

Intention to Share Knowledge in Computer: A Factor Analysis

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Abstract

This research was conducted to examine the factors that influencing the intention to share knowledge through computer, consequently, it supported the collaborative learning environment among the students. While, one of these factors is students' willingness to communicate and collaborate. Therefore, a conceptual model was developed to test the reliability of this measurement. A sample of 68 Master of Business Administration (MBA) students from three courses participated in the survey. The research used business school (MYIBS) electronic learning (e-learning), that open source software platform based on Claroline (<http://www.ibs.utm.my/myibs>) to gauge students' response on intention to share knowledge through the forum. The results indicate that the measures of all three factors are reliable and that they are positively correlated to intention to share knowledge in computer supported collaborative environment.

Key Words: Knowledge sharing, knowledge management, Computer-Supported Collaborative Learning

INTRODUCTION

It is believed that the general use of information and communication technology (ICT) has influenced the manner people do business and learn. In education, ICT has given rise to online learning, distance education, social networking, media sharing and network-centric methods in developing learning procedures (Cachia, 2008). Social knowledge networking is an important facet in education and innovation that has shaped many organisations and academic institutions with sheer disregard for geographical presence (Crawford *et al.*, 2009). Improved information and communication technology has facilitated knowledge sharing process and made individual learning easier than ever before. It is widely recognised that effective knowledge sharing is always possible when people are equipped with mutual understandings and suitable technology (Egan, 2003; Geraint, 1998). Therefore, in education, knowledge sharing through ICT is accepted as changing educational system, facilitating communication processes, enabling team works activities, enhancing interactive performances, preventing repetitive work and promoting creativity among individuals.

Moreover, computer supported collaborative learning (CSCL) is becoming more and more popular in educational system. Stunkel (1998) stated that computer-mediated communication (CMC) is increasingly used within groups and teams in educational environment. Researchers have indicated that students can learn more efficiently in-group work when they are supported by computer technologies (Johnson and Johnson, 1999). Recognising the powerful role of knowledge sharing, prior studies have examined factors influencing successful knowledge sharing among groups (Cooke, Salas, Kiekel and Stout, 2003; Johnson, Lee, O'Connor, Khalil and Huang, 2007).

THEORETICAL FRAMEWORK

Over the years, researchers have demonstrated that computer supported collaborative learning is effective pedagogical tool to heighten social creativity (Arias, Eden, Fisher, Gorman, and Scharff, 2000; Fischer, 1999; Kvan, Yip, and Vera, 1999; Lipponen, 2003; Mulder, Swaak, and Kessels, 2002) They facilitates group dynamics and group process when face-to-face interactions are not possible (Ada, 2008). They also promote group work and interaction and concerns with distributing and sharing knowledge among users. In addition to that, they also enhance learning processes, student collaborations (Kreijns and Kirschner, 2004). And or group perception (Stahl, 2006), detailed analyses of group communication (Arnseth and Ludvigsen, 2006) Concurrently.

This paper strongly agrees that computer with the intention of students' willingness to communicate and collaborate can enhance knowledge sharing among students. Therefore, to achieve our goals we provide accurate and understandable information in an innovative engaging manner.

THEORETICAL MODEL

Technology Acceptance Model (TAM) was used in information systems researches as useful model that concern about computer usage behaviour. This model is used in technology acceptance researches comprehensively and it is well known as a powerful model for describing and forecasting technology acceptance behaviour (Davis et al., 1989). The ultimate aim of Technology Acceptance Model is to offer a clarification of the determinants of computer acceptance as a whole. Likewise, provides a basis for tracing how attitudes, intentions and internal beliefs are affected by external factors (Davis et al., 1989). Subsequently, TAM asserts that "perceived ease of use" and "perceived usefulness" affect computer users' intention and actual computer usage behaviour.

The above model can support our paper that focus on the importance of students behaviour as being willingness to communicate and collaborate in order to participate in knowledge sharing. Thus, knowledge sharing through Internet and computer system can improve and enhance the ability of the students gain more knowledge and better understanding to knowledge that they share.

STATEMENT OF THE PROBLEM

The literature provides extensive account of knowledge sharing in academic environments (Ardichvili, Maurer, Li, Wentling and Stuedemann, 2006; Ho, 2011; Nazemi *et al.*, 2011; Abdul Rahman, 2011). It also provided an evidence for the importance of real-life collaboration and knowledge sharing through online learning environment. Other past researchers like Hwang *et al.*, (2003); Soller, (2002); and Iris and Dov, (2009) have discovered the main determinants of formal and informal knowledge sharing among students. For instance, Von Hippel (1987) and Schrader (1991) found the evidences of sharing knowledge in the United States (US) universities, which explain critical patterns of knowledge sharing whereby students cooperate to solve their problems. This research examines the factors influencing intention to share knowledge in computer supported collaborative learning. One of the goals is to ascertain how embedding supportive technology within traditional classes will enable students to share their possessed knowledge effectively. Further, opportunities exist for research in knowledge sharing in Malaysian higher education setting given the number of researches in other countries dominating this focus.

RESEARCH DESIGN

This inquiry examines the effectiveness of computer in knowledge sharing. It expresses in descriptive and quantitative terms the degree of relationships between dependent and independent variables, as well as their magnitude.

METHOD AND PROCEDURE

Hypothesis

H1. Willingness to communicate and collaborate has a positive effect on the intention to share knowledge.

Population

The research population includes all students' study in Malaysia. However, the international business school of UTM Community are deemed most appropriate sample.

Sample

The sample of 75 male and female students of three IBS classes (IT Strategy, IT Project Management and Finance Management) was randomly selected with the help of the lecturer of those classes. The questionnaire was given to them; hence, every sample in the population had an equal and independent chance of being selected.

The Questionnaire

The questionnaire is divided into two main sections. Section one contains personal profile such as age, gender, marital status and nationality. The second section contains 13 questions and embrace questions about the dependent and independent variables in four subdivisions. In the first subdivision, there are four (4) questions related to intention to share knowledge. Nine (9) questions about the willingness to communicate and collaborate are posed in the second subdivision. Table 3.1 shows the measures and sources. The measures were adapted accordingly for the research.

Table 1.1 Measures and Sources

Measures	Sources
Intention to Share Knowledge	Adoption of the Mobile Internet: An Empirical Study of Multimedia Message Service (MMS). (Hsu <i>et al.</i> , 2007)
Willingness to Communicate and Collaborate	The Perceived Effect of Trust as It Relates to Knowledge Transfer Between Multigenerational Employees. (Lorenz, 2008)

All questions, except demographic ones, used a 5-point Sale ranging from "Strongly Disagree" to "Strongly Agree" as an interval scale data for measuring the objectives of the study.

Statistical Analyses

The data were analysed by using the Statistical Package for Social Sciences (SPSS). The researchers employed an exploratory, descriptive approach in analysing the data involving frequency counts and percentage analysis. The descriptive statistics was used to summarize and describe the prevalence of the study measurement.

RESEARCH FINDINGS

To answer the research question, correlation analysis was used. Results of the correlation between dependent and independent variables involved in this research are depicted in Table 4.6.

Table 2.1 Results of correlational analysis

	Hypothesis	Correlational Analysis (Pearson's r)	Supported Not Supported
H1	Support for willingness to communicate and collaborate with intention to share knowledge	Pearson's r is 0.320, $p < .01$ This is an evidence of positive and significant relationship	Supported

****Correlation is significant at the 0.01 level****

The above Table (2.1) shows that willingness to communicate and collaborate is slightly correlates to intention to share knowledge. The correlation between them is almost $r = 0.320$. According to Hair *et al.*, (2010) the value for the highly correlated factors is 0.5. Therefore, the correlation between Willingness to Communicate and Collaborate (WCC) and Intention to Share Knowledge (ISK) is found to be least significant with $r = 0.320$. As a result, we conclude that the independent variables in this research are slightly correlated to the dependent variable.

DISCUSSION AND CONCLUSION

The correlation findings show that willingness to communicate and collaborate and intention to share knowledge are correlated to each other with Pearson product-moment correlation coefficient 0.320 and is consider slightly correlation because it is below 0.4. But it is still accepted in the study, because this finding support the findings made in prior study by Lorenz, (2008). Intention to share knowledge is the "willingness to share" or "voluntary act of making information available to others". No doubt that intention is determined by proper attitudes toward behaviour, subjective norms, and perceived behavioural control to do different kinds of behaviour (Davenport, and Prusak, 1995).

Intention is the most significant determinant of people's behaviour. The higher the intention to perform certain behaviour, the higher the odds of the actual performance of that specific behaviour will be. Intention to do a given behaviour is the main factor of actual performance of that behaviour. People are more likely to share their knowledge when they have strong intention to do so. But they may not share if they do not have the intention to share. As a result this study shows that those classes measured only few students have the intention to share, other might not. But still the study can be done in other environment and the result might be totally different from what we get in this study.

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