# **Emotional Exhaustion Bottleneck: Analysis of Factors fostering Knowledge Sharing Behavior**

Beenish Malik\*,Fauzia Ahmed<sup>†</sup>,Tayyab Arshad<sup>‡</sup>, Uzma Gilani<sup>§</sup>, Naveed\*\*

#### **Abstract**

The study investigated the relationship between Value Diversity, Social Networks, Information based and Identification based Trust, Emotional Exhaustion, and knowledge-sharing behavior among academicians. The present study investigated knowledge sharing behavior among academic staff of three public sector universities of Quetta City. The survey technique was used to collect the data. A sample of 221 Respondents was obtained and hypotheses were tested by employing Structural equation modeling technique of data analysis. The findings of the study indicate that value diversity had positive association with emotional exhaustion and social network, information based trust and identification based trust had significant and negative effect on emotional exhaustion. Findings also indicated that emotional exhaustion and knowledge sharing behavior were negatively related with each other. The foremost limitation of present research was its focus on academic staff of universities. This limitation can be controlled by considering knowledge sharing behavior of administrative staff in future research. It was also suggested that Emotional Exhaustion can be used as mediator between interpersonal group characteristics and knowledge sharing behavior. This research offer information on how organizations can upsurge the morale of their academic staff to share knowledge with their group members.

*Keywords*: Knowledge Sharing Behavior, Value Diversity, Social Networks, Information based Trust, Emotional Exhaustion.

## Introduction

Knowledge and knowledge sharing behavior at workplace are the most essential requirements of today's competing and knowledge-intensive economy. Knowledge sharing process is concerned with entire distribution of transformed learning process from employees to

<sup>\*</sup> Dr.Beenish Malik, Lecturer, IMS, UOB, Quetta. Email: miss.malik@yahoo.com

<sup>†</sup> Fauzia Ahmed, Lecturer, IMS, UOB, Quetta

<sup>&</sup>lt;sup>‡</sup> Dr.Tayyaba Arshad,Assistant Professor ,CommerceDeptt, UOB,Quetta § Uzma Gilani, Lecturer,IMS,UOB,Quetta

<sup>\*\*</sup> Dr.Naveed, Assisstant Profesor, Qurtaba University and Information Technology

organizations (Nissen, Evald, & Clarke, 2014). Knowledge sharing behavior aids in facilitation, organizational learning, individual learning, organizational performance, and intensification of service quality (Paulin &Suneson, 2015). Knowledge sharing process requires the interaction between the donor and receiver of the knowledge. This perspective is supported by social capital theory (SCT) (Bandura, 1982, 1986). The present study is focused on social capital theory Bandura (1986), as SCT assumed that interaction build trust and long term interpersonal relationships of reciprocity among the group members. The members of group having good interpersonal relations and trust are likely to engage in knowledge sharing.

Overall, the purpose of the present study is to determine how interpersonal and environmental characteristics affect emotional exhaustion and knowledge sharing behavior. This study investigates antecedents that boost or pacify knowledge sharing behavior of group members. This study focuses on knowledge sharing behavior of academicians of higher education institutes of Quetta city. The major contribution of this study was that knowledge sharing behavior along with all antecedents has not yet been explored in academicians of Baluchistan.

#### Literature review

Knowledge sharing Behavior

Knowledge sharing behavior is the process in which an individual imparts his knowledge to other members of the organization (Ryu, Ho, & Han, 2003). Knowledge sharing is the dissemination of an individual's concepts, ideas, facts, observations, judgments, interpretation, observation, and procedures to another individual for the purpose of performing tasks in a better way (Bock & Kim, 2002;). Moreover, knowledge sharing behavior was affected by the interpersonal group characteristics such as strong social ties (social network), diversity among team members, group cohesiveness (Sawng, Kim, & Han, 2006), and motivational factors such as interpersonal trust, and perceived benefits (Wu, Hsu, &Yeh, 2007).

## Interpersonal and group characteristics

The interpersonal and group characteristics have an impact on knowledge sharing behavior among members. (Sawng, Kim, &Han, 2006) examined the relationship between knowledge sharing behavior and group cohesiveness and found that cohesiveness leads to knowledge sharing behavior among group members. The agreeableness among the

group members, communication style, and extravert styles of group members were found to be related with knowledge sharing behavior (De Vries, Van den Hooff, & De Ridder, 2006). Few studies have investigated on interpersonal and group characteristics in relation to knowledge sharing behavior (Sawng et.al, 2006).

#### Social network

Social network refers to the strength of social ties among group members. It exists in the domain of social environment which refers to the social relations among individuals in which they are engaged (Boissevan, 1974). This was concerned with members' perception of relationship with their colleagues. Social network represents the structural dimension of social capital that represents the impersonal configuration connections between individuals and the degree of links among employees within an organization or group.

#### **Diversity**

Previous research had examined three categories of diversity in groups (Levine, Resnick & Higgings, 1993). These categories were informational diversity, social category diversity and value diversity. Value diversity refers to the difference in opinion about group's mission, targets tasks, and goals among the group members. Information and social diversity in relation with knowledge sharing has been examined (Sawnget.al., 2006). For this research study we have taken the value diversity in relation with knowledge sharing behavior owing to the lack of research in this domain.

#### Interpersonal, group characteristic and emotional exhaustion

Group processes are concerned with interactions and cohesiveness of the group (Cohen & Baily, 1997). Cohen and Baily (1997), described that cohesiveness among the group members leads to information sharing. The social environment in which groups operate is frequently related with emotional exhaustion. Prior research evidenced negative relationship between workgroup cohesiveness and employees' emotional exhaustion (Jackson, Turner, & Brief, 1987). whereas higher level of value diversity leads to higher level of emotional exhaustion.

H1: Value diversity would be positively related with emotional exhaustion.

H2: Strong social networks would be negatively related with emotional exhaustion.

Environmental Characteristics

Individuals behave in a certain manner according to their social environment prevailing in the organizational work group. Trust is the key behavior in social environment. It is an implicit belief that the other part will not exploit or take undue benefit of the condition (Gefen, Karahanna, & Straub, 2003). In knowledge sharing behavior, trust is an important factor in shaping behavior particularly because it might produce essential atmosphere that generate connections with others (Bulter& Cantrell, 1994).

#### Trust and Emotional Exhaustion

In this paper, it is proclaimed that prevalence of trust among work group members will curb emotional exhaustion. For example, when colleagues in a work place devote their resources namely time and energy into their work groups, they anticipate their peers to recognize their involvement and will reciprocate as a result of that contribution of resources. According to the effort-reward imbalance model (Siegrist, 1996) greater parity among work groups as perceived by employees results in less stress and burnout experienced by them (Halbesleben & Buckley, 2004).

This research differentiates trust in to two dimensions that is information and identification based trust. Information based trust refers to the information flowing among the work groups rather than the expectation of reward or punishment for being trustworthy (Lander, Purvis, McCray, Leigh, 2004). Using this logic, the following hypothesis is posited

*H3:* Information based trust would be negatively related with emotional exhaustion.

**H4:** Identification based trust would be negatively related with emotional exhaustion.

#### Emotional exhaustion and knowledge sharing behavior

The mechanism that how knowledge sharing behavior is influenced by emotional behavior is still vague and has to be found out. In this study we try to contend on the perspective of employee's any discretionary serving behavior other than the actual tasks specified in the work environment (Somech, 2016). Knowledge sharing can also be considered to help others in solving problems. Emotional exhaustion is a facet of burnout. According to this stance, the passion for work diminishes as emotional exhaustion increases; apathy towards the needs of group members; hence leads to obliviousness, even become disdainful and hostile with colleagues; and they do not share knowledge because they believe that they are not fit in the environment shattering their

confidence. (Hakanen, Bakker, &Schaufeli, 2006). Thus, we posit that emotional exhaustion would have negative relation with knowledge sharing behavior.

Hypothesis 5: Emotional exhaustion would be negatively associated with knowledge sharing behavior (KSB).

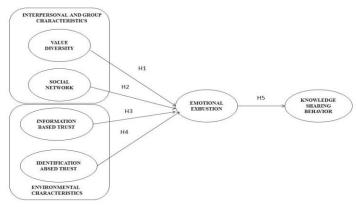


Figure 1. Conceptual framework

## Methodology

The survey-based technique was adopted for testing the proposed hypotheses. The academic staff members of three public sector universities (UOB, BUTIEMS and SBK) of Quetta city were requested to fill out the survey instrument. Overall 247 participants' fill out the questionnaire. After removing 26 invalid responses the sample comprised of 221 respondents. 151 (68%) male and 70 (32%) female staff members with average age 38 (S.D.2.30). Respondents belong to UOB (54%), BUTIEMS (27%) and SBK (19%) with average length of tenure 10 years and 4 months.

#### Measures

Items for measuring the constructs were adopted from previously tested instruments. The five items defined by Karen, Gregory, and Margaret (1999), were used to measure the value diversity (Cronbach alpha 0.81). Five items for the measurement of Social network (Cronbach alpha 0.78) were adopted from (Borges 2012; Lin 2007; Nelson 1989). The constructs information based trust (Cronbach alpha 0.76) and identification based trust (Cronbach alpha 0.71) were measured by using four items each were adopted from (McKnight, Choudhury,&Kacmar, 2002; Smith, Milberg, & Burke, 1996; Kanawattanachai, Yoo, 2002;; Ridings, Gefen,

& Arinze, 2002). Nine items for Emotional exhaustion (Cronbach alpha 0.85) and four items for Knowledge sharing Behavior (Cronbach alpha 0.83) were acquired from (Maslach Jackson, 1981; Davenport & Prusak 1998). The items of value Diversity, Social networks, and Emotional Exhaustion were measured on five point Likert scale. The range was from "strongly agree (5)" to "strongly disagree (1)" While the items of Information and Identification based trust, and Knowledge Sharing Behavior were measured on seven point Likert scale. The range was from strongly disagree (1) to strongly agree (7).

Conceptual model was analyzed by using AMOS 23.Four hypotheses of the study were tested by employing structural equation modeling (SEM). SEM was analyzed in two phases approach: the measurement and structural model suggested by Anderson and Gerbing(1988). Relationship between the observed variable and latent variable was checked into measurement model. Validity and reliability of proposed construct was tested in measurement model. This confirms that presence of valid and reliable constructs before conducting the structure path analysis (Hulland, 1999). Latent variables association was checked in structural model which is calculated by check the path estimates between the proposed constructs.

#### **Results**

#### Measurement Model Validation

Table 1 depicts the higher level of shared variance between latent variable and its respective indicators compares to between the one latent variable to other latent variable. Correlation matrix of latent variables was used to check the discriminant validity (Table 1), for each construct square root of AVE is reported on diagonal and lower off were reported correlations between constructs in matrix. If the diagonals were greater in values than off-diagonal values with respect to corresponding columns and rows deemed a satisfactory discriminant validity

In order to measure the convergent validity of proposed construct numerous criteria used which is appropriate with the guidelines of Fornell and Larcker (1981). Composite reliability must be greater than .80. Likewise, indicator reliability should be greater than .70. Moreover, Average Variance extracted (AVE) should be greater than .50. As shown in (Table 2), all items loadings were significant. Composite reliability was according to recommended guidelines. Similarly, indicator reliability of all constructs were up to the mark. As for as average variance extracted (AVE) concerned met the recommendation level (Table 2).

In a construct AVE measure the average variance accounted by the indicator variable. Higher values of AVE depict the item's true representation of latent variable (Gefen& Straub, 2005). The AVE of all construct were higher as compare to their shared variance with other constructs (Fornell&Larcker's,1981). All the construct of measure depicted the appropriate measure of reliability and validity (Table 2)

Table 1. Correlation Matrix

	VD	SN	INFTR	INDTTR	EE	KSB
VD	0.44					
SN	.31**	0.4				
INFTR	.37**	.08**	0.48			
INDNTTR	.12**	.07**	.46**	0.36		
EE	35**	29**	52**	10**	0.45	
KSB	.38**	.44**	.16**	.11**	32**	0.8

Square root of AVE is on the diagonal.

VD=Value Diversity,SN=Social Network, INFT=Information Based Trust, INDTTR= Indentified Based Trust, EE=Emotional Exhaustion, KSB=Knowledge Sharing Behavior

Table 2: Composite Reliabilities and convergent validity of constructs

Construct	Indicator loadings	Cronbach Alpha	CR	AVE	Fornell–Larcker Ratio
Value Diversity(VD1)	0.76	0.81	0.85	0.66	0.19
VD2	0.59				
VD3	0.69				
VD4	0.56				
VD5	0.69				
Social Networking(SN)	0.82	0.78	0.9	0.63	0.15
SN2	0.56				
SN3	0.52				
SN4	0.61				
SN5	0.64				
Information Based Trust	0.84	0.76	0.83	0.69	0.13
(INFTR1)					
INFTR 2	0.58				
INFTR 3	0.62				
INFTR 4	0.73				
Identified Based Trust	0.68	0.71	0.77	0.6	0.11
(INDNTTR 1)					
INDNTTR2	0.53				
INDNTTR 3	0.59				
INDNTTR4	0.51				
Emotional-Exhaustion	0.73	0.85	0.92	0.678	0.42
(EE1)					
EE2	0.55				
EE3	0.81				

Emotional Exhaustion			Beenish, Fauzia, Tayyab, Uzma & Naveed				
EE4	0.71						
EE5	0.59						
EE6	0.81						
EE7	0.63						
EE8	0.55						
EE9	0.86						
Knowledge-Sharing	0.89	0.83	0.88	0.75	0.55		
Behavior (KSB1)							
KSB2	0.81						
KSB3	0.63						
KSB4	0.67						

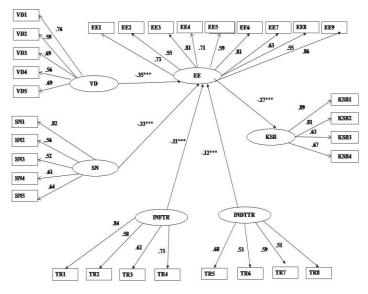
### Structural Model Testing

As the sufficient reliability and validity of measure proven, the path analysis was conducted in order to check the relationship of hypothesized model by using SEM. The results of our study acclaimed all relationship of our hypothesized model were significant. Fit indices of proposed model predicted model fit the data well. (Table 3).

Table3: Model Fit

Model	Df	χ2/df	NFI	CFI	GFI	RMSEA	
	1	1.86	0.99	0.99	0.99	0.02(.000,.18)	

Standardized parameter estimates were used in order to measure the individual path in structural model. As our first hypothesis (H1) was that value diversity would be positively related with emotional exhaustion. Results showed a negative significant relationship between these variables ( $\beta = -.35$  p< .000). Hence, this hypothesis was rejected. In hypothesis (H2), we suggested a social network would be negatively related with emotional exhaustion. A significant, negative relationship was found between these variables ( $\beta = -.33$ , p< .001). We anticipated our hypothesis (H3) as information based trust, was negatively associated with emotional exhaustion ( $\beta = -.11$ , p< .024). Our fourth hypothesis (H4) was identified based trust had the negative relationship with emotional exhaustion ( $\beta = -.12$ , p< .012) was accepted. Hence, this hypothesis was accepted. In particular, hypothesis (H5) was that emotional exhaustion would be negatively associated with sharing behavior (KSB). Thus hypothesis four was accepted ( $\beta = -.27$ , p< .000)



*igure 2:* VD=Value Diversity, SN=Social Network, INFT=Information Based Trust, INDTTR=Indentified Based Trust, EE=Emotional Exhustion, KSB=Knowledge Sharing Behavior

#### **Discussion and Conclusions**

Taking into account the significance of knowledge sharing in work place, our objective was to comprehend the dynamics that lead employee knowledge sharing behavior. We studied the interpersonal and environmental characteristics of a work place. Interpersonal characteristics included value diversity and social network while environment characteristics included information based trust and identification based trust. The effects of these constructs with emotional exhaustion and how emotional exhaustion would directly affect the knowledge sharing behavior. Value diversity can lead to disagreement in work groups such as disagreement about task contents so the first hypothesis H1 was that value diversity would be positively related to emotional exhaustion was rejected. Value diversity is crucial for the behavior of group members over time (Owens & Neale, 1999).

Hypothesis two H2 was accepted which means social network strengthens social ties among group members thus causing low levels of emotional exhaustion. It means if individuals improve their relationships with other group members it will positively influence their emotional wellbeing as suggested by (Bock & Kim, 2002). The third hypothesis H3 was that information based trust is negatively related to emotional Journal of Managerial sciences

113 Volume XIII Number 3

exhaustion was accepted, shows that when there is elevated trust among colleagues they would not experience emotional exhaustion in the work place. Information based trust reduces uncertainty, ensures security of personal data and encourages the group members safely interact with each other (Hsu, Ju, Yen, & Chang, 2007). Fourth hypothesis H4 was that Identification based trust would be negatively related with emotional exhaustion was accepted. This finding supports the result that identification-based trust is negatively related to any kind of negative emotional distress and would encourage common interests and values (Lewicki& Stevenson, 1997). Fifth hypothesis H5 was that emotional exhaustion is negatively related to knowledge sharing behavior was accepted pertaining to intense level of emotional exhaustion among the coworkers would lead to indifference and lack of knowledge sharing behaviors. This finding is in line with latent researches (Cheung &Lun, 2015). Emotional exhaustion lowers individual's zeal to work thus they feel incompetent to share knowledge (Hakanen, Bakker, &Schaufeli, 2006).

From these results it is concluded that in a work place if coworkers have developed information based and identification based trust with each other and have strong social ties would not be emotionally exhausted thus they will engage in knowledge sharing behavior resulting fruitful for them as well as organization they are working for.

## **Limitations and Recommendations**

Some limitations are associated with our study. Although we had collected our sample from academicians only. Future research should include more organizations and more diverse data from different sectors. Our research was based on cross sectional data. In future, longitudinal data can depict clearer picture. More research variables can be examined as antecedents of knowledge sharing behavior like some of emotions might change the nature of knowledge sharing behavior like guilt shame. In future the Emotional exhaustion could be check as mediator between Interpersonal group characteristics and knowledge sharing behavior. In summary, the results of our study just focused the academic staff of universities. Conversely administrative staff could be investigated for future research.

#### References

- Anderson, J.C. & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103 (3),411-23.
- Bandura, A. (1982). Self-efficacy mechanism in human agency, *American Psychologist*, *37* (2), 122–147.
- Bandura, A., 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice-Hall, Englewood Cliffs, NJ.
- Bock, G. -W., & Kim, Y. -G. (2002). Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing. *Information Resources Management Journal*, 15(2), 14–21.
- Bock, G. -W., Zmud, 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
- Boissevan, J. (1974), Friends of Friends: Networks, Manipulators and Coalitions, St Martin's Press, New York, NY.
- Bulter, J.K., Cantrell, R.S., 1994. Communication factors and trust: an exploratory study. *Psychological Reports*, 74 (3), 643–663.
- Davison, R. M., Ou, C. X. J., &Martinsons, M. G. (2013).Information technology to support informal knowledge sharing. *Information Systems Journal*, 23(1), 89–109.
- De Vries, R. E., Van den Hooff, B., & De Ridder, J. A. (2006). Explaining knowledge sharing: The role of group communication styles, job satisfaction, and performance beliefs. *Communication Research*, 33(2), 115–135.
- Emerson, R. M. (1981). Social exchange theory. In M. Rosenberg & R.H. Turner (Eds.), Social psychology: Sociological perspectives NY: Basic Books, Inc.
- Fornell, C., and Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39-50.
- D Gefen, E Karahanna, DW Straub Trust and TAM in online shopping: An integrated model. *MIS quarterly, 27* (1), 51-90
- Gefen, D., &Straub, D. (2005). A practical guide to factorial validity using PLS-graph: Tutorial and annotated example. *Communications of the Association for Information Systems*, 16(1), 91-109.
- Hackman, J. Richard (1990). Groups that Work (and Those that Don't). San Francisco: Jossey-Bass.

- Hakanen, J.J., Bakker, A.B. &Schaufeli, W.B. (2006), Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495-513.
- Hsu, M.-H., Ju, T. L., Yen, C.-H., & Chang, C.-M. (2007). Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations. *International Journal of Human-Computer Studies*, 65(2), 153–169.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20, 195-204
- Jehn, Karen A. (1994). Enhancing effectiveness: An investigation of advantages and disadvantages of value based intergroup conflict. *International Journal of Conflict Management*, 5 (3), 223-238.
- John, H (1999). Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies. *Strategic Management Journal*, 20 (2), 195-204.
- Karen, A. J., Gregory, B. N., Margaret, A. N. (1999). *Administrative Science Quarterly*, 44 (4), 741-763.
- Levine, J., Resnick, L., & Higgins, E. T. (1993). Social foundations of cognition. *Annual Review of Psychology*, 44, 585–612.
- Lewicki, R.J., Bunker, B.B., 1996. *Developing and maintaining trust in working relationships*. In: Kramer, R.M., Tyler, T.R. (Eds.), *Trust in Organizations: Frontiers of Theory and Research*. Sage Publications, Thousand Oaks, CA, pp. 114–139.
- Lewicki, R. J., & Stevenson, M. A. 1997. Trust development in negotiation: Proposed actions and a research agenda. *Journal of Business and Professional Ethics*, 16(1), 99-132.
- Nahapiet, J., Ghoshal, S. (1988). Social capital, intellectual capital, and the organizational advantage. *The Academy of Management Review*, 23 (2), 242–266.
- Nissen, H. A., Evald, M. R., & Clarke, A. H. (2014). Knowledge sharing in heterogeneous groups through collaboration and cooperation: Exemplified through Public–Private-Innovation partnerships. *Industrial Marketing Management*, 43, 473–482.
- Kanawattanachai, P., Yoo, Y., 2002. Dynamic nature of trust in virtual teams. *Journal of Strategic Information Systems*, 11 (3), 187–213.

- Kankanhalli, A., Tan, B. C. Y., & Wei, K. -K. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS Quarterly*, 29(1),113–143.
- Karen A. Jehn; Gregory B. Northcraft; Margaret A. Neale Administrative Science Quarterly, Vol. 44, No. 4. (Dec., 1999), pp. 741-763.
- Lin, C. (2007). To share or not to share: modeling tacit knowledge sharing, its mediators and antecedents. *Journal of Business Ethics*, 70, 411-28.
- McKnight, D.H., Choudhury, V., Kacmar, C., 2002. The impact of initial consumer trust on intentions to transact with a web site: a trust building mode. *Journal of Strategic Information Systems*, 11 (3), 297–323.
- Nelson, R.E. (1989). The strength of strong ties: social networks and intergroup conflict in organizations. *Academy of Management Journal*, 32 (2), 377-402
- Owens, D. A. & Neale, M. A. (1999). The dubious benefit of group heterogeneity in highly uncertain situations: Too much of a good thing? Working paper, School of Business, Vanderbilt University.
- Purvis, R.L., Sambamurthy, V., Zmud, R.W.(2001). The assimilation of knowledge platforms in organizations: an empirical investigation. *Organization Science*, *12* (2), 117–135
- Renata Borges, (2013),"Tacit knowledge sharing between IT workers: The role of organizational culture, personality, and social environment", Management Research Review, Vol. 36 Iss: 1 pp. 89 108
- Ridings, C.M., Gefen, D., Arinze, B., 2002. Some antecedents and effects of trust in virtual communities. Strategic Information Systems 11 (3-4), 271–295.
- Sawng, Y. W., Kim, S. H., & Han, H. -S. (2006). R&D group characteristics and knowledge management activities: A comparison between ventures and large firms. *International Journal of Technology Management*, 35(1), 241–261.
- Smith, H.J. (1996). Information privacy: measuring individuals' concerns about organizational practices. *MIS Quarterly 20* (2), 167–197.
- Ryu, S., Ho, S.H., Han, I., 2003. Knowledge sharing behavior of physicians in hospitals. *Expert Systems with Applications*, 25 (1),113–122.

- Wang, S. and Noe, R.A. (2010) Knowledge Sharing: A Review and Directions for Future Research. *Human Resource Management Review*, 20, 115-131.
- Wu, W. L., Hsu, R. S.,&Yeh (2007). Fostering the determinants of knowledge transfer: A team-level analysis. *Journal of Information Science*, 33 (3), 326-339.
- Davenport, T. H. and L. Prusak (1998). Working knowledge: How organizations manage what they know, Harvard Business Press.