

Impact of Knowledge Management on Organizational Performance: An Overview

M. Shakeel Ahmed¹, Dr.Fiaz², Dr. Mohammad Shoaib³

Institute of Business and Management, University Of Engineering and Technology, Lahore

Received: February 28, 2014

Accepted: April 13, 2014

ABSTRACT

The purpose of this paper is to provide an overview about knowledge management practices and its effect on the performance of an organization. In the present era of knowledge, the survival of any organization without knowledge management is impossible, as an organization has to operate within a dynamic environment. Employee turnover is also a serious threat for economic sectors based on technical knowledge. In order to gain and maintain competitive advantage organizations are required to manage its knowledge resources.

For this purpose already existing literature has been summarized which shows a significant impact of knowledge management activities i.e. Knowledge acquisition, knowledge conversion, knowledge application, storage and protection on organizational performance. This study will be helpful to provide a conceptual understanding about the knowledge management activities and their impact on an organization's performance. It will also assist organizations to understand most important knowledge management activities adopted by leaders in the industry. By implementing these knowledge management activities other organizations can also improve their performance.

KEY WORDS: Knowledge management, Performance, Knowledge acquisition, knowledge conversion, knowledge application, knowledge storage, knowledge protection.

1-INTRODUCTION

Continuous and fast improvements in information technology have resulted in a new economic age. Knowledge management has grown naturally in twenty first century and most frequently discussed in some business communities. In today's knowledge based economy it has more importance as it enhances the organization's ability to manage knowledge. For an organization, it is necessary to manage its resources and if knowledge management is carefully applied then it can be a source of competitive advantage over other organizations[1].The basic justification of any organization's existence and capability is to create, transfer and apply knowledge in a rationalized way[2]. Knowledge management supports the already prevailing knowledge by acquisition and conversion into organizational knowledge which will be distributed among and utilized by employees. Employees not only use this knowledge but also create new knowledge which converts into organizational knowledge with the passage of time. Knowledge management is also the management of organizational knowledge which can enhance numerous dimensions of organizational performance by acting more intelligently[3].

Numerous well-known companies are considering processes related to work based on knowledge to gain advantage on rivals by enhancing creativity [4].It is stated that there are phases in the progress of an economic growth. In first phase resources including labor and those inherited from nature are consumed. In the second phase heavy amount of money is invested in infrastructure facilities to boost economic development. In third phase knowledge is deployed .It assists advancement in technical field which enhances productivity. High productivity facilitates to maintain a high progress rate. Knowledge management activities and corporate performance are interrelated. Operationalization of knowledge management activities affects an organization's performance. So if organizations execute activities related to knowledge management in a better way, organizational performance is also enhanced [5].Management of knowledge can enhance the simultaneously knowledge creation in qualitative and quantitative terms. It can improve rationale of knowledge worth [6].

The most important characteristic of knowledge is that it is always unique and original in nature. Knowledge created once cannot be copied so it is a strategic asset for an organizations [7, 8].It is compulsory to manage the organizational procedures which support knowledge to become a source of competitive advantage [9].

2-Why to Manage Knowledge

Knowledge loss is a very important issue that can affect an organization severally and it can be defenseless in adverse economic situations as well as in flourishing economic progress time. Knowledge loss may be caused by employee dismissals, leaving an employee organization after tenure completion, employee switching to other

organization, gaining control of the organization by any other entity or unification of two businesses. Knowledge loss can destroy the advantage on rivals. Organizations are worried about that in the absence of knowledge management organizational knowledge can be destroyed if an employee exits an organization [10].

It is also stated that extraordinary knowledge holding complications are faced by many businesses due to demographic change in staff [11]. It is assumed that in upcoming years most critical issue for society and organizations is workforce getting old [12]. Outcome of this workforce retirement will be loss of knowledge related to some particular job and business [13]. It is stated that new workers incoming to skilled categories for job are very low in number and a lot of companies have understood the significance of tacit knowledge held by employees when employees are no more with the company. Businesses are not in a position to bear the loss of proficient knowledge so there is a need to discover the methods so that the knowledge held by people in their minds can be converted to organizational knowledge before they exit from an organization [14]. Loss of knowledge within an organization affects the ability to invent, reducing the ability to chase progress and destabilization of low cost strategy. It provides competitors an advantage [15].

3-Knowledge and its Nature

Knowledge has the capability to use evidence and impact choices [16]. It has also capacity to act adequately [17]. The ability of learning is an exceptionally paramount asset for taking in new things, tackling issues, and making central capabilities [18]. Yet for knowledge to make input it should be changed over into skills [19]. There are some curious aspects of knowledge, for example, it is immaterial and troublesome to measure, however once in a while builds through utilization [20]. It is important to overhaul and allotment of knowledge in place to prevail over the issue of learning dormancy. Concerning the refinement between information and knowledge it is stated that information is converted into knowledge when it enhances understanding [21].

4-Knowledge Management

Knowledge management is an organization's organized and intentional struggle to expand, nurture and utilize available knowledge for value addition and the accomplishment of its predefined objectives [22]. Knowledge management consists of processes or methods utilized to collect knowledge of different knowledge management operations. It results an organization to act wisely to protect its success by assuring that how valuable are its knowledge assets [23].

American productivity and quality center defined knowledge management as: "Knowledge management is an emerging set of strategies and approaches to create, safeguard, and use knowledge assets, including people and information, which allows knowledge to flow to the right people at the right time so that they can apply these assets to create more value for the enterprise" [24]. It is stated that knowledge management is determined by flow of knowledge within an organization. It includes creation of knowledge related to innovation, circulation of knowledge when it is required, knowledge storage for upcoming days, assimilation and appliance within the whole organization [25]. Companies spend huge amount of money on knowledge management because they are motivated by long term benefits which can be gained by efficiently organizing knowledge assets [26].

4.1-Knowledge Management Process

Knowledge management process consists of following activities.

4.1.1-Knowledge Acquisition

It is the practice that involves the events of approachability and accumulation of knowledge. It describes that how knowledge is attained from numerous sources within and outside the organization [27].

4.1.2-Knowledge Conversion

Knowledge attained from different resources within and outside the organization is unproductive if it is not transformed into a beneficial practicable form. It will enhance output and business processes [28]. It is declared that information could be changed over. It has been proposed four phases of information change, including socialization, externalization, combination and internalization [29]. It is hypothesized that the learning transformation methodology is a winding that extends between the conversion from inferred into express learning, furthermore the ensuing re-change from express into inferred learning. They indicated that inferred information is explicated or classified dependent upon the deciding consequence of the learning transformation winding, which is inferred from the connections between express and implied learning.

Four methods of knowledge conversion are:

- 1-Socialization is the procedure of changing over implicit learning into new implied information.
- 2-Externalization is the methodology of expressing implied information into express learning.

3-Combination is the methodology of changing over unequivocal learning into additional complex and efficient sets of express learning.

4-Internalization is the procedure of exemplifying unequivocal learning into implicit information [30].

An organization has the capacity to produce new learning through the transformations between the particular, inferred learning of people who are equipped for preparing imaginative bits of knowledge, and the imparted unequivocal learning, which the association requires to start new items and to advance [31]. The entire organization offers unequivocal information made and changes over it into inferred learning for people. This procedure could be portrayed as "taking in by doing". The dynamism of learning transformation begins at the singular level furthermore grows as it travels through groups of cooperation, transcending sectional, departmental, divisional, or even organizational verges. Thusly, new spirals of learning creation could be triggered by extending both evenly and vertically over organization, transforming a nonstop self-redesigning procedure [32].

4.1.3-Knowledge Application

It is a crucial component of management of knowledge. The worth of personal knowledge and managerial knowledge possessed by an organization exists on the factor that how effectively it is applied. Knowledge use facilitates organizations constantly to transform their organizational proficiency into material outputs [33].

4.1.4-Knowledge Protection

For an organization knowledge safety is the main issue .To secure knowledge demands perfect and comprehensive procedures to confirm that knowledge resources are harmless every time. It is needed to guarantee that knowledge is secure and retrieved by only sanctioned persons [34].

4.1.5-Knowledge Storing

Knowledge can be put in storage inside the firm in firm's memory which can take the form like printed documents, arranged material stored in electronic files, classified human knowledge stockpiled in professional systems ,written organizational practices. It also includes nonphysical means and also systems outside the organization [33].

5-Organizational Performance

One view about performance is that performance is the prospective source of competitive advantage and market performance in the form of market positioning. While market positioning is the collective set of knowledge concentrated activities which includes an organized collection of present and prospective information related to customers and competitors, organized analysis of information for development of market knowledge which can be used for strategy formulation, implementation and modification [35].

Other view has focused on human resources and specified importance of the human resource contribution in performance including well organized unified human capital asset base, employees ability to learn, customer and shareholder satisfaction [36].

6-Knowledge Management and Organizational Performance

In a dynamic environment, business performance is highly dependent on a firm's ability to acquire and absorb prospects of new product market and less on size, geographical scope, organizational structure and physical resources of an organization [37].

Literature shows that knowledge acquirement and knowledge sharing within an organization resulted in enhancement of productivity [38].Hierarchy of a firm is an important contributor to an organization's performance due to its importance for knowledge flow [2].Performance can be enhanced if organizational components inhabit central network positions which facilitates access to new knowledge developed by other units within an organization [39].By identification of knowledge development, knowledge application and knowledge leveraging and their different effects on performance, links have been identified between knowledge and performance [40].

It has been observed that in professional service industry knowledge management system has reduced the operational cost of the firm or increased product quality. It is also said that basically all knowledge management system's objective is to reduce costs by applying knowledge available in an organization and to improve service quality by enabling knowledge creation [41].

It is argued that if knowledge management is conducted properly it can lead a firm to the strategic consequences in the form of increasing firm output which will lead to competitive advantage, increasing responsiveness [42] ,maximizing intellectual assets, nurturing customer loyalty [43], increasing innovation and generating value for shareholders [44].The resource based theory states that firms are able to gain and maintain competitive advantage by the help of unique firm resources that are valuable, exceptional, difficult to copy and cannot be replaced by other resources [45].

It is thought that a knowledge management system that enlarges the creativity cover will enhance the innovation process by faster access and flow of new knowledge [46]. Organizational interest in knowledge management is encouraged by the option of benefits which may result in the form of increased product or service creativity and innovation [47]. In reality knowledge contributes to creative thoughts production and breeding innovation [48]. A firm with a competence in knowledge management will be more innovative [49]. The company realized enhancements in innovation and positive impact on performance by implementing knowledge management strategy [50]. There is a close relationship between the organization's knowledge and its capability to innovate and create [48]. Gold [27] has scrutinized the issues which can hinder the effective knowledge management from the organizational capabilities prospective and identified that knowledge infrastructure capability and knowledge process capability are the enablers of organizational effectiveness. Lee [51] analyzed the relationship between knowledge management procedures and organizational creativity and concluded that knowledge management processes are important forecasters for organizational creativity. Suzana [52] analyzed the important role of knowledge management practices in enhancing the performance of organizations and identified that knowledge management practices were important conditions for defining and enhancing organizational performance. Chang [53] observed the effective knowledge management processes from the prospective of the role of infrastructure capability and business strategy on firm's performance and results confirmed the impact of knowledge management practices on firm performance. Mills [34] analyzed the knowledge resources effect on firm performance and identified that some knowledge resources including structure and acquisition are directly related to organizational performance, while others including technology and culture are not directly related to organizational performance.

7-Conclusion

The literature discussed in this study shows that there is a positive relationship between knowledge management and organizational performance. Knowledge creation, transfer and application are necessary for an organization's survival. In absence of knowledge management organizations will suffer in case of high employee turnover. Especially in case of services sector where deliverable is inseparable and customized solution is needed in response to a query. In absence of knowledge management a permanent customer whose background information is already with the organization but not being managed properly can be lost. Knowledge will be utilized by organizational staff for performing routine activities. Knowledge gained by employees and utilized in routine business activities results in creativity which results in product or service innovation. Product or service innovation leads an organization to customer satisfaction. Knowledge management also reduces product or service cost by enhancing operational flow and reducing wasteful activities. By implementing knowledge management activities organizations can gain advantage in the form of high quality products and services. By managing knowledge firms can also respond quickly to the environmental changes. In this way organizations can retain existing as well as new customers providing them frequently innovative products and services. It will result in loyal customers and more financial gains. So organizations which are in lack of implementing knowledge management systems can improve their performance by implementing knowledge management practices adopted by other successful organizations. There is also need to identify other factors which can effect knowledge management. Without considering their importance some organizations implemented knowledge management systems but failed to achieve desired objectives.

REFERENCES

1. Jennex, M. E. (2007). *Knowledge Management in Modern Organizations*. Sandiego: Sandiego University.
2. DeCarolis, D.M. and Deeds, D.S. (1999). The impact of stocks and flows of organizational knowledge on firm performance: An empirical investigation of the biotechnology industry. *Strategic Management Journal*, 20, 953-986.
3. Gupta, B. Lyer, L. S. and Aronson, J.E . (2000). *Knowledge Management: practices and challenges*. *Industrial Management & Data Systems.*, 100(1), 17-21.
4. McCartney, L. (1998). Getting smart about knowledge management. *Industry Week.*, 247(9), 30-37.
5. Thurow, L. C. (1999). *Building Wealth: The New Rules for Individuals, Companies, and nations in a Knowledge-Based Economy*. New York: Harper Business.
6. Chang, T. C., and Chuang, S. H. (2009). Performance Effects of Knowledge Management: Corporate Management Characteristics and Competitive Strategy Enablers. *Asian Journal of Management and Humanity Sciences.*, 4(4), 185.

7. Cabrera, A. and Cabrera, E.F. (2002). Knowledge sharing dilemmas. *Organization Studies*, 23(5), 687-710.
8. Grant, R.M.(2002.). *Contemporary strategy analysis:Concepts,Techniques & applications*. (4th edition. ed.). Boston.: Blackwell Publishers.
9. Alavi, M. and Leinder,D.E. (2001). Knowledge management and knowledge management systems:Conceptual foundations and research issues. *MIS Quarterly*,25, 107-136.
10. Martins, E.C. and Meyer,H.W.J. (2012). Organizational and behavioral factors that influence knowledge retention. *Journal of knowledge management*, 16(1), 77-96.
11. DeLong, D. (2003). Better practices for retaining organizational knowledge:lessons from the leading edge. *Employment Relations Today*, 30(3), 51-63.
12. Nicholson, N. (2008). Empower the next generation. *Communication World*, 25(2), 14-18.
13. Gotthart, B. A. (2009). How Hewlett-Packard minimizes knowledge loss. *International Journal of Human Resources Development and Management*, 9(2/3), 305.
14. Brown, M. A.(2009). Aging workforce: How will companies, workers cope? *Plant Engineer*, 36(10), 11.
15. DeLong, D. (2004). *Lost Knowledge: Confronting The Threat of an Aging Workforce*. Oxford.Oxford University Press.
16. Watson, R. (1999). *Data management: databases and organizations* (2nd ed.). New York: John Wiley.
17. Benbya, H. P. (2004). Corporate portal: A tool for knowledge management synchronization. *International Journal of information management.*, 24(3), 201-220.
18. Liao, S. H. (2003). Knowledge management technologies and applications-literature review from 1995 to 2002. *Expert Systems with Applications.*, 25(2), 155-164.
19. Johannessen, J. A., & Olsen, B. (2003). Knowledge management and sustainable competitive advantages: the impact of dynamic contextual training. *International Journal of Information Management.*, 23(4), 277-289.
20. Wiig, K. M. (1997). Supporting knowledge management: a selection of methods and techniques. *Expert Systems With Applications* , 13 (1), 15-27.
21. Spiegler, I. (2003). Technology and knowledge: bridging a “generating” gap. *Information & Management.*, 40(6), 533-539.
22. Holsapple, C. W. and Joshi,K. (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.
23. Wiig, K.M. and Jooste, A. (2003). *Handbook on Knowledge Management*. (Vol. 2). Berlin,: Springer-Verlag.
24. Mahmoudsalehi,M.Roya, M. and Khalil, S. (2012). How knowledge management is affected by organizational structure. *The learning organization.*, 19(6), 518.
25. Spek, R., and Spijkervet, A. (1997). *Knowledge Management: Dealing Intelligently with Knowledge*. New York: CRC Press.
26. Lee, L.T. and Sukoco, B.M. (2007). The effects of entrepreneurial orientation and knowledge management capability on organizational effectiveness in Taiwan: The moderating role of social capital. *International Journal of Management*, 24(3), 549-573.
27. Gold, A., Malhotra, A. and Segars, A. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems.*, 18(1), 185-214.
28. Smith, T. M. (2010). Linking Knowledge Management Capabilities to the Business Strategy for Organizational Effectiveness. *International Journal of Knowledge Management*, 6(3), 22-43.
29. Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37.
30. Nonaka, I. and Takeuchi, H. (1995). *The Knowledge-Creating Company:How Japanese Companies Create the Dynamics of Innovation.*, Oxford.: Oxford University Press.
31. Lemon, M. and Sahota, P.S. (2004). Organizational culture as a knowledge repository for increased innovative capacity. *Technovation*, 24, 483-498.

32. Tseng, S. (2010). The correlation between organizational culture and knowledge conversion on corporate performance. *Journal of Knowledge Management*, 14(2), 269-284.
33. Zaim, H. T. (2007). Performance of knowledge management practices: a causal analysis. *Journal of Knowledge Management*, 11(6), 54-67.
34. Mills, A. and Smith, T. (2011). Knowledge management and organizational performance: a decomposed view. *Journal of Knowledge Management*, 15(1), 156-171.
35. Hunt, S. D. and Robert, M. Morgan. (1995). The comparative advantage theory of competition. *Journal of marketing*, 59, 1-15.
36. Rogers, E.W. (2001). A theoretical look at firm performance in high-tech organizations: what does existing theory tell us? *Journal of High Technology Management Research*, 12, 39-61.
37. Teece, D.J. Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18, 509-533.
38. Darr, E.D. Argote, L. and Epple, D. (1995). The acquisition, transfer, and depreciation of knowledge in service organizations: productivity in franchises. *Management Science*, 41(11), 1750-1762.
39. Tsai, W. (2001). Network transfer in intraorganizational networks: effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44(4), 996-1004.
40. Kalling, T. (2003). Knowledge management and the occasional links with performance. *Journal of Knowledge Management*, 7(3), 67-81.
41. Ofek, E. and Sarvary, M. (2001). Leveraging the customer base: creating competitive advantage through knowledge management. *Management Science*. 47(11), 1441-56.
42. Wiig, K.M. and Jooste, A. (1995). *Knowledge management foundations-thinking about thinking-how people and organizations create, represent, and use Knowledge*. Texas: Schema Press Arlington.
43. Housel, T.J. and Bell, A.H. (2001). *Measuring and managing knowledge*. New York: McGraw-Hill.
44. Amidon, D. (1997). *Innovation strategy for the knowledge economy: The Ken awakening*. Boston: Butterworth Heinemann.
45. Amit, R. Schoemaker, P. J. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33-46.
46. Majchrzak, A. Cooper, L. P. and Neece, O. E. (2004). Knowledge reuse for innovation. *Management Science*, 50(2), 174-188.
47. Moffett, S. McAdam, R. and Parkinson, S. (2002). Developing a model for technology and cultural factors in knowledge management: A factor analysis. *Knowledge and Process Management*, 9(4), 237-255.
48. Borghini, S. (2005). Organizational creativity: Breaking equilibrium and order to innovate. *Journal of Knowledge Management*, 9(4), 19-33.
49. Darroch, J. (2005). Knowledge Management, Innovation, and Firm Performance. *Journal of Knowledge Management*, 9(3), 101-115.
50. Massey, A. P. Montoya-Weiss, M. M., and O'Driscoll, T. M. (2002). Knowledge management in pursuit of performance: Insights from Nortel networks. *MIS Quarterly*, 26(3), 269-289.
51. Lee, H. and Choi, B. (2003). Knowledge management enablers, processes and organizational performance: An integrative view and empirical examination. *Journal of management information systems*, 20(1), 179-228.
52. Suzana, R. and Kasim, R. (2010). The Relationship of Knowledge Management Practices, Competencies and the Organizational Performance of Government Departments in Malaysia. *International Journal of Human and Social Sciences*, 5(4), 219-225.
53. Chang, T. and Chuang, S. (2011). Performance implications of knowledge management processes: Examining the roles of infrastructure capability and business strategy. *Expert Systems with Applications*, 38, 6170-6178.