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# IMPACT OF ORGANISATIONAL FACTORS ON THE KNOWLEDGE SHARING PRACTICE OF TEACHERS WORKING IN HIGHER EDUCATION SECTOR

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**ABSTRACT**

The current study aims to explore the various organizational factors that influence the knowledge sharing practices of teachers working in higher education sector. The study hypothesized the impact of various organizational factors on the knowledge sharing practices of teachers working in higher education sector. The data required for the study has been conveniently collected from 250 teachers working in various higher educational institutions in the Kerala state. The study used PSL SEM for analysis and found that the organizational factors explain 63.7% the knowledge sharing practice among the teachers working in the higher education sector of the state. Each organizational factor selected in the study influence significantly the knowledge sharing practice.

**Keywords:** Knowledge Sharing Practices, Organizational Factors, Higher Education, Partial Least Square, PLS.

## 1. The Context

Knowledge is abstract, epistemologists have been constantly trying to uncover its real meaning as it cannot be observed or touched. Sharing knowledge involves communicating knowledge within a group of people with the aim of utilising available knowledge to improve group performance. Effective knowledge management processes supported by effective knowledge sharing can greatly improve the work quality, efficiency and competency that can benefit the individual and the organisations positively.

Davenport (1997) defined knowledge sharing as *voluntary* and distinguished it from reporting. While reporting involves the exchange of information based on some routines or structured formats, sharing implies a voluntary act by an individual who participates in the knowledge exchange even though there is no compulsion to do so. According to Hendriks (1999), knowledge sharing suggests a relationship between at least two parties—one that possesses the knowledge and the other that acquires the knowledge. Individuals in organizations have always created and shared knowledge and therefore knowledge sharing was considered to be an activity that took place automatically.

Knowledge sharing involves the interaction of activities that include dissimilation, feedback and absorption between individuals (Davenport and Prusak, 2000). The sharing of knowledge is recognised as a main and vital component of knowledge management, which requires academics' willingness to exchange and disseminate knowledge, consequently ensuring knowledge becomes available and is made known to academics (Sohail and Daud, 2009). Enabling efficient knowledge sharing in organizations is not easy. The challenges are often related to motivating people to share knowledge, identifying the key people to share their knowledge, organizing the existing knowledge and making knowledge easily accessible (Logan, 2006).

Academic institutions are confronted by number of challenges that can be alleviated through sound knowledge management and sharing practices. The proliferation of information has transmuted competitive success to be based on comprehensive knowledge and intellectual capital management.

Higher education is of very significant in any society as it contribute to the socioeconomic development. The quality of higher education mainly depends on the quality and competence of the teachers working in the sector (Areekkuzhiyil, 2014). The teacher is considered the key element for the success of any system of education (Yin, 1996). Being a knowledge worker, knowledge sharing is an important to the teachers in higher education, which facilitate their professional development, contribute to the growth of higher education institutions, and the entire academic community.

There are a variety of factors which facilitate and interfere with the knowledge sharing practices of teachers working in higher education sectors. It may be personal, social or organizational factors. In the present study the impact of various organizational factors on the knowledge sharing practice of teachers working in higher education sector has been analysed.

**2. Review of Related Literature**

Black and Armstrong (1995) reported that the popular ways of knowledge sharing were peer coaching and mentoring. Meenakshi (2002) stated that teachers preferred informal sharing than formal means. Knowledge sharing is a dynamic process mediated by complex factors that exist at the organizational, group, and individual levels (Andrews & Delahaye, 2000; Davenport & Prusak, 1998). O'Reilly and Pondy (1980) indicated that there is a positive relationship between rewards and knowledge sharing behaviour among individuals. The relationship between knowledge sharing and incentives was further supported by case studies (Gupta & Govindarajan, 2000; Quinn et al., 1996) which found that significant changes had to be made in the incentive system to encourage individuals to share their knowledge, particularly through technology based networks in the organizations. Yet there appear to be inconsistencies in the literature regarding the role of tangible rewards as means to enhance knowledge sharing in organizations. While there are those who perceive rewards and incentives to be indispensable to knowledge sharing, others argued that the only reason that professionals participate in knowledge sharing activities is the intrinsic reward that comes from the work itself (Tissen, Andriessen, Deprez, 1998). There is also some evidence for knowledge sharing that was not motivated by any tangible rewards (e.g. Constant, Sproull, & Kiesler, 1996). Yet others who argued against the use of incentives to share knowledge claim that in the long run, unless knowledge sharing activities help employees meet their own goals, rewards will not help to sustain the system (O'Dell & Grayson, 1998).

Culture is another factor that has proved to have a significant influence on knowledge sharing behavior in organizations. Regardless of how strong an organization's commitment is to knowledge management, it has been found that the influences of the organization's culture are much stronger (O'Dell & Grayson, 1998). Due to the very complex nature and influence of culture, organizational culture is increasingly being considered a major barrier to effective knowledge sharing in organizations (DeLong & Fahey, 2000; Leonard-Barton, 1995). Empirical evidence of the relationship between culture and knowledge sharing was found among other by Leonard-Barton, 1995, and Pan and Scarborough (1999).

Bock et al (2005) summarize the factors of organizational climate that have an influence on individual's knowledge sharing behavior to be climate where individuals highly trust each other and the organization, climate that is open with free-flowing information, climate that is tolerant of failure and climate where pro-social norms and willingness to help are valued. Rewards have been seen to increase and impede knowledge sharing. Huber (2001) found extrinsic rewards influencing knowledge-sharing behavior negatively whereas Garfield (2006) and Riege (2005) saw rewards for knowledge-sharing actions increasing the behavior.

The studies of Vazquez, Fournier, and Flores (2009), Bures (2003), Riege (2005), Bock, Zmud, Kim, and Lee (2005) and Ardichvili, Page, and Wentling (2003) investigate the impacts of culture on knowledge sharing practices.

Other factors that have been identified as influencing knowledge sharing behaviour are sensitivity of knowledge (Weiss, 1999), organisational support and motivation (Szulanski, 2000; von Hippel, 1994), reciprocity and open communication (Nahapiet & Ghoshal, 1998) and trust (Andrews & Delahaye, 2000; Ghoshal and Bartlett, 1994).

**3. Variables in the Study**

From the review of relevant theories and review of earlier studies, four important organizational factors have been selected for analysis in this study. They are: (i) Open Communication, (ii) Organisational Culture, (iii) Organisational Support and (iv) Mutual Trust. These became the independent variables in the study. The dependant variable selected for the study is the knowledge sharing practice.

**3.1. Open Communication**

Knowledge sharing includes the process of receiving and giving or donating. This requires free and open communication within the group. When there is an atmosphere of free and open communication in the organization, the members of the organization are willing to share their knowledge. The rigidity and blaming environment will be detrimental to the knowledge sharing process.

**3.2. Organisational Culture**

Organizational culture is a system of shared assumptions, values, and beliefs, which governs how people behave in organizations. These shared values have a strong influence on the people in the organization and dictate how they dress, act, and perform their work. In the context of knowledge sharing practice of teachers working in higher education sector, the organizational culture will have a significant impact. It can be expected that there are variances with regards to knowledge sharing behaviours, depending on the nature of the cultural dimension that is practiced within an organisation (Ardichvili, Maurer, Li, Wentling, & Stuedemann, 2006). The characteristics of organizational culture that has been pointed out as being influential in the establishment of a knowledge sharing behaviour within an organization include being open to change and being innovative. In addition, it has also been noted that having a shared vision among the members of the workforce is an essential determinant of culture that will have an influence on knowledge sharing (Ladd & Ward, 2002).

**3.3. Organiasational Support**

Organizational support was proven to increase knowledge sharing by resulting in higher use of IT. The use of IT was more related to sharing explicit knowledge than tacit knowledge, proving that technology alone does not support efficient knowledge sharing. Organizational support in regard to superiors' attitude, training and sanctions, found significant effect on knowledge sharing.

**3.4. Mutual Trust**

Knowledge sharing is a give and take process. In this process the mutual trust between the persons involved is highly important. Trust between the receiver and giver of knowledge is a facilitator of knowledge sharing practices in any organization.

**4. Objective of the Study**

The study has been designed with the objective of identifying the impact of different organizational factors on the knowledge sharing practices of teachers working in higher education sector.

**5. Hypotheses**

In accordance with the objectives of the study and based on the review of related theories and earlier studies, the following hypotheses have been formulated and tested for significance.

Organisational factors have a significant impact on the knowledge sharing practices of teachers working in higher education sector.

i. Open communication in the institution has a significant impact on the knowledge sharing practices of teachers working in higher education sector.
ii. Organisational culture of the institution has a significant impact on the knowledge sharing practices of teachers working in higher education sector.
iii. Organusational support has a significant impact on the knowledge sharing practices of teachers working in higher education sector.
iv. Mutual trust has a significant impact on the knowledge sharing practices of teachers working in higher education sector.

**6. Research Model**

Based on the review and the objectives of the study, the following research model has been designed.


*Fig.1: Research Model*

**7. Development and Administration of the Tool**

On the basis of review of literature, a list of statements regarding the organizational variables which potentially influence the knowledge sharing practices of teachers working in higher education sector has been prepared. The responses of the respondents (concerning the importance of these variables in determining the organizational stress) to these variables were anchored on a five point Likert type scale. The scale was pretested for validity and clarity on respondents conveniently selected from the relevant population. Following pretesting, the scale has been administered to the teachers working in different institutions of higher education in the state f Kerala.

**8. Methodology**

The epistemology on which the present study has been based is positivism. The assumption is that the variables under the study can be objectively measured and analysed to arrive at the finding. Hence the investigator followed quantitative methodology based on the principles of empiricism. The data required for the study has been collected from 250 teachers conveniently drawn from the various

higher education institutions in the state of Kerala. Casual modeling technique namely, Partial Least Squares (PLS) has been used for the purpose of analysis.

**9. Measurement Model**

PLS examine the relationship among the constructs that cannot be directly measured and the model is composed of two parts that will be tested separately: the measurement model and the structural model. The analysis of the measurement model is required to ensure the reliability and validity before drawing any conclusion. To analyse the measurement model individual item reliability, internal consistence and discriminant validity are tested. The details of the results of the PLS has been presented in table 1.

*Table 1: Result Summary for Reflective Outer Model*

| Latent Variable | Indicators | Loadings | Loading (indicator reliability) | Composite Reliability | AVE |
|---|---|---|---|---|---|
| Knowledge Sharing | KS-1 | 0.771 | 0.594 | 0.776 | 0.655 |
| | KS-2 | 0.753 | 0.567 | | |
| | KS-3 | 0.746 | 0.557 | | |
| | KS-4 | 0.721 | 0.520 | | |
| Open Communication | OPCMN-1 | 0.846 | 0.716 | 0.764 | 0.692 |
| | OPCMN-2 | 0.792 | 0.627 | | |
| | OPCMN-3 | 0.883 | 0.780 | | |
| Organisational Culture | ORGCLTR-1 | 0.709 | 0.503 | 0.887 | 0.545 |
| | ORGCLTR-2 | 0.864 | 0.746 | | |
| | ORGCLTR-3 | 0.882 | 0.778 | | |
| | ORGCLTR-3 | 0.794 | 0.631 | | |
| Organisational Support | ORGSPRT-1 | 0.806 | 0.650 | 0.887 | 0.665 |
| | ORGSPRT-2 | 0.845 | 0.714 | | |
| | ORGSPRT-3 | 0.789 | 0.594 | | |
| | ORGSPRT-4 | 0.735 | 0.567 | | |
| | ORGSPRT-5 | 0.731 | 0.557 | | |
| Mutual Trust | TRST-1 | 0.850 | 0.520 | 0.871 | 0.612 |
| | TRST-2 | 0.841 | 0.716 | | |
| | TRST-3 | 0.804 | 0.627 | | |

**9.1. Individual Item Reliability**

Individual item reliability has been tested by examining the individual loadings of the measures to see the links between measures and factors. Table 1 summarizes the loadings. Items with loadings of 0.7 or more imply that there is much more shared variance than error variance between the construct and its measure (Hulland, 1999) and 19 measures fill the criteria. A loading of less than 0.5 means that more variance is due to error and those items should be dropped (Hulland, 1999). Thus one measures that were below 0.5 were dropped.

**9.2. Internal consistency (Reliability)**

Internal consistency, seeks to assure that there is correlation among the measures, meaning that measures for the same construct produce similar results. Internal consistency was assessed by examining composite reliability values. Acceptable composite reliability level is 0.7 (Hulland, 1999), and as shown in table 1, all factors are above that acceptable level.

**9.3. Convergent Validity**

To check the convergent validity, each latent variable's Average Variance Extracted (AVE) has been evaluated. From the table 1 it was found that all the values of AVE are greater than the acceptable threshold of 0.5. Hence the convergent validity has been confirmed.

**9.4. Disciminant Validity**

Fornell and Larcker (1981) suggest that the square root of AVE in each latent variable can be used to establish discriminant validity, if this value is larger than other correlation values among the latent variables. To do this, a table is created in which the square root of AVE is manually calculated and presented in bold on the diagonal of the table. The correlations between the latent variables are taken from the "Latent Variable Correlation" section of the report of the PLS output and are placed in the lower left triangle of the table (see table 2). The result indicates that discriminant validity is well established.

Table 2: Fornell-Larcker Criterion Analysis for Checking Discriminant Validity

| | Knowledge Sharing | Open Communication | Organisational Culture | Organisational Support | Mutual Trust |
|---|---|---|---|---|---|
| Knowledge Sharing | 0.815 | | | | |
| Open Communication | 0.617 | 0.832 | | | |
| Organisational Culture | 0.355 | 0.385 | 0.738 | | |
| Organisational Support | 0.477 | 0.560 | 0.471 | 0.815 | |
| Mutual Trust | 0.421 | 0.452 | 0.575 | 0.491 | 0.782 |

**10. Structural model**

The structural model specifies the relations between constructs (Cool et al, 1989) allowing to test the hypotheses of the study. Analysis of relationships between constructs and their explained variance is done by assessing path coefficients and $R^2$ values. The figure 2 gives the PLS SEM result for the reflective model .

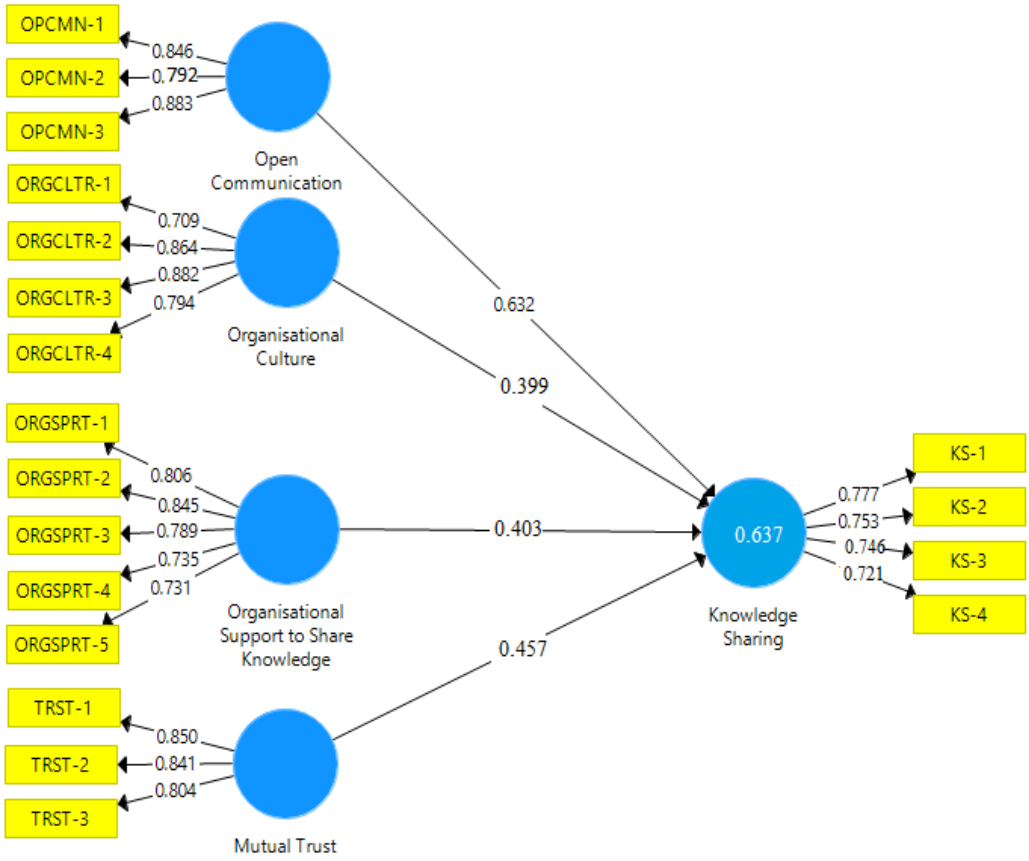


*Fig.2: Impact of Organisational Factors on Knowledge Sharing Practice*

The coefficient of determination tells to what extent a variable is explained by the model. Table 3 and 4 shows the overview of coefficient of determination of variables in the model.

*Table.3: Quality Criteria for the Model*

| Variable | R Square | t value | P Value |
|---|---|---|---|
| Knowledge Sharing | 0.637 | 4.153** | 0.000 |

** *Significant at 0.01 level*

The table 3 shows that the selected organisational variables altogether explain 63.7 % of the knowledge sharing practise of the teachers working in the higher education sector. This impact is significant at 0.01 level. (t = 4.153, p =0.000, significant at 0.01 level). Hence the hypothesis that Organisational factors have a significant impact on the knowledge sharing practices of teachers working in higher education sector has been accepted.

**11. Testing of Hypotheses using Bootstrapping**

The bootstrapping analysis is used to determine the confidence intervals of the path coefficients and statistical inference. It helps to perform statistical testing of hypotheses that is to accept or reject the hypotheses. The researcher has adopted 5000 bootstrap samples. Table 4 shows the path model (hypothesis) with its respective t-values for each and every path.

*Table 4: Path Coefficients and t Statistics*

| Path/Hypothesis | Path Coefficient | t-value | P value |
|---|---|---|---|
| Open Communication → Knowledge Sharing | 0.632 | 4.569** | 0.000 |
| Organisational Culture → Knowledge Sharing | 0.339 | 2.779** | 0.000 |
| Organisational Support → Knowledge Sharing | 0.403 | 3.276** | 0.000 |
| Mutual Trust → Knowledge Sharing | 0.457 | 3.808** | 0.000 |

** *Significant at 0.01 level*

Table 4 shows every path of the model. The details of the tested hypotheses have been described below.

The path coefficient between the variables open communication and knowledge sharing practices is 0.632, which is significant at 0.01 level (β = 0.632, t = 4.569, significant at 0.01 level). Hence the hypotheses that open communication of the institution has a significant impact on the knowledge sharing practices of teachers working in higher education sector has been accepted.

The path coefficient between the variables organisational culture and knowledge sharing practices is 0.339, which is significant at 0.01 level (β = 0.339, t = 2.779, significant at 0.01 level). Hence the hypothesis that organusational culture has a significant impact on the knowledge sharing practices of teachers working in higher education sector has been accepted.

The path coefficient between the variables organisational support and knowledge sharing practices is 0.403, which is significant at 0.01 level (β = 0.403, t = 3.276, significant at 0.01 level). Hence the hypothesis that organusational support has a significant impact on the knowledge sharing practices of teachers working in higher education sector has been substantiated.

The path coefficient between the variables mutual trust and knowledge sharing practices is 0.457, which is significant at 0.01 level (β = 0.457, t = 3.808, significant at 0.01 level). Thus the hypothesis that mutual trust has a significant impact on the knowledge sharing practices of teachers working in higher education sector has been accepted.

## 12. Conclusion

In this study the impact of organizational factors on the knowledge sharing practices of teachers working in higher education sector has been analysed and tested foe their significance. The study reveals that the organizational factors had a significant impact of the knowledge sharing practices of teachers working in higher education sector. The individual impact of all the four organizational factors selected in the study, on the knowledge sharing practices of the teachers working in higher education sector is also significant. The study reveals the significance of having open communication, good organizational culture, organizational support and mutual trust in the higher education sector for enabling higher level of knowledge sharing among the teachers.

## References

Al-Adaileh, R.M. (2011). The impact of organizational culture on knowledge sharing: The context of Jordan's phosphate mines company. *International Research Journal for Finance and Economics, 63,* 216-228.

Al-Alawi, A.I., Al-Marzooqi, N.Y., and Mohammed, Y.F. (2007). Organizational culture and knowledge sharing:Critical success factors. *Journal of Knowledge Management, 11*(2).

Alvesson, M. (1993). Organizations as rhetoric: Knowledge-intensive firms and the struggle with ambiguity. *Journal of Management Studies, 30*(6), 997-1015.

Andrews, K. M., & Delahaye, B. L. (2000). Influences on knowledge processes in organizational learning: The psychological filter. *Journal of Management Studies, 37*(6), 2322-2380.

Ardichvili, A., Maurer, M., Li, W., Wentling, T., &Stuedemann, R. (2006). Cultural influences on knowledge sharing through online communities of practice. *Journal of Know-ledge Management, 10*(1), 94-107.

Ardichvili, A., Page, V., and Wentling, T. (2003). Motivation and barriers to participation in virtual knowledgesharing communities of practice.*Journal of Knowledge Management, 7*(1), 64-77.

Areekkuzhiyil, Santhosh. (2014). Institution Building: A Prime Responsibility of Teachers Working in Higher Education Sector. *University News*, Vol.51 (52) 15-18.

Bhatt, G. D. (1998). Managing knowledge through people. *Knowledge and Process Management, 5*(3), 165-171.

Blackler, F., Crump, N., & McDonald, S. (1998). Knowledge, Organizations and Competition. In G. von Krogh & J. Roos & D. Kleine (Eds.), *Knowing in firms: Understanding, managing and measuring knowledge* (pp. 67-86). London: Sage Publications.

Bock, G.W., Zamud, R.W., Kim, Y.G., & Lee, J.N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly, 29*(1), 87-111.

Bonner, D. (Ed.). (2000). *Leading knowledge management and learning*. Alexandria, VA: American Society for Training and Development.

Brown, R. B., & Woodland, M. J. (1999). Managing knowledge wisely: A case study in organizational behavior. *Journal of Applied Management Studies, 6*(2), 175-198.

Bures, V., 2003.Cultural barriers in knowledge sharing.*E + M Economics and Management, 6*, 57-62.

Constant, D., Sproull, L., & Kiesler, S. (1996). The kindness of strangers: The usefulness of electronic weak ties for technical advice. *Organization Science, 7*(2), 119-135.

Davenport, T. H. (1997). *Information Ecology*. New York: Oxford University Press.

Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard Business School Press.

DeLong, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *The Academy of Management Executive, 14*(4), 113-127.

Empson, L. (2001). Fear of exploitation and fear of contamination: Impediments to knowledge transfer in mergers between professional service firms. *Human Relations, 54*(7), 839-862.

Guba, E.G. (1978). *Toward a methodology of naturalistic inquiry in educational evaluation*. CSE Monograph Series in Evaluation no. 8. Los Angeles: University of California, Center for the study of evaluation.

Gupta, A. K., & Govindarajan, V. (2000). Knowledge management's social dimension: Lessons from Nucor Steel. *Sloan Management Review, 42*(1), 71-80.

Hendriks, P. (1999). Why share knowledge? The influence of ICT on the motivation for knowledge sharing. *Knowledge and Process Management, 6*(2), 91-100.

Huber, G. (1982). Organizational information systems: Determinants of their performance and behavior. *Management Science, 28*(2), 138-155.

Islam, M.Z., Ahmed, S.M., Hasan, I., & Ahmed, S.U. (2011). Organizational culture and knowledge sharing:Empirical evidence from service organizations. *African Journal of Business Management, 5*(14), 5900-5909.

Jo, S.J. (2011). Knowledge sharing: The influences of organization culture, organizational commitment, and organizational citizenship behaviors. *Journal of Leadership and Organizational Studies, 18*(3), 353- 364.

Kharabshesh, R.A. (2008). A model of antecedents of knowledge sharing.*Electronic Journal of Knowledge Management, 5*(4), 419-427.

Ladd, A. & Ward, M. (2002).An investigation of environmental factors influencing knowledge transfer. *Journal of Knowledge Management Practice, 4.*

Leonard-Barton, D. (1995). *Wellsprings of knowledge: Building and sustaining the source of innovation*. Boston: Harvard Business School Press.

Lin, H.F. (2007). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower, 28*(3/4), 315-335.

McDermott, R., & O'Dell, C. (2006).Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management, 5*(1), 76-85.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.

Michailova, S. and Hutchings, K. (2006). National cultural influences on knowledge sharing: A comparison of China and Russia. *Journal of Management Studies, 43*(3), 383-405.

Mueller, J. (2012). Knowledge sharing between project teams and its cultural antecedents, *Journal of Knowledge Management, 16*(3), 435-447.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review, 23*(2), 242-267.

Nguyen, H.N., & Mohamed, S. (2011). Leadership behaviors, organizational culture, and knowledge management practices: An empirical investigation. *Journal of Management Development, 30*(2), 206-221.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.

O'Dell, C., & Grayson, C. J. J. (1998). *If only we knew what we know*. New York: The Free Press.

O'Reilly, C., & Pondy, L. (1980). Organizational Communication. In S. Kerr (Ed.), *Organizational Behavior*. Columbus, OH.

Orr, J. E. (1990). Sharing knowledge, celebrating identity: Community memory in a service culture. In D. S. Middleton & D. Edwards (Eds.), *Collective remembering: Memory in society* (pp. 169-189). Beverly Hills, CA: Sage.

Pan, S. L., & Scarbrough, H. (1999). Knowledge management in practice: An exploratory case study. *Technology Analysis and Strategic Management, 11*(3), 359-374.

Park, H., Ribiere, V., & Schulte, W.D. (2004). Critical attributes of organizational culture that promote knowledge management technology implementation success. *Journal of Knowledge Management, 8*(3), 106-11.

Pfeffer, J. (1980). *Power in organizations*. Marshfield, MA: Pitman.

Rai, R.K. (2011). Knowledge management and organizational culture: A theoretical integrative framework. *Journal of Knowledge Management, 15*(5), 779-801.

Riege, A. (2005). Three-dozen knowledge sharing barriers managers must consider. *Journal of Knowledge Management, 9*(3), 18-35.

Sharrat, M., &Usoro, A. (2003).Understanding knowledge sharing in online communities of practice. *Electronic Journal of Knowledge Management, 1*(2), 187-196.

Sohail, M. S., & Daud, S. (2009). Knowledge sharing in higher education institutions: Perspectives from Malaysia. *Vine, 39*(2), 125-142.

Suppiah, V., &Sandhu, M.S. (2011).Organizational culture's influence on tacit knowledge-sharing behavior.*Journal of Knowledge Management, 15*(3), 462-477.

Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness. *Organization Behavior and Human Decision Processes, 82*(1), 9-27.

Tissen, R., Andriesson, D., & Deprez, L. F. (1998). *Value- based knowledge management: Creating the 21st century company: knowledge intensive, people rich*. Amsterdam: Addison-Wesley Longman.

Tong, J., &Mitra, A. (2009). Chinese cultural influences on knowledge management practice. *Journal of Knowledge Management, 13*(2), 49-62.

Vazquez, J.C., Fournier, L.V., & Flores, F.R. (2009).Overcoming cultural barriers for innovation and knowledge sharing.*Journal of Knowledge Management, 13*(5), 257-270.

Wang, S., &Noe, R.A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review, 20,* 115-131.

Weiss, L. (1999). Collection and connection: The anatomy of knowledge sharing in professional service firms. *Organization Development Journal, 17*(4), 61- 67.

Yin, R. K. (1993). *Applications of case study research* (Vol. 34). London: Sage.

Yin, R. K. (1994). *Case study research: Design and methods* ( 2nd ed, Vol. 5). London: Sage.

Zuboff, S. (1988). *In the age of the smart machine: The future of work and power*. New York: Basic Books.