



A Review of Barriers' Transfer and Knowledge Sharing

Behnam Talebi¹, Hossein Mahmoudiaslzade², Mehdi Pakdelbonab³, Akbar Jesarati^{3*}

¹Department of Educational Administration, Islamic Azad University of Tabriz, Tabriz, Iran

²Department of Management, Payam Noor University of West Central Tehran, Tehran, Iran

³Young Researchers And Elite Club, Tabriz Branch, Islamic Azad University, Tabriz, Iran

* Corresponding author's Email: ajesarati@gmail.com

ABSTRACT: The purpose of the present research was the reviewing of the barriers transfer and the knowledge sharing in Iran Tractor Manufacturing Company. To do the purpose, nine hypotheses designed and tested. The research methodology was descriptive and the statistical survey involved the all company managers, supervisors and personnel. The sampling was calculated by the using of the Cochran Formula of 354 people and was selected by the people relative stratified random sampling method. It was used a questionnaire to collect the necessary data for the research hypotheses testing. It was used tables, graphs and central indicators and dispersion for the data descriptive analysis and used t-test for the analytical hypotheses. The results showed the human resources management areas, the physical resources, communication, the organizational culture, the managers' role of the organization, job security and time could be as the barriers transfer and the knowledge sharing in this company.

Key words: Knowledge Transfer, Knowledge Share, Knowledge Management, Organizational Management.

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INTRODUCTION

In recent years, the knowledge management has converted to an important issue in the academic communities and the application areas. The science and business communities believe that the organizations with the knowledge power can keep their priorities in competitive areas for a long time; the study of the organizations' competitive perspective shows the effects on this viewpoint in their strategy.

Due to the knowledge production occurs less in the developing countries like Iran, and these countries use the produced knowledge in the developed countries widely, it is necessary to improve the knowledge transfer mechanisms in these countries. On the other words, according to the global competition increasing in various industries and the Iranian organizations need to enter to the supply and the necessity of the competitiveness of the internal goods with the foreign goods, it is necessary that the Iranian organization consider the knowledge management as a strategic instrument. According to the importance of transfer and the sharing of knowledge, it is essential that this process is considered by the Iranian managers, specially.

The global higher companies accentuate on how to transfer staff knowledge in the organization (Chan, 2011). The pressure has increased for the knowledge transfer in the organizations. Perhaps the main reason of the organizations attempt is the experts' achievement and they can get new knowledge in needed times. Specially, due to the advances have been made in recent years in informational

technology and the high cost of the education, it has increased the importance of the knowledge transfer. These factors are caused to transferring and knowledge increasing converted to a fundamental factor for high performance organizations (Maurer, 1999). Mostly in literature, the knowledge management is considered as a process which is included several activities. The inconsiderable differences in literature is about the number and the name of the knowledge management processes, but experts agree with the creation, storage or retrieval, transfer and the knowledge application (Alavi et al., 2001). The knowledge transfer process can implement between two organizations. That is, from the outside to the inside of the organization or in the internal parts of an organization. If the organization can provide the required infrastructures for knowledge transfer in the organizational units, it prepares the area for absorbing knowledge from the outside of the organization. According to the aforementioned contents, the increasing importance of the knowledge management and the organizations need to its establishment is seen increasingly. Thus, the article purpose is the presenting of a comprehensive and general perspective on it.

The Research Theoretical Foundations

According to the studies which were done by Nonaka (1995); so that considered two dimensions of the present knowledge in the organization. The correct knowledge and the implicit knowledge, these two

kinds of knowledge root in actions, experiences and organizational contexts. The implicit dimension of knowledge includes the mental and technical dimensions. The mental dimension of knowledge is related to the mental models of a person such as the mental model, beliefs, past experiences and individual viewpoints. The technical dimension involves the working technical knowledge, mastery and proficiency which it can transfer by the using of symbols or natural language to others. This knowledge also can be individual and collective knowledge (Nonaka., 1995). For the first time, Poolani distinguished between implicit and explicit knowledge and then Nonaka and Takouchi stated points which are mostly forgotten in organizations and companies such as insight, witnesses, conjecture, unconscious senses, values, ideas, metaphors and comparisons (Nonaka et al., 1995). It is difficult to realize this content from knowledge and management knowledge. Some of experts use the term of the process for implementing of the management knowledge. Because of their perspectives, there is the process of the management knowledge in the organization permanently and it has no consequence in a short time. But it concludes in its permanent presence in the organizations as a basic unit. Accordingly, the knowledge management's process involves knowledge acquisition, knowledge recording and documenting, knowledge creation, knowledge sharing and distribution as well as knowledge application. In business world, the knowledge transfer is related to how the knowledge moving from an organization/ part to organization/ other parts (Zafariyan et al., 2008).

Although the knowledge transfer in the organizations involves the transferring into individual levels, there is a problem in the organizations which is the transfer discussion in organizational higher layers such as groups, product lines, departments, and divisions. For example, it is possible that a production team acquires better methods in production compare to other production team or a group of organization staff in a geographic part maybe acquire the more appropriate production design methods compare to the other group (Szulanski, 1996). The impact of the knowledge transfer in the organizations reveals itself into changing which is create in knowledge or performance. Thus, the knowledge transfer's effect can measure with changes measurement in knowledge level or the performance (Argote et al., 2000). The knowledge transfer and sharing it are two closely categories and their difference is clear in the literature. In many cases, these two categories are used interchangeably. But there are barriers in knowledge transferring and sharing in the organizations and it does not let consider knowledge

in organizations as the knowledge transfer obstacles in organizations. The identifying of the barriers transfer and the knowledge sharing in organizations can be the first step for resolving these barriers (Johnston et al., 2010).

The conditions and the competitive atmosphere of the organizations become more complex, more variable and broader and it changes rapidly. Thus, the rate of change is more than their speed and ability for adapting. On the other words, when a change creates in the above conditions and the organization wants to react to it and adjust itself with that, the next change arrives. In such an atmosphere, opportunities and threatens paly with the organizations. Any changes in the competitive environment, on the one hand it provides an opportunity and probably destroys another opportunity. On the other hand, it creates a challenge or a threat and probably omits another challenge and threat. The permanent changes of the knowledge also create a new disequilibrium situation for the organizations. Additionally, the only organizations which keep their own the competitive advantage can continue to exist. As the experts state it is possible that with the help of the knowledge management it can keeps the competitive advantage and conserves the organizations and can produce a new knowledge in the organization permanently. In the research organizations, the competitive advantage's keeping is based on innovation, and innovation is the effect of the knowledge (Niu et al., 2010). The organizations also have the knowledge accumulation so that the amount information increasing and the need to use it in the organizational decision-making create a phenomenon which is called the knowledge management during the two past decades. This issue shows the necessity of the planning, organizing, leading and monitoring of organizational knowledge and also indicates the access process to the correct knowledge as it has the efficiency and the effectiveness. In the knowledge current era, the organizations realized that the life will not continue unless it has been a strategy for the organizational knowledge management and valuation (Haggine et al., 2005). Thus, the strategies are presented for the knowledge management. The organizational knowledge management is one of the most important successful factors of the companies in the competitive conditions and the information era. This issue is so important so that today's, some of organizations measure themselves and reflect the organization intellectual capital and also an indicator for the rating of the companies in their reports (Mousavi, 2005). The companies and the organizations require to the knowledge management establishment as a part of the own guideline (Hassanzadeh, 2006).

The knowledge management is a successful and fundamental part in the organization's success and the wide range of the organizational ideas such as the strategic guideline and the economical, behavioral and managerial strategies. In today's world, the goods production and the services are so knowledge based as well as the knowledge is a key for the achievement of the competitive advantage (Zafariyan et al., 2008).

Today's, the organizations environment becomes more complex and more instable for the significant and technological developments and on the other side, the environmental factors threat the organization survival. In these situations, the organizations are successful which achieve the knowledge and the comprehensive awareness of the environmental factors, the survival maintenance, and can improve the dynamic context and the increasing of the organization performance and it is one of the ways for achieving of the knowledge management (Bennet et al., 2008). But there is a point which is important and it is how to transfer and share of the knowledge in the organization. It is so significant which how the organizations can inform their situation in the field of the management knowledge and how they can solve the transfer ahead barriers and the knowledge expansion in the organization. The organization knowledge does not have the needed dynamism without the present barriers removal and it cannot use it. Thus, it is necessary to concentrate this issue. In this regard, the research necessity is the identity and determination of the transfer barriers and the knowledge sharing and it causes that the organization use the knowledge as the best with its removal in all levels. According to this issue, many researches have done about the knowledge management and each of the experts has stated several aspects of the knowledge management. In this study, some factors have considered in the field of the knowledge management. These factors include:

1. The human resources management: this issue involves factors such as lack of reward system, appropriate identification of the staff's motivation, no priority for the keeping of the experienced and skilled staff in the organization, lack of teamwork, lack of planning for the human force preparation in an organization, lack of staff training to transfer knowledge (French et al., 1986).

2. The physical resources management: involve factors such as lack of the physical spaces for working, inappropriate putting of the units compared to each other and lack of the required facilities based on information and knowledge exchange between the different units of the organization (Fitsimmons, 2009).

3. Formal and informal communication include lack of the staff awareness from the organization

plans and purposes, no flexible communication, lack of the communication skills, lack of using Informal communication (McDermott, 1999).

4. The role of the organization managers is lack of values explanation and advantage of the knowledge exchange, staff information and experiences by managers and lack of the managers' consideration to the staff experience and the knowledge as well as the lack of the managers' attention to regular meeting in order to exchange the knowledge and also the lack of the implement of the existing rules and instructions to transfer and share knowledge (Khalifa, 2003).

5. Job security: in this research involves the sense of the fear in jeopardizing of the job position after knowledge transfer and the lack of the staff competition and organizational units with together and also the lack of self-confidence is considered between staff (Davenport et al., 1998).

6. Welcoming the new ideas involve the lack of the welcoming of the organization members ideas and opinions and the lack of the presence of the suggestion system in the organization (Bennet et al., 2008).

7. Organizational culture is the lack of the organizational culture's presence for supporting of the activities to knowledge sharing and the lack of the values and staff believes in the organization and the lack of the culture's presence from others knowledge and experiences and the learning of the problems and also the presence of the organizational culture in the organization aims research is the organizational culture factors (Sveiby et al., 2002).

8. Personal characteristics: the lack of the educational level in knowledge transfer, age mismatches, the lack of the sexual similarity as well as the lack of the experience work level of staff have considered as the personal characteristics (Meyer 2001).

9. Time: The lack of the sufficient time in transferring and knowledge sharing and the lack of the allocating the specific times for knowledge transferring are considered as the cases for the time variable.

There are many contents for the stating of the differences between data, information, knowledge, explicit knowledge and implicit knowledge which is related to mentioned knowledge management and we avoid repeating them here. In many books and articles which are written about the knowledge management, the distribution of correct knowledge of the appropriate people at the proper time emphasize as one of the biggest challenges of the knowledge sharing.

The knowledge sharing considers as a complex activity but it is the basis of the most knowledge

management strategies in the organizations (Riege, 2005)

Thus, it is necessary that as this issue is effective in the organizational success for the creating of the competitive advantage, it can help to identify and omit or limit its barriers in creating more appropriate area for the knowledge sharing.

In recent years, an increased growing has seen in the field of the knowledge sharing by researchers and organizations' managers in special for using the best methods of working in the world and Iran. The reason of this consideration is the achieving of the competitive advantage and the reviewing of many of successes by the organizations root in using of achievement knowledge from the knowledge management process which the activities and the knowledge sharing's innovations in the field of the organizational and personal learning were its basic element (Alavi, 2001; Nonaka. 1995, Sveiby et al., 2002; Earl., 2001).

The learning equation is if the useful knowledge sharing in the organization implements more purposeful, it can precipitate the organizational and

personal learning and innovation and it can appear in production development and better services which create more success in the target market and finally achieve to the immense goals of the organizations.

The barriers of the knowledge sharing are not yet sufficiently known and the known barriers in many cases are unknown. In a knowledge- based economy, the intangible properties of the organizations (especially service organization) convert to a competitive determinant factor. These properties such as business marks, organizational reputation, staff technical skills and organizational culture consider as the basis of the competitive advantage (Nahapiet et al., 1998; Teece, 1998).

A research has done by McKeen and Zack (2005) in Kevin Trade College in Canada and North Sterne Trade Management College in America about the effect of the knowledge management on the organizational performance. This study considers the impact of the knowledge management on the organizational performance in 19 private part organizations in Canada (McKeen, 2005).

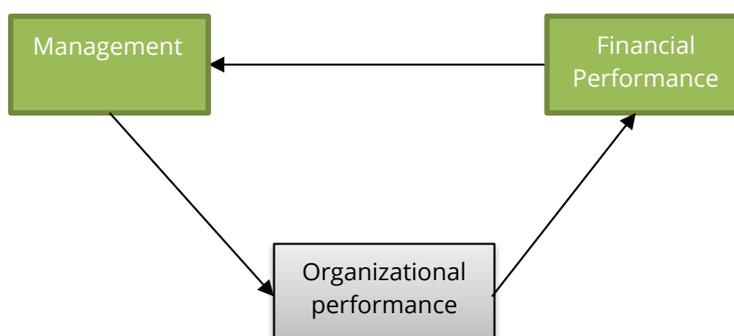


Fig 1. The Model of the Knowledge Management (McKeen 2005).

The study results showed there is a relation between the knowledge management, organizational performance and financial performance. A research has done by Mohrman et al. (2001) in the Trade University of Virginia University about the relation

between the knowledge management, the organizational effect. Some of the research features are (Mohrman et al., 2001).The first research question: The research model is based on the three basic hypotheses.



Fig 2. Relationship between Knowledge Management and Organizational Effect (Mohrman et al., 2001).

The most important organizational factors in this study are: organizational culture, organizational structure, knowledge leadership and organizational memory. The study result indicates there is a significant and positive relationship between the knowledge management and the organizational effect.

The other research has done by Muhammad Khalifa and Liu in Hong Kong City University to identify the important factors in the success of the management plans. This knowledge is "The model of the knowledge management success" (Khalifa, 2003).

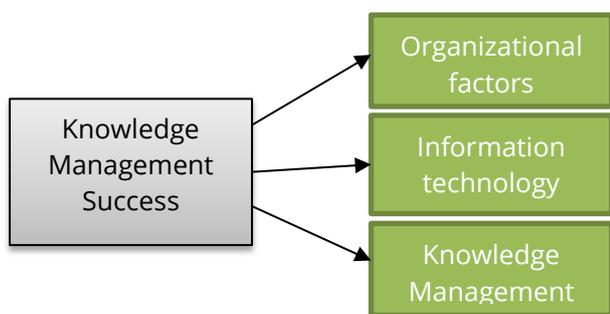


Fig 3. The Knowledge Management (Khalifa, 2003).

The effective organizational factors on the knowledge management in this research are:

1. Knowledge Management Guideline,
2. Knowledge Leadership,
3. Organizational Culture,
4. Knowledge Portal.

The knowledge management processes also included: Creation, Transfer, Using and keeping of the

knowledge. The research results showed the organizational factors and the knowledge management processes have the most effect on the knowledge management processes such as transfer and knowledge maintenance (Khalifa, 2003).

Research Hypotheses

The research hypotheses include these cases:

1. The human resources management is one of the transfer barriers and knowledge sharing in the organization.
2. The physical resources management is one of the transfer barriers and knowledge sharing in the organization.
3. Formal and Informal communication is one of the transfer barriers and knowledge sharing in the organization.
4. The role of the organizational managers is one of the transfer barriers and knowledge sharing in the organization.
5. Job security is one of the transfer barriers and knowledge sharing in the organization.
6. Welcoming of the new ideas is one of the transfer barriers and knowledge sharing in the organization.
7. The organizational culture is one of the transfer barriers and knowledge sharing in the organization.
8. Personal characteristics are one of the transfer barriers and knowledge sharing in the organization.
9. Time is one of the transfer barriers and knowledge sharing in the organization.

Table 1. Classification of Knowledge Types

Types of Knowledge Management	Year	The Research Has Done By
Covert Knowledge, Overt Knowledge	1994	Nonaka (Based on Poolan perspective)
Implicit Knowledge, Explicit Knowledge, Theoretical Knowledge	2001	Jorna (The different organizational shapes and types of knowledge)
Science Knowledge, Intellectual Knowledge, Sportive Knowledge, Spiritual Knowledge, Unsought Knowledge	1999	Mashloap
Covert Knowledge, Mental Knowledge, Visualized Knowledge, Overt Knowledge, Systematic Knowledge, Regular Knowledge	1995	Blocker
Covert Knowledge, Overt Knowledge, Personal Knowledge, Group Knowledge	2000	Linder & Alavi
Covert Knowledge, Overt Knowledge, Personal Knowledge, Group Knowledge	1999	Koak

MATERIALS AND METHODS

In this study, the statistical survey includes all managers, supervisors and personnel of the Tabriz Tractor Manufacturing Company. The statistical survey of this inquiry is about 4500 company authorities. The sampling is calculated by below formula of 354 people and it is selected with the people relative stratified

random sampling method; With assuming of: $P = 0.5$, $(1-P) = 0.5$, $e = 5\%$

Research Instrument

In the present study, a questionnaire is used as a main instrument of the data collecting. Also, in order to provide and design of the theoretical foundations and the research history is used the librarian studies.

To determine the questionnaire reliability is used Cronbach's alpha coefficient. The designed questionnaire is given to 25 members of the statistical sampling. After collecting the questionnaires, the Cronbach's alpha coefficient is calculated to the questions divided in any fields and mentioned in Table 2.

According to the coefficient amount of the Cronbach alpha for each field is more than 0.6, thus it

can be concluded the designed questionnaire has acceptable reliability.

The Research Hypotheses Analyzing

Firstly, in this research Kolmogorov-Smirnov testing is used to consider data Normality. According to the results of the Table 3, the significant level of the total data is more than 0.05. Thus, it can say the data distribution is normal and for testing of the hypotheses, it is used the parametric statistical (t-test).

Table 2. The Chronbach's Alpha Coefficient to the Divided Fields of the Knowledge Management

Field	Choronbach's Alpha Coefficient
Human resources	0.85
Physical resources	0.79
Communication	0.83
Personal characteristics	0.72
Welcoming of the new ideas	0.76
Organizational culture	0.88
Organization managers' role	0.80
Job security	0.71
Time	0.77

Table 3. The Results from Kolmogorov-Smirnov Testing

Variable	Kolmogorov-Smirnov	Significant level (sig)
Human resource management	1.140	0.148
Physical resources	0.834	0.490
Communication	1.180	0.123
Organizational managers	1.128	0.157
Job security	1.582	0.083
Welcoming of new ideas	1.899	0.061
Organizational culture	1.955	0.051
Personal characteristics	0.811	0.527
Time	1.486	0.094

Table 4. The Results of the Research Hypotheses Testing

Hypothesis	t	df	sig	Mean Difference	Confidence Interval of the Mean Differences in 2 groups	
					Lower	Upper
1	14.651	353	0.000	0.8755	0.7568	0.9943
2	10.540	353	0.000	0.5555	0.5488	0.8599
3	6.384	353	0.000	0.4583	0.3157	0.6010
4	11.719	353	0.000	0.8750	0.7266	1.0234
5	7.612	353	0.000	0.8611	0.6363	1.0859
6	1.873	353	0.064	0.1833	-0.0111	0.3778
7	12.733	353	0.000	0.7722	0.6517	0.8927
8	-1.828	353	0.071	-0.1722	-0.3594	1.0150
9	3.769	353	0.000	0.3611	0.1708	0.5515

The first hypothesis states that the human resources management is one of the transfer and the knowledge sharing in the organization. The data results show that the t value is 14.651 and according

to the significant level (sig.) is less than 0.05. Thus, the research hypothesis is confirmed. Additionally, the confidence interval for the mean difference shows that the lower and upper bound is positive and the

mean is bigger than the test amount. We can conclude of the data in Table 4 (First hypothesis) that the human resources management is one of the transfer barriers and the knowledge sharing in the organization.

The second hypothesis states that the physical resources management is one of the transfer barriers and the knowledge sharing in the organization. The data results of the second hypothesis indicates that t value is 10.540 and the significant level is smaller than 0.05 and the research hypothesis is confirmed. Thus, the physical resources management is one of the transfer barriers and the knowledge sharing in the organization.

The third hypothesis states that the formal and informal communication is one of the transfer barriers and the knowledge sharing in the organization. The (t) value is 10.540 and the significant level is more than 5 percent. Thus, the formal and informal communication is one of the transfer barriers and the knowledge sharing in the organization.

The fourth hypothesis states that the role of the organizational managers is one of the transfer barriers and the knowledge sharing in the organization. The t value is 11.719 and the significant level is smaller than 0.05. Thus, the role of the organizational managers is one of the transfer barriers and the knowledge sharing in the organization.

The fifth hypothesis states that the job security is one of the transfer barriers and the knowledge sharing in the organization. The t value is 7.612 and the significant level is smaller than 0.05. Thus, the job security is one of the transfer barriers and the knowledge sharing in the organization.

DISCUSSION

According to the achieved results of this research, the organization faced to the aforementioned barriers in the fields of the human resources management, physical management, communication, culture creation, the role of the organization managers, job security and time and there no barrier for transferring and the knowledge sharing in the organization for two items such as the welcoming of the new ideas and the personal characteristics. Therefore, the organization managers should consider the above cases for removing the present barriers to achieve more knowledge.

Moreover, the organizations which would have a successful strategy for the knowledge management and an integrated strategy of the knowledge sharing, they should attend to many potential barriers in the knowledge sharing. To implement the audit knowledge of a company, the managers should consider beyond these factors such as the

The sixth hypothesis states that the welcoming of the new ideas is one of the transfer barriers and the knowledge sharing in the organizations. The data results from Table 4 indicate that the t value is 1.873 and the significant level is more than 0.05. Thus, the research hypothesis is not confirmed. Additionally, the confidence interval for the mean difference shows that due to being negative of the lower bound and being positive of the upper bound, there is no significant difference between mean and the test value. Thus, the welcoming of the new ideas is not one of the transfer barriers and the knowledge sharing in the organizations.

The seventh hypothesis states that the organizational culture is one of the transfer barriers and the knowledge sharing in the organization. The t value is 12.734 and the significant level is smaller than 0.05. Thus, the research hypothesis is confirmed and the organizational culture is one of the transfer barriers and the knowledge sharing in the organization.

The eighth hypothesis states that the personal characteristics are one of the transfer barriers and the knowledge sharing in the organization. The t value is -1.828 and based on the test of the significant level ($0.071 > 0.05$), it can say that that the personal characteristics are one of the transfer barriers and the knowledge sharing in the organization. Thus, the research hypothesis is not confirmed.

The data results of the last hypothesis states that the time is one of the transfer barriers and the knowledge sharing in the organization.

organizational culture and the fundamental values, infrastructure and information technical systems and resources. In addition to the aforementioned factors in this study, the managers should attend to the presented differences among organizations as: Size (small, medium, large), ownership (private, public), and organization mission (profit and non-profit), a strategy for the special knowledge sharing, specific management actions is not equal for different organization.

Therefore, the goals and the knowledge sharing strategies are different based on the planning and strategic thinking in an organization to the other organization. Thus, each of these barriers and their strength and weakness may be different among various organizations.

The above barriers are a comprehensive starting point for great managers in the audit level of the present knowledge base, the knowledge requires and the organizational knowledge communication. To evaluate the impact of each of these barriers on

different levels of the organization, organizational units and various organizations (small, medium, large) and different parts of industry and in various national cultures, there is a need for further researches. Above all, it is used the effective methods on how overcome to diverse barriers or modeling of the organizations which use operative styles. Each organization wants to achieve to a sustainable growth in its trade, it should convert the activities of the knowledge sharing in various fields to a daily activity.

1. The human resources management attend to motivation, encouragement, and people stimulation in the organization to proceed the achievement, distribution, transfer and using of the available, useful and new knowledge in special implicit (covert) knowledge purposefully.

2. Open and flat organizational structure which facilitate the streams of the light of knowledge.

3. Relying on the organizational cultures, processes and resources to create the continuous learning of the organizational culture

4. The role of the managers in the stating of the goals and the organizational strategies in the activities of the knowledge sharing and its benefits

5. The leaders who guide the staff by the creation of the guidance processes and appropriate feedback

6. The advanced technology unifies mechanism and organizational systems and provides a proper field for the knowledge sharing and it provides the different Internal and external sources of knowledge for each person who needs it. In short, the knowledge sharing would not have a value for the persons and the organizations unless the individuals who require to useful knowledge can arrive, accept and also use it. Because of the lack of the unit strategy of the knowledge management which acts well for all organizations, each of the organization needs to a specific design strategy to ensure that the adequate knowledge is given at proper time to appropriate individuals. The creation of the effective atmosphere of the knowledge sharing and the organizational learning is not a meaning of a large financial investment. Because of the formal and informal knowledge networks exists in most organizations and the organization should built this environment in the present networks.

CONCLUSION

In conclusion, it can state the following recommendations in relation to the research issue:

1. The probable new barriers of the transferring and knowledge sharing identify and consider.

2. The research suggests the identifying of the knowledge sharing's barriers and the present interval

between the existent situation and the desirable condition for knowledge sharing activities and appropriate action for the barriers removal and moving on the desirable condition.

3. After the appropriate identifying of the knowledge transfer's barriers, it needs to the sharing and the proper operation of the present knowledge or the operationalizing of the goals of the knowledge management.

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