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1st ICRIL-International Conference on Innovation in Science and Technology (IICIST 2015)

20th April, 2015

Universiti Teknologi Malaysia, Menara Razak, Kuala Lumpur Malaysia

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Knowledge Management and Sharing among Students of International Islamic University Malaysia

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Abstract

The increasing adoption and usageof Social Network Software (SNS) in learning environment in this era where emphasis on learning has shifted to students learning centered. SNS has become one of the core enablers in 21st century mode of instruction, the need to determine the extent of its use, factors that influence its usage and ways of improving the system in our academic institutions cannot be underestimated. However, this study examined the factors that determine knowledge sharing using SNS among students of International Islamic University, Malaysia (IIUM). Two theories were used to construct the research model that includes knowledge sharing as a social dilemma and social identity theory. IIUM students are used and self-developed instrument was be employed in data collection. Descriptive statistics, correlation and regression analysis are used to test the relevant hypotheses and finally implication of the study for teaching and learning are also be discussed.The study identifies that knowledge sharing have positive impact on student academic achievement through knowledge enhancement

Keywords. Social Networking software; Web 2.0; Knowledge Management; Knowledge Sharing

1. Introduction

The emergence ofSocial Network Software (SNS) has reshaped the practice and procedure of information creation, renewal and sharing with various individuals or group around the world. Consequently, the opportunity alike created by SNSalso plays important role in students' social life and academic career also in International Islamic University, Malaysia (IIUM). SNS covers a wide set of publishing and social networking tools that make it unpretentious for students and other users to adopt and use and also to combine or render the content in new and novel form. Web 2.0 tools are new social web that enable collaboration, contribution, and interactions (Eijkman, 2011).As a result, educators have started identifying the prospective benefits and richness of the web 2.0 technologies, which lead to incorporating them to the students' learning processes.

Knowledge creation is valueless if it is not shared, thus, knowledge sharing is of utmost importance to the performance of knowledge creation and in leveraging knowledge for greater organisational performance (Mishra & Bhaskar, 2011).

In this regard, knowledge sharing is a routine activity that entails guiding the individuals or audience to behave in a specific way of thinking and reasoning, and it requires understanding and consideration of the individuals' problem situation. Additionally, improvement of successful knowledge sharing requires understanding the users, not just the message(McDermott, 1999). As a result, suggestion was made that says for organizations to attend the effectiveness of knowledge sharing activity there is a need to conduct early assessment in the planning process, which is drawn from representation of the target users in order to find out their desires in term of what to know and how to deliver the knowledge (Tsui, 2006)

This study aim to identify the use and impact of SNS for managing and sharing knowledge among the students. Also the factors that affect and influence the adoption of SNS for these purposes are also discussed.

2. Literature Review

Study conducted by Muñoz and Towner (2009) indicated that students are excited to the application and use of Web 2.0 technologies (i.e. blogs, twitter, podcasts, wikis, social network sites, virtual worlds, video sharing and photo sharing. Consequently, the interaction with these web 2.0 applications allows the exchange of information among students, which is a vital constituent of the knowledge sharing.

Studies have also explored the factors that influence the success of knowledge-sharing using web 2.0 technologies among students. Studies have shown that the application of online learning systems and virtual learning communities cannot force people to share their knowledge with others, it can only be possible through encouragement and facilitation (Yu, Lu, & Liu, 2009). Kinshuk (2009) also affirmed that many educational institutions and organizations have implemented virtual learning communities for encouraging knowledge sharing but it is not possible to simply gather people and ask them to share their knowledge as it will make them learn better.

1.1. Overview of Social Network Software (SNS)

SNS signifies the development in the use of World Wide Web applications and designs. The SNS combines the concepts, technologies, and trends that enable users share, connect, communicate, collaborate, and create information on the web.This discovery is inexpensive and available to individuals who have Internet access, and allows them to be producers as well as be among the worldwide learning community that connects, communicates, collaborates, and shares information (Tolisano, 2008). The main advantage of Web 2.0 over the previous websites is that it does not require technical expertise such as web design or publishing skills to contribute and play notable features, as such it has made easy for people to create, publish, collaborate, and communicate their work or research with others across the globe (The University of Melbourne, 2008).

1.2. Classification of SNS Technologies

Communication online can be either synchronous discussion or asynchronous discussion. Synchronous discussion allows instantaneous access to comments and feedback in a real-time on platforms such as audio chat, video chat, or instant messengers. On the other hand, asynchronous discussion is not in a real-time or live communication that takes place over time on platforms such as e-mail, blogs, social networking, discussion forums, and wikis (Richards, 2010).

1.3. Social Networking Software (SNS) and Learning Environment

SNS has essentially influenced education positively by providing an instant two-way platform of web contents dissemination and creation. Usually, students traditionally interact with the web resources merely as consumers and receivers without any creativity or contribution. However, the revolutionary activities of SNS have changed this game by making this activity interactive, which gives provision for students and other users to actively revolve around web contents by commenting, posting, and uploading the contents.

SNS have radically changed the way people interact with information and data resources on the internet because they allow conversation on the contents and information publication. As explained byHargadon (2008), the web has allowed information publication to attract comments and suggestions from various users, which help to overcome the problem of Information overload.

2. Concept of Knowledge Sharing

Knowledge sharing plays a vital role in effective knowledge management (KM), research has it that almost all the knowledge management initiatives depend upon knowledge sharing (Frost, 2013). To understand fully the concept of knowledge sharing one needs to venture into the field of knowledge management research. The reason been that knowledge sharing has a relationship to the discipline of knowledge management (Wahlroos, 2010). In fact, the knowledge management has attracted a large pool of research in last two decades with various scholars trying to define it based on their research focus. Despite several definitions for knowledge management there is a consistent idea in literature that indicates knowledge management as a "framework that builds on past experiences and creates new mechanisms for exchanging and creating knowledge" (Wahlroos, 2010).

2.1. Determinant factors of knowledge sharing in organizations

Knowledge sharing is a vital asset of almost all organization as such many educational institutions and organizations have employed online learning systems and virtual learning communities to support knowledge sharing (Chen, Chen, & Kinshuk, 2009).

Individual Factors

Literature indicates that knowledge sharing depends on individual factors, which is derived from personal considerations of individual such as beliefs, experience, values, and motivation, expectations, perceptions, attitudes and mind-set towards knowledge sharing (Volady, 2013).

Organizational factors

Wahlroos (2010) posits that organizational factors include organizational culture and managerial implications. Organizational culture involves feedback and valuable contributions and participation from colleagues and the level of collaboration in and across business units, while managerial implications covers the responsibility of providing sufficient training, valuing contributions, giving affirmative feedback, participation and organizational guidelines for using social media tools.

Technological Factors

Technological factors cover Information and Communication Technology (ICT) of the organization, such as internet, intranets, web services, and all other online tools. Lin (2007) reported that it is generally believed that efficient and well-implemented ICT in an organization can support knowledge sharing among staff. ICT services and infrastructures serve as facilitator that encourage and support knowledge sharing because they are related to the knowledge management technology used in the sharing activity (Volady, 2013), and they make knowledge sharing easier and more effective (Riege, 2005).

3. Methods

The survey method was adopted for this study, the population of the study made up of students from International Islamic University, Malaysia (IIUM). The sample size of this research was 385 students drawn from various faculties (Kulliyahs) of the university using stratified sampling technique. The reason for using the sample size of 385 students to represent the population is adequate to represent the population size up to 1,000,000 according to Krejcie and Morgan (1970).

4. Findings

Factor	Items	Name of construct	Communality	Rotated Component Matrix	Alpha Coefficient
1	Knowledge sharing help me get better results in my subjects	Academic achievement	.632	.794	.814
	Knowledge sharing will help me understand the subject material more deeply		.720	.824	
	Knowledge sharing tools make more convenient to complete work in my subjects		.544	.558	
	I feel a sense of belonging when I share knowledge		.683	.816	
	I can gain marks for sharing from my lecturer		.483	.671	
2	I can learn from my home using these Knowledge sharing tools	Learning Enhancement	.659	.811	.769
	I use the tools to help my colleagues		.642	.774	
	I will continue to share knowledge even with students I am not familiar with or like		.458	.664	
	The Features of knowledge sharing tools facilitate my work daily (assignment, term paper etc)		.569	.729	

Table1. Benefits of using Knowledge Sharing Tools (web 2.0 Tools)

The results show a positive relationship between benefit and technological support of ($r = .479$, $p < .05$), demonstrating a significant relation that technological support enhances benefits of Knowledge Sharing among students. However, there is no relationship found between benefit and other variables (Cost, Web.2.0 Experience, Workgroup, Knowledge Sharing, and Technology Availability) either in $p<0.05$ or $p<0.001$, explaining that benefit to share knowledge did not have influence on these variables.

On the other hand, the result on the cost of knowledge sharing explains that there was no relationship found between the cost and all the variables, indicating that the cost of sharing has no significant to other variable used in this model neither in $p < 0.05$ or $p < 0.01$.

5. Conclusion and Recommendation

The results indicated that there are positive influence of organizational factors on Knowledge Sharing where both workgroup and Knowledge Culture have a strong link to Knowledge Sharing. This shows how IIUM are able to achieve effective Knowledge Sharing using web 2.0 tools. It was also found in this study that technological factors (Technology Availability and Technology Support) were not significantly influencing Knowledge Sharing but Technology Support has a correlation with organizational factors (workgroup and Knowledge Culture) which may likely have significant influence to the Knowledge Sharing.

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