina. This study uses a literature review method in the form of books, research results, journal articles, and other scientific sources. From the findings, it is concluded that Pertamina's knowledge management methods for competitive advantage are built on three pillars of knowledge management: people, processes, and technology. Pertamina focuses on the establishment of Communities of Practice (CoPs) in order to facilitate the sharing of individual expertise at the organizational level, transforming it into Pertamina's organizational knowledge assets. Pertamina's knowledge production process is based on the SECI model. Knowledge is obtained and transmitted to other persons (knowledge sharing) both online (via the KM portal) and offline, and is then applied by all Pertamina work units spread across Indonesia. The knowledge-based perspective highlights the critical nature of information transfer between individuals, internal and external organizations in order to achieve a competitive advantage.

Keywords: Knowledge Base View (KBV), competitive advantage, people, processes, and technology.

INTRODUCTION

For an organization the existence of knowledge is very important and has a strategic position in supporting the achievement of performance. Knowledge is the core that will bring an organization in determining its position. When compared with the market position, technology and other organizational assets, it could be that the position of knowledge is above all of them. Knowledge is a very important resource in supporting an organization's performance. This is because every member of the organization needs knowledge to improve the work and services that have been carried out.

The succession of a company, for example, to compete in the current digitalization era, no longer depends on how much financial factors or tangible assets it has, but how much intellectual capital (intangible assets) it has. A company that is considered ordinary and small can ultimately produce extraordinary performance beating a much older and larger company due to the use of knowledge assets to support its business processes. This happens because of changes and developments in paradigms in achieving competitive advantage that begins with the emergence of the Market Base View (MBV) theory, which emphasizes that market competition will have an impact on the

emergence of competitive advantage (Hitt et al., 2001), then followed by the emergence of the Resource Base View (RBV) theory which focuses on the internal side of the company that is unique compared to others and is irreplaceable. (Y.Kor & T.Mahoney, 2004). From this RBV theory, a new paradigm or view emerged about the Knowledge Base View (KBV) or knowledge-based theory.

KBV is characterized by the scarcity and difficulty of transferring and replicating knowledge, which is an important resource for achieving competitive advantage. In this regard, good knowledge management is needed through knowledge management (KM) which is one strategy to gain an organization's competitive advantage (Nonaka & Takeuchi, 2011). Knowledge is the need to update the results of work and services whose position is as important as changing the system or structure if needed in solving a problem. Knowledge is a very important supplement that an organization needs to be able to continue to grow. In an organization it is possible for an employee to come and go, but knowledge assets should not be like that. Knowledge assets must remain in a company or organization, in order to continue to encourage the company or organization to achieve targets and improve work results.

Knowledge that is able to make a company grow in fact, knowledge is the only key to competitive advantage. Successful companies are able to consistently generate new knowledge, disseminate it within the company and implement new technologies or products. To win today's business competition, companies must have a good strategy. My most unique and most difficult source to imitate is knowledge, which is the hallmark of the KBV theory approach. Knowledge is used to manage and accommodate the company's resources to compete. A company that has more knowledge resources (knowledge) than its competitors will be more innovative and provide greater value to consumers. When knowledge is called the most important strategic resource, the ability to collect, integrate, store and disseminate, and its application is the most important capability to build and maintain competitive advantage.

In order to survive and continue to grow, a company must have a sustainable competitive advantage. One way that needs to be used is to apply knowledge management and perform a knowledge base strategy. This needs to be chosen because the quality of service desired by consumers and the work of a process within the organization or company leads to personal employees or workers. The existence of knowledge management can also complete the empty gaps in the company's business. Therefore, knowledge about products, services, processes, customers, stakeholder relationships, people and the business environment will make the company understand its goals and how to achieve them. Knowledge Management (KM) is used in a variety of strategies, processes, and disciplines to formulate, integrate, organize and apply organizational knowledge assets. KM is applied in all sectors, including the energy sector, which is one of the largest contributors to Indonesia's income.

Knowledge of the organization can make the organization understand the purpose of its existence. Among the most important goals is how the organization understands how to achieve its goals. Successful organizations are organizations that consistently create new knowledge and disseminate it throughout the organization, and rapidly adapt it to their technology and products and services. Seeing its important role for an organization, all knowledge possessed by an organization must be managed properly so that knowledge can play an optimal role for the organization. The form and

ability of the organization in managing knowledge greatly affects the quality of the knowledge produced and will also affect the quality of the relationship or integration between its components.

Recently, many organizations have adopted knowledge management as a strategy to create value, increase organizational effectiveness and productivity. Organizations are now starting to apply knowledge management a lot in order to improve business performance and organizational resilience, especially in the face of the COVID-19 pandemic era as it is today.

PT Pertamina Company is one of the state-owned enterprises in Indonesia engaged in energy, which is one of the state-owned enterprises driving the nation's economy. PT Pertamina Company, hereinafter referred to as Pertamina, provides services to the public related to the sale of fuel (fuel oil) and is one of the state-owned enterprises with the largest tangible assets in Indonesia. The existing fuel market has now been entered by various players both from within and outside the country such as Total, Shell, BP and others. In addition to the tight competition in the downstream market, the development of vehicle technology, especially electric vehicles, is Pertamina's own challenge in winning business competition and taking advantage of existing opportunities. Finally, in such circumstances, making Pertamina not only rely on large tangible assets, but also requires intangible assets in this case knowledge to be able to continue to innovate so as to obtain a continuous competitive advantage, both in terms of processes, operations, services and products. In this paper, we will discuss how knowledge management is at Pertamina, describing how knowledge can be a potential aspect to gain competitive advantage.

RESEARCH METHOD

This paper uses the literature review method to discuss the topics studied. Literature Review basically relies on a critical and in-depth study of relevant library materials. Literature review is done by collecting data or information from various library sources that are needed as a source of ideas.

The literature sources studied in this paper are: books, research results, journal articles, and other scientific sources. The steps for making a literature review are described as follows: (a) determining sources for literature review materials that are relevant to the topic of this paper; (b) evaluate the content contained in the specified literature study sources; (c) make a summary of the contents of the literature study sources.

DISCUSSION

The combination of knowledge of organizational members can produce different organizational knowledge. It's just that what needs to be noted is that people who have more knowledge abilities, are not necessarily linear with their ability to produce goods or services. Therefore, companies need to have knowledge management to get the maximum benefit from this knowledge.

Knowledge Management is the management of organizational knowledge to create value and generate competitive advantage. Through knowledge management, organizations will identify their knowledge, then use it to improve performance and produce various innovations. To get a much greater benefit of knowledge management, an organization must also actively identify and acquire quality knowledge that exists in the organization's external environment (Anshori, 2005).

Knowledge Management

Knowledge is often associated with data and information. However, according to Serrat (2017) Knowledge is not information, but knowledge is based on data and information (Ngai & Chan, 2005). Knowledge is generally divided into two, namely tacit knowledge and explicit knowledge (Sánchez et al., 2000). Knowledge is a justified true believe, where an individual justifies on the basis of his belief based on the results of observations. So that when someone creates new knowledge, he creates an understanding of a new situation by holding on to justified beliefs. In this definition, knowledge is a construction of reality, rather than something that is literally true.

Knowledge management focuses on managing knowledge resources such as skills, competencies, and organizational assets. Collison and Parcell in Ghalib (2004) shows the success of KM which interacts between three main elements: (1) people, which means knowledge comes from people. People are the basic form for forming new knowledge, where without people there will be no knowledge; (2) processes, which consist of capturing, filtering, validating, transforming and disseminating knowledge throughout the company's functional lines by carrying out certain processes and procedures; and (3) technology, which is a standard, consistent and reliable technology infrastructure to support the company's tools. These three elements are not only necessary, but complement each other.

Human support in knowledge management succession is the main thing. Humans create and share knowledge, therefore managing people who have the goal of creating and sharing knowledge becomes very important. Alavi & Leidner (2001) The knowledge management process consists of knowledge creation, knowledge storage, knowledge transfer, and knowledge application. Meanwhile, according to Rosenberg (2002) identify the scope of KM applications divided into 3 (three) levels, namely level 1 is document management, which is the simplest KM application where KM is only used to facilitate the distribution of information; Level 2 Information creation, sharing, and management, where KM applications at this level include new content of information creation, communication and collaboration, real-time information management, capturing and distributing expert stories; Level 3 Enterprise intelligence, where KM reflects "the truly know-how of the organization". The implementation of the organization's primary activities depends entirely on the knowledge-based expertise inherent in the entire system contained in the company.

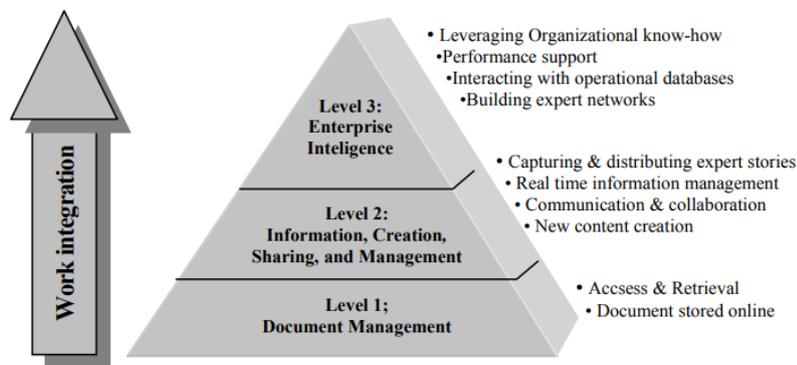


Figure 1. The Knowlegde Management Pyramid

The process of creating knowledge in an organization is a core part of the knowledge management process. according to Nonaka (1994) There are four steps of knowledge creation called SECI model (Socialization, Externalization, Combination, and Internalization) which is a spiral interaction between tacit knowledge and explicit knowledge to generate new knowledge as shown in the following figure:

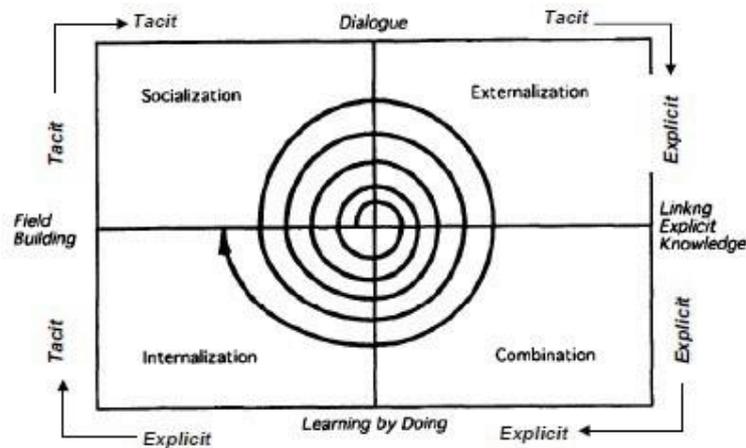


Figure 2. Nonaka's SECI Model

In the socialization process, tacit knowledge is converted into tacit knowledge through sharing experiences by means of observation, imitation and practice. The starting point for socialization is to build a means for interaction which facilitates sharing of experiences and mental models (Hussi, 2004). Still according Hussi (2004) that in the externalization process, tacit knowledge is converted to an explicit concept. The characteristics of this externalization are activities carried out in groups. In this externalization, knowledge is in conceptual form. While the combination process, there is a conversion from tacit knowledge to tacit knowledge. At this stage, the new explicit knowledge is combined with the explicit knowledge that already exists in the organization to produce a larger explicit knowledge structure.

The knowledge storage process includes storing, grouping, indexing, and linking digital objects such as documents and images to unit knowledge. The next process is the knowledge sharing process (also known as knowledge transfer) which mainly involves collaboration and knowledge sharing (KS). KS is one of the important processes in knowledge management. The final process of applying knowledge involves taking and using knowledge to support decisions, actions, and problem solving. The use of technology in a KM perspective is the fundamental building block that supports and coordinates knowledge management. There is no universal definition of knowledge management. Based on KM Pertamina, Knowledge Management is a series of systematic steps in the management of knowledge assets (collecting, storing and using / disseminating knowledge) to improve company performance

Knowledge Base View (KBV)

The strategic management literature explains that the Knowledge Base View (KBV) is built on the expansion of the company's Resource Base View (RBV). Knowledge is an intangible asset of human resources that plays an important role in creating an organization's competitive advantage (Grant,

1996). So it can be understood that the learning organization is the foundation for the knowledge-based view. Learning (learning) in this case is defined as a process by which new information is integrated into the behavior of "agents" and changes their behavior patterns - although it does not always result in a better one (Eisenhardt & Martin, 2000). Grant (1996) further articulate the theoretical foundations for the Knowledge-Based View, both as organizational theory and as strategy theory, with which the knowledge perspective has been widely used in the strategy field. In this view, tacit knowledge is a source of sustainable competitive advantage (Eisenhardt & Martin, 2000).

Based on organizational understanding, Grant (1996) propose Knowledge-Based theory. who argues that the source of competitive advantage in a dynamic environment is not knowledge owned by the company (explicit knowledge) but non-proprietary knowledge in the form of individual tacit knowledge. three characteristics of knowledge integration that increase the value of the strategy, namely: (1) integration efficiency; (2) integration scope and (3) integration flexibility.

Barney (1991)states that to have a competitive advantage the company requires capabilities that can transform resources. Capabilities and resources have three aspects that make them difficult to imitate, namely: historical determination, socially embedded in the organization and also tacit. Companies can have a competitive advantage if: (1) they know how to expand, disseminate and exploit knowledge internally; (2) if they know how to protect the knowledge from competitor imitation; (3) if they know how to share, transfer and receive knowledge from their business partners (partners) and they are able to gain knowledge from long distances (Madininos et al., 2011).

Western management views knowledge as more explicit, something formal and systematic. Explicit knowledge can be expressed in words and numbers, and is easily communicated and transferred. In contrast to Japan (Japanese) which has a different view and puts forward tacit knowledge which is not easy to see and express. Knowledge-based enterprise theory can be used in strategy formulation. Sveiby (2001) outlines 9 knowledge-based strategies to maximize value creation for organizations as shown in the following figure:

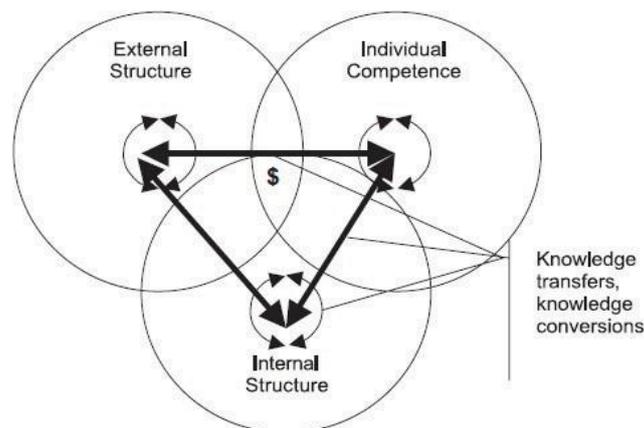


Figure 3. Knowledge Base View (Sveiby, 2001)

Sveiby (2001) argues that the essence of a knowledge-based strategy is to increase knowledge transfer between three elements of intangible assets, namely external structure, internal structure, and individual competence. The key to value creation emerges from effective communication and changes in tacit/explicit knowledge transfer between individuals and changes in knowledge from one

type to another. Value creation can be understood through an interconnected system of elements of intangible assets into the following nine knowledge strategies as shown in figure 4:

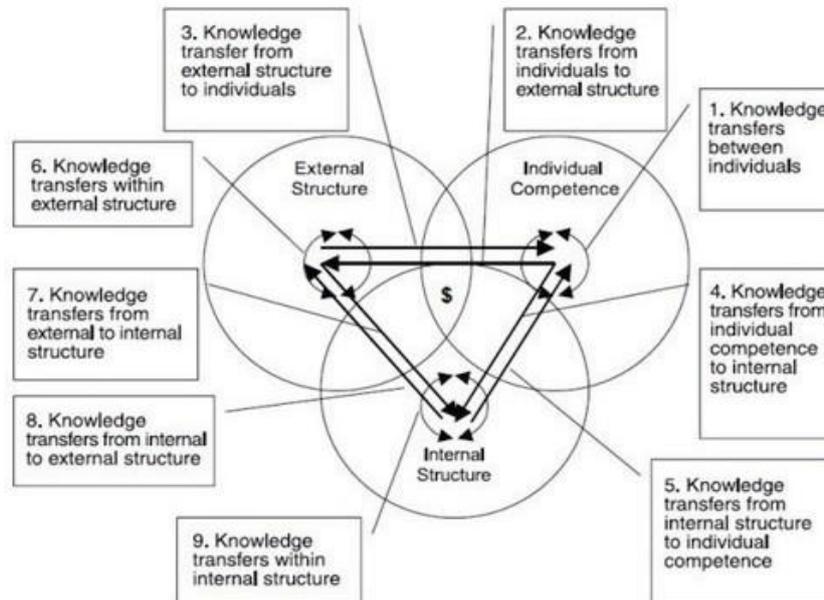


Figure 4. Knowledge Base Strategy

Knowledge-based strategy is a manifestation of the relationship between the company's business strategy with the implementation of KM within the company (Sveiby, 2001). Knowledge-based strategy reflects the relationship between knowledge-based resources and capabilities with competitive strategy. The traditional Strengths-Weaknesses-Opportunities-Threats (SWOT) framework provides the basis for developing knowledge-based strategies. Applying knowledge-based strategy means that company management conducts knowledge-based SWOT analysis, mapping of knowledge-based resources and capabilities, in order to gain a better understanding of the company's strengths and weaknesses to respond to strategic opportunities and threats. Knowledge-based strategy can be seen as a balance between knowledge-based resources and capabilities owned by the company, with the knowledge the company needs to produce more competitive products/services (Anshori, 2005).

According to Bierly & Chakrabarti (1996) there are four choices of knowledge strategies, namely: 1) companies need the right balance between internal and external learning; 2) companies need to focus more on radical or incremental learning; 3) the optimal speed of learning needs to be determined/formulated; 4) companies need to know the right balance between deep or widespread mastery of the knowledge base. In other words internal and external learning are both vital to the success of the company.

Creating knowledge, has an important meaning for the company (Polanyi, 1962). Knowledge according to Polanyi (1962) consists of tacit and explicit knowledge. Tacit knowledge is personal because it is difficult to formalize, communicate and share with other parties. Tacit knowledge has a technical dimension which is often referred to as know-how. Meanwhile, explicit knowledge can be

conceptualized and stored in information systems. Companies that are successful in knowledge are able to create sustainable value through the creation and use of knowledge and know-how (Hussi, 2004).

Competitive Advantage (CA)

Competitive advantage according to Porter (1980) is the ability of a company to achieve economic benefits above the advantages that can be achieved by competitors in the market in the same industry. Many management researchers argue that knowledge is a key factor for competitive advantage. This is in line with the position of the Resource base View (RBV) and is effectively the same as the Knowledge Base View (KBV). Knowledge is a key resource in a rapidly changing global marketplace where the development of innovative services, products and solutions is required to stay ahead of the competition. The company is said to have a competitive advantage if it is executed. the strategy is not carried out simultaneously by competitors and potential competitors and these competitors cannot achieve the same benefits from implementing the strategy (Grant, 1991)

Creativity and innovation have a very important role in running the company's business. Companies will not enjoy a sustainable competitive advantage only by processing resource capabilities. They must be able to combine resources in different new ways or develop new capabilities to gain a sustainable competitive advantage. The RBV approach emphasizes the development of competitive advantage through corporate efficiency. There are several reasons why the RBV attracts attention to management, including: (a) the ability of resources within the company to offer the right strategic direction; (b) resources and capabilities in a company are the main sources of excellence for a company (Grant, 1996). By identifying and assessing resources and capabilities, companies can build the foundation for obtaining a sustainable competitive advantage. RBV suggests that companies should seek to develop their own unique resources and capabilities to formulate their strategies (Grant, 1996; Barney, 1991).

The resource-based view or RBV interprets the organization as a collection of skills that are supported by organizational assets (Barney, 1991). The resource-based view suggests that resources are a source of competitive advantage. When the environment grows unpredictable, the ability to utilize internal resources becomes relatively more important. Until the early 2000s, a new Knowledge Base View (KBV) emerged, based on the assumption that company-specific knowledge has become an important source of sustainable competitive advantage.

Knowledge Management Practice at PT Pertamina Company

Pertamina realizes that now the era of knowledge that determines the success of a company is not intangible assets such as information, competence, image, but depends on one thing, namely knowledge. From the observations, it is known that knowledge management has a strategic role for Pertamina in managing the knowledge of individual employees into a knowledge organization. Knowledge is a company asset that must be managed properly and seriously. Pertamina strives to realize an integrated knowledge management system through the unification of the 3 main pillars of KM, namely people, processes and technology. This is in accordance with the *KM-related enabler* theory put forward by Edwards (2008) that the three main elements in KM (human, process, technology) must be balanced so that KM activities can run effectively.

Through CoP (Community of Practice) in Pertamina in the CIP forum (Continuous Improvement program), individual knowledge can be channeled to the organizational level of the implementing unit to become Pertamina's organizational knowledge assets in the form of innovation, SOP (Standard Operating Procedure), best practice and learning. CoP can be done face-to-face or online through *Komet Pertamina* portal. This is in line with research conducted by Smith & Duncan (2000) and also Joshua & Tjakraatmadja (2015) that CoP will be very effective in knowledge transfer. In CoP there are successors who have more skills and experience than other members. The purpose of establishing the CoP is adjusted to the strategic objectives of the organization in line with the research proposed by Joshua & Tjakraatmadja (2015). The Continuous Improvement program event was held by Pertamina as a competition event held by KM Pertamina witnessed by all Pertamina officers, to encourage officers to innovate in efficiency and increase effectiveness in carrying out their daily work.

The CIP format has been prepared in such a way by KM Pertamina with scientific principles, which can be used as a measure of the level of innovation that has been implemented. CIP is one of Pertamina's CoP agendas which presents the results of innovations by Pertamina officers which are compiled using the PDCA (Plan, Do, Check & Action) cycle. At the planning stage, it begins by identifying the problem using the 5W technique, namely what, who, when, where, and why are sought by using root cause analysis. At this plan stage, Pertamina officers make hypotheses on the problems and goals that must be achieved so that the desired results can be realized. Stratify the problem causing the dominant issue, and market the dominant cause. Officers must also already know, the resources needed to solve problems, currently available resources, the best solution from the existing alternative solutions, as well as determining the metrics or parameters used to measure the success of improvement/innovation results. At the implementation stage, small-scale testing is carried out as planned, and followed by a checking process to see whether it is in accordance with the initial plan or not. Problems that arise at the implementation stage that may not arise at the planning stage must be successfully addressed and eliminated. This process of implementation and checking can occur repeatedly until the innovation results that meet expectations are obtained. The CIP Forum is always crowded with Pertamina officers and is a prestigious event in conveying the results of ideas and ideas for innovations that have been carried out. The sizable gifts and appreciation from the management team are the main attraction for Pertamina to continue to innovate and collaborate in solving problems and increasing the effectiveness and efficiency of the Company. The results of this CIP will be stored in the Pertamina KM portal which is stored in Pertamina's internal network. Pertamina's KM portal is called *Komet*. In the *Komet* portal, there are various databases of innovation results from Pertamina officers that are neatly stored, and classified according to their respective fields of function. operationally. In the *Komet* portal there is also a discussion forum that is open 24 hours, according to their respective functional areas, as a medium for exchanging ideas and sharing knowledge and experiences on success stories in the field.

In terms of process, Pertamina has made policies as the implementation of KM activities and procedures. Knowledge management begins with the creation of knowledge known as the SECI model (Socialization, Externalization, Combination, Internalization) which explains the concept of changing knowledge from tacit to explicit which eventually becomes tacit and continuously rotating. The next process is knowledge storage which is also known as knowledge capture.

Knowledge capture is the documentation or acquisition of knowledge and experience of employees who have been recognized in their fields. The reason for documenting knowledge is to anticipate knowledge loss and gap generation.

This is in line with Edwards (2008) who quickly tackled the problem of knowledge transfer between generations. Pertamina overcomes the generation gap problem by partnering with the corporate culture division and Pertamina's Agent of Change Officers. After capturing knowledge, the next process is knowledge transfer or knowledge sharing. Knowledge sharing is an activity to share knowledge, experience, and ideas owned by and among employees, which is not a job duty or obligation, both tasks attached to the position and obligations attached to the team. Knowledge sharing serves as a means of sharing knowledge to help with daily work and add new knowledge.

Sharing knowledge can be done face-to-face where the presenters and participants are present at the specified time and place. Knowledge sharing is also done online using the KM portal or video conferencing. Currently, Pertamina is making new breakthroughs to improve the capabilities of its officers through KM activities. I am Your Partner (*Spada*) is a routine program once a week which is run as a medium for sharing success stories. Safety talks and safety briefings that are held every day by all elements of the function are a medium for sharing knowledge related to safety and security, considering that Pertamina is a company engaged in the energy sector that must prioritize aspects of HSSE (Health, Safety, Security & Environment)

The last process is the application of knowledge. Knowledge management is applied in all Pertamina units from upstream, processing to downstream and subsidiaries. In its implementation, the Central Pertamina KM establishes policies that become standard operating procedures in the process of implementing knowledge management in all Pertamina units. Technology plays an important role in knowledge management as a means of storing and disseminating knowledge. In addition to the KM portal, Pertamina also has other supporting applications and implements collaborative technology which is expected to accommodate Pertamina's existing knowledge which is always updated with the times.

This is in line with Afri et al., (2007) that the capacity of the technology used is very important in the focus of knowledge management. Costello & Donnellan (2011) also stated that technological factors play an important role in innovation to achieve competitive advantage. KM implementation must be supported by having a web portal related to KM. Based on the discussion, it can be determined a proposition to answer the first problem formulation. Knowledge management practice begins with the formation of CoP from the individual, unit and organizational levels which begins through the process of knowledge creation, knowledge storage, followed by the knowledge sharing process which is stored on the KM portal and implemented by all units of Pertamina throughout Indonesia

KBV Based on Knowledge Management Practices in Achieving Competitive Advantage

Knowledge-Based Views (KBV) should start from key intangible resources of individual knowledge and competencies that can be used in creating value in two directions: internal and external. The strategy formulation based on the KBV concept resulted in 9 strategic questions related to the relationship of the three aspects (individual, internal and external). Knowledge transfer is a key process for creating knowledge that can lead to innovation and enterprise value.

Share knowledge that is implemented. Currently, it has become an organizational culture where in the context of Pertamina all employees are expected to become learners. This is in accordance with the results of the study Al-Alawi et al., (2007) that knowledge sharing is based on trust between individuals. Furthermore, Edwards (2008) proposes to maintain organizational culture memory related to knowledge sharing. Openness in sharing knowledge is also an important factor in the formation of organizational culture. Connell & Voola (2013) argues that trust in knowledge sharing is essential in enhancing the competitive advantage of organizations. In addition, this research is in line with Grant (2013) that the success of KM practices requires synergies with technology and corporate knowledge-sharing culture which need to be used as organizational norms/cultures to increase organizational competitiveness.

Knowledge management is the only thing that is included in the provisions of the ISO 9001: 2015 assessment. KM is also included in the aspects measured in the individual performance appraisal criteria through employee performance measurements carried out every semester. Additional points are awarded if employees perform knowledge sharing, CoP, knowledge capturing or other activities that are included in the knowledge management aspect (which has an impact on the process of creating a knowledge sharing culture as a reflection of the learning organization). Measurement is carried out by measuring the level of process maturity at the unit level as stated in the KPI (Key Performance Indicator) in the KSI (Knowledge Sharing & Innovation) item which is inherent in each employee's personality.

Awards are given to employees who actively contribute to knowledge sharing, CoP, knowledge gathering, and other knowledge sharing activities. The awarding of rewards carried out at Pertamina is in line with research Al-Alawi et al., (2007) which states that rewards are positively related to the transfer of knowledge within the organization. In addition, this study complements the research Joshua & Tjakraatmadja (2015) where rewards can motivate and make employees feel valued in terms of knowledge sharing activities carried out. CoP at Pertamina is carried out in stages and levels, starting from the unit level, moving up to the Region level, then moving up to the Directorate level and moving up to the Corporate level. Meanwhile, in the implementation of knowledge sharing, apart from the KM portal called *Komet*, which can be accessed directly by every employee, knowledge sharing forums are also held periodically from the capitalization of knowledge stored in the portal.

The role of KM needs to be maximized, especially with the many benefits that can be provided when used properly. This is related to the fact that the role of KM has not been felt by other units or units. The related paradigm shift to emphasize more on quality than quantity is an effort to maximize the role of KM. This is in line with Ozigbo (2012) and Yosua & Tjakraatmadja (2015) which states that the role of KM should be maximized with the support of top management in sharing knowledge to increase competitive advantage. Based on this discussion, it can be determined a proposition to answer the formulation that Maximizing knowledge sharing within the individual, internal and external scope as Pertamina's organizational culture in an effort to improve individual and organizational performance and maximize the role of KM in order to achieve competitive advantage in the energy sector.

PT Pertamina Company Knowledge Management Challenges

Sources of knowledge management challenges come from 2 factors, namely internal and external. From the external side, the challenges that arise are related to the readiness of information related to the availability of energy resources in the future as well as the increasingly rapid technology of motorized vehicles that switch to using electric power. Internally, it is related to knowledge sharing and knowledge capture, namely the potential for lost knowledge due to job rotation or the level of job change and organizational structure. This is in line with the Edwards (2008) study on the challenges of the generation gap that will continue to occur every year

CONCLUSION

Knowledge management practices in achieving competitive advantage carried out at Pertamina are based on 3 pillars of knowledge management, namely people, processes and technology. Pertamina prioritizes the existence of Community of Practice (CoP) so that individual knowledge can be shared at the organizational level to become Pertamina's organizational knowledge assets.

Pertamina's knowledge creation process is based on the SECI model which is stored through knowledge capturing which is distributed to other individuals (knowledge sharing) online (KM portal) and offline then implemented by all Pertamina work units spread across Indonesia. The knowledge-based view emphasizes the importance of knowledge transfer between individuals, internal and external organizations to gain competitive advantage.

Sharing knowledge has become Pertamina's organizational culture which is reflected in the value of mutual trust. Pertamina's competitive advantage in the energy sector is achieved by maximizing knowledge sharing within the individual, internal and external environment as Pertamina's organizational culture in an effort to improve individual and organizational performance and by maximizing the role of KM in providing and managing strategic knowledge so that it can be accessed by strategic people to determine strategic policy.

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