

# **A Conceptual Model for Analysis the Role of Knowledge Management in Organizational Performance in the Quality Assurance of the Higher Education**

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## **Abstract**

Higher education institutions (HEI) must improve their quality in order to excel in today's competitive competition. In order to ensure that HEI provides superior quality, of course, requires the existence of quality assurance structures and mechanisms that measure and assess the organizations' performance to achieve high quality education. One way to improve quality assurance performance is the implementation of knowledge management (KM). KM implementation can help quality assurance team improve their capabilities through uses of individual knowledge resources of each quality assurance personnel to build better organizational collective knowledge to solve problems in the future. This paper deals with setting parallels between knowledge management and organizational performance in HEI's quality assurance team. Therefore, we reviewed the literature, formulating method, analyzing results from the literature and finally proposing a conceptual model. This conceptual model analyzes knowledge management processes alongside its enablers and its output, namely creative organizational learning, that will affect quality assurance performance in HEI for the better. This conceptual model is expected to open opportunities for further research HEIs who want to study the implementation of KM on quality assurance.

## **Keywords**

Knowledge Management, Quality Assurance, Organizational Performance, Higher Education.

## **1. Introduction**

The era of globalization and technological advances has encouraged universities to compete with each other. Driven by needs in this technological era, colleges and universities are under pressure to improve quality, both in research and in learning (Wilger, 1997). This challenge must be answered by universities to excel in competition through collaborative innovation, adaptation and mastery of technology, and management of intellectual assets (Petrides and Nguyen, 2006), where these aspects are used to improve the service quality of higher education providers (Kosir, 2014). ). Improving service quality is important in order to increase customer satisfaction also leads to increased competitiveness (Kotler, 1985). The viability of institutions depends on how good their services are and the quality that makes the university superior to others (Aly and Akpovi, 2001; Kanji et al., 1999).

Quality in education can be understood as a higher education philosophy that continues to develop towards increasing the satisfaction of all parties involved in the education process, which can be used as a measure of the quality of education (Kosir, 2014). In order to ensure that the services provided by higher education comply with standards, of course, requires the existence of quality assurance. Quality Assurance (QA) is a collective process in which the University as an academic institution ensures that the quality of the educational process is maintained with agreed and mutually agreed standards (Kosir, 2014).

Through its quality assurance arrangements, the University can satisfy itself, and other academicians. QA in higher education, as a knowledge driven organization, certainly requires a framework that can encourage the sharing of knowledge or knowledge sharing practices. The practice of sharing knowledge is able to make each individual in the organization know new things so that it becomes "capital" to overcome problems that may arise in the future. In addition to sharing knowledge through discussion, documenting this knowledge is also an effort to store knowledge, also known as knowledge conversion.

The practice of knowledge sharing and knowledge conversion is part of learning known as knowledge management, and has gained acceptance in the field of education (Petrides and Nodine, 2003). Alavi and Leidner (1999) define knowledge management as "a systematic and organizational process that is useful for obtaining, organizing, and communicating employee knowledge so that other employees can use it to be more effective and productive in their work". The implementation of knowledge management in higher education is very important because in this way the university is able to collect the knowledge of each individual who each has intangible assets. If the implementation of knowledge management is carried out appropriately, the knowledge of each individual can enrich organizational knowledge (Petrides and Nguyen, 2006). Therefore, by implementing knowledge management, quality assurance parties can provide good exploitation of new knowledge, and the implementation of the KM process in the quality assurance process also affects the competitive advantage of the college (Kotler, 2014).

In order to understand the relationship between the implementation of KM and quality assurance, several studies have been conducted to study it. Tongsamsi and Tongsamsi (2016) through their research have identified knowledge management factors and their indicators for quality assurance personnel. In this study, it is known that the aspects of knowledge acquisition, conversion, dissemination, and application can have a positive impact on the implementation of knowledge management in the quality assurance department of a university. However, in this study, only the process of implementing knowledge management was discussed. The key to understanding the successes and failures of knowledge management in organizations is the identification of whether enablers capable of assisting the implementation of knowledge management are able to recognize, create, change, and distribute knowledge (Lee, et al. 2012; Lee and Choi, 2003).

An integrated research model is important for knowledge management because of its complex and dynamic characteristics, so it is better described in a systems thinking framework with various aspects that can drive its implementation (Lee, et al. 2012; Lee and Choi, 2003; Gold, et al. 2001). This holistic view is able to increase understanding of the interaction between KM infrastructure, KM processes, organizational creativity as the expected output of KM implementation, and overall organizational performance. This study will fill in the gaps from previous research and analyze the relationship between KM infrastructure, KM processes, creative organizational learning, and organizational performance in higher education's quality assurance organization. The final result of this paper is a conceptual model that can be used as a reference for further research.

## **2. Theoretical Background**

### **2.1. Quality Assurance and Higher Education**

In higher education, the adoption of quality control tends to be easier to control academically (Largosen, et al, 2004). In addition, the prevailing university culture is often based on individual autonomy, which is controlled by the institution (Colling and Harvey, 1995). Thus, it is difficult to measure the quality of higher education based on individual autonomy (autonomy of each institution) given the fact that quality requires teamwork (Boaden and Dale, 1992). However, the quality of higher education is very important for every stakeholder. Especially for providers (funding agencies and society in general), students, staff and graduate employers are important (Srikanthan and Dalrymple, 2003). Owlia and Aspinwall (1996) themselves have discussed quality from a three-group perspective and distilled a general framework for quality dimensions in higher education. The quality dimensions are generally grouped into products, software, and services.

The Quality assurance itself is the responsibility of everyone in educational institutions, even though top management sets policies and priorities. Thus, ensuring quality must be a continuous and sustainable process. It should not be considered a one-time activity for accreditation only. However, accreditation as external quality monitoring (EQM) can be found in all types of higher education systems (Harvey, 1998). Despite the importance of EQM and the inherent credibility of an impartial and objective system, developing internal quality assurance mechanisms in every educational institution is essential. In fact, it is this unit within the higher education institution that will prepare the basis for EQM (Mishra, 2002).

As such, understanding quality assurance criteria and following best practices becomes very significant. Apart from external monitoring, universities can also carry out quality assurance internally. In Indonesia, the Ministry of Education and Culture (Kemendikbud) through the quality assurance directorate also encourages the implementation of an internal quality assurance system (Also known as SPMI, its abbreviation in Indonesian) in universities in

Indonesia. SPMI itself strives to ensure the continuity of improvement and achieve the targets of programs and activities carried out by higher education institutions.

## **2.2. Knowledge Management**

Knowledge management (KM) is a systematic process of obtaining, organizing, applying, sharing, and updating all forms of knowledge, to improve organizational performance and create value (Choo, 2006). In line with this, Davidson and Voss (2002) argue that KM is a system that allows organizations to absorb the knowledge, experience and creativity of their staff for improving organizational performance and is a process that provides a way so that companies can recognize where key intellectual assets are located. develop relevant intellectual assets. KM aims to facilitate access, use, and reuse of valuable knowledge sources (Dieng-Kunz & Matta, 2002). Alavi & Leidner (1999) stated that many organizations develop information systems that are specifically designed to facilitate the exchange and integration of knowledge. Furthermore, knowledge is classified and characterized by three different specifications (Mohaptara et al, 2016), as follows:

- **Explicit** or **codified knowledge** is knowledge that can be conveyed in formal and systematic language and there are physical forms, both print and digital. It is possible to express explicit knowledge in the form of data, scientific formulas, requirements, manuals and others (Nonaka dan Konno, 1998).
- **Tacit knowledge** is knowledge we realize or understanding, but expressing it clearly and completely is difficult. Tacit knowledge is very difficult to move to others because the knowledge is stored in the organization's minds of each individual (Nonaka dan Konno, 1998).
- **Embedded Knowledge** refers to knowledge locked in processes, products, cultures, routines, artefacts, or structures. knowledge is embedded both formally, such as through management initiatives to formalize certain beneficial routines, or informally when organizations use and apply two other types of knowledge (Woods and Cortada, 2013).

## **3. Research and Methodology**

A theoretical approach method is used for designing the conceptual model based on the currently available literature. This conceptual model is expected to be used as a reference and benchmark that can help higher education improve their quality assurance performance from implementation of knowledge management. The first stage of the research methodology is formulating the problem statement of the research. The main research question driving this study is the relationship between Knowledge Management Infrastructure and the process of Knowledge Management that affect the performance of the Higher Education's Quality Assurance. Literature study was conducted by collecting several studies that have studied the role of knowledge management in higher education quality assurance. By using these three keywords, there has not been much research that has specifically been on the topics of knowledge management, quality assurance, and higher education simultaneously. Therefore, different combinations of search terms are used. The results of the literature study are then integrated and analyzed to develop the conceptual model of the KM infrastructure, KM processes, creative organizational learning, and organizational performance in higher education's quality assurance. The conceptual model emphasized three main constructs, but also the supporting factors for quality assurance and the output of knowledge management, namely organizational creative learning.

## **4. Finding and Results**

The implementation of knowledge management in organizations has been quite widely implemented by various institutions, however, in a study conducted by Salo (2011), it was found that not many educational institutions in Indonesia have implemented it. This is also reinforced by Sopandi and Saud (2016), where of the 20 large organizations that have implemented knowledge management, only one is a university. This shows that in knowledge-based organizations, the application of knowledge management in higher education has not been implemented thoroughly. In looking at the implementation of knowledge management in an organization, we should also look at what factors are able to support its success and the impact of the application of knowledge management. Therefore, this study uses an analytical model that adopts the model from research by Lee, et al. (2012) entitled *An Integrated View of Knowledge Management for Performance*. This research has been in-depth enough to discuss integrated knowledge management which accommodates Knowledge Management Infrastructure, Knowledge Process Capabilities, Knowledge Management Intermediate Outcomes, and also Organizational Performance.

This study is a continuation of research that also discusses an integrated view of the implementation of knowledge management in an organization previously studied by Lee and Choi (2003). The following is an explanation of each research domain

- **Knowledge Infrastructure:** are technical, structural, and cultural factors that allow maximization in the implementation of knowledge management (Lee et al, 2012).
- **Knowledge Management Process:** the process of obtaining, assessing, disseminating, exchanging, and applying knowledge in working effectively. Supporting systems, therefore, must be provided to create a knowledge (Tongsamsi and Tongsamsi, 2016)
- **KM Intermediate Outcome, Creative Organizational Learning :** The extent to which knowledge management is able to change the understanding of existing organizational practices or invalidate them (Vandenbosch and Higgins, 1996; Lee and Choi, 2003; Lee et al., 2012)
- **Organizational Performance :** Ability to develop new services, ability to predict or risk, increased ability to cope with new things (Gold et al, 2001; Lee and Choi, 2003; Lee et al., 2012)

Lee and Choi (2003) research has also become the basis of research by Razi and Karim (2018). Razi and Karim's (2018) research was carried out at a university in Malaysia which proved that the knowledge management approach in an integrated view developed by Lee and Choi (2003) can be applied in organizations in higher education. Research by Lee and Choi (2003) and also Razi and Karim (2010) has also become the main framework for research conducted by Fitriani, et al. (2016) entitled Assessing Knowledge Management Implementation Readiness in the Faculty of Computer Science, University of Indonesia. From several studies that have been carried out both in companies and examples of its application in assessing implementation and readiness in higher education, it further strengthens the usefulness of seeing the implementation of knowledge management holistically in an integrated view.

Given the research background that has been described, this research is directed at developing a conceptual model of KM implementation in quality assurance organizations in higher education. Previous research that has developed these fairly specific parameters was obtained from research by Tongsamsi and Tongsamsi (2016). The research is entitled Instrument Development for Assessing Knowledge Management of Quality Assurers in Rajabhat Universities, Thailand. The research has developed variables and latents that have been tested in the quality assurance department of several universities that are included in the Rajabhat university system in Thailand. The 4 steps in implementing knowledge management in their research are as follows:

- **Knowledge acquisition:** aiming at the pursuit of, or construction on, new knowledge related to job descriptions. In this step, knowledge arises with relationship, cooperation, and interpersonal communication among the personnel.
- **Knowledge conversion:** being the process of documenting the latent knowledge of the individual or knowledge spread both in and out of the organization to be accessible and usable knowledge.
- **Knowledge dissemination:** focusing on the process of disseminating or sharing knowledge both within and out of the organization by means of formal and informal activities such as holding meetings, emailing information, web board announcements, and knowledge sharing.
- **Knowledge application:** being the process by which knowledge is applied for effective production. The process includes the evaluation of knowledge application in order to store necessary knowledge and eliminate unnecessary information.

Research conducted by Tongsamsi and Tongsamsi (2018) is based on variables developed by Garcia (2012) and by Thanyasunthornsakun (2011). Although these parameters have been developed by Tongsamsi and Tongsamsi (2016) very well and specific to address this issue, this research has not been carried out in an integrated view.

Due to the importance of evaluating the implementation of KM in a holistic manner (Gold et al., 2001; Lee and Choi, 2003; Lee et al., 2012), researchers saw a research gap that could be developed. Departing from several studies mentioned above, a conceptual model was developed that analyzes the role of knowledge management in quality assurance organizations in higher education in an integrated, holistic view. The purpose of the integrated view itself, as discussed by Gold et al., (2001), Lee and Choi (2003), and Lee et al., (2012) is to also see the role of the variables that enable the successful implementation of knowledge management, the implementation process, the impact of its implementation, and the eventual impact on the organization's performance. This conceptual model can be seen in the figure 1.

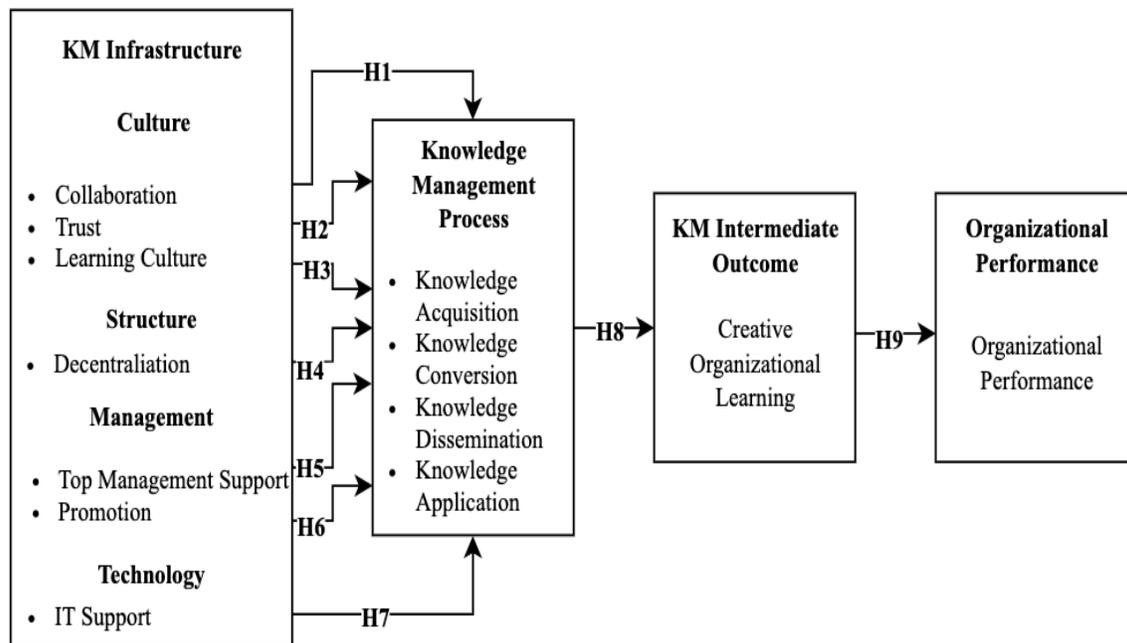


Figure 1. Proposed Conceptual Model for Analysis the Role of Knowledge Management in Organizational Performance in the Quality Assurance of the Higher Education

Based on the conceptual model, the nine hypotheses can be obtained that provide direction for future research. These hypotheses will be discussed as follows.

**Hypothesis 1 :** Collaboration has a positive impact on the implementation of knowledge management  
Hurley and Hult (1998) state that collaboration is the extent to which people in a group actively help each other in their work. This collaborative activity is only possible if everyone is willing to share knowledge, so that the implementation of KM occurs (Gold et al., 2001). In their research, Lee et al., (2012) also stated that a collaborative culture has a positive influence on knowledge creation through open communication and increasing knowledge exchange. O'Dell and Grayson (1999) also stated that many studies have argued that collaboration is the main determinant for knowledge creation and transfer.

**Hypothesis 2 :** Trust has a positive impact on the implementation of knowledge management  
Mastery of knowledge is the main differentiating factor among members in the organizational hierarchy (Hart and Saunders, 1997). However, sharing knowledge can change this hierarchy (Hinds and Pfeffer, 2003). The existence of mutual trust in the organization can reduce the risk of losing competitiveness among members (Roberts, 2000; Scott, 2000). Kreinter and Kinicki (1992) state that trust is reciprocity of one another in terms of intention and behavior. In addition to having an impact on competitiveness, sharing knowledge can reduce the sense of competitiveness in the organization, so that a lack of trust can prevent knowledge transfer (Szulanski, 1996). The drive to increase trust between individuals in organizations is very important for the course of knowledge transfer (Nelson and Coopriider, 1996). Therefore, developing a sense of trust between each individual in an organization is an important foundation for the creation and sharing of knowledge (Scott, 2000).

**Hypothesis 3 :** Learning culture has a positive impact on the implementation of knowledge management  
According to Simon (1991) organizational learning is based on individual learning that occurs in the individual brain. Therefore, organizations should focus on individual learning and group learning to improve organizational performance through learning (Huysman and DeWit, 2003). Swap et al., (1996) also stated that increasing organizational knowledge, knowledge transfer processes including communication and guidance among people from various departments, hierarchies, and positions are important things for an institution. This will further encourage organizations to try to instill a learning culture within the organization (Quinn et al., 1996).

**Hypothesis 4 :** Decentralization has had a positive impact on the implementation of knowledge management

According to Daft (1986), decentralization is the degree to which decision-making authority can be divided throughout the organization. Distributed power can encourage spontaneity, the desire to express and experiment, where the concentration of leadership can inhibit creativity and also hinder knowledge creation (Graham and Pizzo, 1996). Stonehouse and Pemberton (1999) and Teece (2000) state that convoluted communication hinders the spread of ideas or other knowledge and prevents new ideas from appearing. Sharing and collaborating in organizations can be facilitated by flexible organizational structures (Gold et al., 2001). Thus, the more decentralized the organizational structure is, the more likely it is to create and utilize knowledge.

**Hypothesis 5 :** Top management support has a positive impact on the implementation of knowledge management

Top management policies are very influential on organizational culture, norms, and strategic actions taken (Carpenter and Fredrickson, 2001; Schein, 1985). Carpenter and Fredrickson (2001) also suggest that the role of top management is needed in uncertain conditions. Top management has a role to encourage individuals to carry out knowledge management (Allee, 1997). The main obstacle in the application of knowledge management can occur if top management does not communicate the importance of implementing knowledge management in the organization (Ruggles, 1998). Thus, top management must be pro-active and compensate for encouraging knowledge creation and transfer (O'Dell and Grayson, 1999).

**Hypothesis 6 :** Promotion has a positive impact on the implementation of knowledge management

The existence of promotion and incentive systems are ways to encourage efforts to achieve organizational goals by providing rewards (Bock and Kim, 2002). O'Dell and Grayson (1999) suggest that non-financial incentives from work such as respect by experts are more important than financial incentives. Organizations can be pressured to provide incentives to employees who provide and share knowledge and these incentives are the basis for organizational support for KM (Keltner and Finegold, 1996). Kankanhalli et al. (2005) suggest that when there is an intrinsic benefit, employees contribute their knowledge to the knowledge repository regardless of the beliefs they have. Thus, expectations of appropriate evaluation and rewards lead to greater participation in KM activities. From these reasons, the following hypotheses can be suggested to stimulate knowledge creation and transfer (O'Dell and Grayson, 1999).

**Hypothesis 7 :** IT support has a positive impact on the implementation of knowledge management

Well-developed technology supports the creation, flow, and utilization of knowledge (Alavi and Leidner, 2001). Different types of knowledge can be stored and accessed in various formats (Ndlela and DuToit, 2001). Processes that can be supported include knowledge creation, collaboration, communication, search, access, and systematic storage (Roberts, 2000; Gold et al., 2001; Ndlela and DuToit, 2001). Therefore, it can be said that the existence of IT can contribute to improving organizational learning and performance by facilitating the KM process (Handzic, 2004). IT-based KM processes allow for increased breadth and depth in knowledge creation, storage, transfer, and utilization (Alavi and Leidner, 2001).

**Hypothesis 8 :** The implementation of KM has a positive impact on creative learning in an organization

Creative organizational learning is the extent to which organizational members can update or improve existing knowledge and increase new understanding of the environment through acquiring new knowledge. Creative organizational learning is based on strengthening creativity, increasing insight, and providing new perspectives. In addition, the existence of knowledge storage through KMS allows interconnection between individuals who have specialized creative knowledge that has not been published in the organization (Ruggles, 1998).

**Hypothesis 9 :** Creative learning in an organization has a positive impact on organizational performance

Many researchers in KM have emphasized the role of learning in KM based on the relationship between learning and knowledge (Mason, 2004). However, the effect of KM on organizational performance is not well understood. KM performance should be described as the performance of using the knowledge obtained from KMS. In order to fully understand KM performance, organizational learning outcomes must be evaluated as a measure of KM performance (Tiwana, 2002). Pfeffer (2005) shows that organizational perceptions can determine organizational performance and that creativity learning can produce organizational innovation and dramatic performance improvements.

## **5. Conclusion**

Based on the findings in the conceptual model and previous research it can be concluded that the Knowledge management is able to have a positive impact on the performance of quality assurance organizations in higher education. As explained by previous studies knowledge management infrastructure is able to have a positive impact on the implementation of the knowledge management process. The knowledge management process itself consists of 4 steps, namely knowledge acquisition, knowledge conversion, knowledge dissemination, and knowledge application. The expected output from implementing knowledge management itself is creative organizational learning. This creative organizational learning is considered capable of having a positive impact on the performance of the quality assurance organization as a whole. The propositions described are expected to be a reference in future research. Where the focus for this research is the development of a conceptual model that analyzes the impact of implementing knowledge management on quality assurance organizations in tertiary/ higher education institutions.

## **References**

- Alavi, M. and Leidner, D. E. (1999). Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. *MIS Quarterly*, 25(1), 107-136.
- Allee, V. (1997), *The Knowledge Evolution: Expanding Organizational Intelligence*, Butterworth-Heinemann, Boston, MA.
- Aly, N. and Akpovi, J. (2001), "Total quality management in California public higher education", *Quality Assurance in Education*, Vol. 9 No. 3, pp. 127-31.
- Boaden, R.J. and Dale, B.G. (1992), Teamwork in services: quality circles by another name? *International Journal of Service Industry Management*, 4(1), 5-24.
- Bock, G.W. and Kim, Y.G. (2002), "Breaking the myths of rewards: an exploratory study of attitudes about knowledge sharing", *Information Resource Management Journal*, Vol. 15 No. 2, pp. 14-21.
- Carpenter, M.A. and Fredrickson, J.W. (2001), "Top management teams, global strategic posture, and the moderating role of uncertainty", *Academy of Management Journal*, Vol. 44 No. 3, pp. 533-45.
- Choo, C., 2006. *The knowing organization: How organizations use information to construct meaning, create knowledge, and make decisions*. 2nd ed. New York: Oxford University Press.
- Colling, C. and Harvey, L. (1995). Quality control assurance and assessment in the link to continuous improvement, *Quality Assurance in Education*, 3(4), 30-34.
- Daft, R.L. (1986), *Organization Theory and Design*, 2nd ed., West Publishing Company, St Paul, MN.
- Davidson, C. and Voss, P. (2003). „Getting started tomorrow“, *Knowledge management*, Visions Books Pvt. Ltd. India publishing, pp. 151- 72
- Dieng-Kunz, R. & Matta, N., 2002. *Knowledge management and organizational memories*. Boston, MA: Kluwer Academic Publisher.
- Fitriani, W., A. Putra, Dipta Tanaya, H. N. Rochman, Elin Cahyaningsih and D. I. Sensuse. "Assessing knowledge management implementation readiness in Faculty of Computer Science, Universitas Indonesia." *2016 International Conference on Advanced Computer Science and Information Systems (ICACSIS)* (2016): 171-180.
- Gold, A.H., Malhotra, A. and Segars, A.H. (2001), "Knowledge management: an organizational capabilities perspective", *Journal of Management Information Systems*, Vol. 18 No. 1, pp. 185-214.
- Graham, A.B. and Pizzo, V.G. (1996), "A question of balance: case studies in strategic knowledge management", *European Management Journal*, Vol. 14 No. 4, pp. 338-46.
- Handzic, M. (2004), *Knowledge Management: Through the Technology Glass*, World Scientific Publishing, Toh Tuck Link, Singapore.
- Hart, P. and Saunders, C. (1997), "Power and trust: critical factors in the adoption and use of electronic data interchange", *Organization Science*, Vol. 8 No. 2, pp. 23-42.
- Harvey, L. (1998). An assessment of past and current approaches to quality in higher education, *Australian Journal of Education*, 42(3), 237-255.
- Hinds, P.J. and Pfeffer, J. (2003), "Why organizations don't 'know what they know': cognitive and motivational factors affecting the transfer of expertise", in Ackerman, M., Pipek, V. and Wulf, V. (Eds), *Sharing Knowledge – Beyond Knowledge Management*, MIT Press, Cambridge, MA, pp. 3-26.
- Hurley, R.F. and Hult, G.T.M. (1998), "Innovation, market orientation, and organizational learning: an integration and empirical examination", *Journal of Marketing*, Vol. 62 No. 3, pp. 42-54.

- Huysman, M. and DeWit, D. (2003), "A critical evaluation of knowledge management practices", in Ackerman, M., Pipek, V. and Wulf, V. (Eds), *Sharing Knowledge – Beyond Knowledge Management*, MIT Press, Cambridge, MA, pp. 27-55.
- Jalaldeen, Mohamed & Razi, M.J.M. & Abdul Karim, Nor. (2018). An Instrument to Assess Organizational Readiness to Implement Knowledge Management Process.
- Kanji, G.K., Malek, A. and Tambi, A. (1999), "Total quality management in UK higher education institutions", *Total Quality Management*, Vol. 10 No. 1, pp. 129-53.
- Kankanhalli, A., Tan, B.C.Y. and Wei, K.K. (2005), "Contributing knowledge to electronic knowledge repositories: an empirical investigation", *MIS Quarterly*, Vol. 29 No. 1, pp. 113-43.
- Keltner, B. and Finegold, D. (1996), "Adding value in banking: human resource innovations for service firms", *Sloan Management Review*, Vol. 38 No. 1, pp. 57-68.
- Košir, Suzana. (2014). The Role of Knowledge Management and Internal Communication for a Better Quality Assurance in Higher Education Institution. *Literacy Information and Computer Education Journal*. 5. 1641-1648. 10.20533/licej.2040.2589.2014.0219.
- Kotler, P. (1985), *Strategic Marketing for Educational Institutions*, Prentice-Hall, London.
- Kreitner, R. and Kinicki, A. (1992), *Organizational Behavior*, Richard D. Irwin, Homewood, IL.
- Lagrosen, S.; Seyed-Hashemi, R. and Leitner, M. (2004). Examination of the dimension of quality in higher education, *Quality Assurance in Education*, 12(2), 61-69.
- Lee, H. and Choi, B. (2003), "Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination", *Journal of Management Information Systems*, Vol. 20 No. 1, pp. 179-228.
- Lee, Sangjae & Kim, Byung & Kim, Hoyal. (2012). An Integrated View of Knowledge Management for Performance. *Journal of Knowledge Management*. 16. 10.1108/13673271211218807.
- Mason, J. (2004), "From e-learning to e-knowledge", in Rao, M. (Ed.), *KM Tools and Techniques: Practitioners and Experts Evaluate KM Solutions*, Butterworth-Heinemann, Oxford, pp. 320-8.
- Mishra, S. (2002). Guest Editorial: Does Technology Advancement mean better Education? *Media and Technology for Human Resource Development*, 14 (1&2), v-viii.
- Mohapatra, S., A. Agrawal, and A. Satpathy. (2016) *Designing Knowledge Management-Enabled Business Strategies: A Top-Down Approach*, Cham, Springer.
- Ndlela, L.T. and DuToit, A.S.A. (2001), "Establishing a knowledge management programme for competitive advantage in an enterprise", *International Journal of Information Management*, Vol. 21 No. 2, pp. 151-65.
- Nelson, K.M. and Coopriider, J.G. (1996), "The contribution of shared knowledge to IS group performance", *MIS Quarterly*, Vol. 20 No. 4, pp. 409-32.
- Nonaka, I. and Konno, N. (1998). The Concept of "Ba": Building a Foundation for Knowledge Creation. *California Management Review*, 40(3), 40-54
- O'Dell, C. and Grayson, C.J. (1999), "Knowledge transfer: discover your value proposition", *Strategy and Leadership*, Vol. 27 No. 2, pp. 10-15.
- Owlia, M.S. and Aspinwall, E.M. (1996). A framework for the dimensions of quality in higher education, *Quality Assurance in Education*, 4(2), 12-20.
- Petrides, L.A. & Nguyen, L. (2006) *Knowledge Management Trends: Challenges and Opportunities for Educational Institutions*. Metcalfe, Amy Scott (editor), Knowledge Management and Higher Education. A Critical Analysis (hlm 21-33). Published in the United States of America by Information Science Publishing (an imprint of Idea Group Inc.) 701 E. Chocolate Avenue Hershey PA 17033.
- Petrides, L.A. & Nodine, T.R. (2003) *Knowledge Management in Education. Institute for The Study of Knowledge Management in Education*. 1 Mirada Road. Half Moon Bay CA 94019.
- Pfeffer, J. (2005), "Changing mental models: HR's most important task", *Human Resource Management*, Vol. 44 No. 2, pp. 123-8.
- Quinn, J.B., Anderson, P. and Finkelstein, S. (1996), "Leveraging intellect", *Academy of Management Executive*, Vol. 10 No. 3, pp. 7-27.
- Roberts, J. (2000), "From know-how to show-how? Questioning the role of information and communication technologies in knowledge transfer", *Technology Analysis and Strategic Management*, Vol. 12 No. 4, pp. 429-43.
- Ruggles, R.L. (1998), "The state of the notion: knowledge management in practice", *California Management Review*, Vol. 40 No. 3, pp. 80-9.

- Salo, N. (2011) Knowledge Management in Education in Indonesia: An Overview. *Global Journal of Human Social Science. Volume 11 Issue 1 Version 1.0 February 2011. Type:Double Blind Peer Reviewed International Research Journal. Publisher: Global Journals Inc. (USA). ISSN:0975-587X.*
- Schein, E.H. (1985), *Organizational Culture and Leadership: A Dynamic View*, Jossey-Bass, San Francisco, CA.
- Scott, J.E. (2000), ‘Facilitating interorganizational learning with information technology’, *Journal of Management Information Systems*, Vol. 17 No. 2, pp. 81-113.
- Simon, H.A. (1991), ‘Bounded rationality and organizational learning’, *Organization Science*, Vol. 2 No. 1, pp. 125-34.
- Srikanthan, G. and Dalrymple, J. (2003). Developing alternative perspectives for quality in higher education, *International Journal of Educational Management*, 17(3), 126-36.
- Stonehouse, G.H. and Pemberton, J.D. (1999), ‘Learning and knowledge management in the intelligent organization’, *Participation and Empowerment: An International Journal*, Vol. 7 No. 5, pp. 131-44.
- Swap, W., Leonard, D.A., Shields, M. and Abrams, L. (2001), ‘Using mentoring and storytelling to transfer knowledge in the workplace’, *Journal of Management Information Systems*, Vol. 18 No. 1, pp. 95-114.
- Szulanski, G. (1996), ‘Exploring internal stickiness: impediments to the transfer of best practice within the firm’, *Strategic Management Journal*, Vol. 17, pp. 27-43.
- Teece, D.J. (2000), ‘Strategies for managing knowledge assets: the role of firm structure and industrial context’, *Long Range Planning*, Vol. 33 No. 1, pp. 35-54.
- Thanyasunthornsakun, K. (2011). The role of knowledge management and organizational learning in mediating transformational leadership and innovation performance: Social capital as the moderator. *NIDA Development Journal*, 51(4), 1e42. [in Thai]
- Tiwana, A. (2002), *Knowledge Management Toolkit: Orchestrating IT, Strategy and Knowledge Platforms*, Prentice Hall, Upper Saddle River, NJ.
- Tongsamsi, Kanyaprin & Tongsamsi, Isara. (2017). Instrument development for assessing knowledge management of quality assurers in Rajabhat universities, Thailand. *Kasetsart Journal of Social Sciences*. 38. 10.1016/j.kjss.2016.03.005.
- Úbeda-García, M. (2012). There is an interrelationship between human resource management, training & knowledge management? Empirical evidence. *Human Systems Management*, 31, 231e240.
- Vandenbosch, B. and Higgins, C. (1996), ‘Information acquisition and mental models: an investigation into the relationship between behaviour and learning’, *Information Systems Research*, Vol. 7 No. 2, pp. 198-214.
- Woods, J. A., and J. Cortada. (2013) *The Knowledge Management Yearbook 2000-2001*, Hoboken, Taylor and Francis

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