

Knowledge Management In Indonesia Small And Medium Enterprises (SMEs): A Conceptual Model

Ardian Adhiatma and Olivia Fachrunnisa

Sultan Agung Islamic University (UNISSULA), Indonesia, {ardian; olivia.fachrunnisa@unissula.ac.id}

ABSTRACT

In this global market, the growth of Small to Medium Enterprises (SMEs) has improving. Thus, the competition among SMEs becomes more rapid which requires them to put more efforts in maintaining their existence and development. Facing this issue, organizations should turn their entrepreneurial orientation from money oriented to innovation oriented. To innovate better, HRs in an organization should be knowledgeable hence the organization has to advance its knowledge management. This research aims to examine the relationship of entrepreneurial orientation, knowledge management, total quality management, and organizational innovation performance. Theoretical model drawn from literature review/survey is presented in this study. Therefore, this research can be one of new literatures which study about this issue from new frame. Thus, future research is presented in this study.

Keywords: entrepreneurial orientation, knowledge management, total quality management, organizational innovation performance

I INTRODUCTION

In this century, the economic system direction in the world has changed into entrepreneurial economy (Audretsch & Thurik, 2004). The competitive environment gets wider as a result of globalization challenge and all organizations attempt to reconstruct strategies to achieve sustainable competitive advantage (Madhoushi, Mehrdad, 2011). From the last three decades it is found that there is relationship pattern between knowledge management practice and innovation coming from SME (Thompson & Leyden, 1983).

Word (2012) explains that there is structural change of work and organization which more focus on managing and maximizing the working output. A dynamic working environment is used by organization to take knowledge and change the competitive advantage suited to the environment (Yeo, 2005). Organizational culture will always support organizational learning and bring benefit for the organization by generating knowledge (Nonaka et al, 2008). As globalization increases challenge in organization, the organization should focus on speed and innovation for customers (Ruona & Gibson, 2004).

Therefore, surviving in industrial world, SMEs should have strategy focus, such as knowledge-based economy in order to maintain competitive advantage (Ruona & Gibson, 2004). A knowledge based enterprise use knowledge for enhancing its performance through information management which enable the enterprise to share, manage, reuse, and transfer knowledge as well as provide knowledge for other parties in the organization (Lin, Hsiu-Fen, 2007; Takeuchi & Nonaka, 2004; Uhlener & Van Santen 2007). Thus, an appropriate knowledge management is essential for the development of SMEs. On the other side, O'Dell and Grayson (1998) state that Total Quality Management (TQM) is a long-term key motor of competitive advantage in the world. TQM will bring benefit to an organization, such as in decreasing cost, improving service, and satisfying customers, if it is well-applied (Oakland & Porter, 2004; Longest, Rakich, & Darr, 2000).

In the attempt competitive advantage, performance and value of an organization need to be improved, hence causing organizational innovation (Gloet & Terziowski, 2004; Singh & Smith 2004). Innovation also takes big role in maintaining sustainable competitive advantage through performance enhancement, problem-solving, and value improvement (Prajogo, Power, & Sohol, 2004). Brock (2003) finds that innovation will improve the effectiveness and competitiveness through autonomy, where innovation directly impact on performance (West & Iansiti, 2003; Brockman & Morgan, 2003) and entrepreneurial action has direct effect on innovation process (Ireland & Webb, 2007). Mei and Nie (2007) and Chung-Jen, et al (2010) see a positive and significant relationship between knowledge management and organizational innovation. Corso, et al (2002) emphasizes that knowledge management will increase the research interest about innovation ability in the organization. Thus, SMEs need to witness its organization support the innovation (Prince & Brecht, 2000). However, what happens in the reality is low research contribution in understanding the knowledge management issues related to SMEs innovation (Sparrow, 2001).

Aside of the relation between knowledge management and organizational innovation, there are other aspects influencing innovation, such as culture and Total Quality Management (TQM). Hung, et al (2010) finds that TQM significantly related to innovation and organizational changes. Pinho (2008) also states that TQM has given positive contribution

to management practice, so the organization performance improved.

There are many aspects which impact on the organization performance, hence it is important for an organization to understand the relationship among them. This research aims to analyze the relationship among entrepreneurial orientation, knowledge management, total quality management, and organizational innovation performance.

II LITERATURE REVIEW

Entrepreneurial orientation has become one of the most established and researched constructs in the entrepreneurship literature (Wales, William, 2013, 2015; Covin, Jeffrey; Lumpkin, 2011). Entrepreneurial orientation has been shown to be a strong predictor of organization performance with a meta-analysis of past research indicating a correlation in magnitude roughly equivalent to the prescription of taking sleeping pills and getting better sleep (Rauch, Andreas; Wiklund, Johan; Lumpkin, G.T.; Frese, Michael, 2009). Entrepreneurial orientation has most frequently been assessed using nine-item psychometric instrument developed by (Jeff Covin and Dennis Slevin; Wales, William, 2015). Thus, this research uses the five dimension of entrepreneurial orientation, such as autonomy, innovativeness, proactiveness, aggressiveness and risk-taking in order to realize the product and process innovation. Strategic orientation entrepreneurial orientation enhances organization performance as well as overall variance in it. Increased variance occurs as result of the observation that many entrepreneurial actions ultimately fail to generate an economic return thereby contributing to an increased distribution of firm performance outcomes (Wiklund, Johan; Shepherd, Dean, 2011; Wales, William; Patel, Pankaj; Lumpkin, 2013). As a core organizational strategic orientation, the breadth and depth research on entrepreneurial orientation continues to expand as the concept is adopted to understand the effects of being entrepreneurial across an increasing number of research contexts (Wales, William; Gupta, Vishal; Mousa, Fariss, 2013). In order to increase sustainable competitive advantage and improve organization performance, SMEs need to manage knowledge in the organization. Beckman (1999) states that knowledge can be defined as belief, experience, as well as information. The combination of those three aspects will provide an illustration to evaluate and merge new experience and information (Davenport & Prusak, 1998).

Knowledge management then refers to systematic and integrative process which helps the organization to find, decide, manage, distribute, and transfer substantial information, knowledge, experience, and ability needed in certain activities, such as problem-solving, dynamic learning, strategic planning, and decision-taking. The maximization of knowledge management bring benefit to people in the

organization as every member of organization will gain and share more knowledge, so it will increase their performance and ability to innovate. Liao, et al (2003) state that innovation mobility and innovation process effectiveness are influenced by knowledge management (covers knowledge adding and sharing). Nonaka and Takeuchi (1995) and Argote, et al (2003) explain that the effectiveness of knowledge management become mediation of communication and exchange in the innovation process. It will improve the organization performance through new ability.

Proposition 1: Entrepreneurial orientation is positively related to knowledge management

The concept of innovation involves research and enhancement of technology, idea, process, service, and management in the organization. Then, it will result on the enhancement of organization operational performance (Singh & Smith, 2004). In general, innovation has many contributions on organization performance, and then it analyzes how an organization can adapt with market changes, competition, and technology. Kanji (1996) explains that there are six types of innovation, such as product, process, implication, system, competition and horizontal. However, it is based on the resource and competency of the organization.

Gopalakrishnan and Bierly (2001) divide innovation into six types, such as administrative, technical, product, process, radical, and incremental. According to Boone (2000), the result of product innovation is the new-coming product in the market. This also covers restoration in product-making process or change in product-making method. The result of process innovation covers company cost reduction. Innovation may cover the improvement of product or service, innovation process, and organization ability. It is important that these three elements are linked together and are compatible. Innovation can be an important way for SMEs to succeed and remain running the business, so the SMEs will be able to compete in dynamic environment.

Proposition 2: Entrepreneurial orientation is positively related to organizational innovation performance

Proposition 3: Knowledge management is positively related to organizational innovation performance

Total Quality Management (TQM) is one of quality-based approaches (Sun 2000). TQM contribute to improve the organization performance and achieve sustainable competitive advantage. This concept is based on loyalty as it will bring long-term benefit for the organization. Thus, the organization need to instill the quality of value by putting the consumer and producer elements together supported by top management, continuous enhancement commitment, quality assurance, training and culture change in the

organization (Crosby, 1996 ; Deming, 1996; Basterfield, 2003).

Besides, Antony et al. (2002) and Maguad (2006) state that the concept of total quality management is directed to the achievement of long-term organizational success through continuous enhancement, hence it will be beyond the customers' expectation.

Proposition 4: Knowledge management is positively related to total quality management

Proposition 5: Total quality management is positively related to organizational innovation performance

III PROPOSED MODEL

Entrepreneurial Orientation (EO) is a firm-level strategic orientation which captures organization's strategy-making practices, managerial philosophies, and organizational behaviors that are natural (Anderson, Brian; Covin, Jeffrey; Slevin, Dennis, 2009). In this research, entrepreneurial orientation comprises five dimensions, such as autonomy, innovativeness, pro-activeness, aggressiveness and risk-taking.

Knowledge Management (KM) refers to a systematic and integrative process of coordinating organization activities, such as acquiring, creating, storing, sharing, diffusing, developing, and spreading knowledge to pursuit major organizational goals (Rastogi, 2000). In this research, knowledge management comprises three dimensions, such as acquisition, sharing and application.

Total Quality Management (TQM) is recognized as a key to achieve long-term sustainable competitive advantage around the world (Dean & Bowen, 1994; Prajogo & Sohol, 2001; Oakland). In this research, Total Quality Management (TQM) involves five dimensions, such as top management support, employee involvement, continuous improvement, customer focus and database decision.

Organizational Innovation Performance (OIP) plays a critical role in maintaining sustainable competitive advantage (Prajogo, Power, & Sohol, 2004; Tushman & Nadler, 1986). In this research, organizational innovation performance includes two dimensions, such as product innovation performance and process innovation performance.

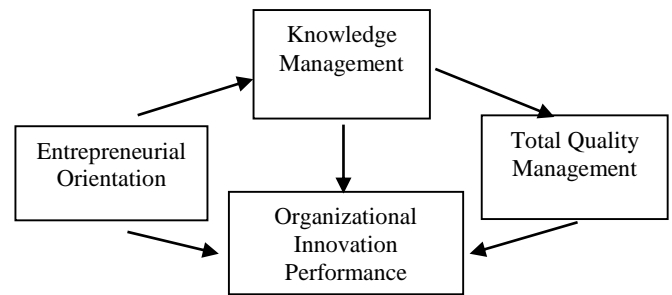


Figure 7. The Proposed Model of the relationship among entrepreneurial orientation, knowledge management, total quality management, and organizational innovation performance

IV DIRECTION FOR FUTURE RESEARCH

In economic growth, there are two main aspects can be used by SMEs to improve organizational performance, such as knowledge management and organizational innovation. However, there are other aspects presumed as having influence on organizational performance, such as total quality management, and organizational innovation performance. This study is kind of initial step to analyze theoretical structure on the relationship among variables towards organizational performance improvement, especially on knowledge management, which then will open the study gate for further researches. Empirical proof should be presented in the future to show the influence of the aspects on organizational performance of SMEs. Therefore, the study should demonstrate the significance of the relationship among variables, including how the aspects are able to impact the SMEs performance. Then, future research questions arise as follows:

- How is the relationship among all variables in influencing organizational performance?
- How the relationship between knowledge management and organizational performance differs from other aspects?
- How will organizational performance improve if it is impacted by all aspects at once?

V CONCLUSION

This study proposes a model that show the relationship of (1) entrepreneurial orientation which comprises autonomy, innovativeness, pro-activeness, aggressiveness and risk-taking, (2) knowledge management which involves acquisition, sharing and application, (3) total quality management which includes top management support, employee involvement, continuous improvement, customer focus and database decision, and (4) organizational

innovation performance which comprises product innovation performance and process innovation performance. By analyzing all variables, this study aims to be able to improve a conceptual model on the relationship of knowledge management and organizational performance.

REFERENCES

- Anderson, Brian S. ; Covin, Jeffrey G. and Slevin, Dennis P., Understanding the relationship between entrepreneurial orientation and strategic learning capability: an empirical investigation, Strategic Management Society. Published by John Wiley & Sons, Ltd. Strategic Entrepreneurship Journal Volume 3, Issue 3, pages 218–240, 2009
- Antony, J., K. Leung, G. Knowles, and S. Gosh 2002. Critical success factors of TQM implementation in Hong Kong industries. International Journal of Quality & Reliability Management 19, no.5: 551-566.
- Argote, L., B. McEvily and R. Reagans, 2003. Managing knowledge in organizations: An integrative framework and review of emerging themes. Manage. Sci., 49(4): 571
- Audretsch, D., & Thurik, R. 2004. A model of entrepreneurial economy. International Journal of Entrepreneurship Education, 2(2):143-166.
- Audretsch, D., & Thurik, R. 2000. Capitalism and democracy in the 21st century: from the managed to the entrepreneurial economy. Journal of Evolutionary Economy, 10:17
- Basterfield, D. 2003. Quality control. 7th ed. New York: Prentice-Hall.
- Beckman, T.J. 1999. The current state of knowledge management. In J. Liebowitz (Ed.), Knowledge Management Handbook. Boca Raton, FL: CRC Press.
- Boone, J. 2000. Competitive pressure: The effects on investments in product and process innovation. RAND Journal of Economics 31, no. 3: 549-569.
- Brockman, B.K. and R.M. Morgan, 2003. The role of existing knowledge in new product innovativeness and performance. Decision Sci., 34: 385-420.
- Brock, D.M., 2003. Autonomy of individuals and organizations: Towards a strategy research agenda. Inter. J. Bus; Econ., 2(1): 57-73.
- Chung-Jen, C., Jing-Wen, H., Yung-Chang, H. (2010). Knowledge management and innovativeness: The role of organizational climate and structure. International Journal of Manpower, 31(8), 848-870.
- Corso, M., Martini, A., Pellegrini, L., & Paolucci, E. 2002. Technological and organizational tools for knowledge management: in search of configurations. Small Business Economics, 0:1- 12.
- Covin, Jeffrey; Lumpkin, G. T. (2011). "Entrepreneurial Orientation Theory and Research: Reflections on a Needed Construct". Entrepreneurship: Theory & Practice 35 (5): 855–872.
- Crosby, P.B. 1996. Quality is still free: Making quality certain in uncertain times. New York: McGraw-Hill.
- Davenport, T.H. and L. Prusak. 1998. Working knowledge: How organizations manage what they know. Boston, MA: Harvard Business School Press.
- Dean, J.W. and D.E. Bowen. 1994. Management theory and total quality: Improving research and practice through theory development. Academy of Management Review 19, no. 3:392-418.
- Deming, W.E. (1986). Out of the crisis. Cambridge, MA: MIT press.
- Gloet, M. and M. Terziovski 2004. Exploring the relationship between knowledge management practices and innovation performance. Journal of Manufacturing Technology Management 15, no.5: 402-409.
- Gopalakrishnan, S. and P. Bierly. 2001. Analyzing innovation adoption using knowledge based approach. Journal of Engineering and Technology Management 18, no. 2: 107-118.
- Hung, R. Y. Y., Lien, B. Y. H., Fang, S. C., McLean, G. N. (2010). Knowledge as a facilitator for enhancing innovation performance through total quality management. Total Quality Management, 21(4), 425-438.
- Ireland, R.D. and J.W. Webb. 2007. A cross disciplinary exploration of entrepreneurship research. J. Manage., 33(6): 891-927.
- Kanji, G.K. 1996. Can total quality management help innovation? Total Quality Management 7, no. 1: 3-9.
- Liao, J., Welsch, H., & Stoica, M. 2003. Organizational absorptive capacity and responsiveness: an empirical investigation of growth-oriented SMEs. Entrepreneurship Theory and Practice, fall: 63-85.
- Lin, Hsiu-Fen, Knowledge sharing and firm innovation capability : an empirical study, International Journal of Manpower, vol 28 no. 3/4 315-332, 2007
- Longest, Jr. B., J. Rakich, and K. Darr 2000. Managing health services organizations and systems. 4th ed. MD: Health Professions Press.
- Madhoushi, Mehrdad, Sadati Abdolrahim, Delavari Hamidraza, Mehdivand Mohsen and Mihandrost Ramin, Entrepreneurial Orientation and innovation Performance : The Mediating Role of Knowledge Management, Asiam Journal of Business Management 3(4):310-316, 2011.
- Maguad, B.A. 2006. The modern quality movement: Origins, development and trends. Total Quality Management 17, no. 2: 179-203.
- Mei, S., Nie, M. (2007). Relationship between knowledge sharing, knowledge characteristics, absorptive capacity and innovation: An empirical study of Wuhan optoelectronic cluster. The Business Review, 7(2), 154-161.
- Nonaka, I. and H. Takeuchi, 1995. The Knowledge-Creating Company. Oxford University Press, New York.
- Nonaka, I., Toyama, R., Hirata, T. and Ebrary, I. (2008), Managing Flow: A Process Theory of the Knowledge-based Firm, Palgrave Macmillan, NY.
- O'Dell, C. and C.J. Grayson. 1998. If only we knew what we know: Identification and transfer of internal best practices. New York: The Free Press.
- Oakland, J. and L. Porter. 2004. Quality 21. Quality World 30, no. 1: 10-14.
- Pinho, J. C. (2008). TQM and performance in small medium enterprises: The mediating effect of customer orientation and innovation. International journal of quality & reliability management, 25(3), 256-275.
- Prajogo, D.I. and A.S. Sohol. 2001. The relationship between TQM practices and innovation performance: A literature review and research framework. Technovation, The international Journal of Technological Innovation and Entrepreneurship 21, no. 9: 539-558.
- Prajogo, D.I., D.J. Power, and A.S. Sohol. 2004. The role of trading partner relationships in determining innovation performance: An empirical examination. European Journal of Innovation Management 7, no. 3: 178-186.
- Prince, Y.M., & Becht, J.A. 2000. MKB-Kenniscirkels, waar zoekt het MKB welke kennis EIM, Zoetermeer.
- Rastogi, P.N. 2000. Knowledge management and intellectual capital-The new virtuous reality of competitiveness. Human Systems Management 19, no. 1: 39-49.
- Rauch, Andreas; Wiklund, Johan; Lumpkin, G. T.; Frese, Michael (2009). "Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future". Entrepreneurship: Theory & Practice 33 (3): 761–787.
- Ruona, W.E. and Gibson, S.K. (2004), "The making of twenty-first-century HR: an analysis of the convergence of HRM, HRD, and OD", Human Resource Management, Vol. 43 No. 1, pp. 49-66.
- Singh, P.J. and A. Smith. 2004. Relationship between TQM an innovation: An empirical study. Journal of Manufacturing Technology Management 15 5: 394-401.
- Sparrow, J. 2001. Knowledge management in small firms. Knowledge and Process Management, 8 (1):3-16.
- Sun, H. 2000. Total quality management, ISO 9000 certification and performance improvement. International Journal of Quality & Reliability Management 17, no. 2: 168-179.
- Takeuchi, H., & Nonaka, I. 2004. Hitotsubashi on Knowledge Management, Singapore: John Wiley and Sons.
- Thompson, J.H., & Leyden, D.R. 1983. The United States of America. In Storey, D.J. (Eds.), The small firm – an international survey: 7-45. London: Croom Helm.
- Uhlener L.M. & Van Santen J. 2007. Organization context and knowledge management in SMEs: A study of Dutch technology-based Firms', in H. Landstrom, M. Raffa, and L. landoli (Eds.), Entrepreneurship, Competitiveness and Local Development

- Frontiers in European Research, Cheltenham, UK: Edward Elgar Publishing: 170-199.
- Wales, William; Gupta, Vishal; Mousa, Fariss (2013). "Empirical research on entrepreneurial orientation: An assessment and suggestions for future research". *International Small Business Journal* 31 (4): 357–383.
- Wales, William; Patel, Pankaj; Lumpkin, G. T. (2013). "In Pursuit of Greatness: Ceo Narcissism, Entrepreneurial Orientation, and Firm Performance Variance". *Journal of Management Studies* 50 (6): 1041–1069.
- Wales, William (2015). "Entrepreneurial orientation: A review and synthesis of promising research directions". *International Small Business Journal*
- West, J. and M. Iansiti, 2003. Experience, experimentation and the accumulation of knowledge: The evolution of R&D in the semiconductor industry. *Res. Policy*, 32: 809-826.
- Wiklund, Johan; Shepherd, Dean (2011). "Where to from Here? Eo-as Experimentation Failure, and Distribution of Outcomes". *Entrepreneurship: Theory & Practice* 35 (5): 925–946.
- Word, J. (2012), "Engaging work as a calling: examining the link between spirituality and job involvement", *Journal of Management, Spirituality and Religion*, Vol. 9 No. 2, 147-166.
- Yeo, R.K. (2005), "Revisiting the roots of learning organization: a synthesis of the learning organization literature", *The Learning Organization*, Vol. 12 No. 4, 368-382.