

**Original Name: Model of Factors Influencing Knowledge Sharing,
Educational Groups
(Case Study, Islamic Azad University, North Tehran Branch and Science and Research)**

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ABSTRACT

One of the key requirements of knowledge-sharing ability of university departments and research for scientific merit. This study aims to determine the factors that influence knowledge sharing within and between departments Islamic Azad University is doing. Technological capabilities, organizational culture, organizational structure, documenting the knowledge, control supervisor, organizational interaction, interdependence, communication and motivational techniques such underlying factors as well as the organization and management of trust, perceived organizational support, cognitive factors, all of varying were independent. A stratified random sample of 148 faculty members selected North Tehran Branch and Science and Research Methodology This paper is a field of branch correlation and analysis of data, Single-sample t-test, Confirmatory factor analysis and structural equation modeling and PLS are used by SPSS software. The results show that trust in knowledge management by documenting knowledge-sharing within and between groups is affected. Technological capabilities and perceived organizational support were the factors on knowledge-sharing among the group. Motivational techniques, as well as material and non-material impact on knowledge-sharing within the group have. The research achievements of an experimental basis for the planning and implementation of knowledge management mechanisms provided.

KEYWORDS: knowledge-sharing within the group, sharing knowledge, among others, the factors underlying cognitive factors, the PLS.

1. INTRODUCTION

In recent years, both in Iranian universities public universities and Islamic Azad University for the promotion of research and education has been a significant development efforts and In this regard, the Ministry of Science, Research and Technology, follow the regulations of the national scientific network to activate the sharing of capacity across the country, Followed for the preparation and approval of a comprehensive plan based on priorities in science and technology and provided scientific. In order to accomplish these worthy goals, schools must have special talents that will support the success of these projects. University departments and the original host of development projects, the need for network capacity and to transfer the knowledge they have certain characteristics. The important thing is to acquire, preserve, reproduce, transfer and development of knowledge in higher education, the need to transfer knowledge and experience in the proper context within and between departments there. Research shows that when knowledge is held by individuals in the collection, only when the strategic value of the share, combine, and it is done in a unique way (Zahra et al., 2007). Knowledge sharing is a critical issue for organizations as they develop skills and competencies, values and enables sustainable competitive advantage (Hsu, 2008; Huang, 2009; Ji et al., 2009; Wang and Noe, 2010). Considerable research has been done in this regard to the requirements of knowledge-sharing in the development of products, services and new technologies are emphasized (Renzl, 2008). This has resulted in individual and organizational knowledge sharing is one of the most active research topics in all branches of management (Boer et al., 2011; Hooff and Husman, 2009). The success of promotion of the development of higher education and scientific research in network performance, Depends on the ability to share knowledge in this area is and the ability to share knowledge within and between groups is important that had not been considered in existing research in the country (Lin, 2008).

The purpose of this paper considers the characteristics of the knowledge-sharing ability of departments and provides a comprehensive model of the factors affecting knowledge sharing within and between training groups. This study was conducted to answer this question is to what extent the knowledge-sharing within and between departments are affected? Since the Islamic Azad University for the promotion of research and education programs are implemented in a major competition, this study aimed at determining factors on knowledge-

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sharing group in the range north of Tehran Azad University, Science and Research, both of the first units Are considered to be done.

Theoretical Research

Sharing knowledge and influencing factors

Knowledge-sharing behavior, knowledge transfer to colleagues within or outside the organization is in the process of communication and to the knowledge that the organization has acquired knowledge that person (Ji et al., 2009). Research on knowledge sharing, which indicates the complexity of the multi-faceted dimensions of organizational phenomena (Azarbayjani, 2007). Since the level of individual and organizational knowledge-sharing within the team and outside the team, formal and others have been the subject of much research, A comprehensive model of Wang (2010) and new research presented at the individual level to sharing knowledge and Based on research that had been carried out or are in need A division of the factors on knowledge-sharing behavior were presented as follows:

1 - Underlying factors / environment such as: Organizational context (structure, protection, management, rewards and incentives, culture and organizational climate, leadership qualities and Face to face communication - online) Characteristics of the individual / team (social networking, diversity / difference) and cultural features (collectivism)

2 - Factors cognitive / motivational beliefs about the ownership of such knowledge, perceived benefits and perceived costs and Justice, as well as trust, social spending, confidence and leadership styles and team cohesion.

3 - Personal characteristics such as gender, personality, self-efficacy, evaluation apprehension and perception management.

4 - Perceptions of knowledge-sharing, such as attitudes, subjective norms and intention to share knowledge.

Because this research focuses on knowledge-sharing within and between departments, who are not directly involved research with a focus on cognitive factors. Table 1 Studies of organizational factors influencing knowledge sharing within and between groups indicated.

Knowledge-sharing in academia

Knowledge sharing in university research and the different approaches is limited. Kvhngvkl and colleagues from Thailand about sharing knowledge with lecturer university researchers have investigated the Several factors such as organizational culture, structure upgrades and reward strategies, cooperation, commitment, work values ,organizational climate, job satisfaction, sense of power, learning support structures have been studied (Kohengkul et al., 2007). Poveh ye Nag leadership and organizational culture, organizational learning through the sharing of knowledge among faculty members in private universities in Malaysia is reviewed (Yen, 2012). Wai-kuen and Rita (2004) with the approach of Information Technology, University of Hong Kong has analyzed the knowledge-sharing. Buckleya and du Toit (2009) at the University of Johannesburg to study knowledge-sharing activities have been set. Matt Mvnstd for the management of academic research groups in universities doing research in Denmark has That focus on the quality of academic research, innovation and relationships with the external environment and industry (Moensted, 2003). Luo 2009 in China and 2009 in Jordan et al-Ahmed Fvaz determinants of knowledge sharing in university departments with a focus on cognitive factors do have This article is within the scope of their work. Ali Nemati Vlah Jamshidi (2009), the impact on the development of social capital in knowledge-sharing among units martyr Beheshti University Technology Development Center to evaluate the effectiveness of knowledge-sharing hypothesis was confirmed by the development of social capital. Farajollah Roadster and Asghar Mohammadi, (2009), in a paper to identify key success factors of knowledge management in schools and education centers in Tehran have pointed out that the assessment and knowledge transfer Results show the significant factors, such as human resource development, corporate culture and IT infrastructure and people are getting involved.

3. Research Model and Hypotheses

Conceptual model of the research study are listed in Table 1 is configured 1schema can be seen in Figure.

Model dependent variables: knowledge-sharing within and between groups

Knowledge sharing can be done within working groups or between working groups in this study are considered as two different variables in the model. Working groups are usually about customers and clients, died Cellular Laboratory methods work, work information, feedbacks and specialists exchanged their knowledge and information works are. Differences between the groups in terms of knowledge-sharing within work groups and close interaction and the sharing of knowledge within a group that is intercourse and number of transactions is closer relations. Furthermore, strong relationships within the group and external influences on knowledge sharing.

If knowledge is complicated if there are strong relationships between members of the group are better shared and if there is only a weak relationship between knowledge sharing is simple and uncomplicated (Renzi,

2008). The research strengths of the relationships within the group and between groups were considered identical. In this research, knowledge-sharing between group means sharing knowledge and experience of current and future interest groups and groups (Lin, 2008) and sharing of knowledge within a team means sharing knowledge and experiences of individuals within a group (Wang and Noe, 2010).

Independent variables in the model

Perceived organizational support

Perception of inner motivation is the support of organizations that are willing to share their knowledge increases. 2008 King Marx say that the combined effect of an internal source, such as perceived organizational support and an external source, such as the administrator control over every single one of them is the willingness to share knowledge (King et al., 2008).

Trust management

Faith means trust management staff to achieve organizational goals, organizational leaders, and organized activities for the benefit of employees. When employees share their knowledge because they have confidence in management that organizations rely on to achieve the benefits (Renzl, 2008).

Documented knowledge

And documented in detail in Section tacit knowledge, processes, and organizational communication on the level of knowledge sharing is Which tend to documenting tacit knowledge into explicit knowledge of the impact of factors such as the management is confident. This study documented mediator variable between trust in management and knowledge sharing plays (Renzl, 2008).

Afraid of losing the unique values

Working relationships between individuals sharing knowledge creates fear that a person's character and their specific values Such power and respect the ownership of knowledge and the sharing of knowledge will not be lost. Trust management to reduce the fear and the willingness to share knowledge is odd (Renzl, 2008).

Technological capabilities

What tacit and explicit knowledge through a series of formal and informal communication channels are multiplexed, which is supported by technological capabilities. Power and capacity of technology to speed and breadth of knowledge to share (Zahra et al., 2007).

Administrator control

Means to control and supervision supervisor tasks performed by employees in order to ensure the goals of the organization. Significant impact on individual willingness to share knowledge within the administrator control groups. People in the organization with the external and internal motivation are the external administrator control a source of motivation to share knowledge (King et al., 2008).

Organizational Culture

Based on a qualitative study of 50 firms, D. Long and Fahey 2000 found that the value of the deep and longstanding support of enterprise knowledge-sharing does not the advantages of the new low-impact technologies and infrastructure are limited (Wai-kuen and Rita, 2004). Cultural values create trust and knowledge sharing are facilitated. According to 2008 research paper Lean Culture influences on innovation and bureaucratic support the sharing of knowledge is investigated.

Organizational structure

Flexible organizational structure that will be proposed in response to the competitive needs of the concepts of classical functionalism, rationalism, and survival of the organization changes. Knowledge sharing across organizational units is the need to develop a positive relationship with organizational flexibility. Complexity, focused and formalized organizational structure has an adverse effect on knowledge sharing because it reduces the need to share the knowledge (Lin, 2008).

Reliance communication

Relationships between organizational units of the interactions and connections between parts of the organization is concerned that the continuing relationship between the indicator and a desire to continue the relationship. In these relations, organizational integration through collaborative relationships that individuals have a source of organizational relationships, close relationships, commitment and deep ties seen. With increasing reliance on communication and common understanding between them rises and the positive effect on knowledge sharing (Lin, 2008).

Techniques, motivational

According to previous studies, the methods of motivational material (external source) Practices such as rewards and immaterial (internal source) as appreciate the willingness to share knowledge and influence. The non-material ways and harder than low-impact methods to strengthen knowledge-sharing have been material (Lin, 2008).

Organizational interaction

Organizational factors include the individual's commitment to the organization is a part of their group, such as honesty, fairness and trust between organizations that share knowledge between the groups increases (Lin, 2008).

Assumptions

Hypothesis 1- Motivational techniques including motivational techniques, material and immaterial knowledge-sharing behavior Masters 1-1 - and 1-2 in the group - between educational groups have a positive impact.

Hypothesis 2- Teachers' perceptions of organizational support knowledge-sharing behavior Masters 2-1 - 2-2 within the group - between educational groups has a positive effect.

Hypothesis 3- Control Head (Director) of performing the duties of the departments have a positive impact on teachers' knowledge sharing behavior.

Hypothesis 4- Dimensions of organizational structure include the recognition of the complexity and focus on knowledge-sharing behavior Masters 4-1 - 4-2 within the group - between departments has a negative effect.

Hypothesis 5- Supportive organizational culture of teamwork, innovation and non-bureaucratic culture on knowledge-sharing behavior Masters 5-1 - 5-2 within the group - between educational groups has a positive effect.

Hypothesis 6- Technological capabilities of knowledge-sharing behavior Masters 6-1 - 6-2 within the group - between departments has a positive effect.

Hypothesis 7- Organizational interactions between a group of trust and commitment between a group of knowledge-sharing behavior among groups of teachers training has a positive effect.

Hypothesis 8- Ties between groups, including the integration of knowledge-sharing behavior, communication and positive interaction between groups of teachers training has a positive effect.

Hypothesis 9- Trust to manage the fear of losing the unique value has a negative effect. Fear of losing the unique knowledge-sharing behavior Masters 9-1 - 9-2 within the group - between departments has a negative effect.

Hypothesis 10- Trust has a positive influence on knowledge management implementation documentation. Documentation of student teachers' knowledge sharing behavior 10-1 - 10-2 within the group - between educational groups have a positive impact.

RESEARCH METHODOLOGY

Methods of field research, this paper seeks to describe and explain the branch is correlated factors on knowledge-sharing within and between departments in the university. In this regard, the literature review and empirical research has been conducted interviews with experts, variables related factors (independent variables) on knowledge sharing (the dependent variable) were identified on the basis of questionnaire design. Table 2 Questionnaire variables, resources, questions, and Cronbach's alpha shows. This is the process of designing and executing queries based on the research questions are related to localize each variable And according to experts, and university partners, the questions were set in accordance with the professional environment of a sample of 30 questionnaires were distributed to faculty Based on a preliminary analysis of the results obtained by the software SPSS, it was modified by adjusting the distribution of the questionnaire was finalized. Collected data using statistical techniques including single-sample t test, confirmatory factor analysis and structural equation with SPSS software, version 04b1 and PLS models in order to explain the components and relationships among them are analyzed. In this study, construct validity was assessed using confirmatory factor analysis; Cronbach's Valfay table shows the reliability of the questionnaire. Research Society, Science and Research Azad University, North Tehran Branch, which together produce about 1700 Zvhyyt both scientific and Morgan Krjsy the table is a sample of about 313. To this end, 650 surveys and 65 percent compared to 35 percent of North Tehran Branch, Department of Basic Sciences cluster random sampling in different education groups (clusters) of which were distributed 210 questionnaires returned. The number of usable questionnaires returned by 147 questionnaires was included in the analysis. Range data collection when it is summer and fall of 2011. 62% of the samples were male and 38% female. 18% of members and 67 percent of assistant coach and associate professor of 9 percent and 6 percent have a master. 33% of members of executive management experience, group, and 20% had a history of posts.

Reliability and validity of model results for the PLS method

PLS method of multivariate statistical techniques that, despite some limitations, such as the distribution of unknown variables, Despite the small sample size and the correlation between the independent variables in the regression and structural equation methods were necessary to observe, Can be fitted to models with multiple independent and dependent variables (Jafari Samimi and Mohammadi, 2011). In the PLS model parameters are:

1 - The composite reliability index that measures the reliability of the model, the composite reliability index of 0.6 is more appropriate model is the composite reliability. The model in this paper for all latent variables of the index is 0.91.

2 - Index of convergent validity (AVE), which is the amount of at least 0.5 Fvrnl and Larkr have suggested. The index shows that a latent variable, on average, more than half of the variance is explained. In this model, all latent variables of the index are 0.83.

3 - Divergent validity index based on standardized coefficients are determined by the independent variables to the dependent and T-Statistic of 1.96 per track must be less than absolute. The model in this paper is that these features are not all paths are excluded from the model, and these values are shown in the table.

3 - Index validity of structural equation based on coefficient dependent variables are determined and indicate the variance explained by the variable latent dependent (endogenous) so that if the R^2 dependent variables models above 0.67 is good, between 0.33 to 0.67 average and below 0.19 weak classification and the models for each dependent variable more independent variables (exogenous) have a weighted average R^2 dependent variables are calculated.'s model, this article $0.402 = R^2$ for changing knowledge-sharing between the group and $0.246 = R^2$ for variable knowledge-sharing within the group is the average weight of a .378 average, and therefore the validity of this classification is structural equation modeling (Vinzi et al., 2007).

4 - Motivational Methods In this study, the model of latent variables (material and non-material), communication dependencies (consistency, positive relations), the characteristics of the organizational structure (formalization, complexity, concentration), organizational engagement (commitment, trust) organizational culture (non-bureaucratic innovation and support) are defined by the reflection (Jarvis et al., 2003) of the PLS software.

Findings

Table 3 Average current state variables and the average state test $H_0: \mu \leq 3$ shows Based on these results, the rate of any variable character column in the result is written. Table 4 Results of structural equation models and hypothesis testing, the test shows. This table presents the results of hypothesis tests to be significant factors on knowledge-sharing through T-Statistic and the factors that affect the standard ones of the show.

Figure 2 the model of knowledge sharing within and between the study group shows. Paths obtained by removing T-Statistic model was not significant, they can be seen in Figure 2. Potential fit of the model to predict the behavior of teachers sharing knowledge within the department and between departments .402 is .246. Thus, this model of research questions: What factors affect knowledge-sharing within and between groups, and how much influence? Is answered.

These findings indicate that: 1 - not good at sharing knowledge between groups and within groups. 2 - The ability of technology to good condition but has significant effect on knowledge-sharing among the group. 3 - motivational techniques, material and spiritual good condition but has a significant effect on knowledge-sharing within the group. 4 - Trust in knowledge management by documenting knowledge-sharing among the group has significant influence and that both conditions are not favorable. 5 - Trust management on the fear of losing the unique value and also has a significant negative effect on the value of knowledge-sharing within and between fear of loss is a significant effect. 6 - Control head is low and no significant effect on knowledge-sharing between and within groups. 7 - Perceived organizational support is low and has a significant effect on knowledge-sharing among the group. 8 - In the state of ties between groups with low integrity but no poor working conditions, and both have a significant effect on knowledge-sharing among the group. 9 - formal organizational structure with moderate complexity and a high focus on knowledge-sharing within and between groups, and all three have a significant impact. 10 - The interaction of organizational commitment and trust between groups is high but the sharing of knowledge within and between group effects are significant. 11 - The corporate culture of bureaucracy, high, low innovation and supporting knowledge-sharing within and between groups on average have a significant impact.

Conclusions and recommendations

This study aimed at determining factors that influence knowledge sharing within and between academic departments was conducted using structural equation modeling. Indicators to assess the validity and feet are acceptable models and structural equation model validity is moderate. Approach of previous research on factors affecting knowledge sharing within the university, and most individual approach and factors that influence people's intention to share knowledge has been investigated. While the research departments are considered as a single multiplexed analysis. In addition, only Met Vnmstd research on knowledge sharing has been in the

process of reviewing and sharing approaches have been factors. This study for the first time with a comprehensive view of factors affecting knowledge sharing within the group and outside the group as a model to study. In this research, the research community of both local and foreign, even the research has not been done. Table 5 Effect of factors on knowledge-sharing within groups and between groups at the 0.05 level are identified and prioritization. Motivational techniques in knowledge-sharing within the group, including material and spiritual practices have the greatest impact. And knowledge-sharing between a groups of documents that have the greatest impact on campus these consequences seem logical. The results of this study indicate that among the factors considered by the Trust to manage the sharing of knowledge within and between groups of documents have effect This research Renzl software consulting company in Austria in 2008 that had been done, the impact on the management of the trust document 0.24 (Renzl, 2008) and documentation of knowledge sharing within a group of knowledge-sharing between a 0.23 and 0.20 have been documented, the present study is to investigate Renzl 2008. In this study the impact of trust management to reduce the fear of losing the unique value has been confirmed the standardized coefficient of .236 - which was confirmed by the 2008 survey Renzl and 0.27-fold, respectively. In this study, the impact of fear of losing the unique value of sharing knowledge, has not been confirmed but it has been confirmed Renzl 2008. Respondents answer on a college appears to be the fear of losing the unique value is somewhat conservative. In this study, the effect of perceived organizational support on knowledge sharing between a standardized coefficient of 0.178 confirmed and knowledge-sharing within the group has been rejected (King *et al.*, 2008). This study supports the notion that the impact of the 2008 King and Marquez was trying to share with a coefficient of 0.264 has been approved. In the study the effect of technological capabilities on knowledge sharing between groups and within groups approved by a factor of 0.205 standards has been rejected given the current situation in the university seems to be a logical conclusion. R Gupta and others, 2009 issue of the relationship between technological capabilities and knowledge-sharing at the level of the team is consistent (Gupta *et al.*, 2009). Impact of motivational material and spiritual ways of sharing knowledge within the group has been approved by a factor of 0.293 standard this line of research in high-tech industries in Taiwan in 2008 by a factor of 0.268 has been approved (Lin, 2008). In this study, the effects of variables on organizational structure, organizational culture, organizational dependence interactive communication and control head are not significant.

This research offers the two dominant approaches in the implementation of knowledge-sharing is offered, including:

1 - that the self-view that knowledge management is a personal matter, mental, social, and very explicit with determination and urgency associated with daily activities, so that management cannot interfere. Second Approach 2 - Engineering view that knowledge management can motivate and create the right environment, can manage (Hooff and Husman, 2009). The engineering perspective is evident that in order to integrate and network capacity for scientific and academic research, Promote knowledge-sharing capabilities to teach groups should be placed on the agenda of every university. Since currently the subject of knowledge management and knowledge sharing in Islamic Azad University of spontaneously non-scheduled (first approach) is performed, the results of this research can be done in order to make effective engineering approach, Motivational factors, ie material and spiritual development as well as organizational support, trust management, documentation of knowledge and technological capabilities can be used to systematically promote the sharing of knowledge and education groups. It is suggested that future research on ways to establish incentive systems, technological infrastructure and system support knowledge management in universities and Islamic Azad University, especially done. Design support systems, knowledge management, knowledge-based orientation of the subject are discussed. Knowledge sharing, knowledge-driven orientation of the departments for which it is not possible without the support of senior management (Moensted, 2003). The creation of knowledge-based orientation and support from senior management at the University of Toledo distributor are different ways of business organizations are required this could be the subject of future studies. Another issue related to motivational techniques and how to push the decision making process (in the faculty) to share knowledge Psychological theories and processes that need to study and perform research on knowledge sharing personal level Iranian universities in the specific context of these studies is two-fold (Tsai and Cheng, 2010).

REFERENCES

- Alhammad, A., Al Faori, S., Suleiman Abu Husan, L. and Al-Balqa. 2009., " Knowledge Sharing In The Jordanian Universities", *Journal of Knowledge Management Practice*, Vol. 10, No. 3.
- Azarbayjani, M. 2007. "Variables that Affect Employee Knowledge Sharing in a Government-owned Public Service Organization", Pepperdine University.
- Boer, N., Berends, H. and van Baalen, P. 2011. "Relational models for knowledge sharing behavior", *European Management Journal*, Vol. 29, PP. 85– 97.

- Buckleya, SH, du Toit. A. 2009. "Sharing knowledge in universities: communities of practice the answer?", *Education, Knowledge and Economy*, Vol. 3, No 1, PP. 35-44.
- Chen, T-Y., Chen Y-M., Lin, C.Y. and Chen,P-Y. 2010. "A fuzzy trust evaluation method for knowledge sharing in virtual enterprises", *Computers & Industrial Engineering*, Vol. 59, PP. 853–864.
- Chow, W. S. and Chen. L.s., 2008. "Social network, social trust and shared goals in Organizational Knowledge sharing", *Journal of Information and Management*, Vol.45, PP.458-465.
- Glomseth,R., Gottschalk,P. and Solli-Sæther, H. 2007. "Occupational culture as determinant of knowledge sharing and performance in police investigations", *International Journal of the Sociology of Law* , Vol .35, No. 2, PP. 96-107.
- Gupta, A., Mattarelli, E., Seshasai, S. and Broschak, P. 2009. "Use of collaborative technologies and knowledge sharing in co-located and distributed teams: Towards the 24-h knowledge factory", *The Journal of Strategic Information Systems*,Vol.18, No. 3, Publisher: Elsevier B.V., PP.147-161.
- Hauck , R. V. 2008. "Shoud they share or not ? an investigation on the use of communication and knowledge Sharing in a police organization", *The University of Arizona*.
- Hong, D., Suh , E. and Koo ,Ch . 2011. " Developing strategies for overcoming barriers to knowledge sharing based on conversational knowledge management: A case study of a financial company" *Expert Systems with Applications* xxx.
- Hooff, B. ,Husman, M. 2009. "Managing knowledge sharing: Emergent and engineering approaches": *Information and Management*, Vol. 46, PP.1-8.
- Hsu, C. 2008. "Knowledge sharing practices as a facilitating factor for improving organizational performance though human capital: Preliminary test": *Export Systems with Applications*, Vol. 35, and PP. 1316-1326.
- Huang, Ch. 2009."Knowledge sharing and group cohesiveness on performance: an empirical study of technology R&D teams in Taiwan" *technovation* , Vol .29 , pp.786-797.
- Jafari Samimi, A. and Mohammadi, R. 2011. " Measuring Customer Satisfaction Index (CSI) in Iranian Tile Industry Using Pls Path Modeling Technique", *Middle-East Journal of Scientific Research* , Vol.8 No. 1,PP. 141-149.
- Jarvis,B.C., MacKenzie, S. B.and Podsakoff , P. M. 2003. "A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research" , *The Journal of Consumer Research*, Vol. 30, No. 2 , pp. 199-218.
- Ji, L-M. , Hung , J., Chen, S-W. and Jou, C. 2009. " Fostering the determinants of knowledge sharing, virtual communities", *Computers in Human Behavior* ,PP. 929–939.
- Jiacheng,W., Lu,L.and Calabrese A, F. 2010. "A cognitive model of intra-organizational knowledge-sharing motivations in the view of cross-culture", *International Journal of Information Management* , Vol. 30, No. 3., PP. 220–230.
- Keyes, J. 2008. "Identifying the barriers to knowledge sharing in knowledge intensive organizations", *Dissertation Abstracts International. A, the Humanities and Social Sciences* Vol. 69, Issue: 5-A, Publisher: ProQuest Information & Learning.
- King , W. Peter V. Marks Jr. 2008. "Motivating knowledge sharing through a knowledge management system", *Omega* ,Vol. 36, No. 1, PP. 131–146.
- Kohengkul, S., Wongwanich,S and Wiratchai,N. 2007. "Influences of strategies, knowledge sharing and knowledge transfer on the success of university-school collaboration", in *research and development Hawaii International Conference on Education*.
- Lee , Dong-joo ., Ahn , Jae-hyeon. 2007. "reward system for intra –organization knowledge sharing ":*europen journal of operational research* . Vol , 180 . pp.938-956.
- Lin ,W. 2008. "The effect of knowledge sharing model", *Expert Systems with Applications*, Vol. 34,No. 2, , PP 1508-1521.
- Lin, W. 2008. "The exploration factors of affecting knowledge sharing - The case of Taiwan's high-tech industry", *Expert Systems with Applications*, Vol. 35 No 3, PP.661–676.
- Lin. M., Hunga,SH. and Chen, C. 2009. " Fostering the determinants of knowledgesharing in professional virtual communities, *Computers in Human Behavior*,Vol. 25, NO. 4, PP. 929–939.
- Luo, H. 2009. " Determinants of Knowledge Sharing in University Academic Team, Knowledge Acquisition and Modeling", *KAM '09. Second International Symposium on* , Vol. 1, PP. 260 – 263.
- Moensted, M. 2003. " Knowledge Management in a university department", *IESE Business School, University of Navarra*.
- Rahnavard, F, Mohammadi, A. 2009. Identifying Critical Success Factors of Knowledge Management System in Academic Centers & Faculties of Tehran. *Journal of Iranian Technology Management*. 1(3): 37-52.
- Raychav, I ,Te'eni, D. 2009. "Knowledge exchange in the shrines of Knowledge: The hows and wheres of Knowledge sharing processes": *Computer and Education*, Vol. 53, PP. 1266-1277.
- Renzl, B. 2008. "Trust in management and knowledge sharing: The mediating effects of fear and knowledge documentation" : *Omega*, Vol. 36 , PP. 206-220.

- Tsai, M-T. and Cheng, N-C. 2010. " Programmer perceptions of knowledge-sharing behavior under social cognitive theory", *Expert Systems with Applications* , Vol. 37, No.1 2 PP. 8479-8485.
- Vinzi, e.v., Trinchera, L.and Amato,S. 2007. "PLS Path Modeling: From Foundations to Recent Developments and Open Issues for Model Assessment and Improvement", <http://www.springer.com>.
- Wai-kuen ,L., Rita. 2004. " Knowledge sharing in a University: a case study: University of Hong Kong", Pokfulam Road, Hong Kong.
- Wang , Sh ., Noe, R. 2010. " Knowledge sharing: A review and directions for future research", *Human Resource Management Review* Vol. 20, No. 2, Publisher: Elsevier In., PP. 115-131.
- Wang, Ch-Y., Yang, H-Y., and Chou, S-C. T. 2008. "Using peer-to-peer technology for knowledge sharing in communities of practices", *Decision Support Systems*, Vol. 45, No. 3PP. 528-540.
- Wang, W. , Lu ,Y. 2010. "knowledge transfer in response to organizational crises: An exploratory study": *Expert systems with Applications*, Vol. 37, PP. 3934-3942.
- Willem, A. and Buelens, M. 2009. "Knowledge sharing in inter-unit cooperative episodes: The impact of organizational structure dimensions" , *International Journal of Information Management*, Vol. 29, No. 2, PP. 151-160.
- Yen. P. NG. 2012. "Learning Organization Dimensions on Knowledge Sharing: A study of Faculty Members in the Private Universities in Malaysia, School of Business Curtin University of Technology", Sarawak Campus.
- Zahra, S., Neubaum, D .and Larrañeta, B. 2007. " Knowledge sharing and technological capabilities: The moderating role of family involvement " , *Journal of Business Research* , Vol. 60, No. 10, PP. 1070-1079.

Table 1: Background Research on influencing factors of knowledge sharing

Results	Author	Factors on knowledge-sharing
Confirm the positive impact of technological capability on individual and group sharing	Zahra et al (2007) Gupta et al 2009 Rychav Vtyny 2009 Hoff and Hvysmn 2009 Hauck 2008 Wang, Yang Chaw2008 Myrghfvry et al 1387	Technological capabilities
Confirm the negative effect of the fear of losing the unique values within and between groups	Renzl 2008	Fear of losing the unique value
Confirmed a positive effect on the level of documentation within and between group	Renzl 2008	Documentation Knowledge
Rule out a direct effect of trust management and support structures mediate its effect by documenting and the fear of losing the unique value	Renzl 2008 Azerbaijani, 2007	Confidence in Management
Confirm the effectiveness of motivational techniques within and between group	Lin 2008 Lee and Iron 2007 Jiacheng et al., 2010	Motivational techniques, material and non-material
Confirm the positive impact of efforts to ensure that duties in the superintendent's	King and Marquez 2008	Control of Acting
Confirm the positive impact of perceived organizational support at the individual level	King and Marquez 2008 Azerbaijani, 2007	Perceptions of organizational support
Confirm the dependence of the level of communication among team	Lin 2008 Huang 2009	Reliance communication (integrity, a positive dealings)
Confirm the negative impact of focus and recognize the individual / group and intergroup	Lin 2008 Lin 2008 Willem and Buelens 2009 Hoof and Hosman 2009	Characteristics of Organizational Structure Formalization, complexity, focus on
Confirm the positive impact of enterprise-level interaction between group	Chow and Chen 2008 Lin Hong Vchn 2009 Chen Chen, Lin Vchn 2010 Kyys 2008	Organizational interaction (Commitment, trust)
Confirm the negative impact of bureaucratic culture, innovative culture and supportive and positive impact on the group and the group	Lin 2008 Glomseth et al., 2007 Hoof and Hosman 2009	Organizational culture (bureaucratic, innovative and supportive) Of factors: the underlying

Table 2: Questionnaire variables and Cronbach's alpha

Cronbach's alpha	Number of Questions	Questions supplier	Variable name
0.90	10	Zahra and others, 2007	Technological capabilities
0.904	5	Renzl 2008	Fear of losing the unique value
0.657	3	Renzl 2008	Confidence in Management
0.842	4	Renzl 2008	Documentation Knowledge
Median 0.695 Immaterial 0.832	4 3	Lin 2007	Motivational techniques (Material and non-material)
0.903	4	King and Marquez 2008	Headed efforts to ensure that duties
0.887	10	King and Marquez 2008	Perceived organizational support
0.897 Integration	8	Lin 2007	Reliance communication

0.919 a positive dealings	5		(Integrity, a positive dealings)
0.867 recognize Complexity 0.741 Concentration of 0.774	5 4 4	Lin 2007	Characteristics of Organizational Structure (Recognize complexity, focus)
Commitment to 0.932 Trust 0.919	3 3	Lin 2008	Organizational interaction)Commitment, trust(
Non-bureaucratic 0.861 Innovation 0.686 Supportive 0.819	4 4 4	Lin 2008	Organizational Culture (Non-bureaucratic, innovative and supportive)
0.887	6	Lin 2008	Knowledge-sharing between
0.791	4	Lin 2008	Knowledge-sharing within the group

Table 3- Single-sample t-test results in Table 3 with H0: $\mu \leq 3$

Variable name	Result	Average	t
Technological capabilities	Confirmation	2.7414	-4.207
Knowledge-sharing between groups	Confirmation	2.6644	-4.763
Knowledge-sharing within the group	Confirmation	2.8129	-2.769
Motivational techniques Reserved	Confirmation	2.6565	-5.282
Motivational techniques immaterial	Confirmation	2.5340	-6.164
Confidence in Management	Confirmation	2.5028	-9.280
Documentation Knowledge	Confirmation	2.4932	-6.455
Control of Acting	Confirmation	2.7937	-2.566
Perceived organizational support	Confirmation	2.4078	-10.283
Fear of losing the unique value	Rejection	2.9868	-.382
Reliance communication - integration	Confirmation	2.7931	-3.023
Reliance communication - cooperation	Rejection	2.9916	-.102
Organizational Structure - official	Rejection	2.8972	-1.458
Organizational structure - complexity	Rejection	3.4655	7.414
Organizational Structure - Focus	Rejection	3.7570	9.333
Institutional engagement - commitment to the group	Rejection	3.6784	9.005
Institutional engagement - trust Group	Rejection	3.7222	9.747
Organizational Culture - bureaucratic	Rejection	3.1383	1.990
Organizational Culture - Innovation	Confirmation	2.7306	-4.533
Organizational culture - supportive	Rejection	3.0540	.799

Table 4 Results of structural equation hypothesis test

Independent variable<=	The dependent variable	Hypothesis	Standardized coefficients	T-Statistic
Documentation Knowledge	External knowledge-sharing group	Hypothesis 10-2 confirmed	0.484	4.0757
Management confidence	Documentation Knowledge (Mediator)	Hypothesis 10 confirmed	0.424	5.7033
Motivational techniques	Knowledge-sharing within the group	Hypothesis 1-1 confirmed	0.293	3.3885
Documentation Knowledge	Knowledge-sharing within the group	1-10 hypothesis is confirmed	0.268	2.7008
Management confidence	Fear of losing the unique Value (mediator)	9 confirm the hypothesis	-0.236	-2.610
Technological capabilities	Knowledge-sharing between	2-6 confirm the hypothesis	0.205	2.4555
Perceived organizational support	Knowledge-sharing between	Hypothesis 2-2 confirmed	0.178	1.9643
Fear of losing the unique value	Knowledge-sharing within the group	Reject hypotheses 1-9	-0.163	-1.621
Reliance communication	Knowledge-sharing between	8 hypotheses rejected	0.159	1.6107
Organizational Structure	Knowledge-sharing within the group	Reject hypotheses 1-4	0.051	0.7634
Organizational Culture	Knowledge-sharing within the group	Reject hypotheses 5-1	0.017	0.2975
Organizational Culture	Knowledge-sharing between	Reject hypotheses 5-2	0.025	0.5114
Perceived organizational support	Knowledge-sharing within the group	Reject hypotheses 2-1	-0.03	-0.5124
Motivational techniques	Knowledge-sharing between	Reject hypotheses 1-2	0.032	0.455
Control of Acting	Knowledge-sharing within the group	Rejection of Hypothesis 3	-0.037	-0.4761
Organizational interaction	Knowledge-sharing between	Rejection of Hypothesis 7	0.082	0.9772
Fear of losing the unique value	Knowledge-sharing between	Hypothesis 9-2 rule	-0.125	-1.2177
Organizational Structure	Knowledge-sharing between	Hypothesis 4-2 rule	-0.159	-1.844

Table 5: Ranking of factors affecting knowledge sharing

Standardized coefficients	Ranking factors on knowledge-sharing among the group	Standardized coefficients	Ranking factors on knowledge-sharing within the group
0.484	documented knowledge	0.293	1 - motivational techniques
0.205	- 2technological capabilities	0.268	2 - Knowledge of documentation
0.2052	- 4Trust management through documentation	0.1136	3 - Trust management through documentation
0.178	- 4Perceived organizational support	-0.03847	4 - Trust management through fear of losing the unique values

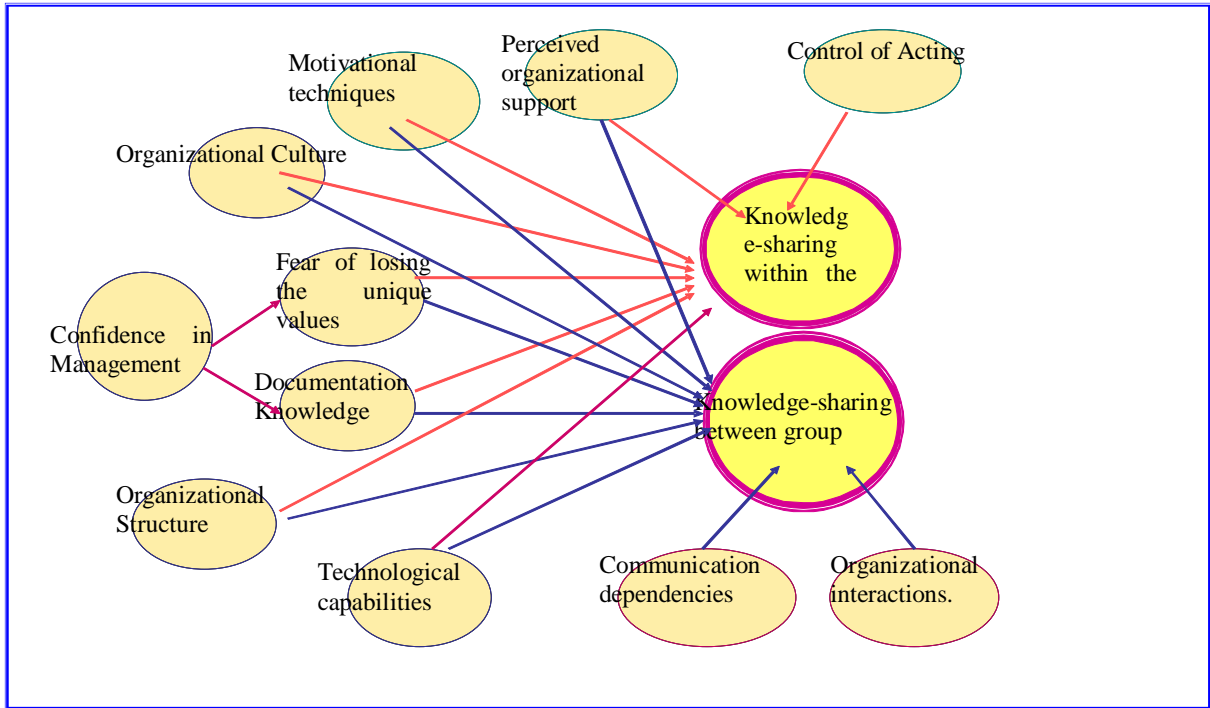


Figure 1: Conceptual model of factors affecting knowledge sharing within groups and between groups

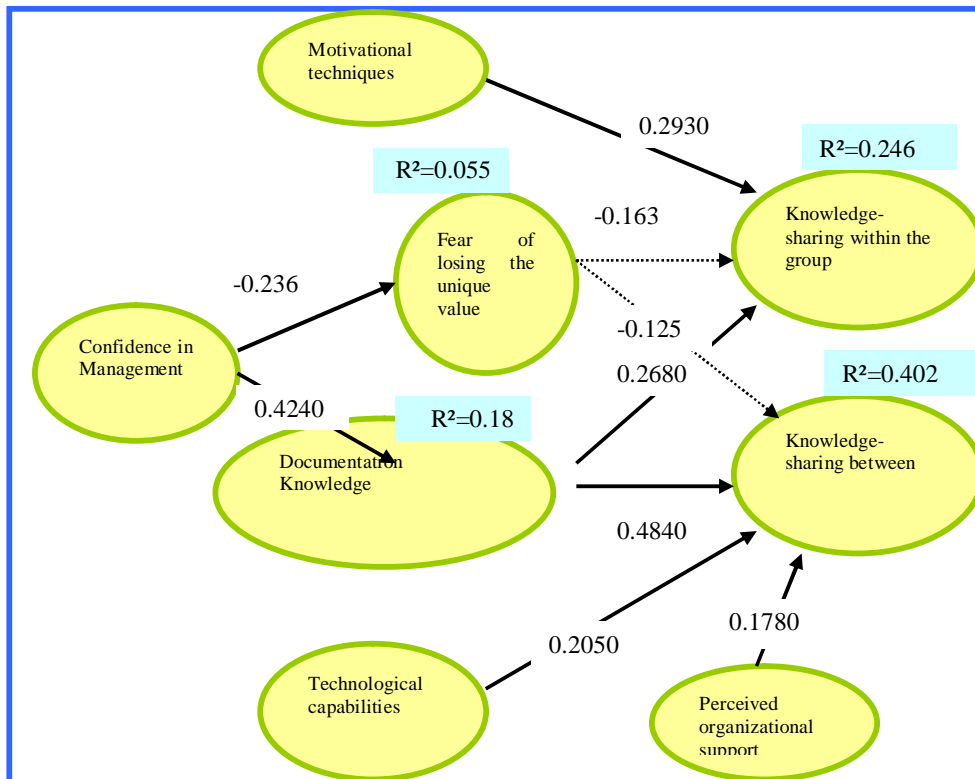


Figure 2: Final model of knowledge-sharing departments