

DETERMINANTS OF KNOWLEDGE SHARING

Sarah Mardhiah Selamat¹ & Roslina Abd Hamid²

¹*Faculty of Business and Management, UiTM Negeri Sembilan, Malaysia*

²*Faculty of Business and Management, UiTM Perlis, Malaysia*

sarah468@uitm.edu.my

ABSTRACT

Knowledge sharing is the process of transform individual knowledge to organizational knowledge which can helps the organization to get maximum outcomes from the employees. The purpose of conducting this study was to identify the determinants of knowledge sharing in Universiti Sains Malaysia (USM) Penang. 132 out of 351 respondents in USM participated in this study. Data has been analyzed by using SPSS software and the results found that three variables i.e. rewards, self-efficacy and shared goals have significant relationship with knowledge sharing. To conclude, emphasizing on the right determinants of knowledge sharing will motivate the employees to share the relevant knowledge with superiors, colleagues and subordinates.

Introduction - Recently, knowledge sharing has become the subject that attracts researchers to explore. Knowledge is recognized as useful information to gain competitive advantage and sustainability in organization. Thus, the organization must ensure that knowledge sharing is occurred actively and become a culture which foster on mutual giving and receiving knowledge. The latter of sharing knowledge will be beneficial to the employees and organization in terms of productivity improvement and cost efficiency (Blair, 2002).

Knowledge sharing or the contributions by individuals to the collective knowledge of an organization (Cabrera & Cabrera, 2002), is increasingly acknowledged as an important research topic. According to Lu, Leung and Koch (2006), knowledge is often shared among the employees in the organization in various forms and the main objective of sharing knowledge is to transform individual knowledge into organizational knowledge.

Knowledge sharing is crucial whereby it is a fundamental root of the organization establishment. There were many research conducted to determine the factors of knowledge sharing in private sectors. However, knowledge sharing interventions in public sectors are lacking of attention (Cong & Pandya, 2003). Furthermore, in public sectors, rewarding employees are subject to government allocation controlled by the federal government.

Previous research has discovered many factors that have relationship with knowledge sharing. Gray (2001); Jeon, Kim and Koh (2011); and Kankanhalli, Bernard, and Wei (2005); found that perceived consequences, social factors, facilitating conditions, perceived reputation enhancement,

perceived enjoyment in helping others, trust, perceived loss of knowledge power and shared goals lead to the culture of knowledge sharing. Despite variables tested by the mentioned scholars, the researcher came across with other variables to be tested i.e. culture, reciprocal relationship, reward, self-efficacy and shared goals.

Literature Review

Culture

Organizational culture is one of the factors recognized that hinders effective knowledge creation and sharing.

Reciprocal relationship

Community members are willing to share knowledge with other members in order to create a good relationship. According to Bock, Zmud, Kim and Lee (2005), reciprocal relationship has a positive relationship with knowledge sharing. Reciprocity is thought to be a motivator of knowledge sharing in communities of practice where knowledge sharing results in enhancing participants' expertise and providing opportunities for recognition (Bartol & Locke, 2000). The employees were expected to build and maintain a good relationship when they share knowledge with other members.

Reward

Ipe (2003) believed that the real rewards and penalties are indicators to determine whether or not employee wants to share the knowledge.

Self-efficacy

Studies revealed that employees with high self-efficacy have high motivation to share their knowledge (Bock & Kim, 2001; Naresh & Raduan, 2012).

Shared goals

In a study conducted by Chow and Chan (2008) found that a higher level of social network and shared goals contributed to the willingness of organizational members to share knowledge.

Methodology - This is a cross-sectional study on the determinants of knowledge sharing in USM. This section will highlight on data collection procedure, measurement, pre-analysis data and data analysis techniques.

Data were collected during in the range of April to May 2017. Sampling frame was derived from several departments in USM by using stratified sampling technique. The measurement consists of 16 items represents culture, reciprocal relationship, rewards, self-efficacy, shared goals and

knowledge sharing. This measurement used 5-point Likert Scale ranging from '1' as strongly disagree to '5' as strongly agree. From a total of 351 questionnaires distributed, only 132 questionnaires (37.6%) were returned and valid for further analysis.

Data were examined and coded into Statistical Package for the Social Sciences (SPSS). Pre-analysis data found there was no missing data, data appeared to be normal. In order to achieve the objectives of this study, data were analysed further by using SPSS through descriptive analysis, correlation and multiple regression.

Results - The results from data analysis are exhibited in several tables namely, profiles of respondents, factor and descriptive analysis, inter-correlation between variables, and model summary and coefficient.

Table 1 presents profile of respondents in this study. Majority of respondents were female (74.2%) from Human Resource Department (17.4%), 75% and 59.1% of respondents are single and between 21 to 30 years old years old, majority of respondents are Malay (85.6%) and diploma holders (38.6%), and majority of respondents served the organization within 1 to 5 years. Tables can be typed directly onto the sheets. Table headings should be as brief as possible and typed directly above the table.

Table 1: Profile of Respondents (n=132)

| No | Description | Frequency | Percentage (%) |
|----|----------------|------------|----------------|
| 1 | Gender | | |
| | Male | 34 | 25.8 |
| | Female | 98 | 74.2 |
| | <i>Total</i> | <i>132</i> | <i>100</i> |
| 2 | Age | | |
| | 21 to 30 | 78 | 59.1 |
| | 31 to 40 | 28 | 21.2 |
| | 41 to 50 | 17 | 12.9 |
| | 51 to 60 | 7 | 5.3 |
| | 60 and above | 2 | 1.5 |
| | <i>Total</i> | <i>127</i> | <i>100</i> |
| 3 | Ethnicity | | |
| | Malay | 113 | 85.6 |
| | Chinese | 10 | 7.6 |
| | Indian | 9 | 6.8 |
| | <i>Total</i> | <i>127</i> | <i>100</i> |
| 4 | Marital Status | | |
| | Single | 75 | 56.8 |
| | Divorced | 1 | 0.8 |

(continued)

| No | Description | Frequency | Percentage (%) |
|----|---|------------|----------------|
| | Widow/Widowed | 1 | 0.8 |
| | Married with children | 46 | 34.8 |
| | Married with no children | 9 | 6.8 |
| | <i>Total</i> | <i>127</i> | <i>100</i> |
| 5 | Academic Qualification | | |
| | Sijil Pelajaran Malaysia (SPM) | 31 | 23.5 |
| | Sijil Tinggi Persekolahan Malaysia (STPM) | 3 | 2.3 |
| | Diploma | 51 | 38.6 |
| | Degree | 44 | 33.3 |
| | Master | 1 | 0.8 |
| | Others | 2 | 1.5 |
| | <i>Total</i> | <i>127</i> | <i>100</i> |
| 6 | Working Experience | | |
| | Less than a year | 45 | 34.1 |
| | 1 to 5 years | 36 | 27.3 |
| | 6 to 10 years | 25 | 18.9 |
| | 11 to 15 years | 15 | 11.4 |
| | 16 to 20 years | 3 | 2.3 |
| | 21 to 25 years | 4 | 3.0 |
| | 26 years and above | 4 | 3.0 |
| | <i>Total</i> | <i>127</i> | <i>100</i> |
| 7 | Department | | |
| | Human Resource | 23 | 17.4 |
| | Finance | 8 | 6.1 |
| | Marketing | 3 | 2.3 |
| | Admin | 5 | 3.8 |
| | <i>Total</i> | <i>127</i> | <i>100</i> |

Before further analysis was done, Cronbach alpha was conducted to ascertain the reliability of the questionnaires. In Table 2, the authors reported the result for reliability analysis and descriptive analysis for all factors. The alpha result in general, falls within the range of moderate to very good whereby the table exhibits that reciprocal relationship has the highest value for reliability (.888), meanwhile the lowest value for reliability is culture (.679). The values for correlation coefficients were examined to detect multicollinearity problem. As all of the correlation coefficients is significant and the values recorded were smaller than 0.9, the measurement was free from multicollinearity problem. All variables have a relationship with knowledge sharing, except for rewards. Mean reported as above a mid-point of 5-point Likert Scale, ranging from 2.6439 to 3.9636 and standard deviation ranging from .34525 to .90909 respectively.

Table 2: Reliability Analysis and Descriptive Analysis

| No | Factors (Variables) | Reliability | Mean | Standard Deviation |
|----|-------------------------|-------------|--------|--------------------|
| 1 | Culture | .679 | 3.8333 | .34525 |
| 2 | Reciprocal relationship | .888 | 3.9636 | .46549 |
| 3 | Rewards | .767 | 2.6439 | .90909 |
| 4 | Self-efficacy | .874 | 3.9394 | .46519 |
| 5 | Shared goals | .801 | 3.8712 | .51053 |
| 6 | Knowledge sharing | .609 | 3.7396 | .39650 |

A Pearson correlation test was conducted in order to determine the relationship among culture, reciprocal relationship, rewards, self-efficacy and shared goals with knowledge sharing. Table 3 exhibits the inter-correlation values between variables. The Pearson's *r* values show positive significance correlation for all variables with the value of *r* ranging from .322 to .517 and significance at $p < 0.01$, except for rewards ($-.165 > 0.01$).

Table 3: Correlation between Variables

| Variables | Knowledge sharing |
|-----------------------------|-------------------|
| (1) Culture | .322** |
| (2) Reciprocal relationship | .442** |
| (3) Rewards | -.165 |
| (4) Self-efficacy | .517** |
| (5) Shared goals | .512** |

Further, a multiple regression analysis was used to test if culture, reciprocal relationship, rewards, self-efficacy and shared goals significantly predicted the knowledge sharing. The results of the regression indicated the three variables explained 36.4% of the variance in knowledge sharing. The results further explained rewards ($\beta = -.014$, $p = .014$), self-efficacy ($\beta = .292$, $p = .002$) and shared goals ($\beta = .284$, $p = .003$) were significance to knowledge sharing. The detail of information as presents in Table 4.

Table 4: Model Summary and Coefficient

| Factors | Beta | Sig. |
|-------------------------|-------|------|
| Culture | -.014 | .873 |
| Reciprocal relationship | .145 | .107 |
| Rewards | -.193 | .014 |
| Self-efficacy | .292 | .002 |
| Shared goals | .284 | .003 |

Discussion

Based on this research, the findings provide some knowledge on determinants of knowledge sharing, particularly among administration employees in Universiti Sains Malaysia (USM) Penang. Three independent variables are significant i.e. rewards, self-efficacy and shared goals while other two independent variables are not significant i.e. culture and reciprocal relationship.

The relationship between culture and knowledge sharing

Culture is not a significant factor of knowledge sharing in USM. In contrast with research from Ipe (2003) stated that knowledge sharing in the organization is depending on culture of work environment. Wamitu (2015) defined culture as unwritten rules that cannot be learnt through formal training or orientation program provided by organization but it must be learnt by the employees themselves which is the employees learn it by times. Therefore, sharing is difficult for employees to do when they are not familiar and comfortable with the culture of the organization.

The relationship between reciprocal relationship and knowledge sharing

Contrarily, reciprocal relationship is not supporting the previous research from Bock *et al.* (2005). In this research, even the items tested are reliable ($\alpha = .888$), the result is not significant. According to Cong and Pandya (2003), public sector employees have a mindset that they are not getting any benefit from the colleagues when they share their knowledge. Furthermore, the employees are not willing to share knowledge whenever they feel harmful to their career when they are doing so

The relationship between rewards, self-efficacy and shared goals with knowledge sharing

The other independent variables such as rewards, self-efficacy and shared goals are positively related to knowledge sharing. Their finding shows that individual judgement on their contribution can influence motivation for knowledge sharing.

Keywords: *Knowledge Management, Knowledge Sharing, Rewards, Self-efficacy, Shared goals*

Recommendation and Conclusion

Rewards

As expected, rewards is one of the determinants of knowledge sharing, whereby the organization cannot ignore giving rewards to the employees who share their knowledge. To ensure the rewards offered are deemed valuable, the organization must properly design it to fit employees' expectations. In contrast, insufficient rewards system can fail to enhance knowledge sharing. Organizational rewards are identified as useful in motivating individuals to perform desired behaviours (Bartol &

Locke, 2000). The employer should explore more about the rewards available and organize them properly to suit the employees' expectation. There are monetary and non-monetary rewards that the employer can give to the employees. Both types of rewards can motivate the employees to share their knowledge and information with colleagues. For instance, the employees' salary increment is one of the monetary rewards and for non-monetary rewards, the employer can give recognition to the employees when their work performance are good than before and there are continuously improvement.

Self-efficacy

Bock and Kim (2001) said that self-efficacy could be a major factor of self-motivational for knowledge sharing. To increase self-efficacy of the employees, the employer should help the employees to increase their confident level. The higher the confidence level, the higher the self-efficacy. To increase the confident level of the employee, the supervisor can assign a project to the employees that not in their work routine. The empowerment given to the employee to make the decision in completing the project can increase their confident level. This shows that the employer trust them to do the job with their own ways. Giving token to the employees that successful complete the project also can increase their confidence level and they will satisfied with their job and willing to help other by sharing their knowledge about the task.

Shared goals

Since shared goal is one of the significant determinants of knowledge sharing, the employer should align information with the objectives of the organization. Shared vision and mission among employees will lead to knowledge sharing because of their understanding on what to achieve at the end of the day. The goals of the organization must be transparent to the employees so that the employees can see and understand the goals clearly. If the goals set are difficult to be understood by the employees, then the management of the organization must restructure the objectives to be more simple and easily understand by the employees. The employees can plan the strategy and helps the organization fulfil the by sharing the knowledge and information through brainstorming or other methods to ensure that that achieve the shared goals.

REFERENCES

- Bartol, K.M. and Locke, E.A. (2000). Incentives and motivation, In S. Rynes and B. Gerhardt (Eds.), *Compensation in organization: Progress and prospects*, 104–47.
- Blair, D.C. (2002). Knowledge management: Hype, hope, or help?. *Journal of the Association for Information Science and Technology*, 53(12), 1019-1028
- Bock, G.W., & Kim, Y.G. (2001). Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing. *Proceedings of the Pacific Asia Conference on Information Systems (PACIS)*, 1112-1125.

- Bock, G.W., Zmud, R.W., Kim Y.G., & Lee, J. N. (2005). Behavioural intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *Special Issue on Information Technologies and Knowledge Management*, 29(1), 87-111
- Cabrera, A., & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. *Organization Studies*, 23(5), 687-710
- Chow, W. S., & Chan, L.S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. *Information and Management*, 45(7), 458-465
- Cong, X., & Pandya, K.V. (2003). Issues of knowledge management in the public sector. *Electronic Journal of Knowledge Management*, 1(2), 25-33
- Gray, P. H. (2001). A problem-solving perspective on knowledge management practices. *Decision Support Systems*, 31(1), 87-102.
- Ipe, M. (2003). Knowledge sharing in organization: A conceptual framework. *Human Resource Development Review*, 2(4), 337-359.
- Jeon, S.H., Kim, Y. G., & Koh, J. (2011). Individual, social and organizational contexts for active knowledge sharing in communities of practice. *Expert Systems with Applications*, 38(10), 12423–12431.
- Kankanhalli, A., Bernard, C. Y. Tan, & Wei K. K. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *Special Issue on Information Technologies and Knowledge Management*, 29(1), 113 – 143
- Lu, L., Leung, K., & Koch, P. T. (2006). Managerial knowledge sharing: The role of individual, interpersonal and organizational factors. *Management and Organization Review*, 2(1), 15-41.
- Naresh, K. & Raduan, C. R. (2012). The impact of knowledge sharing and Islamic work ethic on innovation capability. *Cross cultural management: An International Journal*, 19(2), 142 – 165.
- Wamitu, S. N. (2015). Tacit knowledge sharing in public sector departments in Kenya. *Open Journal of Business and Management*, 3, 109-118.