Improving innovation capabilities through knowledge management and Motivation

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ABSTRACT

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INTRODUCTION

Innovation is the keyword to compete for all levels of industry in today’s information and technology era. Therefore, various studies on Innovation have been done by previous researchers. For example, several earlier studies on Innovation Capability and Knowledge Management reveal that the relationship between knowledge management and business model innovation leads to a sustainable competitive advantage (Bashir & Farooq, 2019). Furthermore, the relationship between knowledge management, business model innovation, and corporate competence seems to have multiple meanings and conceptualizations. Therefore, this study examines the relationship between the dimensions (knowledge acquisition, knowledge conversion, knowledge dissemination, knowledge application, and knowledge reuse) of knowledge management and business model innovation (value proposition, assets, and capabilities, revenue and cost architecture, and actors in business networks).

Product innovation mediated knowledge management on competitive advantage, indicating that the higher knowledge management, the higher the competitive edge if mediated by more increased product innovation. It shows that knowledge management has a positive and significant effect on product innovation. This positive effect offers that the better knowledge management by small and medium-sized entrepreneurs on products, the better product innovation, and vice versa. Then (Dewi & Putra, 2017) states a relationship between knowledge management and organizational skills with innovation performance mediated by entrepreneur orientation. Improving Innovation requires knowledge management, organizational skills, and entrepreneurial orientation. Theory (Porter ME, 1998) The concept of competitiveness emphasizes natural resources and cheap labor and science that produces Innovation.

The ability of Innovation for companies is essential to compete amid volatile market conditions (Rajapathirana & Hui, 2018). The ability to innovate will direct the organization to innovate continuously to respond to changes in the market environment (Slater et al., 2010). Knowledge management is the most critical part of Innovation (Rajapathirana & Hui, 2018). Knowledge management is a forum for Innovation, for knowledge management, the reason companies choose to implement knowledge management strategies in a knowledge-based economy is because knowledge is an essential intangible resource (Bose & Thomas, 2007).

Based on several previous opinions, it is clear that management ability and knowledge possessed to have a vital role in supporting the Innovation that does change or Innovation. In addition, intrinsic Motivation related to skills and expertise encourages creativity to innovate (Gupta, 2020). Therefore, it is essential to motivate employees to have the ability to innovate.

The results of previous studies indicate that knowledge management and Motivation have a
vital role and relationship in supporting the realization of Innovation. However, the authors have not found a paper that explicitly discusses this relationship, so the purpose of this paper is to analyze the ability of Innovation through knowledge management and Motivation. This paper explores this relationship through the systematic literature review (SLR) method by identifying, evaluating, and interpreting the literature review with the limitation of articles published in 2010-2020 (23 March 2020) as many as fifty-five articles, it consists of "innovation ability, knowledge management, motivation."

LITERATURE REVIEW

Knowledge Management Concepts

Currently, knowledge management is a company's competitiveness to success and sustainability. Knowledge management is a set of activities that manage new knowledge and knowledge sharing.

(Milton, 2005) explains that knowledge management is a complex non-linear process that relies on good knowledge management and appropriate technology, thus encouraging sharing knowledge. Meanwhile (Jennex&Olfman, 2002) defines knowledge management as the practice of applying knowledge from a previous experience. (Holsapple& Joshi, 2004) who consider Knowledge management as a systematic and deliberate effort on an entity to expand, process, and apply the available knowledge in a way that adds value to the entity in the sense of favorable results in achieving its individual and organizational goals. (Nonaka, 2007) defines knowledge management as knowledge-based management wherein an organization exchanges information between people and data to gain a competitive advantage.

The model (Bhatt, 2000) explains that implementing knowledge management in an organization sees the side of three-element approaches, namely from people, technology, and process factors. The three approaches in the model (Bhatt, 2000) are variables that determine the organization in implementing knowledge management. (Mohamed et al., 2006) explains there are 4 (four) pillars that must consider in building knowledge management in organizations, namely Leadership, Organization, Technology, and Learning. The four pillars strengthen Knowledge Management in organizations as competitiveness. The study results (Calitz & Cullen, 2017) found that the average value of the four pillars obtained from the questionnaire results showed that these four pillars are essential aspects for knowledge management and are very important to overcome management dilemmas in organizations.

In contrast to the research results (Shannak, 2009), measuring the success of knowledge management in organizations is highly dependent on processes of Quality of Knowledge, Efficiency due to new routines, Incentives, Knowledge contributors. Human consists of Knowledge Sharing Attitude, Knowledge Sharing Activities, Use of Participation in Activities and Awareness and IT (technology) of Active Involvement, Knowledge structure, and usability that determine the success of organizations in implementing knowledge management.

The importance of knowledge management strengthens the competitiveness of organizations that survive in multi-dimensional conditions. The knowledge management process in the company is the company’s way of increasing knowledge, skills, abilities, and experience and the company's way of increasing its knowledge-based existence.

Motivation

Motivation is an impulse that appears to complete an activity or goal. (Hasibuan, 2011) The Motivation provided by the company can increase employee morale at work. According to (Ann McShane & Steven Glinow, 2010), Motivation refers to the strength within a person that influences voluntary behavior's direction, intensity, and persistence (Adamu & Mansur, 2018). (Sardiman, 2011, p. 73). Motivation comes from The word motive can be interpreted as a driving force from doing certain activities to achieve a goal.

Must create the spirit to develop the business in the organization. An entrepreneurial spirit that
dares to take risks and has innovative behavior must install in the organization. The Business actor's survival in managing their businesses has been investigated by (Benzing et al., 2009) opening a business. They are motivated to make money because they want to improve social status. to give work to family members. The study results (Gupta, 2020) explain that integrated extrinsic and intrinsic Motivation can encourage innovative behavior. The success of Innovation is highly dependent on human factors (Marcati et al., 2008). Therefore, giving high Motivation to employees will impact better performance (Dobbs & Hamilton, 2007). Well-motivated employees will affect their ability to innovate (Koudelková&Milichovský, 2015). According to (Koudelková&Milichovský 2015), companies should not only pay attention to extrinsic Motivation in the form of financial compensation; sometimes, employees do not like it. Companies must also pay attention to a conducive work environment and employee development. Similar to the results of research (Fischer et al., 2019) conducted on 90 workers in a consulting company, the study results found more intrinsic Motivation that explains creative and innovative performance. (Shofia Amin1), 2), 2017) that intrinsic Motivation also grows from desire pleasure as a neo-soul expression of their art reflects good work. The Motivation that needs considering for business actors is how Motivation remains within themselves even though they are in difficult conditions. The Motivation that remains built within is the way the company can survive. Research (van Grinsven et al., 2014) found the survival of a business by intrinsic and extrinsic Motivation; companies pay attention to intrinsic Motivation and pay attention to extrinsic Motivation. According to (van Grinsven et al., 2014), combining intrinsic and extrinsic Motivation is a strategy to increase business motivation (Hasibuan, 2011), explaining intrinsic and extrinsic motivation factors. The intrinsic motivation elements are responsibility, reward, the work itself, development, and progress. Meanwhile, outside motivation factors include salary, policies, work relations, work environment, and supervision.

Innovation Ability

The source of Innovation is an idea; the idea obtains from the learning process experience. The better the experience and the learning process a person follows will determine how that person completes the work and makes value decisions for the organization. Nowadays, Innovation is a way for companies to compete. To be able to innovate, companies must increase their ability to innovate. According to (Larsen & Lewis, 2007), one of the most important characteristics of entrepreneurs is their ability to innovate. Innovation ability is the company's ability to make changes regularly to produce new and unique commercial value (Larsen & Lewis, 2007). Innovation ability is the exploitation of new ideas that are seeking to succeed. The interaction between the initiators, implementers, and Innovation users can be dynamic. The mechanism transfers value between innovation elements that feed each other forward and feedback (Ranto, 2015).

(Ussahawanitchakit 2007) defines innovation capability as the ability to develop new products that satisfy the market, apply more appropriate technological processes, adopt new products, and process technology for future needs, responding to unexpected technological change activities, as well as unforeseen opportunities by competitors. Assessing the innovation ability at the individual level, namely from (1) the personality perspective, namely the personality perspective or personality traits are the level of willingness to change from an individual; (2) behavioral perspective, namely assessing the individual's ability to try something new; (3) output perspective through the individual's ability to create something new (Lin, 2007). Dimensions include product innovation, process innovation, and management innovation (du Plessis, 2007; Lin, 2007). Innovation ability can analyze both individual and organizational levels. This research examines innovation capability at the individual level. The individual-level innovation capability assessment classified personality, behavioral, and output perspectives (Lin, 2007).

An example of a personality perspective or personality trait is the level of willingness to change from an individual. The behavioral view shows the individual's ability to try something new, while the output perspective indicates the individual's ability to create something new (Lin, 2007). At the organizational level, innovation ability is measured by developing new products, responding to technological changes, and winning the competition (Lin, 2007).
DISCUSSION

The relationship between knowledge management and innovation capability

The ability to improve Innovation requires the ability to change something new from the external environment under the needs of the external environment, knowledge used to make the right decisions, and competencies. Several authors supported the effect of knowledge management on innovation ability, knowledge management indicators using knowledge acquisition, knowledge sharing, knowledge storage, and knowledge application (SiddigBalal Ibrahim, Anwar Tebein Mohamed, 2019). The study results found that knowledge management in terms of knowledge acquisition, sharing, and storing indicators did not positively affect innovation ability, and knowledge management from knowledge application indicators positively impacted innovation ability.

The study results (SiddigBalal Ibrahim, Anwar Tebein Mohamed, 2019) align with the results of research conducted by (Xue 2017) that the knowledge management process leads to Innovation ability. Likewise, the research results (Sameeni&Alvi, 2016) found a positive relationship between knowledge management and innovation ability.

Relationship between Motivation and Innovation Ability

Companies that are motivated to learn continuously will increase their knowledge and affect the ability of businesses to innovate. Supported by research conducted (Purnama, 2010) that there is a simultaneous and partial influence of business motivation on the power of small shoe industry businesses in East Java. Motivation is a person's abilities, traits, values, and personality, manifested in behavior to achieve success. Thus, the Motivation to learn will determine the company's ability to innovate. Research (Gemina et al., 2016) found a relationship between Motivation and business ability, with one of the indicators being the ability of business managers to have skills, see creations and have the ability to imagine. Thus Motivation can increase the capacity of businesses to innovate.

Knowledge Management and Motivation A person's ability to manage knowledge well through capturing knowledge, digesting, sharing, and applying it will create innovations to make meaningful changes to the organization. The knowledge management process affects individuals motivated to share knowledge. Research (Shabrina&Silvianita, 2015) supports that several factors influence knowledge sharing, including sharing opportunities, communication, technology, work culture, employee attitudes, and sharing Motivation. The first factor is the opportunity to share with a percentage of 54.806%, represented by the opportunity to share factor, communication, and technology. The second factor is work culture, with a rate of 17.399%, characterized by work culture, employee attitudes, and Motivation to share. This study found that Motivation is essential in sharing knowledge among employees. Therefore, managers need to create opportunities for employees to be motivated and willing to share knowledge.

Knowledge Management Improves Innovation Capability Through Motivation

The global business environment has changed as the pace of innovation increases day by day, coupled with evolving technologies and short product life cycles. Effectively and continuously, a company’s competitive advantage depends on its ability to deliver innovative products to its customers. Moreover, they are supported by (Jong et al., 2003). (Yudhianto&Kartawijaya, 2008) Therefore, it is necessary to do Knowledge Management on human resource development, and knowledgesharing among employees is essential to improve employees' ability to produce Innovation.

Another thing (Shannak, 2009) in measuring the success of knowledge management in organizations is very dependent on processes, human and IT (technology). (Lin, 2007). So that success is achieved successfully depending on the interaction between the initiators, implementers, and users of Innovation can be a dynamic mechanism; there is a transfer of value between innovation elements that feed each other forward and feedback. (Hasibuan, 2011) To carry out certain activities to achieve a goal using intrinsic motivational factors are responsibility, reward, work, development, and progress.
At the same time, the inherent motivation factors consist of salary, policies, work relations, work environment, and supervision.

The knowledge management process findings, the literature put forward, has a significant and positive relationship with innovation capability. (Nawab et al., 2015) explain that the role of knowledge management in implementation with the help of knowledge management processes and strategies ultimately leads to Innovation. (Byukusenge et al., 2016) showed a significant effect of Innovation in the relationship between knowledge management. (Jyoti, Jeevan, Ms. Roomi Ran, 2015) investigated a meaningful relationship between knowledge management and capacity (Obeidat et al., 2016) emphasized the importance of knowledge management and linking it to Innovation, the positive impact of knowledge management, and knowledge management strategies on Innovation. (Gemina et al., 2016) found a relationship between Motivation and business ability, with one of the indicators being the ability of business managers to have skills, see creations, and imagine. Therefore Motivation can increase the capacity of businesses to innovate. Another thing (Hiong et al., 2020) is that market orientation positively affects the ability of technological resonance innovation. Techno-resonance innovation capability has a positive effect on product innovation. Techno-resonance innovation capability has a positive impact on marketing performance. Techno-resonance innovation ability mediates the effect of market orientation on marketing performance.

Based on previous research and discussion within the framework of thinking, a research paradigm regarding Knowledge Management, Motivation, and Innovation Ability can be figure 1.

![Figure 1. Innovation Ability Framework](image)

Description :
MP = Knowledge Management
M = Motivation
KI = Innovation Ability.

Based on the theoretical study, framework, and research paradigm, the following hypothesis proposed:
H1: Knowledge Management has a positive and significant effect on innovation ability
H2: Knowledge Management has a positive and significant impact on Motivation
H3: Motivation has a positive and significant effect on innovation ability
H4: Knowledge Management has an effect positive and significant through innovation capabilities

**CONCLUSION**

Knowledge management and Motivation are the basis for having the ability to innovate. Applying knowledge management will be able to deal with changes in the external environment by always making changes that are by the needs of the external environment. Several previous studies explained that knowledge management and Motivation affect Innovation's ability to increase Innovation. Therefore, Knowledge Management towards human resource development and various knowledge or knowledge sharing and technology becomes critical to increase the ability to generate Innovation.
REFERENCES

Adamu, I. M., & Mansur, M. S. (2018). An overview of Entrepreneurial Motivation from the perspective of Developing World. Geni Journal of Management and Social Sciences, 4(2), 250–262.

AnnMcShane, M., & Steven Glinow, V. (2010). Organization Behavior emerging knowledge and practice for the real world. In Contexts.

Bashir, M., & Farooq, R. (2019). The synergetic effect of knowledge management and business model innovation on firm competence: A systematic review. International Journal of Innovation Science, 11(3), 362–387. https://doi.org/10.1108/IJIS-10-2018-0103

Benzing, C., Chu, H. M., & Kara, O. (2009). Entrepreneurs in Turkey: A factor analysis of motivations, success factors, and problems. Journal of Small Business Management, 47(1), 58–91. https://doi.org/10.1111/j.1540-627X.2008.00262.x

Bhatt, D. (2000). Excellence Model and Knowledge Management Implications. 2000.

Bose, S., & Thomas, K. (2007). Valuation of intellectual capital in knowledge-based firms: The need for new methods in a changing economic paradigm. Management Decision. https://doi.org/10.1108/00251740710828726

Byukusenge, E., Munene, J., & Orobia, L. (2016). Knowledge Management and Business Performance: Mediating Effect of Innovation. Journal of Business and Management Sciences, 4(4), 82–92. https://doi.org/10.12691/jbms-4-4-2

Calitz, A. P., & Cullen, M. (2017). The application of a knowledge management framework to automotive original component manufacturers. Interdisciplinary Journal of Information, Knowledge, and Management, 12, 337–365. https://doi.org/10.28945/3897

Dewi, A. R., & Putra, S. P. (2017). Keterkaitan Manajemen Pengetahuan dan Kecakapan Organisasional dengan Kinerja Inovasi serta Fungsi Mediasi Orientasi Kewirausahaan. Briliant: Jurnal Riset Dan Conceptual, 2(3), 281. https://doi.org/10.28926/briliant.v2i3.69

Dobbs, M., & Hamilton, R. T. (2007). Small business growth: Recent evidence and new directions. In International Journal of Entrepreneurial Behaviour and Research. https://doi.org/10.1108/13552550710780885

du Plessis, M. (2007). The role of knowledge management in Innovation. In Journal of Knowledge Management. https://doi.org/10.1108/13673270710762684

Eshag, E. aldeen E., & Ibrahim, S. B. (2018). Motivation to Become Entrepreneurs: An Exploratory Study. Journal of Economic and Management Sciences, 19(1), 196–202.

Fischer, C., Malycha, C. P., & Schafmann, E. (2019). The influence of intrinsic Motivation and synergistic extrinsic motivators on creativity and Innovation. Frontiers in Psychology. https://doi.org/10.3389/fpsyg.2019.00137

Gemina, D., Silaningsih, E., & Yuningsih, E. (2016). Pengaruh Motivasi Usaha terhadap Keberhasilan Usaha dengan Kemampuan Usaha sebagai Variabel Mediasi pada
Industri Kecil MenengahMakananRinganPriangan Timur-Indonesia. JurnalManajemenTeknologi, 15(3), 297–323. https://doi.org/10.12695/jmt.2016.15.3.6 Gupta, V. (2020). Relationships between leadership, motivation and employee-level innovation: evidence from India. Personnel Review. https://doi.org/10.1108/PR-11-2019-0595 Hasibuan, M. S. P. (2011). ManajemenSumberDayaManusia. In EdisiRevisi Jakarta: BumiAksara. Hiong, L. S., Ferdinand, A. T., &Listiana, E. (2020). Techno-resonance innovation capability for enhancing marketing performance: A perspective of RA-theory. Business: Theory and Practice, 21(1), 329–339. https://doi.org/10.3846/BTP.2020.12117

Holsapple, C. W., & Joshi, K. D. (2004). A formal knowledge management ontology: Conduct, activities, resources, and influences. Journal of the American Society for Information Science and Technology, 55(7), 593–612. https://doi.org/10.1002/asi.20007

Jennex, M. E., & Olfman, L. (2002). Organizational memory/knowledge effects on productivity, a longitudinal study. Proceedings of the Annual Hawaii International Conference on System Sciences, 2002-Janua(May 2014), 1029–1038. https://doi.org/10.1109/HICSS.2002.994053

Jong, J. de, Hartog, D. den, & Zoetermeer. (2003). Leadership as a Determinant of Innovative Behaviour: A Conceptual Framework. In Scientific Analysis of Entrepreneurship and SMEs (Issue June). www.eim.nl/smes-and-entrepreneurship.%0A2

Jyoti, Jeevan, Ms. Roomi Ran, M. S. K. (2015). Knowledge Management and Competitive Advantage: Mediating Role of Innovation Capacity Knowledge Management Practices and Competitive Advantage: The Mediating Role of Innovation Capacity Dr. Jeevan Jyoti * Assistant Professor, Department Of Commerce, Conference: Rethinking Management Theory & Practice in the Present Indian Economic ContextAt: IIM Ahmedabad, December 2013. http://vslir.iimahd.ernet.in:8080/xmlui/handle/123456789/11578

Koudelková, P., & Milichovský, F. (2015). Successful Innovation by Motivation. Business: Theory and Practice. https://doi.org/10.3846/btp.2015.472

Larsen, P., & Lewis, A. (2007). How award-winning SMEs manage the barriers to Innovation. Creativity and Innovation Management, 16(2), 142–151. https://doi.org/10.1111/j.1467-8691.2007.00428.x

Lin, H. F. (2007). Knowledge sharing and firm innovation capability: An empirical study. International Journal of Manpower. https://doi.org/10.1108/01437720710755272 Marcati, A., Guido, G., & Peluso, A. M. (2008). The role of SME entrepreneurs’ Innovativeness and personality in the adoption of innovations. Research Policy.
Milton, N. (2005). *Knowledge management for teams and projects*. Chandos Publishing (Oxford) Ltd, Elsevier Science & Technology.

Mohamed, M., Stankosky, M., & Murray, A. (2006). Knowledge management and information technology: Can they work in perfect harmony? In *Journal of Knowledge Management*. https://doi.org/10.1108/13673270610670885

Nawab, S., Nazir, T., Zahid, M. M., & Fawad, S. M. (2015). Knowledge Management, Innovation, and Organizational Performance. *International Journal of Knowledge Engineering-IACSIT*, 1(1), 43–48. https://doi.org/10.7763/ijke.2015.v1.7

Nonaka, I. (2007). Strategy as distributed phronesis: Knowledge creation for the common good. *International Productivity Conference*.

Obeidat, B. Y., Al-Suradi, M. M., Masa’deh, R., & Tarhini, A. (2016). The impact of knowledge management on innovation. *Management Research Review*, 39(10), 1214–1238. https://doi.org/10.1108/mrr-09-2015-0214

Porter M E. (1998). Clusters and the New Economics of Competition. *Harvard Business Review*, 76(6), 77–90. http://marasbiber.com/wp-content/uploads/2018/05/Michael-E.-Porter-Cluster-Reading.pdf

Purnama, C. (2010). Motivasi dan Kemampuan Usaha DalammeningkatkanKeberhasilan Usaha Industri Kecil (Studi Pada Industri Kecil Sepatu di Jawa Timur). *Jurnal Manajemen Dan Kewirausahaan*, 12(2), 177–184. https://doi.org/10.9744/jmk.12.2.pp.177-184

Rajapathirana, R. P. J., & Hui, Y. (2018). Relationship between innovation capability, innovation type, and firm performance. *Journal of Innovation and Knowledge*. https://doi.org/10.1016/j.jik.2017.06.002

Ranto, D. W. P. (2015). Pengaruh knowledge sharing terhadap kemampuan inovasi Usaha Kecil Menengah (UKM) di Yogyakarta dengan absorptive capacity sebagaimana variabel intervensi. *Jurnal Siasat Bisnis*.

Sameeni, M. S., & Alvi, T. (2016). Impact of knowledge management capability on innovation capability. *The International Journal of Business & Management* (Vol. 4, Issue 4).

Sardiman, A. M. (2011). Intraksi&MotivasiBelajarMengajar. In *Jakarta: PT Raja GrafindoPeresada*. http://opac.stai-sar.ac.id/index.php?p=show_detail&id=568

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

Shannak, R. O. (2009). Measuring knowledge management performance. *European Journal*
Of Scientific Research, 35(2), 242–253.

Shofia Amin1), 2), M. (2017). Exploratory Study On Intrinsic Motivation And Work Ethos Of Batik Jambi Craftswomen. Hanoi, Vietnam – November 16-17, 2017, Icebm, 246–253.

SiddigBalal Ibrahim, Anwar Tebin Mohamed, A. Y. A. (2019). The Effect of Knowledge Management on Innovation Capabilities in the Sudanese Industrial Firms. Asian Journal of Management, Volume-I(Issue-2), 119–127. https://doi.org/10.5958/2321-5763.2019.00020.9

Slater, S. F., Hult, G. T. M., & Olson, E. M. (2010). Factors influencing the relative importance of creativity and effectiveness of marketing strategy. Industrial Marketing Management. https://doi.org/10.1016/j.indmarman.2008.03.007

Ussahawanitchakit, P. (2007). Innovation capability and export performance: an empirical study of textile businesses in Thailand. International Journal of Business Strategy, 7(1).

van Grinsven, V. T., Bolko, I., &Bavdaž, M. (2014). In search of Motivation for the business survey response task. Journal of Official Statistics, 30(4), 579–606.https://doi.org/10.2478/JOS-2014-0039

Wahyono. (2020). Product innovation's mediating effects on knowledge management and competitive advantage. Journal of Management Development, 39(1), 18–30. https://doi.org/10.1108/JMD-11-2018-0331

Xue, C. T. S. (2017). An Examination and Critique of the Use of Knowledge Management in Achieving and Sustaining Competitive Advantage in Business. Research in Business and Management, 4(1), 14. https://doi.org/10.5296/rbm.v4i1.10785

Yudhianto, A. S. dan, &Kartawijaya, R. (2008). Penerpan Knowledge Management.