2528-9705

Örgütsel Davranış Araştırmaları Dergisi
Journal Of Organizational Behavior Research
Cilt / Vol.: 3, Sayı / Is.: S2, Yıl/Year: 2018, Kod/ID: 81S2215

EXAMINING THE FACTORS EFFECTIVE IN KNOWLEDGE SHARING OF THE FACULTY MEMBERS OF KERMAN UNIVERSITY OF MEDICAL SCIENCES ACCORDING TO THE THEORY OF PLANNED BEHAVIOR

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ABSTRACT

Objective: Knowledge sharing is an essential issue for organizations, which is defined as sending and distributing knowledge from one person, group, or organization to another person, group, or organization. The theory of planned behavior (TPB) can be used in evaluating ideas, values, and attitudes embedded within knowledge sharing behavior through having some structures dealing with the important aspects of behavioral prediction. Thus, the study was conducted to examine the factors effective in knowledge sharing of faculty members of Kerman University of Medical Sciences according to TPB. Methodology: The present study is an analytical type survey. The research tool was a researcher-made questionnaire based on TPB. The population was 395 faculty members of Kerman University of Medical Sciences, of whom 120 were selected using correlation coefficient. Descriptive statistics - frequency distribution, percentage, variance, mean and standard deviation - and inferential statistic of General Linear Model along with SPSS 16 were used for data analysis. Results: The results showed no significant relationships between the attitude and intention of knowledge sharing of faculty members but a positive and significant relationship between subjective norms and perceived behavioral control with knowledge sharing intention among faculty members. The relationship between demographic and educational information (e.g. age, gender, faculty of activity, academic rank, academic degree and faculty record) with attitude and subjective norms was insignificant, but there was a significant difference between demographic information and perceived behavioral control and intention just according to the rank of the participants in the study. Conclusion: The results showed that TPB is effective in terms of the factors affecting knowledge sharing. Besides the constructs of this theory, some of the background variables such as academic rank of the faculty members can affect their knowledge sharing intention. Thus, it is vital that the authorities of the university's education and research take the necessary corrective measures to enhance faculty members' attitudes for enhancing knowledge sharing behavior of the faculty members of Kerman University of Medical Sciences.

Keywords: *Knowledge Sharing, TPB, Faculty Members, Kerman University of Medical Sciences*

INTRODUCTION

During many years of activity in an organization, human resources gain a set of thoughts, ideas, skills, experiences and applied sciences, known as the knowledge of each individual and recorded in his mind over time. As long as this knowledge exists in the individual's minds, others cannot access and use it (Azaizah et al., 2018). The existence of such people is a precious asset

Geliş tarihi/Recieved: 16.12.2017 – Kabul tarihi/Accepted: 15.03.2018 – Yayın tarihi/Published: 21.08.2018

for an organization, but having such asset can be valuable only when the necessary context for the flow of knowledge exists in the organization and they can share their knowledge with the internal and external members of the organization (Hossein Gholizadeh and Mirkamali, 2010). Sharing knowledge among individuals and parts of the organization, while helping it survive, can create significant educational and learning benefits for it and provide a powerful mechanism for improving productivity in the organization (Pourserajian et al., 2013). Knowledge is the only asset that proliferates when others are included in it and sharing and distribution of it contribute to its development (Hamidizadeh, 2010).

Nowadays, given the growing importance of knowledge, as the key source of gaining competitive advantage, the universities are trying hard to find effective ways for knowledge sharing among faculty members (Mehregan et al., 2010). Knowledge sharing is particularly vital in universities as the source of knowledge generation, especially due to the diversity of specialized groups in it, besides students, faculty, and employees with various characteristics (Keshavarzi & Akhondzadeh, 2012). If the culture of knowledge sharing is welcomed in the academic environment, the scientific interaction resulting from this culture by the faculty members brings about the possibility of effective education and effective learning in the university environment that can provide a platform for students to hypothesize, conceptualize and recognize their specialized field more and to gain skills after graduation (Hamidizadeh, 2010).

Many factors can affect knowledge sharing behavior of faculty members of universities. One of the solutions seemingly effective in identifying effective factors and predicting knowledge sharing behavior is using a framework or conceptual model (Norashikin et al., 2016). One of the most valid behavior prediction models is model of planned behavior, which can be used to study the beliefs, values and attitudes existing in the context of knowledge sharing behavior due to having the structures that consider the important aspects of behavior prediction. TPB is a social cognitive theory designed to understand performing or non-performing of human behavior and measures the effect of attitude, subjective norms and perceived behavioral control on the intention to perform the behavior (Ajzen, 1991). Indeed, attitude is the general feeling of the individuals regarding the desirability or undesirability of a particular subject or behavior (Ellison, 2003). The subjective norm refers to the individual's perception of the views of the most important people to perform or not to perform a behavior. In other words, subjective norm is the perception of community opinions for performing or not performing the individual's behavior (Debar & et al, 2006). The construct of perceived behavioral control as the third determinant of the intention to performing behavior is the perception of an individual from the ease and difficulty of performing behavior (Maro, 2007).

The study has tried to conduct a thorough search for knowledge sharing and TPB in the various internal and external resources of information. For instance, Nemati Anaraki et al. (2013) examined the individual factors affecting knowledge sharing among faculty members of universities and research centers. The results indicated that about 49% of the professors had a positive attitude towards knowledge sharing. About 53% of them had a great tendency to share knowledge with other faculty members - 35 percent of professors with different motivations shared knowledge with other professors. About 52% considered the role of trust and commitment in sharing knowledge as so high. Esmailpanah and Khayat Moghaddam (2013) examined the status of knowledge sharing among faculty members of Islamic Azad University of Mashhad. The results showed that sharing intention had the greatest role in explaining

knowledge sharing and attitudes towards knowledge sharing in explaining the knowledge sharing intention.

Alipour Darvishi and Dolatabadi (2012) suggested a model of the factors affecting knowledge sharing intention among physicians based on TPB in educational hospitals affiliated to Tehran University of Medical Sciences. The results showed that the effect of attitude on the knowledge sharing intention is significant and positive, but the effect of subjective norms and perceived behavioral control on the knowledge sharing intention was rejected. The effect of subjective norms on attitude was positive and significant, so the subjective norms indirectly affect knowledge sharing intention mediated by attitudes. Alizadeh et al. (2010) did a study entitled "Examining the attitudes of faculty members on knowledge sharing in higher education institutions." The results of the analysis of attitudes towards knowledge sharing indicated that 71% of the faculty members at the Faculty of Agriculture and 80% at the Faculty of Natural Resources expressed had positive attitudes towards sharing knowledge with other colleagues. Accordingly, there was a significant correlation between culture, faculty structure, information technology, social trust, and social relationships of the individual and group work with dependent variable (attitudes towards knowledge sharing). The results of the regression analysis using simultaneous method showed that the stated variables were able to explain about 50% in the attitude of individuals towards knowledge sharing.

Goh & Sandhu (2013) examined knowledge sharing behavior of faculty members at Malaysian government and private universities. The results showed that attitudes, subjective norms, perceived behavioral control, emotional commitment and trust affect knowledge sharing intention of faculty members. Perceived behavioral control had the highest effect, and trust and emotional commitment had the least effect on knowledge sharing intention. According to the results, sharing knowledge at public universities was more favorable than private universities. Nordin et al. (2012) examined knowledge sharing behavior of faculty members in Malaysia. The results showed that perceived behavioral control was the most effective factor in determining the knowledge sharing behavior, and attitudes towards knowledge sharing and perceived behavioral control were at the ideal level, and intention, behavior and subjective norms had a relatively good level in knowledge sharing. Chatzoglou & Vraimaki (2009) examined knowledge sharing behavior of a Greek bank. The results showed a significant relationship between attitude, subjective norms and perceived behavioral control with knowledge sharing intention.

Lin & Lee (2004) examined the perceptions of senior executives of the desire to share knowledge. The results show that attitudes, subjective norms and perceived behavioral control have a positive effect on the desire to share knowledge.

Ryua et al. (2003) conducted a study on the behavior of physicians' knowledge sharing in hospitals. The results showed a direct and strong effect of doctors' subjective norms with their knowledge sharing behavior. The relationship between attitude and perceived behavioral control was significant but weaker.

Considering the abovementioned, one can state that the performances in the university are effectively improved if faculty members share their information, experiences, ideas and views (Liebowitz, 2001). Conducting this study will help the relevant managers and authorities at the university to understand the importance and benefits of knowledge sharing, take the necessary steps for decision-making, and plan and direct the behavior of faculty members towards knowledge sharing. Thus, the present study was conducted to determine the factors effective in

knowledge sharing among faculty members of Kerman University of Medical Sciences based on TPB.

Hypotheses

1. There is no relationship between the attitudes and knowledge sharing intention of the faculty members of Kerman University of Medical Sciences according to TPB.
2. There is no relationship between subjective norms and knowledge sharing intention of the faculty members of Kerman University of Medical Sciences according to TPB.
3. There is no relationship between perceived behavioral control and knowledge sharing intention of the faculty members of Kerman University of Medical Sciences according to TPB.
4. There is no relationship between attitude, subjective norms and knowledge sharing intention of the faculty members of Kerman University of Medical Sciences according to TPB.

METHODOLOGY

The study was applied in terms of purpose and descriptive-analytical with survey design regarding method. The population was 395 faculty members of Kerman University of Medical Sciences, of whom 120 were selected using correlation coefficient. Data collection tool was a researcher-made questionnaire - closed questions with a 5-option Likert scale - based on TPB measuring attitude, subjective norms, perceived behavioral control, and knowledge sharing intention. The correctional views of some of the professors and specialists of the library and information science of Kerman University of Medical Sciences were used to evaluate the validity. Cronbach's alpha test was used to determine the reliability, whose values in attitude, subjective norms, perceived behavioral control, and intention were 80, 77, 84 and 72%, respectively, which are acceptable and a with correlation coefficient of 74% the questionnaire is reliable. Descriptive statistics - frequency distribution, percentage, variance, mean and standard deviation - and inferential statistic of General Linear Model were used for data analysis in SPSS 16.

RESULTS

Overall, 82 faculty members of Kerman University of Medical Sciences with mean age of 43.2 and a standard deviation of 8.97 participated in the study, half of whom were males and the other half were females. The most frequent ranks among the professors of the study were the academic degree of the Assistant Professor and the PhD degree and the least frequent academic degree was professor and professional PhD degree. The average work history of the subjects was 11.84 with a standard deviation of 9.9.

Table 1: Examining the relationship between the knowledge sharing intention with attitudes, subjective norms and perceived behavioral control

Variable	Mean	SD	Univariate p-value	Multivariate p-value
Attitude	20.35	5.31	0.09	0.51
Subjective norms	11.70	2.91	0	0.07

Perceived behavioral control	20.61	4.13	0	0
Intention	9.61	2.42		

Based on the data presented in Table 1, the mean of intention score with attitude, subjective norms and perceived behavioral control in the univariate test (9.61), based on subjective norms (P<0.001) and perceived behavioral control (P<0.001) of the faculty members were different, which was statistically significant. In multivariate test, the mean of intention score was only different from perceived behavioral control (P<0.001), which was statistically significant and in other variables, but no significant difference was observed for other variables.

Table 2: Examining the relationship between knowledge sharing intention and demographic information

Variable	Levels	Mean	SD	Univariate p-value	Multivariate p-value
Age		9.61	2.42	0.98	0.14
Gender	Female Male	9.68 9.54	2.59 2.28	0.78	0.32
Academic Rank	Trainer Assistant professor Associate professor Professor	11 9.37 10.83 7.6	2.86 2.22 2.63 1.67	0.02	0.36
Degree	MA Professional Doctorate PhD Professional clinical doctorate Sub-specialist	11 11 9.37 9.23 10.5	3 2.8 1.68 0.57	0.23	0.44
Work Experience		9.61	2.42	0.91	0.16
Faculty	Medicine - Basic Sciences Medical-Clinical Health Pharmacy Paramedical Dentistry Management and information Razi Nursing and Midwifery	9.89 9.57 10.83 9.67 9.8 9.67 8.57 9.83	3 1.74 3.06 4.16 3.7 1.11 2.47 1.47	0.74	0.54

Based on the results of Table 2, the mean score of the knowledge sharing intention with demographic information in univariate test was only different regarding academic rank of the participants (P=0.02), which was statistically significant. This difference between the mean academic rank trainer (11) and professor (6.6) was statistically significant (P=0.007), and there was a difference between the average academic rank of the trainer (11) and assistant professor (9.77), which was statistically significant (P=0.03). Moreover, there was a difference between the mean of professor rank (7.6) and associate professor (10.83), which was statistically significant (P=0.02). There was no significant difference in the mean score of knowledge sharing intention with demographic information in the multivariate test.

Table 3: The relationship between attitude and demographic information

Variable	Univariate p-value	Multivariate p-value
Age	0.75	0.89
Gender	0.91	0.82
Academic Rank	0.15	0.07
Degree	0.94	0.52
Work experience in faculty	0.97	0.87
Faculty	0.77	0.65

According to Table 3, there were no significant differences between the mean score of attitude with demographic data in univariate and multivariate tests.

Table 4: Examining the relationship between subjective norms and demographic information

Variable	Univariate p-value	Multivariate p-value
Age	0.32	0.37
Gender	0.68	0.77
Academic Rank	0.3	0.43
Degree	0.26	0.32
Work experience in faculty	0.52	0.47
Faculty	0.93	0.92

According to the data presented in Table 4, there was no significant difference between the mean scores of subjective norms with demographic information in the univariate and multivariate tests.

Table 5: Examining the relationship between perceived behavioral control and demographic information

Variable	Levels	Mean	SD	Univariate p-value	Multivariate p-value
Age		20.61	4.13	0.53	0.12
Gender	Female Male	21.15 20.07	4.19 4.04	0.24	0.77
Academic Rank	Trainer Assistant professor Associate professor Professor	23.08 20.41 21.33 16.2	3.98 4.09 3.2 1.09	0.01	0.38
Degree	MA Professional Doctorate PhD Professional clinical doctorate Sub-specialist	23 24 20.66 19.61 20.5	4.17 4.41 3.74 2.51	0.18	0.15
Work Experience		20.61	4.13	0.32	0.07

Faculty	Medicine - Basic Sciences Medical-Clinical Health Pharmacy Paramedical Dentistry Management and information Razi Nursing and Midwifery	20.11 20.33 22 20.67 22 20.67 19.07 24	5.27 3.26 2.6 4.5 3.08 3.6 4.9 2.68	0.37	0.3

According to the results in Table 5, the mean perceived behavioral control score was different with the demographic data in the univariate test according to the ranking of the participants (P=0.01), which was statistically significant. This difference was seen between the mean academic rank of the trainer (23.8%) and professor (16.2%) that was statistically significant (P=0.009). There were no significant differences in the mean score of perceived behavioral control with demographic information in the multivariate test.

DISCUSSION AND CONCLUSION

The results showed no significant relationship between attitude and intention of knowledge sharing in faculty members of Kerman University of Medical Sciences but a positive and significant relationship was found between subjective norms and perceived behavioral control with intention of knowledge sharing. Thus, the attitude of faculty members in Kerman University of Medical Sciences has to be strengthened, i.e. university administrators and authorities can participate in the systematic introduction of knowledge sharing benefits to faculty members to increase their intention to share knowledge. This can be done by forming working teams and conducting group research and holding classes on informing the benefits of knowledge sharing so that people value it rationally and promote their career and the reason for their names in the university. Dokht Esmati and Ghorbani (2013) examined the studies conducted in sharing knowledge and the factors affecting it in the academic institutions of Iran. They stated that the knowledge sharing is done informally among employees and that managers of the organizations can encourage the employees to actively participate in sharing knowledge and creating a positive attitude towards it and thus create a knowledge-based culture in organizations. In a study of the factors affecting knowledge sharing using TPB, Mansted et al. (1998) showed that the attitude negatively affects the knowledge sharing intention (Azami et al., 2016). Moreover, Alajmi (2009) focused on knowledge sharing in virtual communities - showed that people's attitude toward knowledge sharing has no significant effect on their intention for this action, which was inconsistent with the results of the present study.

In a study examining the factors related to drug abuse among adolescents within the framework of TPB, Tavousi et al. (2012) showed a significant relationship between subjective norms and behavioral intention. Moreover, in the studies conducted by Ryua et al. (2003), Al-Rafee (2009), Ramayah et al. (2009), it was concluded that subjective norms directly affect intention. Regarding this, university authorities can create an environment to encourage faculty members to share their knowledge by creating a supportive and encouraging environment for sharing

knowledge at the university. Armitage (2005), Martin (2007) and Samadi (2018) have shown that subjective norms and attitudes affective behavioral intention, which is in line with the results of the present study. Moreover, the results of this study are in line with the studies by Wang et al. (2007) and Chang et al. (2009).

Given the results of the study, one can conclude that attitude indirectly affects knowledge sharing behavior making it essential for the authorities and managers to stress changing the attitudes of faculty members of Kerman University of Medical Sciences regarding knowledge sharing. It seems that the reason why the effect of attitude on intention was insignificant in the present study is that sharing knowledge is not formalized systematically in Kerman University of Medical Sciences. Thus, people do not have a positive attitude towards knowledge sharing. Indeed, if people believe in the effectiveness of knowledge sharing in their academic achievement and success and consider it useful and valuable, it is likely that they will continue to strive constantly to share their knowledge. According to the results of this study, one can conclude that Ajzen's model is a reliable model for planning and directing the faculty members' behavior towards knowledge sharing and the relevant administers and authorities at the university can use this model in decision making for directing the individuals to share their knowledge.

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