CLARIFYING THE MEDIATING ROLE OF TRUST AND COMMITMENT IN EMPLOYEES' CONTINUANCE INTENTION OF KNOWLEDGE SHARING (A STUDY OF IRAN'S BANK OF INDUSTRY AND MINE)

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ABSTRACT

Regarding the importance of knowledge sharing to achieve competitive advantage in the present situation, this research aims to study and evaluate employees' continuance intention of knowledge sharing, and its relationship with satisfaction, commitment, and trust, and propose some suggestions to improve the employees' manner of knowledge sharing in a descriptive-practical correlational research. So, standard questionnaire of Hashim and Tan (2015) was used to measure the variables of the research. Statistical population includes all 1151 employees of the Bank of Industry and Mine from whom 343 employees were selected as the statistical sample. Structural equation model was used by the help of LISREL software to analyze the data and test the hypotheses. The findings showed that there is a positive and significant relationship between the employees' satisfaction and their continuance intention of knowledge sharing, and meanwhile, trust and commitment, besides having positive relation with research variables, play an effective mediator role.

KEYWORDS: Organizational trust, organizational commitment, satisfaction, knowledge sharing intention

1. INTRODUCTION

In today complicated world, where just the knowledge and information can remove the ambiguities, it is clear that strengthening the organization in knowledge management issues is important, because knowledge management (KM) is an approach which refers to all processes done in an organization to make, record, manage, share, and effective use of knowledge in order to create value, improve efficiency, and achieve strategic goals (Amrous Naila et al., 2014)[4]. Among many processes of knowledge management cycle, knowledge sharing has been known as the most important process and also the cornerstone of knowledge management (Gangeswari, 2015; Blankenship and Ruona, 2009; Yesil and Dereli, 2013). Knowledge sharing can transform the collective individual knowledge into an organizational knowledge (Young, 2007), and so, the organizational knowledge database is coordinated with staff's knowledge (Luu Trong Tuan, 2013). The important output of knowledge sharing is creating new knowledge and innovation which specifically improve organizational performance (Suzilawati Ibrahim, Low Hock Heng, 2015). For example, effectiveness of the organization, innovation capability, efficiency improvement, and team performance improvement are positive consequences of knowledge sharing in this regard (Gangeswari, 2015). Additionally, knowledge sharing has personal benefits as well, and some experimental evidences are associated with the relationship of knowledge sharing and individuals' performance and innovative behavior (Yu, Yu and Yu, 2013). In the bank system, knowledge sharing is more important regarding the speed of changes, sensitivity of monitoring economic indicators, necessity of using new marketing strategies, specialized activities, and more than 9 years of the average period of service in which work force accumulates an extensive knowledge of the bank and its function, and there is a growing awareness that if appropriate evaluation and action are not done and taken, a major part of this vital knowledge and expertise will come out of the organization simply by the employees' retirement.

In the real world, creating and maintaining culture of knowledge sharing can be difficult, because one of the challenges is convincing people to share their knowledge with their colleagues (Lundberg and Lidelöw, 2015). Practically, some

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staffs are interested in sharing their knowledge with others, while it seems that some others are conservative or uninterested. In fact, knowledge sharing will not occur unless there is an intention for it (Sapman *et al.,* 2008). As such, studying the predisposing factors of staff's intention to share knowledge is necessary. The study of previous researches about the problem shows that personal differences in knowledge sharing behaviors can be influenced by person's mental or behavioral consequences. For example, members of the organization are willing to share knowledge more when they are happier with their colleagues and organization (Constant et al., 1994). In most cases, person's mental consequences, like higher employment participation and job satisfaction, can motivate people to share knowledge (Pei-Lee The & Hoongyi Sun, 2012). The experimental evidences show that satisfaction is a motivation to continuity of intention to share knowledge (Hashim & Tan, 2015). It is clear that satisfaction alone is not enough to predict employees' continuous intention to share knowledge, because evidences show that some employees who stop knowledge sharing behavior may have satisfaction and a positive feeling about this decision at first.

Here, trust and commitment have important roles in mediating the relationships. By developing an interactive environment between the parties involved in a relationship, there would be a help to resist against attractive short-term solutions and be cautious against actions which are potentially high-risk, and a mediator role will be played in the interchanges. Continuous knowledge sharing is also a kind of interactions which needs both parties' intentions (i.e. knowledge seeker and knowledge sharers) to provide and receive knowledge (Hashim and Tan, 2015). According to the introduction, it is clear that satisfaction has effects on knowledge sharing intention, and trust and commitment can have a mediator role in this regard. So, it should be noted that although the accumulation of researches about knowledge sharing has provided a useful insight, there is few formal analysis of the satisfaction effect on staffs' knowledge sharing intention and few people have been attempting to merge this interaction with commitment and trust. Therefore, regarding the existing research gap, study seems to be necessary in this regard. This research deals with the issue and it is expected that the findings of the proposed research could provide a theoretical base and experimental evidences of possible orders to predict and explain staffs' knowledge sharing intention in Iran's Bank of Industry and Mine.

2. Research Literature

Nilakanta et al. (2006) emphasize on the vital role of organizational knowledge in general performance. The importance of knowledge for the organizations is also reflected in this view that all knowledge achieved internally and externally is stable resources to maintain competitive advantages (Volpet et al., 2005), (Svetlana Sajeva, 2014).
Knowledge grows in a local level and is placed in a behavioral and cognitive context. It is distributed asymmetrically in every organization and it may be inaccessible to special members (Downport and Porasack, 1998). Knowledge sharing is a way of increasing access to knowledge (Luu Trong Tuan, 2013), and in fact, KS is a concept of interaction between people which is used as a communication process between two or some people to improve and develop people's knowledge (Shabrinna & Silvianita, 2015).

Sange (1994) defines knowledge sharing as "all behaviors which help others to develop their capacity of operation and activity" (Hang et al., 2015). In other words, knowledge sharing is defined as a set of personal behaviors which signifies sharing personal knowledge and expertise with other members (Bing Wu chenyan zhang, 2015), and in fact, it search for knowledge sharing based on the formed behavioral beliefs and it refers to a degree of person's positive or negative feeling toward knowledge sharing with other members of the organization (Wang & Hu, 2015). For example, learning opportunity and knowledge sharing are more available in the environments in which there is a high level of trust and people understand each other well (Killen, 2002).

Mcalister (1995) defines trust in interpersonal relationships as "a degree to which a person trust to another person and he/she is willing to be active based on the other's expressions, actions, and decisions." In the interpersonal relationship, trust is defined in two main dimensions: cognition-based trust and affection-based trust (Suzilawati Ibrahim, Low Hock Heng, 2015). Cognition-based trust merges individual interests and organizational interest. So, individuals' action is balanced with the organizational interest (Luu Tring Tuan, 2013). In his first work, Sezolenski (1969) stated that the existing problems in knowledge sharing occur due to lack of trust in the cause and effect relationship of the shared knowledge and complicated relationship between knowledge provider and knowledge receiver" (Kamal Kishore Jain Manjit Singh Sandhu See Kwong Goh, 2015). Trust manages the risk of losing a unique value in knowledge sharing" (Bing Wu chenyan zhang , 2015). Building trust limits opportunistic behaviors and increases organizational efficiency (Mueller, 2002; Chi Yang et al., 2012).

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So, trust has been introduced as an important determiner of knowledge sharing in many researches (Gruenfeld *et al.*, 1996; Goh, 2002; Chowdhury, 2005; Foos *et al.*, 2006; Cheng *et al.*, 2008 ،Kamal Kishore ،2015). Moreover, in these researches, it is said that motivational factors lead to the effective development of commitment in organization and effective development, in turn, leads to employees' behavior of knowledge sharing (Suzilawati Ibrahim*,* Low Hock Heng, 2015). In an article with the title of "level of commitment to human resource management and knowledge sharing behavior, with respect to the mediator factors", the level of managers' commitment and employees' knowledge sharing behavior were studied. The research showed that high commitment of human resources management has a positive relationship with understood organizational support, and organizational support has a positive relationship with organizational trust and commitment, and finally, understood organizational support and organizational commitment play a mediator role in the relationship of managers' human resource commitment and employees' knowledge sharing (Chi Yang et al., 2012).

Mogotsi *et al.,* (2011), also, in a research with the title of "modeling relationships between knowledge sharing, behavior of organizational citizen, job satisfaction, and job commitment among the instructors in Botswana" showed that job satisfaction and organizational commitment predict knowledge sharing. Tan and Sun (2012) studied the effect of job involvement, job satisfaction, and organizational citizen's behavior on the employees' knowledge sharing behavior (Suzilawati and Ibrahim*,* Low Hock Heng. 2015). On the other hand, according to the commitment-trust theory, two variables of commitment and trust, together, play an important role in mediating relationships. Hashim and Tan (2015) studied this function with the continuity of employees' intention to knowledge sharing and their findings indicated the mediator role of trust and commitment in the relationship of satisfaction and employees' intention to knowledge sharing.

According to the above explanation, now, the conceptual model of research which shows the mediator role of commitment and trust in the relationship of satisfaction and knowledge sharing intention can be provided. Based on this model, these relationships are provided in the general model of the research in figure 1.
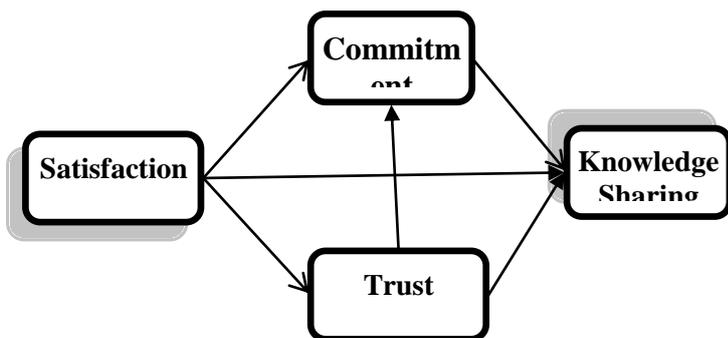

Fig.1. providing an analytical model according to the literature

2. MATERIALS AND METHODS

2.1. Research method
Since this research is done with the aim of using existing knowledge in proving a structural relationship, and an attempt has been done to help deciding in a special field (employees' continuous intention in Bank of Industry and Mine), it is an applied research regarding the objective and a descriptive survey regarding data gathering method. According to the analysis type, it is also based on the structural equation techniques, and it is cross-sectional regarding the time.

2.2. Statistical population and sample of the research
Statistical population of the research includes all 1151employed staffs of Iran's Bank of Industry and Mine.
Sampling method: in this research, sampling method is random sampling (a kind of probability sampling).
Sample size: the sample size is determined by using Cochran formula in this research as below:

$$n = \frac{\dfrac{z^2 pq}{d^2}}{1 + \dfrac{1}{N}\left(\dfrac{z^2 pq}{d^2} - 1\right)}$$

$$n = \frac{N \times \left(Z_{\frac{\alpha}{2}}\right)^2 \times pq}{\varepsilon^2 (N-1) + \left(Z_{\frac{\alpha}{2}}\right)^2 \times pq} = \frac{957 \times (1.96)^2 \times 0.5 \times 0.5}{0.05 \times 0.05 \times 248 + (1.96)^2 \times 0.5 \times 0.5} \cong 286$$

Regarding the calculations done, 287 people were estimated as the least needed statistical sample; however, by considering the possibility of distorted questionnaire, 343 people were determined as the statistical sample.

2.3. Methods and tools of data gathering:
Data gathering process was done into two main parts. In the first step, needed information was gathered theoretically using library sources. In the second step, quantitative data were gathered using distribution of standard questionnaire personally among people in statistical sample. The tool of data gathering and variable measurement in this research is questionnaire. The questions in questionnaire are divided into two parts, general questions and expert questions. General questions include questions about the respondents' demographic features such as sex, age, work experience, and education. Expert questions were also planned based on Hashim and Tan's standard questionnaire (2015) in which the items are localized for the studied statistical population. These questions were graded in five-point grading scale.

Table1. Research variables and distribution of their related questions

Hidden variable	Number of items	Source
Satisfaction	3	Hashim and Tan (2015)
Organizational commitment	5	
Trust	5	
Knowledge sharing intention	3	

To determine the validity of the questionnaire, first, face validity of questionnaire is confirmed by the supervisors and professionals. Then, the construct validity is determined by confirmatory factor analysis. Also, Cronbach's Alfa Coefficients was calculated to determine the reliability of the research. The results are shown in table 2.

3. RESULTS
3.1. Descriptive findings of the research
According to the descriptive statistics associated with the numbers, there have been 101 women, i.e. %34 and 199 men. 366 respondents are married which is %89 of the population size. 34 respondents are single, and 13 respondents have secondary school degree or lower which is lower than 5 percent of the population size. 58 respondents have also associated degree. Bechelor degree holders include 159 respondents which is the most frequent one. Master degree holders are 72 respondents and constitute one fifth of the sample size.
3.2. Inferential findings
3.2.1. First step: Normality test of data
Since the researches are according to the structural model based on the normality of the data, the test of normality was done first. There is no need to normality of all data in the confirmatory factor analysis and structural equation odeling;

however the factors (structures) must be normal (Kline, 2010)[5]. Kolmogorov-Smirnov Test has been used to check the normality of the data. This test is done at the level of %5.

Table 2. Normality test of data (Kolmogorov-Smirnov)

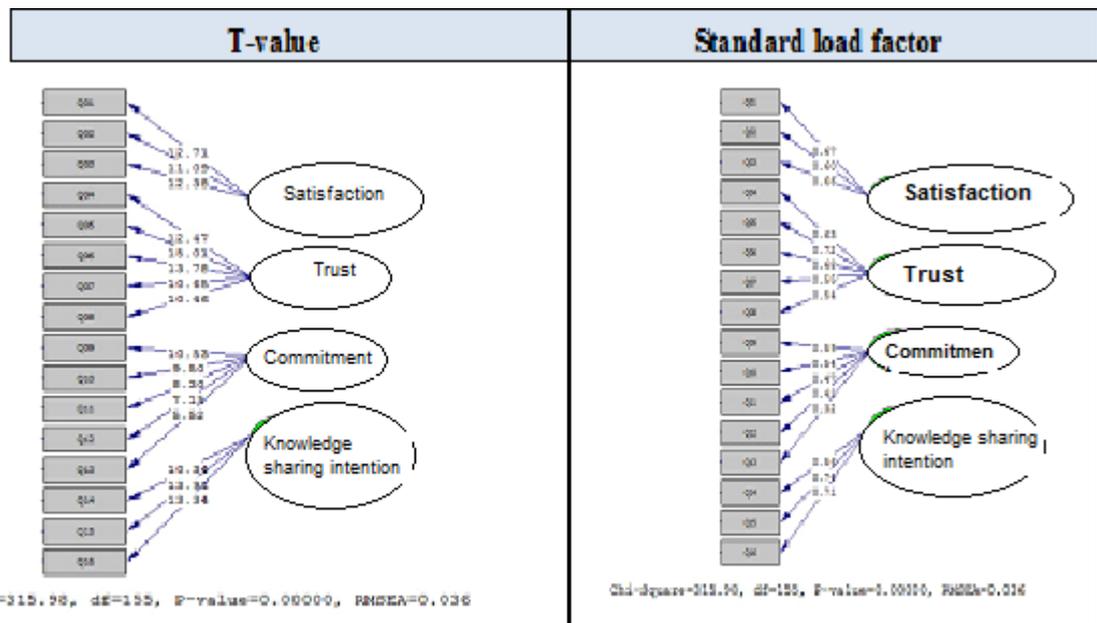|	Satisfaction	Trust	Commitment	Knowledge sharing intention
N	300	300	300	300
Average	4.226	3.793	3.831	3.932
Standard Deviation	0.533	0.601	0.605	0.558
Kolmogorov-Smirnov	3.860	2.742	2.536	4.071
Significance	0.125	0.089	0.121	0.397

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Fig.2. Load factor and t-value (significance) of confirmatory factor analysis of the research scale

Based on the results in table 2, significant values more than %5 were obtained. So, there is no reason to reject the hypothesis. It means that the data distribution of measurement is normal for each dimension. Therefore, parametric test and confirmatory factor analysis test can be used.

Second step: calculations of confirmatory factor analysis

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[5] Kline, Rex B. (2010). Principles and Practice of Structural Equation Modeling, Series Editor's Note by Todd D. Little, The guilford press, New York London

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In this study, questionnaire was used to data gathering. So, the general structure of the questionnaire was tested for content validity by using confirmatory factor analysis. Standard load factor and t statistics were calculated to confirmatory factor analysis and structural equation modeling.

Generally, the following rule is applied to confirmatory factor analysis:
The strength of relationship between factor (hidden variable) and observable variable is shown by load factor. Load factor is a value between zero and one. If the load factor is smaller than 0.3, the relationship is considered weak and it is ignored. Load factor 0.3 to 0.6 is acceptable and load factor bigger than 0.6 is considered to be very good. When the variable correlation is determined, significance test must be done. T-test statistics or t-value is used to study the significance of the relationship between the variables. Since the significance is studied in the error level of 5%, the relationship is not significant if the value of the observed load factor is calculated smaller than 1.96 by using t-value, and it will be shown in LISREL software with a red color (Baker & Demroti, 2008)

The result of the load factor of the measurement scale of the research variable is provided in the table. 4 main factors (hidden variable) and 16 questions (observable variable) are used to evaluate the research variables. Each of these variables are shown in the figure by indexes Q_{01} to Q_{16}.

Table3. The result summary of confirmatory factor analysis of the used scale

	Items	Standard load factor	t statistics	Cronbach's Alpha
Satisfaction	Q01	0.67	12.71	0.859
	Q02	0.60	11.09	
	Q03	0.66	12.38	
Trust	Q04	0.63	12.47	0.719
	Q05	0.72	15.01	
	Q06	0.68	13.78	
	Q07	0.55	10.65	
	Q08	0.54	10.46	
Commitment	Q09	0.59	10.53	0.797
	Q10	0.54	9.50	
	Q11	0.47	8.30	
	Q12	0.41	7.15	
	Q13	0.32	5.52	
Knowledge sharing intention	Q14	0.56	10.34	0.709
	Q15	0.74	13.91	
	Q16	0.71	13.34	

The observed load factor has a value bigger than 0.3 in all cases which shows that correlation between hidden variables (dimension of each of the main structures) and observable variables are accepted. According to the results of the measurement indexes of each used scale in confidence level 5%, t-value is bigger than 1.96 which shows that the observed correlation is significant.

Third Step: Structural equations model of the relationships between variables and proving hypotheses
To evaluate the hypotheses, structural equations model was used to measure the relationship of the research variable. The final model is provided in diagram 4. The model is outlined by deriving from output of LISRER software.
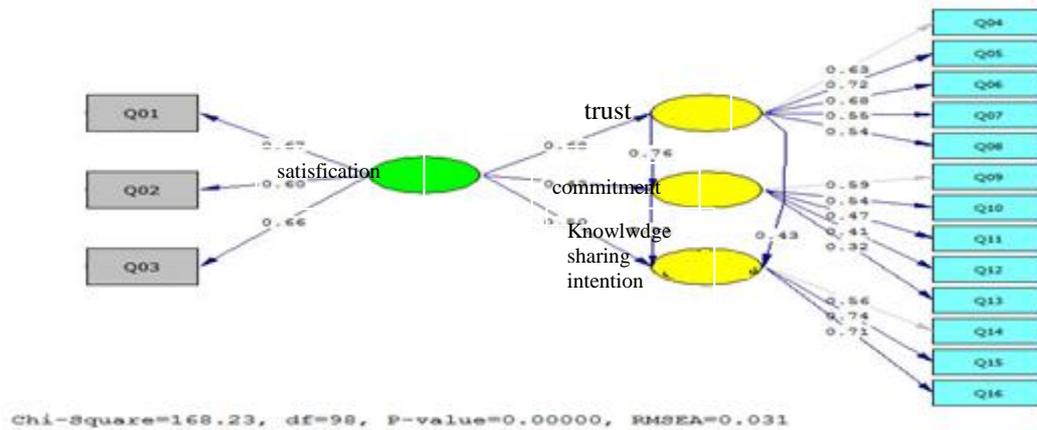
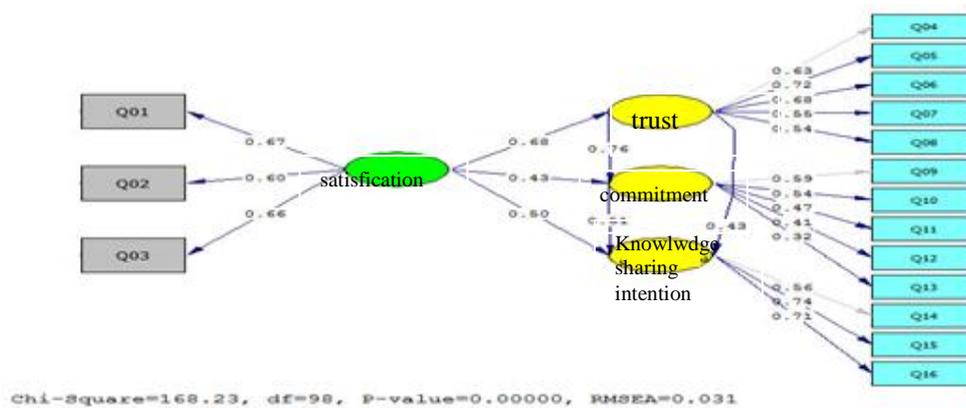Fig.3. Standard load factor of the hypotheses test of the research

Fig.4. T-value statistics of hypotheses test of the research

The above structural model has been saturated in three stages. Fitting indexes show favorable values. The value of Xi-two normal is also 1.710 which is in the accepted range of 1 to 5. So, the structural model has a good fitting.

$$\frac{\chi^2}{df} = \frac{224.12}{131} = 1.710$$

Also, since the fitting index of RMSEA is 0.025 which is smaller than 0.05, the model has a good fitting. The other indexes of good fitting are also in the accepted range.

Table3. Indexes of good index of structural model of the main research hypotheses

Fitting index	SRMR	RMSEA	GFI	AGFI	NFI	NNFI	IFI
Accepted values	<0.05	<0.1	>0.9	>0.9	>0.9	>0.9	**0 - 1**
Calculated values	**0.039**	**0.025**	**0.94**	**0.96**	**0.96**	**0.96**	**0.97**

Table4. Result summary of research hypotheses test

Hypotheses	Path Coefficient	T statistics	Result
Satisfaction has a positive and significant effect on trust	0.68	8.82	Positive and significant
Satisfaction has a positive and significant effect on commitment	0.43	2.32	Positive and significant
Satisfaction has a positive and significant effect on knowledge sharing intention	0.50	4.31	Positive and significant
Trust has a positive and significant effect on knowledge sharing intention	0.43	2.81	Positive and significant
Trust has a positive and significant effect on commitment	0.76	5.82	Positive and significant
commitment has a positive and significant effect on knowledge sharing intention	0.51	4.64	Positive and significant

DISCUSSION AND CONCLUSION

Most managers have understood that the most difficult action in knowledge management is its promotion in different social fields because knowledge sharing does not occur naturally for people (Wang & Hu, 2015). Therefore, understanding effective factors on employees' knowledge sharing intention is highly important. This importance goes back to the goal of knowledge sharing which transfers existing expanded experiences to the employees' future generation, because knowledge, which is a vital resource of the organization, may disappear due to layoffs, retirement, resignation, or even staffs' promotion (Suzilawati Ibrahim, Low Hock Heng, 2015). Paying attention to this issue in the Bank of Industry and Mine, as the only developmental and specialized bank in Iran, is highly important. So, in this research, the type of relationship and influence of satisfaction, commitment, and trust were studied on the employees' continuity of intention of knowledge sharing. The results indicated positive and significant effect of employees' satisfaction and employees' continuity of intention of knowledge sharing; and trust and commitment play an effective mediator role, along with having positive relationship with variable of research. This result is fully consistent with the results of Hashim and Tan's research (2015). Additionally, it is consistent with Pi Li and Hangi's research in terms of the effect of satisfaction and commitment on knowledge sharing.

Many factors are effective on the process of knowledge sharing in the organization. These factors can be divided into four main groups such as human factors, cultural factors, structural factors, and technological factors. Regarding the expansive domain of effective factors on the knowledge sharing process, in this research, there has been an attempt to study human factor and organizational factor, and the study of the other factors is suggested to other researches. At the end, the hope is that managers of the Bank of Industry and Mine could take more appropriate actions to plan and manage conditions which increase knowledge sharing in the organization. Also, it is hoped that they could make more sense of belonging in the staff and increase their commitment to the organization and consequently, take the advantage of having committed and loyal work force in order to achieve organizational goals better.

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