Factors Affecting Teacher's Use of Web Portal in Knowledge Sharing: A Behavioral Intention and Technology Acceptance Perspective

Malvin Rivera Tabajen
Philippine Normal University, Philippines
tabajen.mr@pnu.edu.ph

Abstract A person's perception towards technology use is important to plan for its effective use in knowledge sharing. This study looked into the web portal used in knowledge sharing in analyzing the correlation between technology acceptance and behavioral intention of teachers. This study identified the participant's knowledge sharing intention. Purposive sampling was used to select 40 teachers who are using the "blended" approach of instructions to participate in the survey, and 10 from them were selected for interview. This research used mixed methods to gather data and made a comparative analysis with the results generated from quantitative and qualitative methods. Findings revealed a significant relationship between the perceived behavioral controls and technology acceptance. This emplies that technology structure is considered a factor that controls a persons intention to engage in knowledge sharing. Diversity and variability of the population could be used to elicit more substantial evidences and broaden the area for future studies.

Keywords *Behavioral intention, knowledge sharing, technology acceptance*

Introduction

Organizations consider knowledge as a valuable resource which is used to develop their growth and maintain their advantage. Strategic value of knowledge has made many organizations able to identify means to utilize knowledge. Acquired information broadens knowledge when it is processed and utilized effectively, hence, people become more equipped in dealing with situations. Orr and Stephen (2014) emphasized the value

of knowledge use. They even stressed that tangible or physical assets like equipment decrease in value when they are used, but knowledge increases in value as they are used. Furthermore, Garg and colleagues., (2018) deduced that the organization's competitive advantage depends on its knowledge: on what it knows; how it applies knowledge; and how fast it can discover innovations. Thus, organizations should devote efforts to understand the importance of knowledge management which is described as a key component of organizational performance (Ahmad et al., 2012). Likewise, it is considered to be an important resource for the survival and success of organizations (Bousa & Venkitachalam, 2013). Managing knowledge effectively is necessary to take full advantage of its value. For this reason, knowledge managers should develop plans on how to implement ways to improve organizational knowledge.

Today, organizations are looking for better and new ways to describe the capabilities people must have to do a variety of knowledge work. This may be done in a form of an informal network such as Community of Practice or CoP (Jolaee et al., 2014). According to Liu (2010), CoP can serve as a key technical component of knowledge management and a platform for the collaborative learning within and between organizations. The goal of collaboration is to enhance connectivity between people and between groups so that knowledge can be shared, and thus, improve individual as well as organizational learning and performance. Hence, sharing valuable knowledge and experience, through collaboration, is a key to building organizational intelligence in enhancing how information is captured, shared and utilized (Raisinghani et al., 2016).

Knowledge Sharing

Knowledge sharing is an important process in Knowledge Management (KM). In an organizational setup, knowledge sharing (KS) thrives in the landcaspe of knowledge management because it sets the foundation for knowledge creation and co-creation which greatly contributes to the success of knowledge process (Heshmati Rafsanjani, 2015; Zhou, 2010). KS is a vital component which empowers organization to obtain a competitive advantage (Orr, 2014). Through such, organizations invest

on resources such as knowledge workers, systems and content to facilitate knowledge sharing (Chu et al., 2014).

Collaboration is a crucial element of KS. Paulin and Suneson (2012) elaborates the importance of collaboration in knowledge sharing which denotes ways of exchanging knowledge between and among individuals within and among teams, organizational units, and organizations. As a result, organizations invest on technological facilities to further facilitate collaboration and sharing of knowledge. They believe that collaboration in innovation is trajectory to knowledge inflows. Likewise, it can take diverse formats and methods in various levels of interaction ranging from simple one-way flow of information to a highly interactive arrangement (Organisation for Economic Cooperation and Development [OECD], 2010).

Technology Acceptance Model (TAM)

The design of technology and knowledge is progressively becoming global (OECD, 2010). Technology has revolutionized ways people communicate. As a result, the advancement in technology has become the avenue toward acquiring substantial information which leads to knowledge formulation. It provides ways in the creation, storage, and dissemination of knowledge in a faster and more efficient manner (Oye & colleagues, 2011). Technology creates an ideal environment for knowledge sharing which is considered to have a vital function in improving the outcome of shared knowledge. Consequently, with the aforementioned reliance of many organizations on technology, management adheres to provide appropriate technology for this purpose like academic portal, web site, and e-mail settings. However, Oye & colleagues (2011) revealed in their study that the ability or willingness of workers to use technology in the knowledge sharing process will not motivate them to participate in knowledge sharing. Instead, their inability or unwillingness to use technology will demotivate them. This study is premised on the Technology Acceptance Model or TAM which was conceptualized by Davis (1989) that explains the effect of human behavior on acceptance of technology use.

TAM provides a description for user's behavior in technology acceptance. It posits that a person's behavioral intention to use a

technology is determined by two beliefs. These are the perceived usefulness and perceived ease of use. Perceived usefulness is the degree to which one believes that using a particular technology would increase productivity, while perceived ease of use is the degree one believes that using a particular technology would be easy (Davis, 1989).

This study is also grounded on Eason's (1988) conceptualization of technology acceptance in terms of control. Control factors are the rules or structures such as access, reliability, confidentiality, monitoring, pacing, stress, and social constructs which are imposed upon the users, thereby removing the control over one's own actions. Presence of certain factors is likely to reduce the users' perception of control and thus increase the risk of resistance. Tounkara and Arduin (2014) used this concept to propose a framework which helped identify prevailing characteristics of the technology functionalities to develop in order to support knowledge sharing. Consequently, cultural and organizational contexts shape the acceptance of the use of technology which are important factors in technology acceptance because knowledge sharing is focused on human capital and on the interaction of individuals.

Theory of Planned Behavior (TPB)

The success and failure of knowledge sharing (KS) is linked to the knowledge used by more people (Oye et al., 2011). A successful knowledge sharing effort is not just simply the transfer of knowledge, but it entails structuring and implementing ways that bridge relationship of existing and potential knowledge to ensure its complete transfer. Hence, intention or a person's willingness to share affects the success of knowledge sharing. The Theory of Planned Behavior or TPB (Chen et al, 2009; Tsai et al., 2012) explains that behavioral intentions are motivational factors that capture how people are willing to try to perform a behavior which is the most influential predictor of behavior. This is a significant element in the success of any process or a course of any KS activities. To ensure success of KS, factors affecting behavioral intentions must be distinctly identified. According to Gagne (2009), intentions are assumed to capture the motivational factors that influence a behavior.

TPB has identified three factors that influence intention: attitude toward the behavior; social norms regarding the behavior; and beliefs about one's control over the behavior shown in Figure 1. This study dwells on these factors in finding answers to its inquiry which is related to human behavior and intention to share.

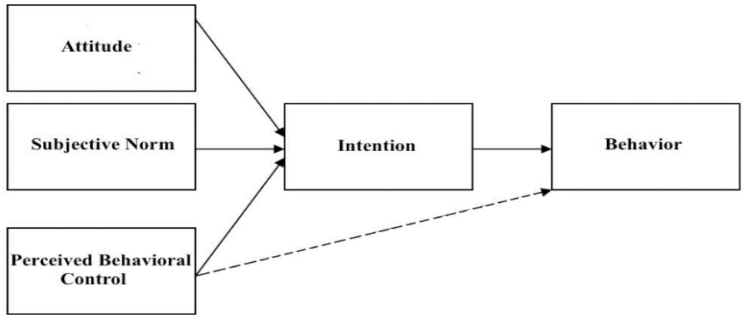

Figure 1. Theory of Planned Behavior (Ajzen, 1985)

Attitude is the degree to which one evaluates the behavior favorably or unfavorably. Attitude and intention act as mediators of knowledge sharing behavior (Shahzadi et al., 2015). An example of how external variables affect attitude towards a behavior happens when such beliefs are generated when individuals believe that performing the behavior will lead to both positive and negative consequences (Aliakbar et al., 2012). Subjective norm states that behavior is stimulated by one's desire to act as important referent others act or think one should act (Chen et al., 2009). Correspondingly, many individuals do not share knowledge due to some perceived behavioral controls such as protecting their competitive advantage, insecurity on job performance, dislikes in sharing, personal traits, unable to comprehend knowledge or thought that knowledge could harm themselves or others, issues on confidentiality, and absence of a sharing culture (Oye et al., 2011). Note however that a clear understanding of these factors create a healthy flow of knowledge.

With the advent of technology, the academic community is becoming reliant and dependent to what it can do and how it recognizes its power in knowledge sharing. Members of the academe do not

necessarily meet personally to share their ideas and vital information or to search for the knowledge they need. Tools and platforms are developed wherein knowledge is being shared generously among members or even between schools. As a matter of fact, many are using the social networking sites, web resources, learning management systems, emails and many more for collaborative learning (Liu et al., 2014).

Knowledge sharing and the use of technology in learning play a vital role in knowledge capital. The application of technology in knowledge sharing in schools is evident where collaboration is a fundamental component of the learning process such as the instructor acting as a learning facilitator for peer-to-peer interaction, student control, and learning as a social process, with increased personalization of the learning environment, and the development of a sense of community (Zach & Agosto, 2009). Hence, the effective use of technology in knowledge sharing is necessary so that both the learning facilitator and the learner become more engaged in the acquisition, creation and sharing of knoweldge to acquire meaningful learning.

Framework of the Study

This research aims to measure the behavioral intentions of teachers and their willingness to use technology in knowledge sharing. Likewise, other factors that affect knowledge sharing are further explored to identify other variables, which may affect their intention to share within the technology used. Figure 2 shows the conceptual framework of the study.

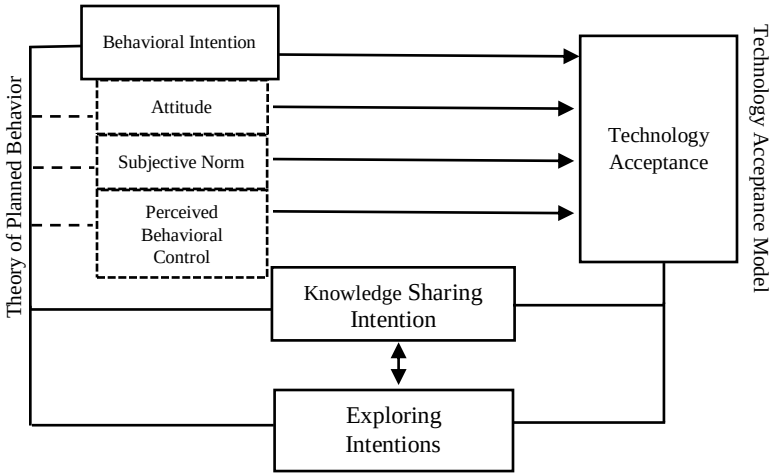

Figure 2. The diagram of the framework of the study

Knowledge sharing intention is premised on the Theory of Planned Behavior (Chen et al., 2009; Chien-Ta et al., 2009; Tsai et al., 2012). The major components of this study are the TPB's sub-factors: Attitude (determines teachers' motivation to participate in a knowledge sharing practice); Subjective Norm (identifies the social factors and to what extent these could affect knowledge sharing); and Perceived Behavioral Control (determines how control factors could influence teachers' decision whether to share or not to share knowledge). When these are determined, the behavioral intention gauges the extent of one's willingness to share knowledge.

Technology is acknowledged to have a significant role in enhancing knowledge sharing process. It is used to promote and adapt to the community of practice among professionals and their apprentices on knowledge sharing. This study uses the Technology Acceptance Model or TAM conceptualized by Davis (1989) which explains human behavior on acceptance of use of technology. The level of technology acceptance determines how receptive the participants are in engaging with technology in sharing.

Purposes of the Reseach

This study determined how the person's behavioral intention and technology acceptance influence knowledge sharing in the academic institution. Thus, it answered the following research objectives, to wit:

1. Determine the behavioral intentions of the participants towards knowledge sharing in terms of attitude, subjective norms and perceived behavioral control;

2. Identify the technology acceptance towards the web portal used for knowledge sharing;

3. Determine the relationship between behavioral intention and technology acceptance; and

4. Identify factors that affect intentions based on the actual knowledge sharing experiences of the participants.

Methodology

This research applied mixed methods where thoughts were drawn liberally from both quantitative and qualitative assumptions when engaged in research (Creswell, 2014). The use of both the qualitative and quantitative methodologies was necessary to explore and encompass intentions and acceptance in detemining how they affect knowledge sharing intentions.

Research Design

Convergent parallel mixed methods was specifically used to gather data and make a comparative analysis of the results. Survey was administered to measure the level of behavioral intention and technology acceptance and then, analyze their relationships. Subsequently, interview was conducted to explore on other factors that affect knowledge sharing intentions. An analysis was made to determine how behavioral intentions and technology acceptance affect the participants' knowledge sharing intentions.

Study Context

This study utilized a triangulation approach to explore on the teachers' knowledge sharing intentions and their technology acceptance through convergence of data from the survey and the interview conducted. Data gathered from the survey determined the teachers' behavioral intention and their perceived use of technology. The relationship of the behavioral intention and technology acceptance was analyzed to determine the factors that affect teacher's use of technology in knowledge sharing. Data gathered from the interview provided additional insights on factors affecting intentions and acceptance to the use of technology. The results of the analyses from the two methods yielded affirmation on the identified factors affecting the teachers' perceived use of technology in knowledge sharing.

Participants

Purposive sampling was used in selecting 40 teachers who were using the "blended" approach of teaching. These teachers were using both face-to-face and online approach in their instruction and use knowledge sharing more often. Most of the participants were female, aged 31 to 40 with masters degree. For the conduct of the interview, the researcher selected 10 teachers based on their exposure on the web portal facility and their experiences in facilitating knowledge sharing activities.

Research Instruments

A researcher-made questionnaire, comprising 13 items was developed to gather all needed data to measure the behavioral intention classified into three sub-factors and the technology acceptance. There are three questions constructed for each sub-factor to measure the participant's sharing motivational attitude; gauge the influence of norm; and identify factors that control their behavior towards knowlege sharing. Four questions were constructed to measure their technology acceptance. This instrument utilized the 5-point Likert scale to gauge the levels of the participant's agreement on the statements pertaining to the variables being measured. Validation was made by asking two experts on knowledge sharing and on information technology to check and provide feedback. Cronbach Alpha was used to test the internal consistency of

the questions of which result is .866 which is within the range of acceptable value .70 to .90.

To explore the data collected from the survey and the result of its analysis, open-ended questions were constructed as guide for the interview, following the purpose of this study in making an in-depth analysis on knowledge sharing intention of the participants in their actual experience of knowledge sharing with the use of the web protal. Table 1 shows the objectives vis-a-vis the interview question.

Table 1. Interview questions and its purposes and objectives in collecting data

Interview Questions	Purposes/Objectives
1. What factor should encourage you to share or not to share knowledge and resources?	To explore on what factors/reasons participants consider in sharing knowledge.
2. What knowledge sharing challenges do you often encounter and how do you deal with them?	To identify problems or difficulty encountered in knowledge sharing.
3. What are knowledge resource or ideas that you are willing to share?	To classify knowledge participants are willing to share.
4. To what extent do procedures and rules impact the need to share knowledge with other team members?	To determine what policies and procedure can be employed that will minimize, if not eliminate, knowledge sharing obstruction.
5. What suggestions can you provide to improve knowledge sharing in your institution?	To gather suggestions on how to improve knowledge sharing process.

The Web Portal

The participating school developed a customized web-based knowledge system or web portal for sharing of expertise to serve people for acquisition and sharing. The portal aims to provide teachers and students access to free resources to enhance their pedagogical content knowledge and their teaching competencies. The technology helps the faculty and students to share their intellectual outputs such as researches, multimedia presentations, projects, syllabi, modules, assessment tools and other knowledge resources. It aims to foster a culture of sharing among mentors and future teachers (PNU Web Resource Portal Manual, n.d).

The web portal shows the initial page for login when the url is accessed. To access the web portal, one registers by clicking the Create new account button in the Log in panel at the bottom of the page. If one has already an existing account, he/she just enters his/her Username and Password to login. Figure 3 shows the login page.

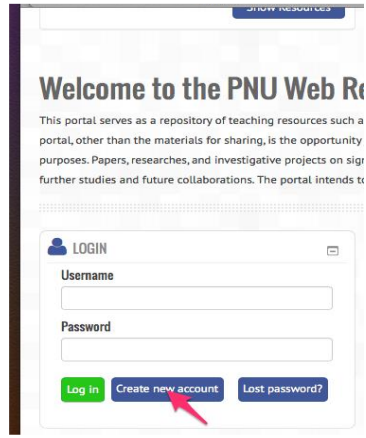

Figure 3. The Login page of the web portal

The Homepage shows the links to the main learning areas and some of the available materials and resources for download. User may search for materials using the Search engine where key words of a certain topic are entered for search criteria. An option to upload file is also available. Figure 4 shows the screenshot of the homepage of the web portal.

Figure 4. The Homepage of the web portal (PNU Web Resource Portal Manual, n.d)

The participant's technology acceptance was measured based on how they perceived the use of the web portal using the survey instrument described above.

Data Collection and Analysis

To obtain permission to conduct the survey and interview, a letter of request was submitted to the deans of the different faculty and institutes. Survey questionnaire was distributed to the participants and responses were immediately retrieved, tabulated and analyzed. Interview was conducted afterwards. The interview was facilitated face-to-face and lasted for ten minutes. The participant's responses were transcribed and analyzed.

Multiple linear regression was used to measure the relationship between behavioral intentions and the technology acceptance toward the web portal. Pearson correlation coefficient was used to test the relationship between each motivating factor and technology acceptance. Summary of responses was made and classified according to how these could be used. Semantic approach was employed in analyzing the explicit content of the data gathered from the interview to further

analyze and explore on factors affecting knowledge sharing intentions. Responses were transcribed and themes were identified based on the prominent features of the interview results.

Ethical Considerations

The participating academic institution where the data collection was conducted is a university mandated as Center of Excellence (CoE) in Teacher Education. The researcher is a full-time faculty member of this institution teaching Information Communications Technology (ICT) courses. The anonimity of the partcipants was maintained to ensure confidentiality. Likewise, the conduct of the interview was recorded with the permission given by the interviewee.

Results and Discussion

Results

Behavioral intentions of the participants in terms of attitude, subjective norms and perceived behavioral control.

This research aimed to measure the participant's attitude, subjective norms and perceived behavioral controls towards knowledge sharing to determine their knowledge sharing intentions. Table 1 shows the weighted mean and the standard deviation of the responses for each motivating factor.

Table 2. Descriptive Data for Attitude and Perceived Behavioral Control and Acceptance

Questions	**Weighted Mean**	**Standard Deviation**
Attitude	4.76	.43
Norms	4.43	1.01
Perceived Behavorial Control and Acceptance	4.44	.91

Participants have strong belief and motivation that when they participate, their skills and knowledge capacity will improve. They recognize knowledge sharing a positive act to promote and improve learning. Parallel result is shown on how norms could affect participants' behavior. They are willing to share knowledge even to those people whom they slightly know and this could result in expanding professional networks because this will promote good relationship. Likewise, factors, such as policies and rules, controlling behavior need to be considered.

Technology Acceptance towards the Web Portal used for Knowledge Sharing

The ability or willingness of the participants to use technology in the knowledge sharing process was measured to determine their technology acceptance towards the web portal. The results on the acceptance ($M_{acceptance}$ =4.19, SD=.83) show that although, the participants' acceptance to the web portal is slightly lower than their behavioural intentions, they agree that it helps them share and gain knowledge. They found the platform easy to use and useful for sharing knowledge and academic resources. Likewise, they clearly understand the policies and rules of use of the portal and those that pertain to sharing of resources. Hence, providing a platform using technology can be an effective tool to promote and encourage knowledge sharing among teachers.

The Relationship between Behavioral Intention and Technology Acceptance

To determine the relationship of behavioral intention and the technology acceptance of the participants, Multiple Linear Regression was computed. Result indicates that there was a significant relationship between the behavioral intentions and the technology acceptance of the participants, $F(38) = 6.27$, $p = .006$. The participants' perceived use of the web portal is affected by their behavioral intentions.

To further analyse the results, correlations were computed between the behavioral intension's sub-factors and the technology acceptance. The correlation of the attitude and the technology acceptance towards knowledge sharing is not significant, $r(38) = .21$, p

= .05. Behavior is based on the intention, which is based on attitude (Shahzadi et al., 2015). The participants' attitude, determined by the motivation to share knowledge, does not affect their use of the web portal. They are willing to participate in knowledge sharing no matter what technology is used. The correlation of the subjective norms towards knowledge sharing and the technology acceptance towards the use of the web portal was not significant, r = .49, p = .05. There is no social pressure that could affect the intention to use the web portal in knowledge sharing. They do not necessarily consider peers to use or not to use the portal. The correlation of the perceived behavioral control towards knowledge sharing and the technology acceptance towards the use of the web portal was significant, r = .55, p = .002. There is a moderate positive relationship between the participants' perceived behavioral controls and their technology acceptance in knowledge sharing. There are factors that are perceived to control behavioral intentions to use the web portal. The ease of use of the web portal and the assurance that ownership and intellectual property rights are protected affect technology acceptance.

Factors Affecting the Knowledge Sharing Intentions based on the Actual Experiences of the Participants

To explore the result of the quantitative analysis, interview was conducted to 10 selected teachers. This is to help identify additional information that contribute to the refinement of the quantitative findings.

Table 3. Summary and themes identified form the responses from the interview

Interview Question	Themes Identified from Responses
1. What factor should encourage you to share or not to share knowledge and resources?	**To share:** Academic obligation Help others Acquisition of factual information and documents **Not to share:** Confidentiality Authority/Rights
Follow up question: In your view, to what extent does confidentiality and data	Sets limitation Observe ethics Limitation and parameters Not manage information

protection issue affect KS?	Copyright issues hinder some to share their work
2. What knowledge sharing challenges do you often encounter and how do you deal with it?	Compromise academic integrity Plagiarism Older people have difficulty using the system in KS Challenge in sharing confidential information Platform used for KS
3. What are knowledge resource/ideas that you are willing to share?	Experiential, routine, conceptual and systematic knowledge assets (tacit) PowerPoint presentations, files and other documents (explicit) Anything about Technology/Technical issues (explicit) Subjects matter content and pedagogy (explicit)
4. To what extent do procedures and rules impact the need to share knowledge with other team members?	Provide safety measure Provide check and balance No rules and procedure necessary Hold others from sharing Help boost faculty's confidence in sharing
5. What suggestion can you provide to improve knowledge sharing in your institution?	Promote and information dissemination Promoting new trend of technology Training and seminars Use for blended learning, improve teaching strategies

Participants expressed their concerns on the confidentiality of information they share and the thought of their rights being violated. However, for them, confidentiality will set limitation. The result affirms the claim of Oye and colleagues (2011) that people do not share genuine knowledge due to some perceived behavioral controls such as protecting one's competitive edge, job insecurity, personal animosity, personal traits, shared knowledge not accepted or comprehended, harm themselves or others with the knowledge, confidentiality, and lack of a sharing culture. Work ethics and parameters as to what kind of knowledge and to what extent one could share are important factors. They gave copyright as an example of a rule that sets ethics; however, they consider this as hindrance in sharing their knowledge. They want their intellectual property rights to be protected because plagiarism can compromise academic integrity.

Additionally, participants believe that procedure and rules are formulated for check and balance. This will provide safety measure and will help boost teacher's confidence in sharing. If there are rules, their rights and authority are protected. Likewise, promotion and information dissemination will encourage others to participate. Trainings and seminars will make others aware of the advantage and benefit of knowledge sharing. Promoting new trend of technology that can be used to facilitate knowledge sharing is being accounted for. Yet, others identified the difficulty accessing the platform as a problem. They thought of using technology and learning how to use the system can be a big problem. As to what other kind of knowledge can be best shared, they identify that implicit knowledge such as experiential, routine, conceptual and systematic knowledge assets can be shared. Examples of these are teaching strategies and techniques. On the other hand, explicit knowledge such as presentations and documents are easily shared using the web portal.

Discussion

The personal characteristics of a person may influence the extent to which he/she shares knowledge for different purposes (Aliakbar et al., 2012). This is shown on the teachers' willingness to share knowledge even to those people whom they slightly know, and this could result in expanding professional networks because this will promote good relationship. They can share knowledge even with little use of any technology. This means that even with traditional way of sharing, they will be able to participate. Agosto and colleagues (2013) asserted that for a viable knowledge workplace, workers need to constantly replenish their stock of valuable knowledge. They share it with those who could provide more valuable knowledge in return. However, teachers tend not to share knowledge mostly due to issues on confidentiality and violation of rights and authority like intellectual property rights. Protecting one's competitive advantage, insecurity on job performance, dislike of sharing, confidentiality and lack of sharing culture can be perceived as harm (Agosto et al., 2013). They expect the platform to provide a way to protect their rights. Likewise, the factors which they consider important are those that compelled them to follow such as policies, knowledge of use and some explicit factors which can cause to and not to share knowledge. Easy use of technology in knowledge sharing

encourages others to participate. Trainings and seminars will make the teachers aware of the advantage and benefit of knowledge sharing. Promoting new trend of technology that can be used to facilitate knowledge sharing is also considered. Additionally, some are willing to share experiential, routine, conceptual and systematic knowledge assets. This reveals their willingness to share even implicit or tacit knowledge. Others could share something related to their profession as teachers. They will share subject matter content and pedagogy. Files and documents can also be shared.

Conclusion and Recommendations

Technology has been widely used nowadays. The ability or willingness of a person to use technology improves processes such as knowledge sharing. This study explored the effect of the behavioral intention and technology acceptance on knowledge sharing intentions of teachers. It aimed to check which behavioral factors significantly affect the acceptance of teachers to the technology used. It provided insights on how teachers perceive the use of technology and helps the academic institutions to promote knowledge sharing by providing activities that will motivate, encourage socialization and eliminate doubts among its members.

Findings revealed that the participants' knowledge sharing intention is affected by their strong belief and motivation to increase their knowledge capacity, to expand their professional networks, and the policies and rules controlling their behavior. Likewise, participants recognized that the use of technology can be an effective tool to promote and encourage knowledge sharing. It was found that there was a significant relationship between the perceived behavioral controls and the technology acceptance. The platform rules and policies to guarantee proper communication and secure preservation of rights and confidentiality in all means are the factors teachers consider on the use of technology in knowledge sharing. For instance, intellectual property rights and protection from committing plagiarism must be taken into a more serious consideration. The structure of technology is a factor controlling their intention to use technology in knowledge sharing. The procedure and rules on the use of the technology with the policy that ensure protection and confidentiality of shared knowledge may have

huge impact. Violation of intellectual property rights must be carefully taken into consideration when creating a culture of sharing. The community needs to be further informed and be trained on the use of the technology for sharing which will encourage members to participate. When all these factors are considered in the design of the platform, this could provide a more meaningful experience for teachers and will give success to the academe.

The success of an academic institution depends greatly on how teachers work collaboratively and how new knowledge is developed and shared. Knowledge inflows are substantial factors. The basic reason why teachers participate in knowledge sharing is for them to acquire knowledge and then share this with others. In a community where members are mostly educators, knowledge sharing is an intrinsic characteristic. It is a common and easy-going practice which a culture of sharing is easily developed. The cultural orientation and beliefs are factors which affect the value of the knowledge being shared of which academic institutions may just wield a little effort in motivating its teachers.

The study is limited in terms of the technology used in knowledge sharing which is the web portal. Other technology platform may elicit additional insights as to how it could affect knowledge sharing intentions.

This study suggests that other researcher may conduct investigation in organizations where knowledge sharing is not apparent unlike in the academic institutions. Diversity and variability of respondents can elicit more substantial evidences. A variety of platforms or technology used in knowledge sharing can be the focus of another study. Likewise, future study can include and give emphasis on the kind of knowledge, explicit or tacit, a person is willing to share.

…

References

Agosto, D. E., Copeland, A. J., & Zach, L. (2013). Testing the benefits of blended education: Using social technology to foster collaboration and knowledge sharing in face-to-face LIS courses. *Journal of Education for Library and Information Science, 54*(2), 94-107. Availabe from http://search.proquest.com/docview/1399142292?accountid=173015.

Ahmad, Z., Mohamad F. & Othman, S. (2012). Understanding the concept of dynamic capabilities by Dismantling Teece, Pisano, and Shuen (1997)'s definition. *International Journal of Academic Research in Business and Social Sciences.* 02.

Ajzen, I. (1985). From intentions to action: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), Action control: From cognitions to behaviors (pp. 11–39). New York: Springer.

Aliakbar, E. & Yusof, R.B. & Mahmood, N.H.N. (2012). Determinants of knowledge sharing behavior. IPEDR, 29 (2012). IACSIT Press.

Chen, I. Y. L., Chen, N.-S., & Kinshuk (2009). Examining the factors influencing participants' knowledge sharing behavior in virtual learning communities. *Educational Technology & Society, Chenociety, 12*(1), 134–148.

Chen, Y. & Hew, K. F. (2015). Knowledge sharing in virtual distributed environments: Main motivators, discrepancies of findings and suggestions for future research. *International Journal of Information and Education Technology, 5*(6), 466-471. https://doi.org/10.7763/IJIET.2015.V5.551.

Chien-Ta, B., Shih-Feng, H., & Oh, K. B. (2009). Knowledge sharing: Game and reasoned action perspectives. *Industrial Management & Data Systems, 109*(9), 1211-1230. https://doi.org/10.1108/02635570911002289.

Chu, M., Krishnakumar, P., & Khosla, R. (2014). Mapping knowledge sharing traits to business strategy in knowledge based organisation. *Journal of Intelligent Manufacturing, 25*(1), 55-65. https://doi.org/10.1007/s10845-012-0674-1.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology, MIS Quarterly. Available from http://www.brainyquote.com/search_ results. html? q=knowledge+sharing.

Eason, K. (1988) Information Technology and Organizational Change. Bristol PA: Taylor and Francis.

Gagne, M. (2009). A model of knowledge-sharing motivation. Available from www.interscience.wiley.com.

Garg, S., Pandey, D. K., & Vashisht, A. (2018). Importance of knowledge management for organizational management. *Deliberative Research, 37*(1), 41-45. Available from https://search.proquest.com/docview/2086689358?accountid=173015.

Heshmati Rafsanjani, H. (2015). An interpretive study of the co-creation of knowledge in an online community (Order No. 10121914). Available from https://search.proquest.com/docview/1794972232?accountid=173015.

Jolaee, A., Nor, K. M., Khani, N., & Yusoff, R. M. (2014). Factors affecting knowledge sharing intention among academic staff. *The International Journal of Educational Management, 28*(4), 413-431. https://doi.org/10.1108/IJEM-03-2013-0041.

Liu, C., Lin, C., Deng, K., Wu, Y., & Tsai, C. (2014). Online knowledge sharing experience with creative commons. *Online Information Review, 38*(5), 680. Available from http://search.proquest.com/docview/1660956578?accountid=173015.

Liu, R. (2010). Research on influencing factors of knowledge sharing in virtual community of practice and its empirical study (Order No. 10439383). ProQuest Dissertations & Theses Global. (1868431833). Available from https://search.proquest.com/docview/1868431833?accountid=173015.

Orr, S.R., IV. (2014). A value-focused assessment of knowledge sharing in a closed information environment (Order No. 3615893). ProQuest Dissertations & Theses Global. Available from: https://search.proquest.com/docview/1525811425?accountid=173015.

Oye, N.D., Salleh, M. & Noorminshah, A. (2011). Knowledge sharing in workplace: Motivators and demotivators. *International Journal of Managing Information Technology (IJMIT) 3,* 4.

Organisation for Economic Cooperation and Development (OECD) (2010). PART III: Globalisation of technology and knowledge. Available from http://search.proquest.com/docview/1353536468?accountid=173015.

Paulin, D., & Suneson, K. (2012). Knowledge transfer, knowledge sharing and knowledge barrier – three blurry terms in KM. *The Electronic Journal of Knowledge Management. 10*(1), 81-91. Academic Publishing International Ltd. www.ejkm.com.

Raisinghani, M., Bekele, R., Idemudia, E., & Nakarmi, A. (2016). Managing knowledge in organizations: Tools & techniques for competitive advantage. *Journal of Business Management and Economics 4*(2). doi: http://dx.doi.org/10.15520/jbme.2016.vol4.iss2.175.pp09-13.

Shahzadi, I., Hameed, R. M., & Kashif, A. R. (2015). Individual motivational factors of optimistic knowledge sharing behavior among university academia. Available from http://search.proquest.com/docview/1658877828?accountid=173015.

Tounkara, T., & Arduin, P. (2014). Aligning knowledge sharing strategy with organizational and cultural contexts: An information system perspective. Available from http://search.proquest.com/docview/1673123785?accountid=173015.

Tsai, M., Chen, K., & Chien, J. (2012). The factors impact of knowledge sharing intentions: The theory of reasoned action perspective. *Quality and Quantity*,*46*(5), 1479-1491. https://doi.org/10.1007/s11135-011-9462-9.

Zach, L., & Agosto, D. E. (2009). Using the online learning environment to develop real-life collaboration and knowledge-sharing skills: A theoretical discussion and framework for online course design. *Journal of Online Learning and Teaching*,5-4, 590. http://search.proquest.com/docview/1497198149?accountid=173015.

Zhou, T. (2010). A study on the knowledge sharing in the pla (Order No. 10348072). ProQuest Dissertations & Theses Global. (1873843026). Available from https://search.proquest.com/docview/1873843026?accountid=173015.