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**STUDY OF THE ROLE OF QUALITY AND SELF-EFFICACY OF
KNOWLEDGE MANAGEMENT SYSTEM AND ORGANIZATIONAL
CLIMATE IN THE PROCESS OF DEVELOPMENT OF NEW SERVICES
IN BANK TEJARAT**

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ABSTRACT

The current study is aimed at investigating the quality, self-efficacy of the management system and organizational climate in the process of development of new services in Bank Tejarat. This study is of applied type as far as its goal is concerned and is of descriptive and survey type as far as the study method is concerned. The statistical society consists of all the staff of branches of Bank Tejarat, Tehran province who were 1100. To determine the sample, classified sampling was used and the sample volume was decided to be 300. 290 questionnaires were returned and studied. The method to collect data was survey and the measurement tool was a questionnaire. The validity of the questionnaire was confirmed as acceptable using conceptual and configurative method and the reliability of the measurement was confirmed through Cronbach's Alpha as 0.850. To collect data, the standardized questionnaire (Chen *et al.*, 2012) was used. To analyze the data, firstly Lisrel software was used to find out whether the theoretical model was acceptable and then route coefficient and specified t test were used to analyze the data. The results showed that the model was used for the determined sample and the fitting of the model was acceptable. The results of data analysis showed that the quality of knowledge management system can have positive effect on the personnel's attitude toward knowledge sharing. Self-efficacy of the knowledge management system does not have a positive effect on the staff's attitude toward knowledge sharing. Self-efficacy of knowledge management does not have a positive effect on the goal of knowledge sharing interaction. Good organizational climate has a positive effect on the attitude toward knowledge sharing. Good organizational climate has a positive effect on the goal of knowledge sharing interaction. Good attitude has a positive effect on the goal of knowledge sharing interaction in order to share knowledge.

Keywords: *Quality of knowledge Management System, Self-Efficacy of Knowledge Management System, Organizational Climate, Goal of Knowledge Sharing*

INTRODUCTION

Nowadays knowledge is considered as a valuable and strategic source and is raised as a competitive property and source in the organizations. Presentation of products and services with suitable and economic quality without management and correct use of this valuable source is difficult and impossible. Organizations that look at knowledge as an asset and develop the organizational values and norms that support establishment and sharing of knowledge are successful. Although vast researches were conducted in the area of knowledge management, the relations between principles of knowledge and knowledge process facilities have not been shown. Lee and Choi, 2003 showed comprehensive and integrated relations between knowledge management empowerment and processes to create knowledge and average relation between knowledge management and organizational performance in their study and the study in which all the dimensions of knowledge process were not considered, was not conducted at all (Lee and Choi, 2003). Most of the researches have focused on the process to create knowledge and comprehensive studies were conducted in the integrated model of knowledge management including the foundation of knowledge management and facilities of knowledge process, and the researches that study the organizational outcomes and consequences of knowledge management were not conducted. In this

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direction, the current study aiming at studying the role of quality, self-efficacy of knowledge management system and organizational climate in the development process of new services in Bank Tejarat was conducted. In the current study, an integrated research model for knowledge management was designed because the complicated and dynamic specifications of knowledge management process are better to be shown within a framework so that relations among self-efficacy of the knowledge management system, quality of knowledge management system, attitude toward knowledge system and organizational climate and conditions could be analyzed by a comprehensive view. In this study, firstly the issue was expressed and the importance and necessity of it was studied. Then the goals, theoretical framework, research hypotheses, key expressions and conceptual model were expressed.

Description and Statement of the Research Topic

On the eve of the third millennium, knowledge management is on the agenda as a strategic need for the institutions, organizations and service providing entities. Knowledge management guarantees long-term superiorities for the organizations and societies and determines the degree of their use of human, intellectual and information assets. Knowledge management is an attitude that could be implemented by the management of organizations with a little flexibility and competitiveness in the future including being the pioneer in new products and services, opening and creating new markets and not losing knowledge assets (Sarabi and Esmaeili, 2007). Nowadays, knowledge management has become an important and vital issue in the organizations and distribution and spread of knowledge is one of the important activities in knowledge management (Piri and Asefzadeh, 2009). Correct exploitation of rapid developments of science and technology and innovation requires having up-to-date and forerunning knowledge which is by itself one of the effective factors on the attempts and inclination of the organizations in the recent few years toward knowledge management. But as the different researchers have said, knowledge management by itself does not lead to competitive advantage and only paves the ground for materialization of competitive advantage for the organization (Biglari, 2008). Among these, knowledge sharing and increased quality in knowledge processes are of the achievements of knowledge management that have been noted vastly (Bhagat *et al.*, 2002). One of the main goals of directors is to use knowledge management in organizations and to improve knowledge sharing among individuals in the organization in order to create the competitive advantage. The main goal of knowledge sharing is to facilitate the knowledge effectively among the members of the organization (Chen *et al.*, 2012). The companies should collect and share knowledge to improve their skills and qualifications (Liu *et al.*, 2007). Knowledge sharing within the organization is aimed at improving the coordination and increasing the quality of services and performance of the company. The companies are often inclined to implement knowledge processes and knowledge sharing in different organizational units such as production, marketing and R & D units. The studies have shown that knowledge sharing is the fundamental basis to create collective knowledge within organizational networks (Chen *et al.*, 2012). Effective knowledge sharing among the members of an organization leads to reduction of costs in knowledge production and guarantees to distribute the best working methods within the organization and enables the organization to resolve its problems and issues (Tagliaventi *et al.*, 2010). Knowledge sharing can be defined as a systematic activity in order to transfer and exchange knowledge and experience among the members of a group or organization with a common goal. In other words, knowledge sharing is interpreted as the process to identify, distribute and exploit the existing knowledge in order to resolve the issues more suitably in comparison with the past (Holdt, 2007). Social theoretical knowledge shows that self-efficacy of knowledge management system is to regulate behavior and activities according to individual attempts and incentives (Chen *et al.*, 2012). Considering the strategic importance of knowledge management and knowledge sharing, a large spectrum of companies started implementing the different plans of knowledge management. Knowledge management system is a common solution (Chen *et al.*, 2012) that plays an important role in provoking knowledge sharing in organizations. Knowledge management system could be expressed as facilitation of production and protection and sharing of knowledge in organizations (Quaddus, 2005). In some organizations, knowledge sharing is a natural issue, but in others, still the old approach that knowledge is power dominates. Most of the intellectual organizations have started

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strategies aiming at changing these obsolete attitudes. They used many different motivational factors to show that they are determined and serious in the knowledge sharing area in their organization. That is why one of the principal challenges of knowledge management is to make the individuals share what they know because the individuals should make the knowledge that they have earned with difficulty available to others, while this knowledge is considered as one of the key factors of their individual privilege in the organization.

Considering the importance of effective implementation of knowledge management system in service organizations such as banks, unfortunately most of the current systems of knowledge management do not present a complete and correct performance of knowledge management processes and have become information management systems instead. The current knowledge management systems suffer from weaknesses particularly in the processes of knowledge development and sharing. Also due to lack of rich and sufficient experience in the area of knowledge management sharing in most of the organizations, the directors face many problems when creating and implementing knowledge management systems in their organization. Considering what was mentioned, the researcher's goal from this paper is to study the role of the quality of knowledge management system, self-efficacy of knowledge management system and organizational climate in the process of developing new services in Bank Tejarat. The current study is aimed at answering the question as how effective improvement of the quality and self-efficacy of knowledge management system and organizational climate are in developing new services in Bank Tejarat. This study was conducted in the direction of this issue to inform the officials of the organizations and service institutions of the importance of knowledge management in organizational processes and its effective role in production of knowledge and to help the officials of bank Tejarat by presenting solutions to implement knowledge management and sharing better. The domain of knowledge management is one of the newly-emerging areas in management that has been noted by the scientists of organizational science and management and the most important element of knowledge management is its implementation and effectiveness. Knowing knowledge management is necessary as the governing spirit of organizational actions to implement it (Bock *et al.*, 2005). In the recent few years, knowledge management was taken into consideration and discussion about it was developed. These discussions were made by lecturers and researchers of different majors including sociology, economics and management science. They agree that knowledge is in the centre of the world setting. In addition to it, knowledge management and the knowledge and concepts relevant to it are considered as the important and necessary elements for organizations in order to encourage survival and maintenance of competitive ability so that attention to knowledge management by the directors of organizations is considered as a necessary issue (Parham, 2010). What the science-centered organizations do is that they use a systematic solution to obtain and save knowledge to implement knowledge management within the organization and among their staff and they try to change all the staff and directors of the organization to knowledge-centered staff regardless of their job titles and responsibilities (Chen *et al.*, 2012). Most organizations cannot manage science correctly because the individuals' knowledge is internal and implied, but can manage the operational environment in order to develop and share information. They should try to use the existing techniques and plans of knowledge management as leverages to start up their knowledge management as much as possible. The questions including what the suitable model for implementation of knowledge management for bank Tejarat is and what parameters should be considered in this model and how the suitable suggested model for implementation of knowledge sharing and self-efficacy of knowledge management in this bank could be are the topics that were mainly noted by this study. Due to the vast domain of banking industry in our country and the service nature of the relevant organizations, no attempt has ever been made to acquire and maintain the experiences and achievements of the staff and activists in this area and to institutionalize the culture of knowledge sharing, hence in this study in addition to study and analysis of all the effective elements in establishment of knowledge management, the most suitable model for implementation of knowledge management is designed and suggested. This model is the only suggested model in which the role of quality and self-efficacy of knowledge system is taken into account in it and for the first time, the role of self-efficacy of knowledge management separated from the

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strategies of the organization is prepared and the strategies of developing new services are suggested in it. In this study, the management position of bank Tejarat considering the main parameters including the quality of management system, self-efficacy of the knowledge management system and organizational climate in the process of developing new services will be studied and then the differences of these three parameters among the directors and staff are raised according to the degree of education, course of study, age and the work experience. It was tried in this study to use the four variables of organizational climate, self-efficacy, attitude and quality of knowledge management system in the process of developing new services. Technically speaking, the difference between this study and the former studies is that we are after identifying the role of sharing, self-efficacy, organizational climate and quality of knowledge management system on the process of developing new services in Bank Tejarat and no study has been conducted in this regard in the section of banking services yet.

Research History

Among the foreign researches made in this area, many studies were generally conducted in the area of knowledge management, particularly after raising the issue of the information and knowledge society since 1990 in the model of global economy growth. Also in the area of designing and expressing knowledge strategy, there are organizations among which the most important ones could be referred to as theoretical studies of knowledge strategy framework by Zack, 1999, the theoretical model of knowledge strategies by Bierly and Daly, 2002. The spiral knowledge model of Nonaka and Takeuchi, 1995 raised four types of interacting strategies, namely, 1. Knowledge of sociability (which is the result of implicit knowledge becoming explicit), 2. Externalized knowledge (which is the result of implicit knowledge becoming explicit), 3. Mixed knowledge (which is the result of explicit knowledge becoming explicit) and 4. Internalized knowledge (which is the result of explicit knowledge becoming implicit) (Nonaka and Takeuchi, 1995).

Haes and Grembergen showed in the area of relation between studies and coordination of IT and business and supervisory operations of IT (such as structures, processes, communication mechanisms) that the supervisory processes and structures of more mature IT lead to more extensive coordination between IT and business. In this study, the supervisory process of IT consists of formalizing and institutionalizing decision-making regarding strategic IT by supervisory processes of IT (Haes and Grembergen, 2009).

Sang *et al.*, concluded in their study that coordination of IT and business is a multi-dimensional concept that consists of technical and social activities. In other words, this study analyzes the mechanisms of coordination between IT and business from the viewpoint of social and technical activities and it suggests in a conceptual framework of coordination between the two categories that not only the technical performance is found effective in coordination of the two categories of business and IT, but also it shows the human and social performance as effective (Sang *et al.*, 2008).

Many studies were conducted about the different aspects of knowledge sharing. For example, study of the environment and organizational culture of six Russian Companies showed that the governing culture in those companies is the culture against knowledge sharing (Michailova and Husted, 2003).

Sivula, 2001 showed in his study that improvement of knowledge currents in the organization through relations among staff, the customers and shareholders help development of strategic methods by the organization (Sivula, 2001).

Amini, 2009 in his study investigated the effect of social capital on knowledge management cycle and it was tried in this study to investigate the two intangible assets, organizational strategic source, social capital and knowledge management and the way social capital affects the knowledge management cycle. In line with the research hypotheses, the correlation coefficients show that social capital should increase by promoting knowledge management in the organization. The model of structural equations emphasizes on the necessity to deal with the communicative aspect of social capital (trust, cooperation as an obligation of teamwork, being open to criticisms, obligations and expectations, being a member of a joint family) which is the same as the quality of relations and the aspect of structure (warm personal relations, variant and numerous working relations, facilitating connective structure including teams and working committees). In the area of knowledge management cycle, sharing, creation, using and saving of

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knowledge will also become important respectively. In the commercial organization and affiliated companies, social capital and cycle of knowledge management are not at a suitable level. Regarding the social capital, when the individuals are very devoted to the organization, warm personal relations, variant and numerous working relations, feeling of membership in a joint family and trust are at average level. The facilitating communication structure including the teams, working committees, cooperation, openness to criticisms are at low level. Regarding the knowledge management cycle, knowledge reserve is at average level, while creation, sharing and use of knowledge are at a low level (Amini, 2009).

Qolizadeh and Hamidizadeh, (2009) investigated the preventive factors of establishing knowledge management in Isfahan Iron Welding Joint Stock Co. and Irsa Automation and Systems Engineering International Company in their research. This study was after finding answer to the question as to what extent the quality of knowledge, quality of system and quality of services lead to non-establishment of knowledge management system. Two research hypotheses were as follows: 1. Three domains of occurrence (knowledge, system and services) have similar importance in establishment of science management. 2. Fourteen parameters of occurrence have similar importance in establishment of knowledge management. These parameters consisted of support of the senior management for doing research, attention to learning, education and knowledge sharing, use of study room in organization, having network and infrastructures of IT, having human infrastructures of knowledge network, access to information experts, having portal site for access to main resources and competitive advantage of services. The results of the statistical tests indicated that the total mean is higher than average and the criterion deviation and skewness are also balanced. It means that the criterion deviation is suitable and the quantitative skewness is positive. Thus quantitative occurrence is more than the average. In general the system occurrence and services is more than the average, but the knowledge occurrence is less than the average (Qolizadeh and Hamidizadeh, 2009).

Noshari, 2010 investigated the relation between specifications of the working teams and the facilitation of organizational knowledge management in a study. This study was of descriptive-quantitative type and questionnaire was used to collect information. The statistical society of this study was the staff of the working teams based in the branches of the above mentioned managements and the number of the sample society was considered as 1100. The sample volume was 384. In order to generalize the results of the study and to confirm or reject the statistical hypotheses, multiple linear regression method and also factor analysis of data were used through main parameter method to determine each of the factors and factor loads and eventually according to the hypotheses of the study, the teams whose members had supplementary skills facilitated the management of organizational knowledge and also the teams facilitated the organizational knowledge management in an atmosphere of trust (confirmation of hypotheses 2 and 3). The other hypotheses were self-management teams, teams that have leaders, teams whose members have independence and freedom of action and teams whose members had common professional language that do not have a role in knowledge management. But self-management teams were specified as the most important factor in creation of organizational knowledge. The effect of a leader both in the phase of creating organizational knowledge and in the phase of transfer and integrity of organizational knowledge is negative. Independence and freedom of action are considered as the effective factors to create organizational knowledge and the factor of common professional language has not been entered into the model as the only factor that had a very small effect on prediction of dependent variable (Noshari, 2010).

Ramezanzadeh, 2010 conducted a study aiming at designing the assessment tool of knowledge management of the academic staff. The research method is of analytical-descriptive type considering the nature, goals and questions of the research. For this purpose, in this research, firstly a review of the theoretical grounds of the existing studies with regard to the knowledge management models was made and the main agreed parameters were extracted from all models. These parameters were creation of knowledge (identification, acquisition, production and presentation), organization and storage of knowledge, exchange and sharing of knowledge and application and use of knowledge. Then a questionnaire was tailored according to the extracted indexes and considering the responsibilities of the

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academic staff. The results of the study showed that all the parameters to assess knowledge management are higher than the average level as far as the academic staff were concerned (Ramezanzadeh, 2010).

Parham, 2010 conducted a study under the title of describing the challenges of implementing knowledge management and introducing a suitable model for implementation at Shahid Chamran University of Ahwaz. In this study using the questionnaire, seven factors, structure, internal processes, technology, culture, measurement, human resources and leadership were studied to assess the degree of preparedness of Shahid Chamran University of Ahwaz to implement the model of knowledge management extracted from Abou-Zeid, three layered reference model and the obtained results of the selected sample of 77 people out of the statistical society of 465 people were the academic staff of Shahid Chamran University of Ahwaz that indicated that none of the key factors of knowledge management (assessed factors) in the mentioned organization are at a desirable level to implement knowledge management. Eventually the suggestions for removing implementation obstacles of the relevant model were presented and an amended model was introduced (Parham, 2010).

Rahimian and Shami, 2010 conducted a study under the title of study of the effect of factors of organizational culture on establishment of knowledge management processes in the deputyship of technology and planning of the state tax organization. This study was a case study and of quantitative type. The statistical society was the experts of the Deputyship for Technology and Planning of that organization. The research tools were two profile questionnaires of organizational culture and establishment of knowledge management processes. The first questionnaire studied the seven parameters of organizational culture including competitiveness, social responsibility, support, and innovation, emphasis on reward, performance affiliation and stability. The second hypothesis also studied six processes to produce, attract, organize, save, distribute and use knowledge. The results from this study showed that the situation of the parameters of organizational culture and knowledge management is at average level from the viewpoint of experts. There is a positive and significant relation of 0.70 between organizational culture and establishment of knowledge management processes. Also there is a positive and significant relation among each of the seven parameters of organizational culture and processes of knowledge management. Simultaneous regression analysis also showed that only the two parameters of performance affiliation and social responsibility play an effective role in predicting the variable to establish knowledge management processes (Rahimian and Shami, 2010).

Research Hypotheses

1. Quality of knowledge management system has a positive effect on the staff's attitude toward knowledge sharing.
2. Self-efficacy of knowledge management system has a positive effect on staff's attitude toward knowledge sharing.
3. Self-efficacy of knowledge management system has a positive effect on the goal of knowledge sharing interaction.
4. Organizational climate has a positive effect on the attitude toward knowledge sharing.
5. Good organizational climate has a positive effect on the goal of knowledge sharing interaction.
6. Good attitude in the direction of knowledge sharing has a positive effect on the goal of knowledge sharing interaction.

MATERIALS AND METHODS

Methodology

Research Method

The used research method could be enumerated according to the goal of an applied research because its goal is to develop an applied knowledge with regard to the organization. According to the type of research, this study could be considered as a descriptive study. Also according to the research

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methodology, this research is of correlative type. This research is a survey because it was executed in the natural environment of an office with the least interference by the researcher. Since the relation between the dependent and independent variables is analyzed in this research, it has an analytical nature and since no other research was conducted in this regard and in this place, this study is not after completing the first study.

This research is a sectional and temporary study and was conducted within about 7 months and its data were analyzed and collected through a written questionnaire. For analysis method of data, descriptive statistics was used to study the demographical variables (abundance, abundance percentage, etc.) and inferential statistics was used to analyze the research outcomes for testing the hypotheses (t test and route coefficient) using Lisrel software.

Statistical Society and Sample Selection

The statistical society in this study is limited and consists of all the staff of Bank Tejarat in Tehran working at the headquarters of the bank.

Since the number of people of the statistical society can be counted, the formula of a limited society was used and to select the statistical sample, the classified method was applied. It means that the questionnaires were distributed in different districts of Tehran proportionate to the number of staff.

$$n = \frac{NZ^2.pq}{Nd^2 + Z^2.pq}$$

N = Volume of the statistics society of 1100 people

N = Volume of sample

Z = Amount of normal variable of standard unit which is 1.96 at 95% certainty level.

P = the amount of ratio of the existing characteristic in the society. If it is not available, it could be considered as 0.05. In this case, the amount of variance reaches its maximum.

Q = Percentage of the individuals that do not have that characteristic in the society ($q = 1 - p$) and d = the amount of the authorized mistake (0.04).

$$n = \frac{1/96^2.0/05.0/05.1100}{0/04^2.1100 + 1/96^2.0/05.0/05} = 285$$

The researcher has distributed 300 questionnaires out of which 290 questionnaires were returned and can be studied.

The thematic domain of this study investigates the role of quality, self-efficacy of knowledge management system and organizational climate in the process of new services development in Bank Tejarat.

In this study the researcher decides to study this research among the staff of the headquarters of Bank Tejarat due to the geographical domain to collect data. The temporal domain of the current study is from 22 November to 21 December 2014. Thus the obtained results and collected information in this research are relevant to this temporal domain.

Conceptual Model of Research

Considering the theoretical grounds and presented model in the knowledge management area in the current study, the model of studies conducted by Chen *et al.*, 2011 was used to design the model. In this model self-efficacy of the knowledge management system, the quality of knowledge management system and the organizational climate conditions are the independent variables and the attitude toward knowledge sharing is the intermediary variable and the goal of knowledge sharing is the dependent variable of this model.

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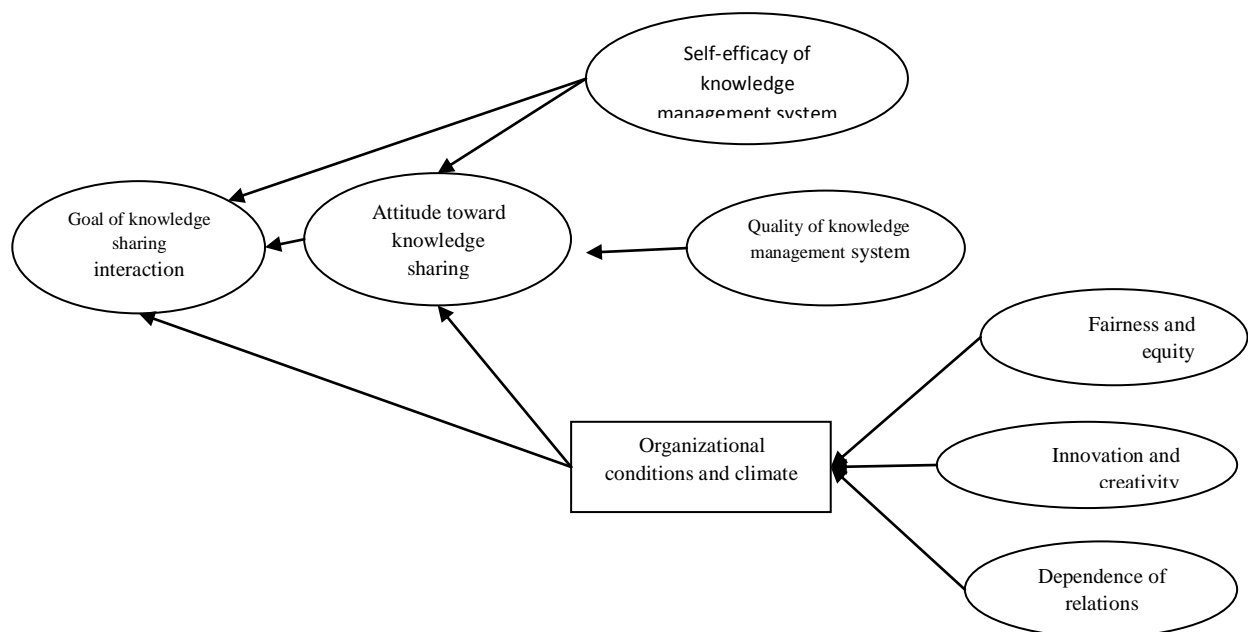


Figure 1: Conceptual model of research Extracted from Chen *et al.*, article, 2012

Validity and Reliability of the Questionnaire

The reliability of the questionnaire is measured from two validity and reliability aspects and the method to calculate them is given as follows:

Research Validity

Validity of research is the tool that could measure the characteristic in question (Khaki, 2009). Any tools that are used to measure should have validity and reliability. The tools are valid when they measure what they have been made for (and nothing else). In other words, validity clarifies whether we have designed a correct tool to assess the variable or structure in question or not. It should be noted that one tool might act correctly to measure a characteristic in one society, but it might not work correctly to measure the same characteristic in another society. In the current study, conceptual and configurative validity were used to determine the validity. In conceptual validity, the different parts of the questionnaire are designed and prepared considering the topic literature and in configurative validity, this questionnaire is presented to the elites after it was designed and once their views are sought, the ambiguous questions are identified and the final questionnaire is prepared. The point that has to be noted is that following collection of data, spss software was used to determine the factor analysis of the questionnaire and the questions with the factor load of less than 0.3 were deleted.

Reliability

The reliability of a test means how stable the test results in case of being repetitious are. Reliability is the tool to collect data and to trust them, particularly in the tests that use Likert spectrum and are usually assessed by Cronbach's Alpha. Cronbach's Alpha method is undoubtedly one of the most valid and best presented methods for assessment in internal coordination with the measurement tools and it is mostly used in the articles and books. Specifically speaking, this method is used when a questionnaire measures several characteristics connected to it and has several sub-categories. Then using this method, coordination among the sub-categories can be measured with one another which are calculated using Cronbach's Alpha formula.

$$\alpha = \left[\frac{j}{j-1} \right] \left[1 - \frac{\sum s_j^2}{s^2} \right]$$

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α in this formula is estimation of the validity, j is the number of test questions and s_j^2 is the variance of the sub-category where the j and s^2 are the variance of the entire test. This method is used to calculate the internal coordination of the measurement tools including questionnaires and or tests that measure different characteristics. It should be noted that Cronbach's Alpha is the measurement tool between 0 and 1 which has to be at least 0.70 in this case to have the required reliability. It is worth mentioning that the reliability of the questionnaire in this study is confirmed by 0.850 figures which is an acceptable coefficient and it could be said that the questionnaire has a good reliability which is demonstrated in table 1 according to Cronbach's Alpha which is divided by variables.

Table 1: Coefficients of Cronbach's Alpha

Alpha coefficient	Variable in question	Item
0.664	Quality of knowledge management system	1
0.657	Self-efficacy of knowledge management system	2
0.701	Organizational climate (fairness, innovation, relations affiliation)	3
0.563	Approach (knowledge sharing)	4
0.537	Intention and goal (knowledge sharing)	5
0.850	Cronbach's Alpha of the entire questionnaire	

Research Findings

Measurement Equations

Questions of the questionnaire are 23 and the information about the mean and criterion deviation of each was shown in table 2.

Table 2: Mean and criterion deviation and factor load of questions of the questionnaire

Factor load analysis	Criterion deviation	Mean	Parameter	
0.411	0.920	2.76	quilty1	Quality of knowledge management system
0.311	0.869	2.96	quilty2	
0.404	0.869	2.82	quilty3	
0.510	0.857	2.80	quilty4	
0.469	0.849	2.90	self1	Self-efficacy of knowledge management system
0.413	0.828	2.75	self2	
0.440	0.840	2.81	self3	
0.446	0.857	2.75	Fairness1	Organizational climate (fairness, innovation and relations affiliation)
0.418	1.034	2.79	Fairness2	
0.500	0.983	2.76	Fairness3	
0.410	0.974	2.73	innovtion1	
0.336	0.873	2.86	innovtion2	
0.492	0.890	2.79	innovtion3	
0.467	0.920	2.80	Affiliation1	
0.464	0.922	2.72	Affiliation2	Attitude (knowledge sharing)
0.468	0.946	2.71	Affiliation3	
0.430	0.879	2.88	Affiliation4	
0.385	0.876	2.96	sharing1	
0.415	0.818	2.92	sharing2	Intention (knowledge sharing)
0.381	0.710	2.63	sharing3	
0.383	0.722	2.49	intention1	
0.369	0.724	2.97	intention2	
0.317	0.917	2.49	intention3	

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This group of equations shows the relation between measured variables (indicators) and the hidden variables by standardized coefficients of regression (B) and at the end every one sentence equation, the error and the amount of indicated variance is given. In addition, the amount of t test also appears under each equation to study the significance of the relation of each indicator and the relevant variable. In each of the measurement equations, the amount of the relevant B is studied by t test and if the amount of t test is smaller than +/- 1.96, it indicates that the measurement variable is unnecessary to estimate the relevant hidden variable and if the measured variable is deleted from the model, the model has to be tested again with a new number of variables. The summary of Lisrel result for the measurement model in the current study is given in table 3 as follows:

Table 3: Results of measurement model

Hidden variables	Indicators	Route coefficients	T amounts
Quality of knowledge management system	quilty1	0.60	8.90
Quality of knowledge management system	quilty2	0.50	7.38
Quality of knowledge management system	quilty3	0.59	8.80
Quality of knowledge management system	quilty4	0.60	8.92
Quality of knowledge management system	self1	0.49	7.18
Quality of knowledge management system	self2	0.73	9.41
Quality of knowledge management system	self3	0.67	8.95
Organizational climate	Fairness1		
Organizational climate	Fairness2	0.64	9.90
Organizational climate	Fairness3		
Organizational climate	innovtion1		
Organizational climate	innovtion2	0.79	11.90
Organizational climate	innovtion3		
Organizational climate	Affiliation1		
Organizational climate	Affiliation2	0.58	9.10
Organizational climate	Affiliation3		
Organizational climate	Affiliation4		
Attitude (knowledge sharing)	sharing1	0.56	---
Attitude (knowledge sharing)	sharing2	0.67	5.85
Attitude (knowledge sharing)	sharing3	0.42	4.87
Intention	intention1	0.39	---
Intention	intention2	0.51	4.00
Intention	intention3	0.53	4.03

Assessment of Structural Models of Research

Lisrel method not only estimates the unknown coefficients of the linear structural equations for the fitting of models that consist of hidden variables and measurement errors in each of the dependent and independent variables, it is also planned for two way causes, simultaneous and dependent affiliation.

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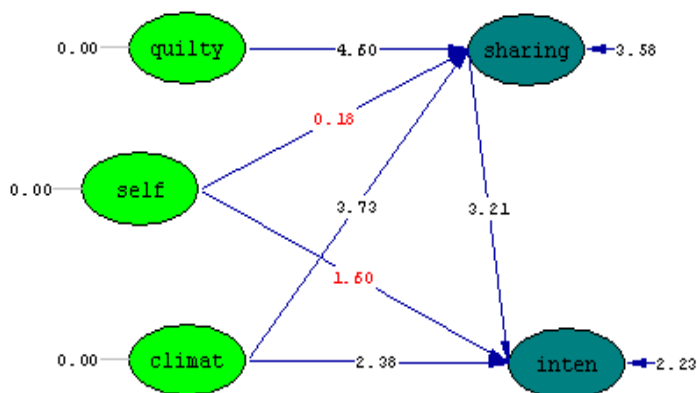


Figure 2: T statistic for coefficients of structural model and measurement

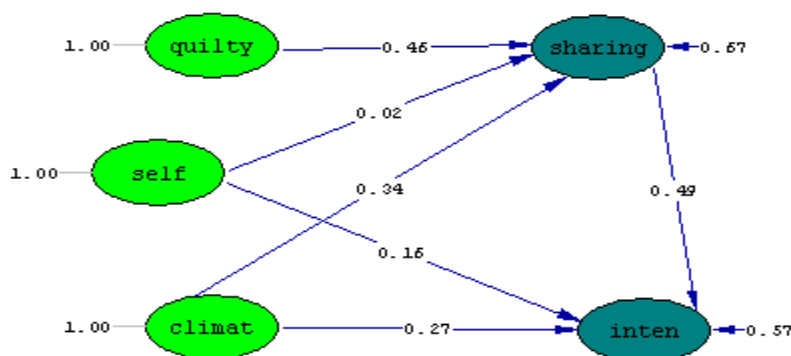


Figure 3: Standard coefficients of structural model and measurement

In table 4, fitting indexes are specified so that if the model has the necessary fitting, the research hypotheses will be tested.

Table 4: Fitting indexes of research model

Fitting index	Macro	Standard amounts	Estimated amounts
Degree of freedom	Degrees of Freedom	-----	98
Root of mean squares of error of assessment	RMSEA	0.05	0.084
Normalized fitting index	NFI	0.90	0.85
Un-normalized fitting index	NNFI	0.90	0.87
Comparative fitting index	CFI	0.90	0.89
Root of mean of remaining squares	RMR	0.05	0.096
Goodness fitting index	GFI	0.90	0.89
Amended goodness fitting index	AGFI	0.90	0.84

As it is shown in table 4, the goodness fitting index (GFI) is 0.89, the amended goodness fitting index is 0.84, the root of mean squares of error of assessment (RMSEA) is 0.084 and the comparative fitting index (CFI) is 0.89. They are all at a relatively acceptable level. Figure 2 shows the t amounts for structural and measurement model and figure 3 shows the factor load for the structural and measurement model.

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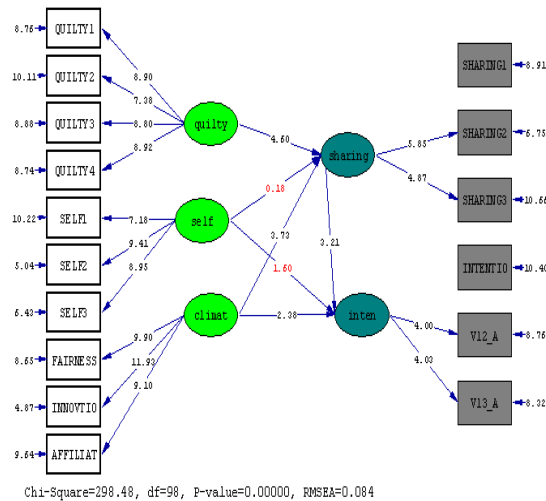


Figure 4: T amounts of structural model (variables and questions)

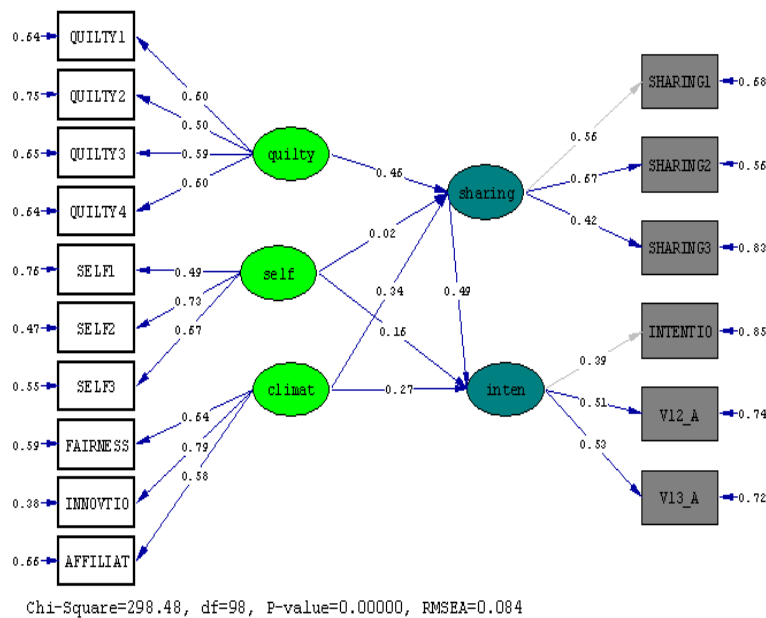


Figure 5: Amounts of factor load for structural model (variables and questions)

Test of Hypotheses

In the current study after drawing the model according to the data, the size of model parameters using Lisrel software was calculated. Thus γ coefficients were tested using t of hypotheses. Further on, the results of hypothesis test are presented.

Test of First Hypothesis

Researcher's claim: "Can quality of knowledge management system have a positive effect on the staff's attitude toward knowledge sharing?"

In fact when this claim is expressed as a statistical assumption, it will be as follows:

H_0 means when the quality of knowledge management system does not have a positive effect on the staff's attitude toward knowledge sharing.

H_1 means when the quality of knowledge management system has a positive effect on the staff's attitude toward knowledge sharing.

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According to the charts of the structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{11} = 0.46$ units. Due to the large size of t statistic amount of 4.60 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of quality of knowledge management system on the staff attitude toward knowledge sharing is confirmed.

Test of Second Hypothesis

Researcher's claim: "Can self-efficacy of knowledge management system have a positive effect on the staff's attitude toward knowledge sharing?"

Statistical assumption:

H₀ means when the self-efficacy of knowledge management system does not have a positive effect on the staff's attitude toward knowledge sharing.

H₁ means when the self-efficacy of knowledge management system has a positive effect on the staff's attitude toward knowledge sharing.

According to the charts of the structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{12} = 0.02$ units. Due to the small size of t statistic amount of 0.18 out of 1.96, This relation is not supported by the data (it is significant at the error level of 5%) and the researcher's hypothesis indicating the effect of self-efficacy of knowledge management system on the staff attitude toward knowledge sharing is not confirmed.

Test of Third Hypothesis

Researcher's claim: "Can self-efficacy of knowledge management system have a positive effect on the goal of knowledge sharing interaction?"

Statistical assumption:

H₀ means when the self-efficacy of knowledge management system does not have a positive effect on the goal of knowledge sharing interaction.

H₁ means when the self-efficacy of knowledge management system has a positive effect on the goal of knowledge sharing interaction.

According to the charts of the structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{13} = 0.16$ units. Due to the small size of t statistic amount of 1.60 out of 1.96, This relation is not supported by the data (it is significant at the error level of 5%) and the researcher's hypothesis indicating the effect of self-efficacy of knowledge management system on the goal of knowledge sharing interaction is not confirmed.

Test of Fourth Hypothesis

Researcher's claim: "Can good organizational climate have a positive effect on the staff's attitude toward knowledge sharing?"

Statistical assumption:

H₀ means when organizational climate does not have a positive effect on the staff' attitude toward knowledge sharing.

H₁ means when organizational climate has a positive effect on the staff' attitude toward knowledge sharing.

According to the charts of the structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{14} = 0.34$ units. Due to the large size of t statistic amount of 3.73 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of organizational climate on the staff attitude toward knowledge sharing is confirmed.

Test of Fifth Hypothesis

Researcher's claim: "Can good organizational climate have a positive effect on the goal of knowledge sharing interaction?"

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Statistical Assumption:

H₀ means when good organizational climate does not have a positive effect on the goal of knowledge sharing interaction.

H₁ means good organizational climate has a positive effect on the goal of knowledge sharing interaction.

According to the charts of the structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{15} = 0.27$ units. Due to the large size of t statistic amount of 2.38 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of organizational climate on the goal of knowledge sharing interaction is confirmed.

Test of Sixth Hypothesis

Researcher's claim: "Can good attitude toward knowledge sharing have a positive effect on the goal of knowledge sharing interaction?"

Statistical assumption:

H₀ means when good attitude toward knowledge sharing does not have a positive effect on the goal of knowledge sharing interaction.

H₁ means good attitude toward knowledge sharing has a positive effect on the goal of knowledge sharing interaction.

According to the charts of the structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{22} = 0.49$ units. Due to the large size of t statistic amount of 3.21 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of good attitude toward knowledge sharing on the goal of knowledge sharing interaction is confirmed.

CONCLUSION

Discussion and conclusion

Results of the Analysis of the First Hypothesis

Can quality of knowledge management system have a positive effect on the staff's attitude toward knowledge sharing?

According to the charts of structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{11} = 0.46$ units. Due to the large size of t statistic amount of 4.60 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of the quality of knowledge management system on the staff's attitude toward knowledge sharing is confirmed. In the organizations, the staff could have access to the required knowledge using efficient knowledge management system anywhere and anytime easily and when they face working problems, they can use the information existing in the organization easily. In the current study, the effect of quality of knowledge management system on the staff's attitude toward knowledge sharing is confirmed. One of the key rings of knowledge management system is to share quality knowledge in organization. Thus the directors should prepare the conditions, policies, mechanisms and suitable technologies and to increase mixing cultural aspects and organizational technology of the staff's attitude toward knowledge sharing. Because division and dispersion of knowledge within the organization is the vital pre-condition to establish information and experience that the organization can use it and the directors and officials of organizations can encourage knowledge sharing by measures such as determining rewards to share knowledge, to reuse and to update constantly, to timely access, to encourage the support of organizational culture for knowledge sharing and transfer and to encourage the staff to share knowledge. Comparison of the results of the outcomes of the current study corresponds with the studies conducted by Chen *et al.*, 2012.

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Results of the Analysis of the Second Hypothesis

Can self-efficacy of knowledge management system have a positive effect on the staff's attitude toward knowledge sharing?

According to the charts of structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{12} = 0.02$ units. Due to the small size of t statistic amount of 0.18 out of 1.96, this relation is not supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis indicating the effect of the self-efficacy of knowledge management system on the staff's attitude toward knowledge sharing is not confirmed. Self-efficacy is the individual's justification of his ability to implement a special behavior. Self-efficacy affects the effective behavior on the incentive and self-confidence to overcome the problems and to improve the performance. Self-efficient knowledge management system refers to the understanding of the personal ability to fulfill tasks in the area related to knowledge management. In the current study, the effect of self-efficacy of knowledge management system on the staff's attitude toward knowledge sharing is rejected and it could be said that although self-efficacy results in increased incentive and self-confidence of the staff to use knowledge management system, it is not effective on the staff attitude toward knowledge sharing. Since knowledge sharing is effective on gaining the competitive advantage and increased organizational performance, it is recommended that the directors of banks change the staff's attitude toward knowledge sharing by different job incentives including financial, non-financial ones (such as type and style of management, method of doing teamwork and separating the duties of each member in the system and also the method to distribute financial rewards and support for job promotion of the staff and system of financial reward distribution and staff promotion) and suitable development of culture. Comparing the results of the studies, the results of the current study does not correspond with the studies conducted by Chen *et al.*, 2012.

Results of the Analysis of the Third Hypothesis

Can self-efficacy of knowledge management system have a positive effect on the goal of knowledge sharing interaction?

According to the charts of structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{13} = 0.16$ units. Due to the small size of t statistic amount of 1.60 out of 1.96, this relation is not supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis indicating the effect of the self-efficacy of knowledge management system on the goal of knowledge sharing interaction is not confirmed. Since the role of knowledge sharing on gaining competitive advantage is more than the other variables, the bank directors are suggested to emphasize on this issue and in this way to move toward achieving higher competitive advantages. Also in addition to the effect of self-efficacy of knowledge management system on the goal of knowledge sharing interaction which is weak in an organization, it could be said that the following methods play an important role to improve the organizational performance: "establishment of necessary ground to exchange knowledge, experiences, skills through working teams", "effective cultural development to facilitate learning and teaching" and "establishment of suitable ground and enhancement of advantages of knowledge sharing". Comparing the results of the studies, the results of the current study does not correspond with the studies conducted by Chen *et al.*, 2012.

Results of the Analysis of the Fourth Hypothesis

Can good organizational climate have a positive effect on the staff's attitude toward knowledge sharing?"

According to the charts of structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{14} = 0.34$ units. Due to the large size of t statistic amount of 3.73 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of good organizational climate on the staff's attitude toward knowledge sharing is confirmed. In the current study, the organizational climate consists of three parameters, i.e., fairness and equity, innovation and affiliation of relations. Organizational climate refers

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to the entire internal environment of the organization and consists of a set of specifications that are noticed in the members of the organization that explain the organization and distinguish an organization from other organizations. The individuals are affected by it and are guided and the degree of individual independence is given to the members of the organization and includes the degree that the supervisors determine the communication goals and regulations and methods for their employees. It is also referred to the rewarded behaviors by the organization and different suggested rewards. Many parameters affect the organizational climate and what has been investigated in the current study consists of three parameters of fairness and equity, innovation and affiliation. In the current study the effect of good organizational climate is confirmed by an attitude toward knowledge sharing. Thus it could be said that the organizational environment encourages the staff toward knowledge sharing and increases their incentive to share information and skills with others. It is therefore recommended that the directors of banks create a suitable organizational climate to achieve success in implementing the knowledge management systems. The results of the current study correspond with the studies conducted by Chen *et al.*, 2012; Mortazavi, 2008.

Results of the Analysis of the Fifth Hypothesis

Can good organizational climate have a positive effect on the goal of knowledge sharing interaction?

According to the charts of structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{15} = 0.27$ units. Due to the large size of t statistic amount of 2.38 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of good organizational climate on the goal of knowledge sharing interaction is confirmed. As it was expressed, knowledge sharing is a useful activity which is aimed at transfer and exchange of knowledge and experience of the individuals to access organizational goals and it leads to success of organizations in a competitive environment. But it should not be forgotten that since knowledge transfer is dependent on individuals and the individuals have a key role in it, it does not happen automatically and to reach such a goal, a suitable organizational climate could be an important factor to eliminate the obstacles and to improve the interacting process in knowledge sharing, and what has to be noted more than anything else is the aspect of trust, cooperation and innovation. One of the reasons for inclination toward knowledge sharing is trust. If everyone thinks that any part of his knowledge that is made available to the others is not exploited and the values and abilities of the person transferring knowledge is noted, he will feel more comfortable to make his knowledge available to others. Thus it is suggested that the aspect of confidence building in the organization is noted and the directors encourage the staff to cooperate and form targeted working groups to provide the grounds for creativity and innovation of the staff and to establish new services in the banks by innovation and development of processes. Comparing the results of the studies, the results of the current research correspond with the studies conducted by Chen *et al.*, 2012.

Results of the Analysis of the Sixth Hypothesis

Can good attitude toward knowledge sharing have a positive effect on the goal of knowledge sharing interaction?"

According to the charts of structural equations, the degree of effect of independent variable on dependent variable is $\gamma_{22} = 0.49$ units. Due to the large size of t statistic amount of 3.21 out of 1.96, this relation is supported by the data (it is significant at the error level of 5%), and the researcher's hypothesis with the certainty level of 95% indicating the effect of good attitude toward knowledge sharing on the goal of knowledge sharing interaction is confirmed. The necessary condition to change the separated information and experience to what could be used by the organization is distribution and sharing of inter-organizational knowledge. The most important step is to analyze the knowledge transfer from individual to group or organization and the process to share knowledge. Thus the leadership of the organization should train the staff about the transfer technology and adjustment of using the knowledge information technology by presentation of trainings, consultation and organizational opportunities to link the two and

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to develop the culture and to identify the obstacles on the way of knowledge sharing in the organization and to try to remove the obstacles. In order to establish the ground for knowledge sharing, it is necessary to change the individual's behavior and to reduce the existing obstacles in order to identify the obstacles and then to establish and develop the culture of sharing knowledge in the organization followed by identifying the solutions to overcome them. Comparing the results of the studies, the results of the current research correspond with the studies conducted by Chen *et al.*, 2012

Applied Suggestions

- To create a database that establishes a climate indicating trust for knowledge management sharing.
- To create processes for access to knowledge management system to save information and knowledge related to organizational goals.
- To create the necessary grounds to seek up-to-date and suitable knowledge to do things for users.
- To design efficient knowledge management system to provide the possibility to use the required knowledge for the staff.
- To design and implement an efficient knowledge management system that provides the staff with the possibility to use the required knowledge for the staff promptly and quickly.
- To create an assessment system suitable for evaluation of the ability level and capacities of the staff to use the knowledge management system.
- To familiarize the staff with the goals of knowledge management system and use of a system to assess the logical and reliable performance of the staff.
- To encourage the staff to participate in working teams to increase the use of new ideas in technology and presentation of new services.
- To support the directors of working teams and to attach value to the importance of group and team works in the organization and to encourage the staff to develop and improve the working methods and processes.
- To create a friendly and close climate among the members of the teams and to use the viewpoints and ideas of the members of organization to develop new services.
- To encourage the staff to share knowledge with the team members.
- To create a suitable climate to share the work experiences and methods to do works among the staff.

Suggestions for Future Researchers

- It is suggested that other tools to assess the knowledge sharing and self-efficacy and quality of knowledge management system to be used. Repeating this study in other organizations could increase the generalization capacity of the findings.
- It is better to consider the variable of self-efficacy, affiliated variable of organizational climate and quality of knowledge management system and independent variable of knowledge sharing.
- Very few studies were conducted in the area of self-efficacy of knowledge management systems in the country, thus the researchers are suggested to study the effective factors on self-efficacy of knowledge management systems and the intention of the staff to accept self-efficacy systems in other service institutions.

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