Exploring the Factors   Affecting Knowledge Sharing Practices in pharmaceutical Industry in Tamilnadu

K.Renganathan, Research Scholar   Dr. T.Pandian, Assistant professor
Department of Business Administration   Department of Business Administration
Annamalai University, Annamalainagar   Annamalai University, Annamalainagar

Abstract**:**

The aim of the study is to explore the factors affecting knowledge sharing practices in Pharmaceutical industry in Tamilnadu. This paper seeks to address the following research questions: How industry professionals conceive about their attitude towards knowledge sharing practices? What are the professionals' perceptions about the users' attitudes towards knowledge sharing practices? And what are likely to be the factors that affect knowledge sharing practices? The methodology of the study includes quantitative approach. The study has been conducted through a survey using a pre structured questionnaire. The structured questionnaire was given to 30 industry professionals who are working in two separate parts of the pharmaceutical industry through personal contact. The respondents were selected randomly from two separate parts of pharmaceutical industry (25 from the main manufacturing block and 5 from quality control block). We received 23 responses, for a response rate of 76.67 percent. The results of the study show that 82.6 percent professionals are confidence and 17.4 percent are enthusiastic in knowledge sharing while 91.3 percent respondents perceived that users are friendly, 4.3 percent perceived that they are not friendly, and 4.3 percent perceived that they are embarrassed in knowledge sharing. This paper yields some factors affecting knowledge sharing practices in pharmaceutical industry as follows, individual/human factors, organizational factors, and technological factors. It investigates the original views of the industry professionals regarding these factors. The pharmaceutical industry authority should take initiatives to improve knowledge sharing practices to cope up with the increasing need for knowledge.
Keywords: Knowledge Sharing; pharmaceutical industry, Tamilnadu.

I   INTRODUCTION

Many organizations have realized the advantages and benefits of sharing information and knowledge within the organization (Goh & Hooper, 2009). Today, It is playing a critical role in the expansion of manufacturing and research. It has become a centre for co-operation, promotion and service in manufacturing and research (Chowdhury, 2006). There are two levels of knowledge within an organization: knowledge that resides within the individuals in the organization and knowledge that exists at the collective level, independent of individuals (Spender, 1996). Hara (2007) implies the giving and receiving of information framed within a context by the knowledge of the sources (Sharratt & Usoro, 2003). KS is the process of mutually exchanging knowledge and jointly creating new knowledge (van den Hoff & de Ridder, 2004). Basically, KS is done in two ways: a) By articulation i.e. an individual succeeds in formulating the fundamentals of his/her own tacit knowledge into explicit knowledge that can be stored or formalized or shared within the organization; and b) By socialization that is the sharing of tacit knowledge between people and knowledge moves from tacit to tacit (Nonaka, 1991). The rest of the paper is structured as follows: section II-V describes the review of literature, objectives of the study, research questions, and research methodology and sample of the study; section VI presents the results and discussion, while section VII discusses about the findings and implications and we conclude with a brief summary in section VIII.

II REVIEW OF LITERATURE

In the hierarchical view, knowledge is the product of information. When information is analyzed, processed and placed in context, it becomes knowledge. This has been reflected in the definition of knowledge as information possessed in the mind of individuals (Alavi & Leidner, 2001). To some commentators, knowledge has more value because it is closer to action than are data and information (Cheng, 2000). Based on the work of Polanyi (1966), Nonaka and Takeuchi (1995) promoted recognition of the tacit-explicit knowledge classification, which has been widely cited in literature. Jan Duffy defines explicit knowledge as "knowledge that is documented and public; structured, fixed-content, externalized, and conscious" and tacit knowledge as "personal, undocumented knowledge; context-sensitive, dynamically-created and derived, internalized and experience-based; often resides in the human mind, behavior and perception." (Jan Duffy, 2000) Davenport and Prusak, as cited by (Kimiz, 2005, p.2) suggest that multiple factors have led to the current "knowledge boom" the perception and the reality of a new global competitiveness is one of the driving forces therefore, the only sustainable advance a firm has, comes from what it collectively knows, how efficiently it uses what it knows and how quickly it acquires and uses new knowledge. This has led to a strong need for a deliberate and systematic approach for cultivating and sharing an organization's knowledge base (Davenport, 2000). The approach of Bartol and Srivastava (2000) refers to information as an element of KS and defines it as the action in which relevant information are diffused by employees to others across organization. Moller and Svahn (2004: 220) emphasize that KS is "sharing not only codified information, such as production and product specifications, delivery and logistic information, but also management beliefs, images, experiences, and contextualize practices such as business-process development." Traditionally, information professionals' roles were limited to the identification, acquisition and organization of explicit knowledge or information. Today, that role is being expanded to include other forms of knowledge activities- tacit and implicit knowledge in the form of skills and competencies (Hawamdeh et al, 2004).

The above review of literature reveals the definition of knowledge, explicit and tacit knowledge and KS on the basis of pharmaceutical perspectives and their applications in the industries. There is an acute gap of literature and initiatives to enhance KS practices in the pharmaceutical industries. Therefore we took an initiative to explore the factors affecting KS practices in one of the leading pharmaceutical industry.

III OBJECTIVES OF THE STUDY

The purpose of the study is to explore the factors affecting KS practices in pharmaceutical industry. Providing right information to the right user at the right time using the right channel is the motto of manufacturing service. Therefore, the pharmaceuticals should cultivate the KS practices to keep their mission statement. However, this study attempts to determine the following objectives specifically. To investigate how the professionals conceive about their attitude towards KS practices in pharmaceutical industry. To identify the professionals perception about the users' attitude towards KS practices in pharmaceutical industry. To find out the factors that affect KS practices.

IV RESEARCH QUESTIONS

In pursuing the above objectives, the following research questions (RQs) have been formulated that will guide the study:

RQ-1: How Pharmaceutical professionals conceive about their attitude towards KS practices?

RQ-2: What are the professionals' perceptions about the users' attitude towards KS practices?

RQ-3: What are likely to be the factors that affect KS practices?

V RESEARCH METHODOLOGY AND THE SAMPLE OF THE STUDY

The methodology of the study includes quantitative approach. The study has been carried out by personally contacting with the respondents in order to fill up a pre-structured questionnaire. Initially, we selected 30 respondents randomly from the two separate buildings , among them 25 from the Main Building, since most of the professionals of the manufacturing are working there and 5 from the research and development. 23 respondents (19 from Manufacturing and 4 from research and development) agreed to fill up the questionnaire.

The questionnaire consists of three sections, among them the first two sections consist of categorical variable and the last section consists of quantitative variables having close-ended questions on 7-point Likert Scale. The responses of the respondents for both the categorical and quantitative variable were analyzed using the descriptive analysis techniques of Statistical Packages for the Social Sciences (SPSS 20.0). In conducting this study the authors faced difficulties at collecting data from individuals because of their unwillingness and workload.

VI. RESULTS AND DISCUSSION

Attributes of the Respondents:(N=23)

Designation of the Respondents

Figure 1 denote that only 1(4.3 percent) respondent is chief chemist, 8(34.8 percent) are senior chemists, 3(13.0 percent) are junior chemists, 5(21.7 percent) are trainee chemists and rest of the respondents 6(26.1 percent) are serving in other posts of the pharmaceutical industry.
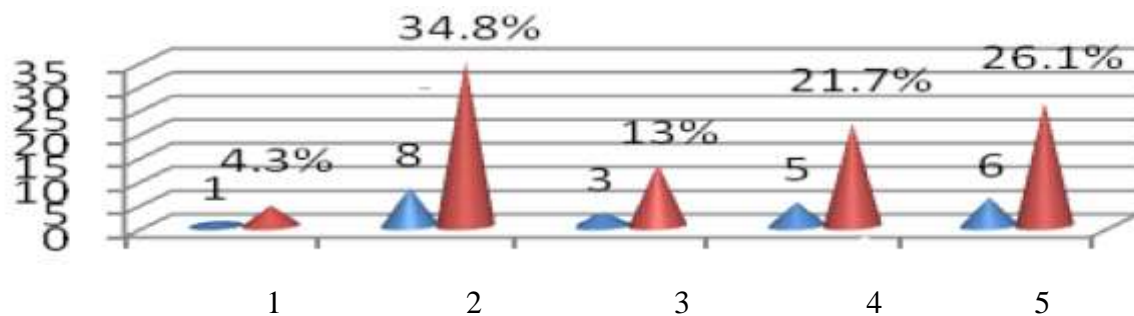

The number denotes following

1.chief chemist

2.senior chemist

3.junior chemist

4.trainee chemist

5.others

Experience of the Respondents

Figure 2 disclose that 7(30.4 percent) respondents have less than five years of experience in PhI 3(13.0 percent) have (5-10) years experience in PhI, another 3(13.0 percent) respondents have (10-15) years experience in PhI and 10(43.5 percent) respondents have more than 20 years of experience in PhI.

Figure-2: Respondents Experience
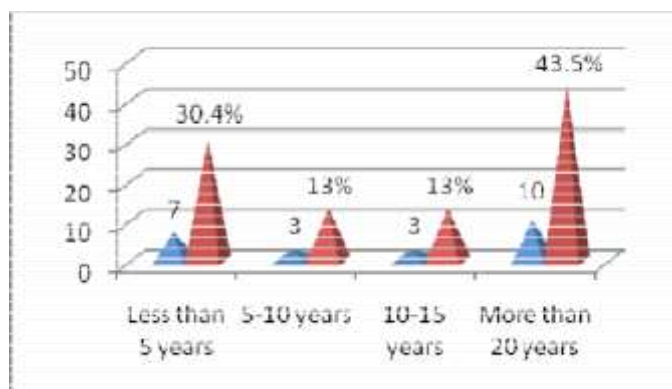
Professionals conception about their attitude towards the KS practices in Pharmaceutical Industry

Figure 3 indicates that 19(82.6 percent) respondents are confidence and 4(17.4 percent) respondents are enthusiastic while sharing knowledge with the users. None of the respondents are either confused or embarrassed
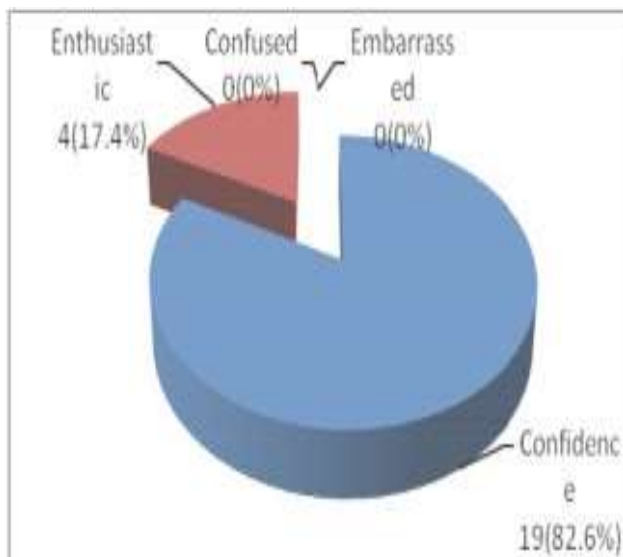
Professionals perception about the users attitude towards the KS practices in PhI

Figure 4 refers that 21(91.3 percent) respondents perceived that users are friendly, 1(4.3 percent) respondent perceived that users are not friendly and 1(4.3 percent) perceived that they are embarrassed while professionals are asking them to share their knowledge with them.
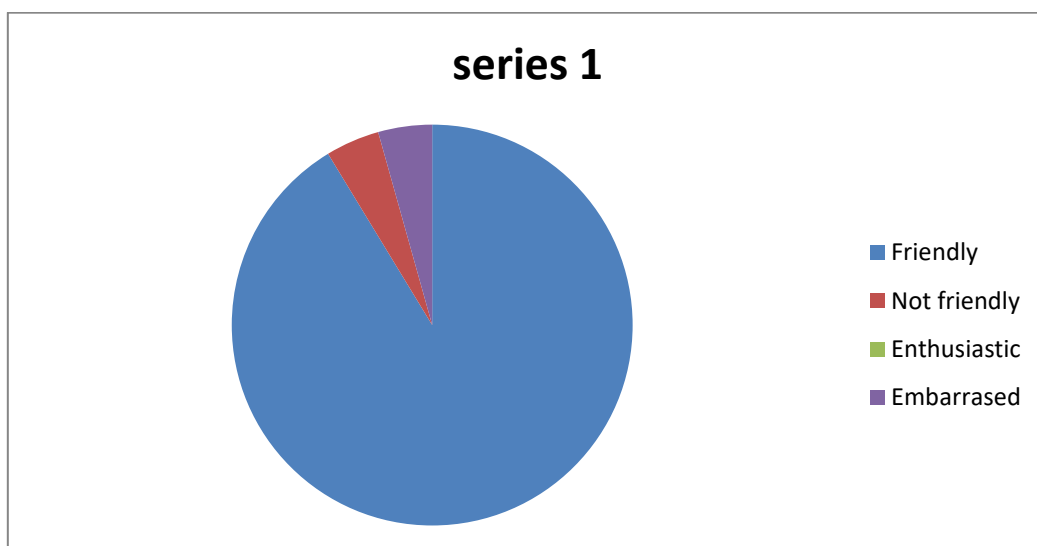

Figure-4: Users attitude towards KS Practice

Professionals perception towards the factors affecting KS practices in PhI

Existing literature has identified a wide range of factors that influence KS practices. These factors could be summarized as: technological factors, organizational or environmental factors, and individual or personal factors (Ardichvili, Maurer, Li, Wentling, & Stuedemann, 2006; Cabrera, Collins, & Salgado, 2006; Barson et al., 2000; McDermott, 1999; Riege, 2007; Paroutis & Al Saleh, 2009). Empirical research has identified important factors that influence KS including individual factors (e.g., lack of trust, fear of loss of power, and lack of social network), organizational factors (e.g. lack of leadership, lack of appropriate reward system, and lack of sharing opportunities), and technological factors (e.g., inappropriate information technology systems and lack of training (Riege, 2005). However the researcher defined the parameters under each factor on the basis of the PhI perspectives. The respondents were asked to specify their degree of agreements on those parameters. The responses regarding the degree of affection of those parameters on KS practices in PhI are analyzed in Table 1 to Table 3 on 1-7 Likert Scale, and Mean and Standard Deviation of their degree of agreement were calculated according to the following scores: 1.00-Extremely High, 2.00-Very High, 3.00-High, 4.00-Neutral, 5.00-Low, 6.00-Very Low, 7.00-Extremely Low.

Individual/Human Factors

Several studies have been carried out to determine the factors that influence KS by different scholars.

Torrey and Gordon (2003) describe KS as a human behaviour that should be examined in the context of human performance. Human performance is described as a complex activity that is influenced by many factors. They describe a human performance model which includes business context, organizational and individual factors. Organizational performance factors include: structure, roles, processes, physical environment, and culture. They assert that the individual factors include direction, measurements, means, ability and motivation. In the process of KS, individuals serve as a knowledge generator and knowledge receptor. Individuals generate knowledge by exchanging their ideas and experience through socialization. As a receptor of knowledge individuals seek and interpret the knowledge before it is transferred to any repository (Nonaka and Takeuchi, 1995).

Table-1: Perceptions of the respondents towards the individual/human factors

Individual/Human Factors	N	Minimum	Maximum	Mean	Std. Deviation
Varied Information Needs	23	1.00	4.00	1.83	0.834
Mutual Relationship	23	1.00	4.00	1.87	0.920
Behavioural Pattern	23	1.00	4.00	1.83	0.937
Cooperative Efforts	23	1.00	6.00	2.13	1.254
Reliability	23	1.00	5.00	2.00	1.128
Valid N (list wise)	23				

Varied Information Needs

The respondents opine with a mean score 1.83 on 1-7 scales that the affect of varied information needs of the user is very high on KS between the professionals and users. Varied information needs of the stakeholders force them to approach to the library for the sake of knowledge they need to solve their problems.

Mutual Relationship

The respondents opine with a mean score 1.87 that the mutual relationship has a very high affection on KS. This parameter has a strong influence over KS in Pharmaceutical Industry.

Behavioural Pattern

The respondents affirmed with the mean score 1.83 in Table 1 that the behavioural pattern affects the KS practices very highly. Behavioural pattern is such a parameter which greatly affects the concurrency of KS.

Cooperative Efforts

The respondents agreed with the highest mean score 2.13 that cooperative efforts influence the KS practices in a high manner. Without cooperative efforts it is quiet impossible to continue KS practices.

Reliability

The participants of the survey reported with the second highest mean score 2.00 in Table 1 that the reliability of the individuals has a very high influence on KS practices. Reliability stimulates KS to a great deal.

Organizational Factors

Wimmer suggests that organizational structure has often had the unintended consequences of inhibiting collaboration and sharing of knowledge across internal organizational boundaries (Wimmer, 2004). There is a need to reshape the structure of academic libraries so that they will be able to improve the services they provide to both today's and tomorrow's users. Wilson (1998, p.17) urged Pharmaceutical Industry to make their organizations more client centred, to redesign work processes in light of organizational goals, and restructure in order to support front-line performance. The emphasis is more on the needs of the Industry user than the needs of the Industry. Tamilnadu should evolve from a rigid hierarchical structure to a process-oriented structure. The management should focus on empowerment. Tamilnadu should have mechanisms in place to reward staffs who are consistent with learning and knowledge sharing (Siddike & Islam, 2011).

Table-2: Perceptions of the respondents towards the organizational factors

Organizational Factors	N	Minimum	Maximum	Mean	Std. Deviation
Qualified Professionals	23	1.00	4.00	1.91	0.900
User Oriented Approach	23	1.00	4.00	2.04	0.928
Motivated Staffs	23	1.00	4.00	2.26	0.964
Formal and Informal	23	1.00	6.00	2.91	0.949
High Commitment	23	1.00	6.00	2.26	1.287
Valid N (list wise)	23				

Qualified Professionals

The respondents reported with a mean 1.91 that this parameter has a very high influence on KS practices. Qualified professionals can foster better KS practices.

User Oriented Approach

The participants agreed with a mean 2.04 that this issue has a high affect on KS practices. User oriented approach attracts the users for KS.

Motivated Staffs

The professionals' response with a mean 2.26 that KS practices has been highly affected by this factor. A motivated staff stands on their toe for KS.

Formal and Informal Communication

The respondents of the survey gave feedback with a mean 2.91 that this parameter affects the KS practices in a high rate. Formal and informal communications ease the process of KS.

High Commitment

The selected Pharma personnel hit with a mean 2.26 that this one having a high degree of affection over the KS practices. High commitment enables fruitful KS practices.

Technological Factors

Technology can enhance the sharing of knowledge by reducing the restriction pertaining to distance and time. The application of electronic mail, internet, collaboration technologies, bulletin boards and news groups can support the distribution of knowledge throughout an organization. However the vast array of technologies available to support organizations in their quest to engage in effective KS can be overwhelming. An over-reliance on technology for the purpose of KS can also lead into the free-for-all mentality where everything is important and everything is shared (Greco, 1999). There is little doubt that technology can act as a facilitator to encourage and support knowledge sharing processes by making knowledge sharing easier and more effective. The key issue, however, is to choose and implement a suitable technology that provides a close fit between people and organizations. Technology that works effectively in some organizations may fail in others (Riege, 2005).

Table-3: Perceptions of the respondents towards the technological factors

Technological Factors	N	Minimum	Maximum	Mean	Std. Deviation
Increased Use of ICTs in Research and development Department	23	1.00	4.00	1.83	0.834
Production Department	23	1.00	4.00	1.87	0.920
Analytical Department	23	1.00	4.00	1.83	0.937
Package Department	23	1.00	6.00	2.13	1.254
Despatch Department	23	1.00	5.00	2.00	1.128
Valid N (list wise)	23				

Increased Use of ICTs in Pharmaceutical Operations:

The respondents reported with a mean 1.83 that this factor has an extremely high affect on KS practices. Increased use of ICTs helps to practice KS from remote areas interactive Pharma Website. The participants responded with a mean 1.87 that this parameter has affected the KS practices in an extremely high degree. Production department website makes the KS more contributively. Analytical department the selected professionals affirmed with a mean 1.83 that analytical department affects the KS practices in an extremely high level. Analytical department could increase the pace of explicit KS Package department. The personnel selected for the survey perceived with a mean 2.13 that this parameter affects the KS practices highly. This will ensure easy access to explicit knowledge sources which is internally created despatching department. The replier expresses their opinion with a mean 2.00 that this factor highly affects the KS practices. This will greatly reduce the cost of internal knowledge creation and thus enhance KS practices in Pharmaceutical industry in Tamilnadu.

VII.   FINDINGS AND IMPLICATIONS

The findings of the study were the individual/human factors (e.g., varied information needs, mutual relationship, behavioural pattern, cooperative efforts & reliability), organizational factors (e.g., qualified professionals, user oriented approach, motivated staffs, formal and informal communication, high commitment) and technological factors (e.g., increased use of ICTs in Research and development department, Production department, Analytical department, Package department, Despatch department). However this study also yielded the perceptions of the professionals about their attitude and the users' attitude towards KS practices in Pharmaceutical industry in Tamilnadu. The results of the study validate the affects of these factors on the KS practices in Pharmaceutical industry in Tamilnadu. The Pharmaceutical industry authority can take into consideration the findings of the study and should encourage/stimulate the individuals/stakeholders, enhance their organizational efficiency and embrace new technologies for ensuring better KS practices in their premises.

VIII. CONCLUSION

The purpose of the study was to explore the factors affecting KS practices in Pharmaceutical industry in Tamilnadu. In response to the first research question (RQ-1: How Pharmacy professionals conceive about their attitude towards KS practices?), this study found that 82.6 percent respondents feel confidence and 17.4 percent feel enthusiastic while sharing knowledge with the users. The second research question was; RQ-2: What are the professionals' perceptions about the users' attitudes towards KS practices? The result showed that 91.3 percent respondents replied that users are friendly in case of KS, 4.3 percent replied with unfriendly and 4.3 percent replied with embarrassed. In reply to the third research question (RQ-3: What are likely to be the factors that affect KS practices?), this study identified and proposed three factors that affects KS practices in Pharmaceutical industry Tamilnadu which include individual/human factors, organizational factors, and technological factors. The findings also yielded some parameters under each factor on the basis of Pharmaceutical industry perspectives. The respondents reported the parameters of individual/human factors as varied information needs (mean score 1.83), mutual relationship (mean score 1.87), behavioural pattern (mean score 1.83), cooperative efforts (mean score 2.13), reliability (mean score 2.00). Next they reported the parameters of organizational factors as qualified professionals (mean score 1.91), user oriented approach (mean score 2.04), motivated staffs (mean score 2.26), formal and informal communication (mean score 2.91), high commitment (mean score 2.26). While the respondents replied for the parameter of technological

factors as follows, increased use of ICTs in Pharmaceutical industry (mean score 1.83), Production department (mean score1.87), Analytical department (mean score 1.83), Package department (mean score 2.13), Despatch department (mean score 2.00). The findings of the study could draw the attention of Pharmaceutical Industry authority in course of improving the KS practices to cope up with the increasing need for knowledge. The study has its limitations on certain areas as users view about the KS practices, KS practices between the Pharma professionals and users, KS model for Pharmaceutical industry Tamilnadu, comparison of KS practices between the private and public Ltd Pharmaceutical industry in Tamilnadu, etc. which can be further studied in future. Determining how organisational justice influences the sharing of knowledge among individuals within organisations constitutes an important area of research. Such complexity is consistent with moving research findings further toward application because of the transdisciplanary nature of the informing environment in which knowledge is shared.

REFERENCES

[1] Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: conceptual foundations and research issues. MIS Quarterly , 25 (1), 107-137.

[2] Ardichvili, A., Maurer, M., Li, W., Wentling, T., & Stuedemann, R. (2006). Cultural influences on KS through online communities of practice. Journal of knowledge Management , 10 (1), 94−107.

[3] Barson, R., Foster, G., Struck, T., Ratcheve, S., Pawar, K., Weber, F., et al. (2000). Inter- and intra-organizational barriers to sharing knowledge in the extended supply chain. Proceedings of the eBusiness and Work 2000 Conference.

[4] Bartol, K. M., & Srivastava, A. (2002). Encouraging KS: The Role of Organizational Reward Systems. Journal of Leadership and Organizational Studies , 9 (1), 64-76.

[5] Cabrera, A., Collins, W. C., & Salgado, J. F. (2006). Determinant of individual engagement in KS. The International Journal of Human Resource Management , 17 (2), 245−264.

[6] Cheng, G. (2000). The shifting information landscape: re-inventing the wheel or a whole new frontier for librarians. The Australian Library Journal , 17-26.

[7] Chowdhury, S. (2006). The Management of Academic Libraries: A Comparative Study of the University of the Western Cape Library and Dhaka University Library. Western Cape: University of the Western Cape.

[8] Davenport, T., & Prusak, L. (2000). Working knowledge: How organizations manage what they know. Harvard: Harvard Business School Press.

[9] Duffy, J. (2000). Knowledge Management: To Be or Not to Be? Information Management Journal , 34 (1), 64-67.

[10] Goh, C. H., & Hooper, V. (2009). Knowledge and information sharing in a closed information environment. Journal of Knowledge Management , 13 (2), 21−34.

[11] Greco, J. (1999). Knowledge is Power. Journal of Business Strategy , 20 (2), 18-22.

[12] Hara, N. (2007). IT support for communities of practice: How public defenders learn about wining and losing in court. Journal of the American Society for Information Science and Technology ,58(1),76−87.

[13] Hawamdeh, S. (2004). Challenges in knowledge management education. Proceedings of the American Society for Information Science and Technology. 41(1), pp. 605-606. American Society for Information Science and Technology,.

[14] Ives, W., Torrey, B., & Gordon, C. (2000). Knowledge Sharing Is a Human Behaviour. Knowledge management Classic and contemporary work , 99-129.

[15] McDermott, R. (1999). Why information technology inspired but cannot deliver knowledge management. California Management   Review , 41 (4), 103−117.

[16] Moller, K., & Svahn, A. (2004). Crossing East-West Boundaries: Knowledge Sharing in Intercultural Business Networks. Industrial marketing Management , 33 (3), 219-228.

[17] Nonaka, I., & Takeuchi, H. (1995). The knowledge creating company. New York: Oxford University Press.

 [18] Paroutis, S., & Al Saleh, A. (2009). Determinants of knowledge sharing using web 2.0 technologies. Journal of Knowledge Management , 13 (4), 52−63.

[19] Polanyi, M. (1966). The tacit dimension:Knowledge in Organizations. (L. Prusak, Ed.) 135-146.

 [20] Riege, A. (2007). Actions to overcome knowledge transfer barriers in MNCs. Journal of Knowledge Management , 11 (1), 48−67.

[21] Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. Journal of knowledge management , 9 (3), 18−35.

[22] Sharratt, M., & Usoro, A. (2003). Understanding knowledge-sharing in online communities of practice. Electronic Journal on Knowledge Management , 1 (2), 187−196.

[23] Siddike, M. A. K., & Islam, M. S. (2011). Exploring the competencies of information professionals for knowledge management in the information institutions of Bangladesh. The International Information & Library Review , 43, 130-136.

[24] Spender, J. C. (1996). Making knowledge the basis of a dynamic theory of the firm. Strategic Management Journal , 17 (2), 45-62.

[25] Van Den Hoff, B., & De Ridder, J. A.   (2004). Knowledge sharing in context: The influence of organizational commitment, communication climate, and CMC use on knowledge sharing. Journal of Knowledge Management , 8 (6), 117-130.

[26] Wilson, H. (1998). Video conferencing in distance education: Scenarios, strategies, and strategic management. (pp. 2-4). Pretoria: University of Pretoria.

[27] Wimmer, M. (Ed.). (2004). Knowledge   Management in Electronic Government. 5th IFIP International Working Conference Proceedings.Krems,Austria:Sp