

The Main factors Influencing Knowledge sharing in private Universities of Malaysia

Masoumeh Khanmohammadi

Master of business administration in human resource management, Limkokwing University of Creativity

Abstract

Because of the fact that knowledge sharing can result in knowledge creation, during past decades it was the main focus of many researchers. On the other hand, knowledge sharing has the potential to impact innovation, thus knowledge sharing can be effective in many different industries. It is clear that knowledge sharing among lecturers also improves the quality of training in universities. Hence, this study first attempted to highlight influential factors on knowledge sharing through reviewing the extant researches. These factors are management support, trust, reward and compensation system and also individual attitude that because of their importance in private universities of Malaysia have been chosen for this study.

Based on the highlighted factors, many hypotheses have been developed that emphasized on the significant relationship between these factors and knowledge sharing. Thus, this study used quantitative approach in order to measure the impact of each of these factors.

221 data have been collected from 5 private universities totally. The collected data was examined through Pearson Correlation test and Regression analysis.

The results from Pearson Correlation test demonstrated that all of the independent variables have positive and significant impact on knowledge sharing. Hence, trust had the most significant impact and the management support had the lowest significant impact among them.

The findings from Multiple Regression analysis demonstrated that all of the factors have significant and positive impact on knowledge sharing, and trust has the most significant impact among them.

Keywords: Knowledge Sharing, Private Universities, Individual Attitude, Trust, Reward, Management Support

1. Introduction

One crucial source for the organizations is the knowledge which provides a good competitive advantage in an economy which is competitive and dynamic (Wang and Noe, 2010). For getting this goal it is vital and also not adequate for the companies to trust just on staffing and training system that focuses on selecting the people that have sufficient skills, competency, knowledge and also aiding and ability to get them all (Brown & Duguid, 1991). The firms must consider the transfer of knowledge and the expertise from the skilled people that will define the person that must know about it (Patterson et al., 2001). It appears that organizations must concentrate on some more sources according to knowledge that are influential and are existed inside the organization (Damodaran & Olphert, 2000).

One of the tasks according to knowledge is known as knowledge sharing and it is highly important for the workers to employ the application of knowledge and the innovation for getting the best competitive advantage for the company (Wang and Noe, 2010). The knowledge sharing between the individuals and by the teams will assist the firm to exploit and capitalize on the sources according to knowledge (Cabera, 2005; Damodaran and Olphert, 2000; Davenport and Prusak, 1998).

The researches have shown that the knowledge sharing and combination are positively relevant to minimizing the production cost and the completion of developing new products project quickly and also the team performance, firm innovation abilities and the operation of the sales growth and instance revenue from new products and services (Lin, 2007; Collins & Smith, 2006; Arthur & Huntley, 2005; Cummings, 2004; Hansen, 2002). Because there exist so many benefits which are potential and can be known from knowledge sharing so some of the companies spend so many time as well as money related to knowledge management actions for example KMS or knowledge management system which uses state technology for having convenient process for storage, collection and also knowledge distribution.

By the way even though these types of investments were revealed in 31.5 billion, they are lost annually by 500 firms of KM because of not being able to do the knowledge sharing (Babcock, 2004). The basic reason of error for knowledge management sharing for making easy the knowledge sharing will be the obstacle of how the company and the inter personal context and individual characteristics can influence the process of knowledge sharing (Dous and Davenport, 2005; Carter and Scarbrough, 2001).

There is no united agreement for the distinction by the researchers and if there is any agreement then it will be between knowledge and information. For example Nonaka (1994) considered information as the flow of messages which has the knowledge based on information but it is not just the information for example the knowledge has information and the know how (Zander & Kogut, 1995; Kogut & Zander, 1992; Machlup, 1980).

The scholars related to management information system field try to use the knowledge in order to suggest there are values and uniqueness in knowledge management sharing studies and mainly when it is compared to the traditional IS (Leidner & Alavi, 2001).

Many experts use the knowledge and information concepts rather than each other and concentrating on the truth that we cannot make differentiation among knowledge and information in knowledge sharing study (Bartol & Srivastava, 2002; Huber, 1991; Makhija & Ganesh, 1997).

Some researchers (Bartol & Srivastava, 2002; Alavi & Leidner, 2001) have employed this idea by considering knowledge is similar to information which is done by members for instance ideas, facts, judgment, expertise relevant to people, team and organizational performance. The knowledge sharing is the provision of task information and the know how to help other ones and collaborate with other people for solving the problems, developing some unique ideas and providing process and some policies (Cummings, 2004; Dorsey and Borman, 2003).

The knowledge sharing will occur by face to face communication or written corresponding by bringing a network with the rest of the experts and then document, develop and capture the knowledge for the rest of the individuals (Cummings, 2004; Pulakos, 2003). Even though knowledge sharing usage is general compared to the sharing of information, the experts use the information sharing concept to mention the sharing with other people that occur in experimental studies which respondents have the programs, list of information and manuals as well.

The knowledge transfer and knowledge exchange are totally different from sharing knowledge. The transfer of knowledge is both sharing knowledge by knowledge source and also applying and acquiring knowledge by the recipient. Generally the knowledge transfer is employed for identification of knowledge movement between different units, divisions and firms rather than

people (Cappetta, Szulanski, and Jensen, 2004). Sharing knowledge and exchanging knowledge were applied instead of each other (Salgado, Collins, and Cabrera, 2006), but the exchange of knowledge includes knowledge sharing and knowledge providing both and the search for knowledge and seeking for knowledge from other people by the employee.

One of the important knowledge based industries is the educational industry because it is the core of producing science and Malaysia these days can be assumed as one of the important countries that has a lot of universities and attracts so many students from around the world. These students are both foreigner and local.

Although the number of universities in this country is high but it seems that in global ranking it does not have high position because according to one of the most famous website¹ that is one of the most valid websites about ranking, the Malaysian universities cannot be seen among the 400 top universities. One of the important indicators in different rankings is generating science. It seems that Malaysian universities by this way can improve their position. Nonaka and Takeuchi (1995), by proposing the SECI model have shown that knowledge sharing can lead to knowledge creation. So it can be concluded that knowledge sharing can be the tool for the positioning of universities in Malaysia to be improved internationally. The improvement of knowledge sharing can be done in both public and private universities.

According to the mentioned points above the enhancement of knowledge sharing in Malaysian universities can lead to knowledge creation but it feels that there is a need for the factors that increase the knowledge sharing level especially in the private universities it will be useful. Hence, this study aims to understand the main elements impacting the knowledge sharing in Malaysian private universities.

2. Literature Review

2.1. Knowledge sharing

Sharing knowledge happens while a person wants to help and also learn from other people for developing some new competency (Yang, 2007). It can be seen as the voluntary of dissemination from obtained skills and the experiences to individuals inside the firm (Wang and Noe, 2010). It is crucial because a person's knowledge does not have enough influence on firm unless it is available for all of the members (Yang, 2007). Therefore, sharing knowledge shows a social task which happens inside a system that knowledge defines a source with value (Wang and Noe, 2010). By means of knowledge sharing of members, the competitive abilities will be created and it goes into performance of the firm (Yang, 2007). In addition, companies are sharing knowledge because they believe that this attempt will cause stimulation of performance, productivity and the effectiveness (Babcock, 2004). The cost reduction, improved efficiency, improved quality and also decline of existed sources (Wang and Noe, 2010).

2.2. Rewards and incentives

The shortage of incentives was recommended to be the main obstacles for sharing knowledge in cultures (Yao, Kam, and Chan, 2007). The incentives such as rewards and recognition were suggested as the interventions which can make the knowledge sharing easy and also help to

¹<http://www.timeshighereducation.co.uk> in 2013

establish a supportive culture (Nelson et al., 2006). Although the predicted positive impact of incentives for the knowledge sharing, the outcomes of researches studying the impacts of some extrinsic rewards were combined.

According to social capital and exchange theories both, the firm's rewards like bonus, promotion and the high amount of salary were demonstrated to have a positive relationship to knowledge contribution frequency made for the knowledge management sharing mainly while staff are recognized with the firm (Kankanhalli et al., 2005). Also staff who assumed a better amount of incentives for using and sharing knowledge is going to report the useful KMS content (Cabrera & Cabrera, 2005). According to the Korean sample, Kim and Lee(2006)understood that a firm's concentration on pay systems based on performance collaborated to sharing knowledge.

Regarding to the considered positive impact of reward, Bock and Kim (2002) mentioned that the predicted extrinsic rewards have a negative relationship with attitudes into sharing knowledge. Many researches realized no relation among the knowledge sharing and extrinsic motivation intention and behavior for knowledge sharing (Lin, 2007 ;Kwok & Gao, 2005). Chang et al. (2007) mentioned that reward which are outcome based and proper rewards for attempts did not develop sharing knowledge between team members of the production development.

It should be mentioned that the study's internal validity for the reward knowledge sharing relations might be suspected as the result of researches which evaluate the factors were gathered in similar survey and make it not possible to use the general directions for seen remarkable relation or the attributed outcomes to general variance method. The findings which were not consistent also recommended the probability of some moderators like contextual and personality contexts. The experts also studied the different kinds of rewards instead of the absence or presence of the rewards impacting the sharing of knowledge (Wang and Noe, 2010). During a laboratory experiment by means of a scenario for dynamic decision making , Ferrin and Driks (2003) realized that the system of cooperative reward impacts positively the sharing of information among the members and a competitive system will show the negative impact.

Also the researches which have analyzed the impact of group based incentives mainly defined positive outcomes in comparison to the ones that analyzed the separate incentives, rate of piece and the incentives of tournament like (Quigley et al., 2007; Wan and Noe, 2010). Siemsen, Roth, and Balasubramanian (2007) defined an interactive impact among group based and individual incentives for example the positive relation among perceived reward and group reward for sharing knowledge was more powerful while the rewards of individual based were enhanced. Weiss (1999) focused on the requirement for aligning the knowledge sharing and incentives.

He stated that the billable hourly system employed for a lot of professional tasks like lawyers or the consultants is considered as disincentive related to sharing knowledge. Lawyers and the consultants will not bill the client for the time period which was for the sharing knowledge because they do not like to pay for the service from the one that they will not get a proper advantage. So the incentives will support the clients and will not share the knowledge.

As a result of challenges in the process of manipulation of reward systems in studies it can be said that most of the researchers have developed their works by some student samples and the

experiments included scenarios which will be employed for establishing various incentive situations. Arthur and Aiman-Smith (2001) were different. They investigated the plan of gain sharing developed for enhancing the suggestions of the staff. The suggestions amount increased very fast along with plan to be implemented but after that it started to decrease over time. Anyways after some time the amount of suggestions showing the second order of learning that current routines and considerations will become bigger than recommendations showing the learning at first order such as some suggestions related to material saving.

H1: Reward has a positive and significant impact on knowledge sharing

2.3. Management support

The support of management for sharing knowledge was demonstrated to be associated positively with the perception of the employees related to culture of knowledge sharing such as trust of employee and their desire to help other people as well as the eagerness for knowledge sharing (Lin, 2007). Lee et al. (2006) understood the fact that top manager support impacted quality and level of sharing knowledge both, by impacting the commitment of the members to knowledge management. The support of coworkers and the considered supervisor as well as their encouragement for sharing knowledge also can enhance the knowledge exchange of the staff and the assumption of knowledge sharing usefulness (Kulkarni, Ravindran, & Freeze, 2006).

Anyways King and Marks (2008) were not successful to define a significant impact for the perceived support of the organization after monitoring for easy usage and KMS usefulness. It seems that support of management for the knowledge sharing can predict better the knowledge sharing of the members. They defined the supervisory monitor such as perceived influences of supervisor for KMS utilization in firm which was a good predictor for the effort of the people that was associated with knowledge sharing frequency. Also according to French and Raven (1959) social power typology, Liao (2008) understood that control of managers for rewards of the acceptable behavior are related positively with the self-report knowledge sharing of the staff. Both of the agency theory and theory of social exchange were applied in researches which investigated the support knowledge of the management that impacts the sharing of knowledge.

H2: Management support has a positive and significant impact on knowledge sharing

2.4. Trust

Many of the cultural aspects which can impact the sharing of knowledge have been recognized but the most attention was paid to trust. A culture which focuses on the fact that trust was identified for assisting to remove the negative impact of perceived sharing costs (Kankanhalli, Tan, & Wei, 2005).

Also it was connected with the intranet based KMS's implementation, knowledge sharing individually and also the capability of the firm for knowledge combination and exchange (Hsu, 2006; Collins & Smith, 2006; Liao, 2006). Also a firm's climate which concentrates on individual competition might show an obstacle for sharing knowledge and the perceptions of the cooperative team aid the trust creation, a crucial situation for sharing knowledge (Schepers, & Van den Berg, 2007).

Besides trust, the study also demonstrated that firm with the culture focusing on more innovation will more do the implementation of KMS intranet (Ruppel & Harrington, 2001) and also help the sharing of information in subjective norms which motivate sharing (Bock, Zmud, Kim & Lee). Lin and Lee (2006) understood some of the perceptions for relevant benefits of sharing knowledge in business, being compatible to current business procedure and the complicated task to motivate more knowledge sharing as the mediators among organization intention and organization climate for knowledge sharing encouragement.

H3: Trust has a positive and significant impact on knowledge sharing

2.5. Individual attitudes

The research line is hugely is for the reasoned action theory and the adapted subsequent technology model for acceptance that shows how the behavior of individuals are impacted by the attitudes and beliefs (Ajzen & Fishbein, 1975; Davis, 1989). The expectation's of individuals for their knowledge usefulness and by sharing they are able to improve the relations with other ones that have been demonstrated to be relevant to attitudes of positive knowledge sharing that in turn were relevant to intentions of sharing knowledge and the behaviors of them (Kim & Bock, 2002). Also a research relevant to Korean hospital physicians defined that the attitudes are mediated partially the relation among physicians' intention and subjective norms to share the knowledge (Ho, Han & Ryu, 2003). Lee and Lin (2004) studied the senior management understanding of motivating sharing knowledge between employees instead of the ones who share individually. They identified that intention of managers for motivation was related positively to sharing behaviors of the employees. Additionally researches have demonstrated that attitudes of firm such as organizational commitment and job satisfaction can increase the sharing level (Vries, Van Den Hooff & Ridder, 2006; Lin, 2007).

Totally it seems that organizational and job attitudes have the remarkable impact on sharing knowledge. The attitudes which are into sharing knowledge have been demonstrated not just have the straight impact on sharing knowledge but have the indirect impact on sharing behavior that is self-reported by positive influential sharing intentions (Bock, 2005; Lin, 2007).

H4: Individual attitudes has a positive and significant impact on knowledge sharing

3. Method and Results

The nature of this research is quantitative that is also known as explanatory that is in line with the mentioned problem. Hence, after data collection the formulated hypothesis will all be tested.

Related to the nature of study there should be the collection of primary data so the required data for research would be primary data which must be obtained by means of personal questionnaire.

All of the lecturers were the population of study who are working in 4 private universities located in Selangor and KL. The assumed sample for conducting the survey will be the stratified sample approach and contains four whole private universities. The respondents of this study included lecturers. Total number of lecturers in these universities was equal to 630. According to table of Krecie Morgan (1970), the adequate sample size was 240 respondents.

In this study there were two different kinds of question. The first type is called the general questions which include some demographic questions like gender, age and also the level of education. Next there are questions relevant to variables such as independent and dependent factors. For gathering the data for the second set there is an itemizing rate scale method in which the individuals can choose the answers ranked from 1 to 5 (Five point Likert scale). It should be mentioned that questions of this study have been adopted according to the conducted studies by Wang and Noe (2010) and Wei et al. (2012).

For analyzing the data there are different software available but due to quantitative nature of research the proper software would be SPSS. SPSS 20 is the latest version of this software hence it can satisfy the objectives of data analyzes for the study.

From 240 distributed questionnaires among all of the participants, 229 of them have been collected and also 8 of them were not efficient in order to conduct analytical and statistical tests. So, the analysis was carried out by 221 data.

In this research, gender, age, experience and also qualification are considered as the demography variables and the results of analysis is shown in the Table 1.

Table 1: Demographic Analysis

Demographic Factor	Frequency	Percent
Gender		
Male	120	54.3
Female	101	45.7
Total	221	100.0
Age		
21-30	60	27.1
31-40	101	45.7
41-50	30	13.6
51 and above	30	13.6
Qualification		
Bachelor	5	2.3
Master	120	54.3
PhD	96	43.4
Total	221	100.0
Experience		
less than 5	103	46.6
6-10	84	38.0
11-15	24	10.9
16 and above	10	4.5

Table 2 also shows the results of reliability test based on the Cronbach’s Alpha. According to the Nunally (1978) acceptable value for internal consistency is higher than .7.

Table 2: Reliability for 221 data

Variable	No.	Cronbach’s Alpha
Knowledge Sharing	5	.913
Management Support	5	.880
Trust	3	.768
Reward	5	.866
Individual attitude	5	.869

When the data collection process was accomplished, next the question’s average from all the factors was carefully calculated and the results from Pearson Correlation Test are as follow:

Table 3: Correlations

		Knowledge sharing	Reward	Trust	Management support	Individual attitude
Knowledge sharing	Pearson Correlation	1	.489**	.599**	.458**	.512**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	221	221	221	221	221
Reward	Pearson Correlation	.489**	1	.243**	.300**	.335**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	221	221	221	221	221
Trust	Pearson Correlation	.599**	.243**	1	.345**	.489**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	221	221	221	221	221
Management support	Pearson Correlation	.458**	.300**	.345**	1	.495**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	221	221	221	221	221
Individual attitude	Pearson Correlation	.512**	.335**	.489**	.495**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	221	221	221	221	221

** . Correlation is significant at the 0.01 level (2-tailed).

According to the achieved outcomes presented in Table 3, there is 95% confidence that there is a positive relationship due to all of the p-values are below .05 and , the maximum correlation with knowledge sharing is for trust equal to .599. In addition, the minimum correlation is for reward.

Based on the developed hypotheses and the formulated framework this research is going to conduct three main Regression Analysis and they will be defined separately.

Table 4: Impact of trust, management support, reward, and individual attitude on knowledge sharing

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate				
1	.729 ^a	.531	.522	.86298				
a. Predictors: (Constant), individual attitude, Reward, Trust, management support								
ANOVA ^b								
Model		Sum of Squares	Df	Mean Square	F	Sig.		
1	Regression	182.090	4	45.523	61.126	.000 ^a		
	Residual	160.863	216	.745				
	Total	342.953	220					
a. Predictors: (Constant), individual attitude, Reward, Trust, management support								
b. Dependent Variable: knowledge sharing								
Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.431	.232		-1.862	.064		
	Reward	.340	.058	.297	5.909	.000	.859	1.164
	Trust	.453	.061	.405	7.489	.000	.743	1.347
	Management support	.177	.060	.163	2.977	.003	.724	1.382
	Individual attitude	.149	.066	.134	2.257	.025	.619	1.615
a. Dependent Variable: knowledge sharing								

According to results from Table 4, R square is .531 which means 53.1% of the variation for knowledge sharing can be defined by service quality components. By referring to ANOVA table minimum one of the independent factors was highlighted and can significantly impact the knowledge sharing since p-value is zero and below .05. Moreover, VIF value is less than 5 and there is no multicollinearity among the independent variables.

According to the achieved outcomes from Table 4, reward can significantly impact knowledge sharing since p-value is zero and below .05. The column of unstandardized coefficient demonstrates .340 that means the influence is positive. Also for any unit increase of reward, knowledge sharing will rise by .340 units. So, H1 will be accepted by the research.

Based on the outcomes shown in Table 4, there will be 95% confidence regarding effect of management support since p-value is equal to .003 and below .05. In addition, an unstandardized coefficient column show .177 which means these is a positive impact. For each unit increase in

managerial support, knowledge sharing can rise by .177 units. Therefore, the second developed hypothesis is accepted in this research.

Based on the findings in Table 4, there will be 95% confidence for impact of trust since p-value is equal to zero and below 0.05. The unstandardized coefficient column reveals .453 which means there is a positive influence. For unit increase in trust, knowledge sharing will rise by .453 units as well. Thus, third formulate hypothesis is supported by this research.

By referring to the obtained results from Table 4, it can be said that individual attitude has a significant impact on knowledge sharing since p-value is equal to .025 and below .05. Unstandardized coefficient column demonstrates .149 which means there is a positive impact. For each increase in units for individual attitude, knowledge sharing rises by .149 units. Hence, fourth hypothesis will be accepted by this study.

Based on the stated points above, all of the independent factors have a significant influence on the knowledge sharing. Thus, regression equation will be formulated as below:

Knowledge Sharing = -.431 + .340 (Reward) + .177 (Management Support) + .453 (Trust) + .149 (Individual Attitude)

4. Recommendation and Managerial Implication

According to the achieved results, all of the identified variables in this study have significant impact on knowledge sharing of the lecturers. Among trust, reward, individual attitude and management support, trust has the maximum impact. It can be said that the best way for increasing the impact of these factors is using HRM practices and transformational leadership. Previous studies shown that some of the HRM practices such as reward, staffing, training and also performance appraisal can increase trust (Tremblay et al., 2010; Gould-Williams and Davies, 2005). Moreover, some concepts such as management support and trust can be observed in transformation leadership or their outcome. According to Liu et al (2010), transformational leadership has 5 important components as Inspirational Motivation, Vision, Intellectual Stimulation, Personal Recognition and Supportive Leadership.

In order to increase individual attitude we can employ effective training and staffing as 2 common HRM practices. These two practices will contribute to increase knowledge sharing among lecturers.

5. Overall Conclusion

One crucial source for the organizations is the knowledge which provides a good competitive advantage in an economy which is competitive and dynamic (Wang and Noe, 2010). For getting this goal it is vital and also not adequate for the companies to trust just on staffing and training system that focuses on selecting the people that have sufficient skills, competency, knowledge and also aiding and ability to get them all (Brown & Duguid, 1991). The firms must consider the transfer of knowledge and the expertise from the skilled people that will define the person that must know about it (Patterson et al., 2001). It appears that organizations must concentrate on some more sources according to knowledge that are influential and are existed inside the organization (Damodaran & Olphert, 2000).

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The researches have shown that the knowledge sharing and combination are positively relevant to minimizing the production cost and the completion of developing new products project quickly and also the team performance, firm innovation abilities and the operation of the sales growth and instance revenue from new products and services (Lin, 2007; Collins & Smith, 2006; Arthur & Huntley, 2005; Cummings, 2004; Hansen, 2002). Because there exist so many benefits which are potential and can be known from knowledge sharing so some of the companies spend so many time as well as money related to knowledge management actions for example KMS or knowledge management system which uses state technology for having convenient process for storage, collection and also knowledge distribution.

Based on the previous researches, trust, management support, reward system, and individual attitude are the main factors can influence knowledge sharing. The results show that all of these variables have significant effect on knowledge sharing in the private universities of Malaysia,

As a subject of future studies, the framework of this research can be tested in many other private universities. Also this framework can be used in other countries and public universities as well. This will contribute to highlight the importance of variables of this study in the best way.

As the suggestion, the framework of this research can be tested in other industries such as ICT or manufacturing. The reason is that these days almost all of the industries are knowledge based. Therefore, increase of knowledge sharing can help to improve their performance.

Moreover, different studies (e.g. Zhou and Li, 2012; Kamasak and Bulutlar, 2010), have been conducted about increasing innovation through knowledge sharing and this will help us to develop the framework of this research.

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