

The Relationship between Knowledge Sharing Culture and Innovation Capability: A Proposed Model

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ABSTRACT

Knowledge sharing culture is crucial for increasing organizational competitiveness. Knowledge sharing supports organization in fulfilling customers' needs and wants. Besides that, implementation of knowledge sharing culture will bring a lot of benefits to the organization itself such as enabling employees to come out with new idea and be innovative in their organization. In this paper, the authors had identified and discussed several factors that will lead to knowledge sharing culture and its impact on innovation capability.

KEYWORDS: Knowledge sharing; innovation; culture; leadership; reward system.

I. INTRODUCTION

Lately, many organizations have come to realized that knowledge sharing could be utilized to generate greater volume of new ideas and opinions. Study by Reid (2003) indicated that knowledge sharing activities create opportunities to maximize firm's ability; generate new solutions and efficiencies, thus enhancing organization competitive advantage. The dilution of traditional business boundary which elevated business rivalry has compounded the importance of knowledge sharing as organizations seek ways to remain relevant (Zhang and Sharifi, 2000). The benefit of knowledge sharing was proven when study by Sanchez ad Palacios (2007) involving manufacturing organizations indicated that knowledge sharing provide improvement to organizations ability in the development of product and services. Knowledge sharing can be seen from the contextual of social interaction culture; involving the exchange of employees knowledge, experiences, and skills through the whole department or organizations. If apply appropriately via the cultural framework where employees are willing and consistently share their knowledge innovative ideas could be augmented (Connelly and Kelloway, 2003). This is an important revelation given that innovation is crucial for organization seeking to find their place in the market and ensuring long-term survival. Moreover, the development of innovative products and services has becomes important in order to achieve and maintaining competitiveness in global markets (Miron et al., 2004).

This paper wants to examine the influence of individual factors and organizational factors on knowledge sharing processes and whether it leads to superior organization innovation capability. Currently, not many organizations realize the importance of knowledge sharing culture. Knowledge sharing does not feature highly in their list of importance. Hence, identifying factors that influence knowledge sharing among employees is crucial as it will provides the necessary road map to guide top management in the adoption of knowledge sharing culture.

II. LITERATURE REVIEW

A. Knowledge Sharing

In order to maintain its competitive advantage, the organizations need to continue to foster the development and exchange of knowledge, within and among organization (Lin, 2008). The top management should encourage knowledge sharing culture among their employees. It is because; knowledge sharing will lead to improving organizational performance. Additional, knowledge sharing is valuable asset in the organization in order to create competitive advantages, and it has been shown the improving of the organization's performance when employees actively exchange their knowledge (Willem and Buelens, 2007).

Knowledge sharing is a process of interpersonal interaction in which knowledge is exchanged (Fatt and Khin, 2010). On the other hand, knowledge sharing is a process people exchange their ideas, opinions and discuss among them to come out with new ideas (Myers and Cheung, 2008). According to Nancy (2000), the purpose of knowledge sharing is enable people to impart knowledge to others and the possession of common knowledge eventually leading to the ability of an entire organization to acquire knowledge. Through knowledge sharing, people can come out with news idea and it can encourage them to do innovation in their organization. Knowledge sharing can enhance

organizational innovation (Connelly and Kelloway, 2003). It will become as barriers for the organization to achieve their goals if the employees unwilling to share knowledge with their colleague (Lin, 2006).

Therefore, predicting the intention to share knowledge will be crucial issue in an organization. Past research has found some factors that will encourage employees to share knowledge, for example reward system (Tylor and Wright, 2004). Many organizations use reward system to encourage their employees to share knowledge. Besides that, attitude of employee itself also play main role for knowledge sharing (Nurliza, Eze and Goh, 2010).

There have been various studies on knowledge sharing in organization, libraries and teams. Parirokh *et al.*, (2008) state that the changes in the economy and knowledge work have resulted in dramatic changes to the nature of the work in library. It required them to enhance their knowledge sharing capabilities to ensure them to give better services to library patrons. From cultural viewpoint, Chow and Chan (2008) conducted a study on the social capital of organizational knowledge sharing by analyzing surveys of 190 managers from Hong Kong firms. There are researchers conducting researches on knowledge sharing such as barriers of knowledge sharing and knowledge sharing motivators, but it is still limited researches in term knowledge sharing among employees in Asian context (Nurliza, Eze and Goh, 2010).

Base on the aforementioned review, three critical factors that can influence the success in cultivating knowledge sharing culture in an organization are organizational culture, leadership and management support and reward system.

a. Organizational Culture

Organizational culture can be defined as the shared, basic assumption that an organization learnt while coping with the environment and solving problem of external adaption and internal integration that are taught to new members as the correct way to solve the problems (Park *et al.*, 2004). Most of organization has their own unique culture, which develops overtime to reflect the organization's identity in two dimension which is visible and invisible (McDermott and O'Dell, 2001).

The various studies state that organization culture has been influence the intention of knowledge sharing in an organization. Furthermore, referring to the organizational dimension, organizational climate usually made to capture efficiently the benefits of innovation-supportive culture (Saleh and Wang, 1993). By having knowledge sharing culture it will help to improve organization performance. In addition, organization that supports knowledge sharing culture will establish good image for the organization (Levine, 2001).

b. Leadership and Management Support

Leadership and management have been identified as factor that will be influence knowledge sharing among employees in an organization (Sadhu *et al.*, 2011). In an organization, the employees usually will look at their leaders and managers to act as role models and to show commitment, explain the expectation of their team members, and offer support (Seba, Rowley and Lambert, 2011). Bircham-Connolley, Corner and Bowden (2005) noted that leadership directs and guides all processes associated with knowledge sharing. Leadership is a one of the strongest influencers of attitude towards knowledge sharing (Razi, 2005). Further, in qualitative phase in the Dubai Police Force conducted by Seba, Rowley and Lambert (2011) has identified that leadership is particularly important to encourage the knowledge sharing among employees.

Management support for knowledge sharing has been shown positive relationship with employees' perception of a knowledge sharing culture and willingness to share knowledge (Connelly and Kelloway, 2008; Lin, 2007). Management support specific to knowledge sharing is a better predictor of employee knowledge sharing (King and Marks, 2008). Supervisory control has been founded as a significant predictor of individual effort which was related to knowledge sharing (King and Marks, 2008).

c. Reward System

The successful of an organization can be achieved if the organization willing to take risk to be innovative through effective infrastructure, including reward system (Yang, 2011). Tylor and Wright, 2004 states that some elements such as reward systems were linked to the knowledge sharing among employees. Study by Ash (1993) indicated that, compensation and recognition can motivate the employees to contribute in the goal of the organization. Thus, Day *et al.* (2002) found that to persuade people to do innovation activities, "pay for performance" should be emphasized. Other than that, reward for skilled employees also can help to motivate employees to share knowledge and encourage them to do innovation (Spear and Bowen, 1999).

Previous research has discussed about reward, incentives and benefits accruing from knowledge sharing. Thus, many researchers use motivation theory as their theoretical base for knowledge sharing and the concept of rewards as a means of driving behavior is inherent in motivation theory (Seba, Rowley and Lambert, 2011). However, there have problem with reward system because it is difficult to measure and evaluate (Holman, 2005).

B. Innovation

Innovation is crucial for organization if they want to stay in competitive business market. Innovation can be defined as the generation, acceptance and implementation of new ideas, processes, products or services (Thompson, 1965). Innovation can be achieved through two ways which is exploitation and exploration. On the other hand,

innovation is a capability that allows the organization to create, extend and modify its services and products base on customer demand (Helfat et al., 2007). Furthermore, innovation research can be approached from the perspectives of an individual, an organization, and a nation, focusing on personal traits, innovation management and a nation’s source of competitiveness, respectively (Lin and Chen, 2007).

Wolff and Pett (2004) and Walker (2005) have compared the effects of product and process innovations on organization’s performance. In addition, a practical way to access innovation effectiveness is by looking at its sub-processes. The process of company innovation can be broken into four major essential components: seeking, evaluating, using and fostering innovation (Guimaraes and Langley, 1994).

Tor and Kathryn (1994) state that factor that leads to innovation must consistent with company goals. Besides that, the other factors that can encourage innovation in organization are leadership style. Top management should communicate effectively to their staff regarding the importance of innovations (Tor and Kathryn, 1994). Guimaraes and Langley (1994) added the management should create opportunities and rewards innovations in their organization.

Overall, continuously collecting and integrating new knowledge will lead to innovativeness (Subramaniam and Youndt, 2005). The effect of knowledge sharing can be better explained when both dimension of innovation are considered together. It can be said that for exploitative innovation, transferred knowledge is used to improve an organization’s existing products, processes and services, whereas knowledge forms a basis for the production of new products and technologies in the case of exploratory innovation (Bierly et al., 2009).

C. Relationship between knowledge sharing and innovation

The organization’s ability to transform and exploit knowledge may determine its level of organization innovation, such as faster problem solving capability and able to react faster to new information. The willingness of employees to corporate with colleagues will contribute knowledge to the organization (Darroch and McNaughton, 2002). Past research has found that in order to gain better understand about nature of innovation is depend on how the top management influences their staff to share their knowledge with colleagues (Cottrill et al 1998).

The effectiveness of knowledge sharing can encourage employees to share ideas and opinion that can lead them to do innovation in their organization (Reagans, 2003). Besides that, knowledge sharing also will lead to positive innovation outcomes and other performance effects (Tsai, 2001; Smith et al., 2005). In order to encourage innovation among employees in the organization, knowledge sharing is the one way to lead the innovation. Previous research has support the relationship between effective knowledge management and innovation (Smith et al, 2005).

In finding of research conducted by (Lin, 2007), there is significant relationship between knowledge sharing and innovation. Lin (2007) has found that two individual factors which are enjoyment in helping others and knowledge self-efficacy significantly influence knowledge sharing processes. The result also indicate that organizational factors which is top management support also significantly can encourage knowledge sharing processes and it show that employee willingness to both donate and collect knowledge enable the organization to improve capability (Lin, 2007). The study also support the relationship among knowledge sharing enablers, processes, and organization innovation capability may provide a clue regarding how firm can encourage knowledge sharing culture to maintain their innovation.

Previous research on innovation supports the relationship between knowledge sharing and innovation (Smith et al., 2005; Darroch and McNaughton, 2002). For example, Dougherty et al. (2002) argue that innovation relies heavily on the accumulation of new knowledge in an organization, which can help to creative solution. Meanwhile, Hargadon and Sutton (1997) state, that when knowledge is transferred among employees in an organization, it can create ideas from employees and it can enable them to come out with new product and services. Thus, Storey and Kelly (2002) found lack of knowledge sharing can become as a barriers to an organization to be innovative.

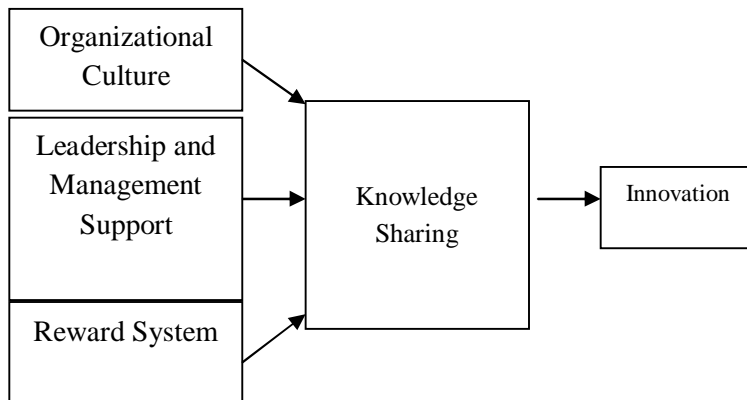


Figure 1. Conceptual Framework

III. Conclusion

The aim of this study is to identify the factors that influence knowledge sharing. There are three factors that contribute to knowledge sharing. Those are organizational culture, leadership and management support and also reward system. Through the literature review, this paper identified that there is a positive relationship between knowledge sharing culture and innovation. Therefore, a conceptual framework is developed (see fig. 1) to address this issue. These three factors are critical in helping organization in gaining knowledge sharing culture and it will foster innovation in an organization.

IV. REFERENCES

1. Ash, P.R., 1993. Reengineering compensation and benefits management. *Journal of Compensation and Benefits*. 9 (3): 26–31.
2. Bierly, P., Damanpour, F. & Santoro, M.D. 2009. The application of external knowledge: Organizational conditions for exploration and exploitation. *Journal of Management Studies*. 46(3): 481-509.
3. Bircham-Connolly, H., Corner, J., and Bowden, S. 2005. An empirical study of the impact of question structure on recipient attitude during knowledge sharing. *Electronic Journal of Knowledge Management*, 32: 1-10.
4. Connelly, C. E and Kelloway, E. K. 2003. Predictors of employees' perceptions of knowledge sharing cultures'. *Leadership and Organization Development Journal*, 24(5/6): 294-301.
5. Cottrill, K. 1998. Reinventing innovation, *Journal of Business Strategy*, 19(2): 47-51.
6. Chow, W. S., & Chan, L. S. 2008. Social networking, social trust and shared goals in organizational knowledge sharing. *Information & Management*, 45: 458–465.
7. Darroch, J. and McNaughton, R. 2002. Examining the link between knowledge management practices and type of innovation, *Journal of Intellectual Capital*, 3(3): 210-22.
8. Day, J.D., Mang, P.Y., Richter, A., Roberts, B., 2002. Has pay for performance had its day? *McKinsey Quarterly* 4: 46–55.
9. Dougherty, D., Munir, K. And Subramanim, M. 2002. Managing technology flows in practice: a grounded theory of sustainable innovation, *Academy of Management Proceedings, Technology and Innovation Management Division*, pp. E1-E6.
10. Edward, E. 1988. Corporate culture. *Management Accounting London*, 66(5): 18-20.
11. Fatt, C.K. and Khin, E.W.S. 2010. The social-technical view of knowledge management in services industries", *Journal of Social Science*, 6: 256-264.
12. Hargadon, A. and Sutton, R. 1997. Technology brokering and innovation in a product development firm, *Administrative Science Quarterly*, 42(4): 716-749.
13. Helfat C. E, Finkelstein S, Mitchell W, Peteraf M A, Singh H, Teece D.J, Winter S.G. 2007, *Dynamic Capabilities: Understanding Strategic Change in Organization*. Malden MA: Blackwell Publishing.
14. King, W.R., and Marks Jr., P.V., 2008. Motivating knowledge sharing through a knowledge management system. *OMEGA* 36 (1): 131–146.
15. Levine, L. 2001. Integrating and processes in a learning organisation, *Information Systems Management*, 18(1): 21-32.
16. Lin, C. 2007. To share or not to share: Modelling tacit knowledge sharing, its mediators and antecedents. *Journal of Business Ethics*, 70: 411-428.
17. Lin, C. 2006. To share or not to share: Modelling knowledge sharing using exchange ideology as a moderator. *Personnel Review*, 36(3): 457-475.
18. Lin, W.B. 2008. The effect of knowledge sharing mode, *Tourism Management*, 34: 1508-21.
19. McDermott, R. and O'Dell, C. 2001. Overcoming cultural barriers to sharing knowledge, *Journal of Knowledge Management*, 5(1): 76-85.
20. Miron, E., Erez, M. And Naveh, E. 2004. Do personal characteristics and cultural values that promote innovation, quality, and efficiency compete or complement each other?, *Journal of Organizational Behaviour*, 25: 175-199.

21. Myers, M., and Cheung, M. 2008. Sharing global supply chain knowledge. *MIT Sloan Management Review*, 49(4): 67-73.
22. Nancy, M.D. 2000. *Common Knowledge: How Companies Thrive by Sharing What They Know*, Harvard Business School Press, Boston, MA.
23. M.F. Nurliza, U.C Eze and G.G..Goh. 2010. Key determinants of knowledge sharing in an electronics manufacturing firms in Malaysia, *Library Review*. 60(1): 53-67.
24. Parirokh, M., Daneshgar, F. and Fattahi, R. 2008. Identifying knowledge-sharing requirements in academic libraries, *Library Review*, 57(2): 107-22.
25. Reid, F. 2003. Creating a knowledge sharing culture among diverse business units, *Employment Relations Today*, 30(3): 43-9.
26. Reagans, R. and McEvily, B. 2003. Network structure and knowledge transfer: the effects of cohesion and range, *Administrative Science Quarterly*, 48: 240-67.
27. Robbins, S. P., and Barnwell, N. 1994. *Organization theory in Australia* (2nd ed.). New York, USA: Prentice Hall of Australia Pty Ltd.
28. Saleh, S.D., Wang, C.K. 1993. The management of innovation: strategy, structure and organizational climate", *IEEE Transactions on Engineering Management*, 40(1): 497-510.
29. Sandhu, M., Jain, K., & Ahmad, I. 2011. Knowledge sharing among public sector employees: Evidence from Malaysia. *International Journal of Public Sector Management*, 24, 206–226.
30. Sanchez, M.P.S. and Palacios, M.A., 2007. Knowledge-based manufacturing enterprises: evidence from a case study", *Journal of Manufacturing Technology*, 19(4): 447-468.
31. Smith, K.G., Collins, C.J. and Clark, K.D., 2005. Existing knowledge, knowledge creation, capability, and the rate of new product introduction in high-technology firms, *Academy of Management Journal*. 48(2): 346-57
32. Smith, W.K. and Tushman, M., 2005. Senior teams and managing contradictions: on the team dynamics of managing exploitation and exploration, *Organization Science*, 16(5): 522-36.
33. Spear, S., Bowen, H.K., 1999. Decoding the DNA of the Toyota production system. *Harvard Business Review*. September–October, 96–106.
34. Subramaniam, M. and Youndt, M.A., 2005. The influence of intellectual capital on the types of innovative capabilities, *Academy of Management Journal*, 48(3): 450-63.
35. Seba, I., Rowley, J and Lambert, S. 2012. Factors affecting attitudes and intentions towards knowledge sharing in the Dubai Police Force". *International Journal of Information Management*, 2: 1-9.
36. Taylor, W.A., Wright, G.H., 2004. Organizational readiness for successful knowledge sharing: challenges for public sector managers. *Information Resources Management Journal*. 17 (2): 22-37.
37. Thompson, V.A. 1965. Bureaucracy and innovation. *Administrative Science Quarterly*. 5(1): 1-20.
38. Guimaraes, T and Langley, K., 1994. Developing innovation benchmarks: An Empirical Study. *Benchmarking for Quality Management and Technology*. 1(3): 3-20.
39. Tsai, W. 2001. Knowledge transfer in intra-organizational networks: effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*. 44(5): 996-1004.
40. Tushman, M.L. and O'Reillh, C.A. III, 1996. Ambidextrons organizations: managing evolutionary and revolutionary change. *California Management Review*, 38(4): 8-30.
41. Walker, R.M., 2005. Innovation and organizational performance: a critical review of the evidence and a research agenda, *Academy of Management Best Conference Paper 2005*, PNP: B1-B6
42. Willem, A., and Buelens, M., 2007. Knowledge sharing in public sector organizations: The effect of organizational characteristics on interdepartmental knowledge sharing. *Journal of Public Administration Research and Theory*, 17, 581-607.
43. Wolff, J.A. and Pett, T.L., 2004. Small-firm performance: modeling the role of product and process improvements. *Journal of Small Business Management*, 44 (2): 268-84.