

EXPLORING THE ROLE OF ICT USAGE AND COLLABORATIVE CLIMATE ON EXPLICIT KNOWLEDGE SHARING BEHAVIOR OF CHINESE UNIVERSITY STUDENTS

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ABSTRACT

The numbers of international students studying in China are increasing day by day. Usually, local students of most of the countries are afraid of exchanging knowledge with different students from diverse cultural backgrounds. For this reason, it is a necessity to investigate the factors affecting the knowledge sharing behavior that support students' group work and learning activities of the Chinese students towards the international students. However, identifying the factors influencing the knowledge sharing behavior for the local students to international students in a university happens to be a daunting task. Thus, this study aims to examine the influence of some selected factors on explicit knowledge sharing behavior. Specifically, this study endeavors to assess the role of Information & Communication Technology (ICT) use and collaborative climate on explicit knowledge sharing behavior. The researchers resorted to the Theory of Planned Behavior (TPB) for the said assessment. Data were collected from 220 valid respondents by conducting field survey with a structured questionnaire. The collected data were regressed through Partial Least Square approach (PLS). The overall findings revealed that attitude toward knowledge sharing and perceived behavior control factors positively impact the behavior intention; however, subjective norms seemed to have a negative impact on behavioral intention. On the other hand, the level of ICT usages and collaborative climate positively influence the explicit knowledge sharing behavior of the Chinese students.

Key Words: Explicit knowledge sharing, Behavior intention, level of ICT usages, Collaborative climate

1.0 INTRODUCTION

In recent years, knowledge sharing happens to be the most important intangible resource for the organization (Al-Busaidi, Olfman, Ryan, & Leroy, 2010). Knowledge sharing activities helped individual to exchange their views, skills, or expertise among people, friends, families, communities, or organizations. According to Ghadirian, Ayub, Silong, Bakar, and Zadeh (2014), if individuals share their knowledge, they become capable to re-adapt and recreate innovative knowledge by opening up multiple viewpoints of peers' perspectives. However, knowledge sharing not only enhances benefit for commercial organization but also fosters benefits

for non-profit organization, such as, higher education institutes (Nassuora, 2011). University is the best non-profit institute where students and teachers engage in generating and disseminating knowledge to their stakeholders (Howell & Annansingh, 2013). Knowledge-sharing between local and international students' facilitates the university in fulfilling new research related needs and reduce research budget. Interestingly, most of the universities face the challenge of knowledge creation and sharing (Khosravi, Ahmad, & Sedera, 2014). Students in the university try to generate their own knowledge instead of spreading this knowledge to other (Hawkins, 2006; Kim and Ju, 2008). Shafieiyoun and Safaei (2013) found that

students are unwilling to share their knowledge unless there are obvious benefits for themselves; explicit knowledge sharing behaviour to other students break down these obstacles.

Furthermore, there is a large volume of published studies describing that knowledge sharing is essential for the students because the recipient may potentially use knowledge to perform his or her task(s) in a better manner (Ma & Chan, 2014; Majid & Wey, 2009). Several studies have revealed that knowledge sharing improves students' learning capability and/or helps to develop close relationships with partners for accomplishing the course work properly (Chikoore & Ragsdell, 2013; Darling-Hammond & McLaughlin, 1995; Hmelo-Silver, 2004). More ever, factors affecting knowledge sharing among employees have been gaining attention among researchers for the last twenty year; unfortunately, little attention was paid for understanding the reason behind knowledge sharing among the students in the university (Chang & Chu, 2014; Ghadirian et al., 2014; Harmening & Jacob, 2015; Howell & Annansingh, 2013). Most of the available studies on that subject matter have been conducted in the context of knowledge sharing practice (Chikoore & Ragsdell, 2013; Osman, Sauid, & Azizan, 2015). In specific content , very few research were conducted on Chinese students' knowledge sharing behavior with international students, and those studies were conducted outside China (Howell & Annansingh, 2013; Sohail & Daud, 2009; Chris & Arthur, 2014). On the other hand, the effect of ICT usage on knowledge sharing is numerically investigated on the employee in an organization (Chatzoglou & Vraimaki, 2009; Hendriks, 1999) and this concept was tested empirically on Chinese undergraduate students, within their own group in Hong Kong (Ma & Chan, 2014). In addition, the influence of collaborative climate on knowledge sharing was investigated considering the employees (Sveiby & Simons, 2002). Hendrix (2007) points out that knowledge sharing climate is vital for the staff for ensuring better performance inside an organization. Khosravi et al. (2014) indicated that the ability of students to share knowledge inside a group depends on the supportive culture by the university authority, proper supervisor support, learning strategy, knowledge-sharing, social networks and IT systems. To add, over the

last twenty years, as a result of the globalization worldwide, the number of international students' academic mobility in china increased in an escalated manner (Bhandari & Blumenthal, 2013; Howell & Annansingh, 2013). Yet, there are still gaps in recognizing how collaborative climate, IT system, student's knowledge sharing attitudes, social factors and perceived behavioral control factor influence the regional students' knowledge sharing behavior with the international students in China. Therefore, based on the above literature review, the following research questions are formulated in this study:

- What are the key factors inspiring Chinese student's explicit knowledge sharing behavior to international students in China? Does ICT usage and collaborative climate in the university affect Chinese students' knowledge sharing behavior with the international students?

Thus, the specific research objectives are to;

- develop conceptually an extension of the Theory of Planned Behavior (TPB) for identifying causes of Chinese students' explicit knowledge sharing behavior towards international students in China;
- examine how students' ICT usage and collaborative climate influences on knowledge sharing behaviour;
- provide suggestions for university authority so that they can motivate students for knowledge sharing with international students and to provide suggestion to reduce weaknesses in the former studies regarding knowledge sharing.

The researchers have organized our study as follows. The following section is a fact-finding section, which is based on theoretical framework and previous research work in different country. Second section encompasses literature review and third section explains how to develop proposed research model and hypotheses for proving the model. Fourth section discusses the methodology of the research work and fifth section elaborates and analyse survey result. The last section concludes our study with future direction.

2.0 LITERATURE REVIEW

2.1 Explicit Knowledge-Sharing:

There have been several studies in the literature reporting concept of Knowledge sharing. Numerous studies have attempted to explain knowledge sharing as sharing information and

as know-how to help others expertise, as well as to collaborate with others to solve problems, cultivate new ideas, or implement policies or procedures (Cummings, 2003; Hendrix, 2007). According to Cheng, Ho, and Lau (2009), there are two ways by which individual share knowledge: a) person-to-person sharing model where an individual has the freedom to decide the mode of sharing topic and choose partners to share his or her knowledge with close touch, and b) open-network sharing or explicit knowledge sharing through the internet within the virtual group. A number of studies have found that people share knowledge in two ways, in explicit and in tacit format (Davies, 2014; Osman, Saud, & Azizan, 2015). Chung, Cooke, Fry, and Hung (2015) state that tacit knowledge sharing is occurred by the individual when they share their ideas, skills, values and mental point of view to other employees; on the other hand, explicit knowledge sharing occurred by the employee when they share their written formatted report, journal, documents and patent. Nassuora (2011) describes that explicit knowledge can be shared in meetings through documents, emails. Osman et al. (2015) suggested that knowledge sharing is identified as a way through which students exchange their explicit or tacit knowledge to other students in a university, department or a group. Moreover, explicit knowledge sharing always helps students to improve their knowledge, learning; consequently, by which they can understand course matter properly (Högberg & Edvinsson, 1998).

2.2 ICT Usage:

ICT is the combination of informatics technology specifically communication technology such as, e-mail, website, phone, web-based conference tools & communication (WebEx, Skype, and GoToMeeting), different types of social media (Resta & Unesco, 2002). Nowadays, the educational institution uses the internet, information system and various types of technology as a medium of modern learning and conduit of knowledge transfer to the students (Dukić, Dukić, & Kozina, 2012). Hendriks (1999) found that using different types of technology and information system enhance knowledge sharing capability of the individual and reduce cost

inside the organization. According to Nassuora (2011), using technology for knowledge sharing helps to create new knowledge and to capture and organize this knowledge systematically for further use. Bathaei and Hosseini (2014) have also agreed that ICT system provide technologies to enhance KM practices in a university. Jahan and Ahmed (2012) have added that social networking sites and latest technologies can play an important role for enhancing students' learning capability in the academic institutions. Additionally, Dukić et al. (2012) have stated that multimedia learning resources were developed to facilitate knowledge sharing among the students in a class.

2.3 Collaborative Climate:

Chatman and Flynn (2001) defined collaborative climate' as an organizational culture where organization promotes effective teamwork for coordinating all tasks in the organization, by which they can achieve their organizational goal easily. According to Sveiby and Simons (2002), the flow of knowledge sharing depends on developing mutual trust among colleagues, building good relation with the supervisor, and ensuring organizational and team support. Khosravi, Ahmad, and Sedera (2014) has demonstrated that having proper team supervisor, a flexible working environment in a diverse work group and a development culture in a university inspire students to generate and share new knowledge.. Ciganek, Mao, and Srite (2010) noted that Organizational climate factors, such as open communication, mutual confidence and trust in a group member and management support had a significant impact on peoples' intention to share knowledge.

2.4 Theory of Planned Behaviour:

Most popular conceptual Theory of Planned Behavior was postulated by Ajzen (1985); this model was actually an extension of his other popular idea: Theory of Reason Action Behavior (TRA) (Fishbein & Ajzen, 1975). In the Theory of Planned Behavior (TPB) the author tried to demonstrate the relationship between human behavior and attitude with subjective norms in specific situations. Later on, author added the additional construct of perceived behavioral control, where the author tried to show relationship

of perceived behavioral control, indirectly with behavior intention and directly with behavior (Ajzen, 1991). However, after 1985 numerous studies attempted to forecast and explain various human behaviors adopting information systems in social-psychology research area with the help of TPB (Ajzen, 1985; Chow, Deng, & Ho, 2000; Chung et al., 2015; Hendriks, 1999; Ryu, Ho, & Han, 2003; Wang & Noe, 2010). With the same objective, many authors also conducted

numerical experiments on factors affecting knowledge-sharing behavior among the students, with the help of TPB (Chikoore & Ragsdell, 2013; Chung et al., 2015; Ghadirian, Ayub, Silong, Bakar, & Zadeh, 2014; Howell & Annansingh, 2013; Osman et al., 2015). Furthermore, based on above circumstance, we choose TPB as a base model to identify the factors of Chinese students' knowledge sharing with the international students in China.

3.0 RESEARCH MODEL AND HYPOTHESES:

The present study attempts to systematically identify the direct effect of ICT usage and collaborative climate on their explicit knowledge-sharing behavior in a university for the Chinese students. Fig. 1 and Table 1 below represent the proposed model and operational definitions of the constructs of this research respectively.

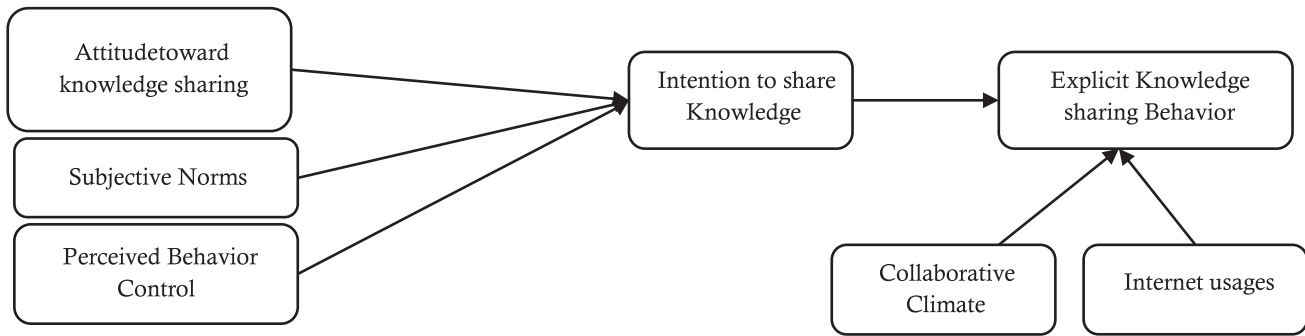


Fig 1. Proposed model for factor affecting KS

Table 1: Operational Definitions of Proposed factor affecting KSB

Variable	Description	Items	Adapted from
Attitude toward knowledge sharing (KATUT)	The degree to which the individual has feelings subsequent of knowledge sharing with another student, such as positive or negative feelings, harmful or beneficial feelings, pleasant or unpleasant feelings, and likable or unlikable feeling.	KATUT1: For me to perform knowledge sharing with international students is good KATUT2: For me to perform knowledge sharing with international students is beneficial KATUT3: For me to perform knowledge sharing with international students is valuable	(Ajzen, 1991)
Subjective norms	The students' perceived expectation of other student feelings regarding the knowledge sharing.	SN1: People who influence my behavior (e.g. Supervisor, team member, etc.) think that I should share my knowledge with international students SN2: People who are important to me (e.g. Supervisor, team member, etc.) think that I should share my knowledge with international students SN3: People whose opinions I value (e.g. Supervisor, team member, etc.) would approve sharing my knowledge with international students SN4: It is expected (e.g. by supervisor, team member, etc.) of me that I should share my knowledge with international students	(Ajzen, 1991)

Perceived behavior control (PBC)	Judgments of PBC are influenced by beliefs concerning whether one has access to the necessary resources and opportunities to perform the behaviour successfully, weighted by the perceived power of each factor to facilitate or inhibit behaviour.	PBC1: It is possible for me to share my knowledge with international students PBC2: If I wanted, I could share my knowledge with international students	(Ajzen, 1991).
Intention to share knowledge (BI)	The degree to which a certain individual believes that she/he engage in knowledge sharing act.	BI1: I intend to share my knowledge with international students in the university BI2: I plan to share my knowledge with international students in the university BI3: I will share my knowledge with other international students in the university, in near future	(Ajzen, 1991).
Explicit Knowledge sharing behavior (Ex.Ks.B)	Explicit knowledge sharing denotes written form of knowledge sharing with other students, either hard or soft copy, such as, technical or academic data, journals, manuals, documents and copyrights.	How frequently do you use the following knowledge with your university members? Explicit knowledge Ex.Ks.B1. Reports, official documents Ex.Ks.B2. Manuals, methodologies, models Ex.Ks.B3 .Know-where, know-whom	Ajzen (1991, 2002), Bock and Kim (2000, 2002), Bock and Pan(n.d.), Lee (2001) and Lin and Lee (2004)
Collaborative climate (CC)	Collaborative climate refers to shared elements of an organization's culture that inspires student to share knowledge	CC1: My organization has the appropriate technology in place (e.g. Academic portal, web site, e-mail) to Support knowledge sharing. CC2: My organization has process in place (e.g. Meeting, colloquium, intellectual discourse session, etc.) for knowledge sharing. CC3: My organization supports forming informal networks (e.g. Community of practice) where knowledge sharing can exercised.	(Sveiby and Simons, 2002).
Level of ICT usage (ICT)	The degree of one's frequently using IT	How frequently do you use the following IT plat forms share your knowledge? ITU1 chatroom ITU2E-mail ITU3Electronic document management system ITU4Webpage	Bock and Kim (2000, 2002), Bock and Pan

3.2.1 Attitude Toward Knowledge Sharing (KATUT) and Intention to Share Knowledge (BI):

The effect of knowledge sharing attitude on intention to share knowledge is numerically investigated by many researcher for identifying cause of knowledge sharing in an organization based on TPB (Ajzen, 1985, 1991; Ajzen & Fishbein, 1980; Amayah, 2013; Chatzoglou & Vraimaki, 2009; Chen, Chen, & Kinshuk, 2009; Law & Ngai, 2008; Madden, Ellen, & Ajzen, 1992; Teh, Chong, Yong, & Yew, 2010). Recently, researchers have also shown an increased interest to study the effects of attitude toward knowledge sharing on intention to share knowledge in an educational institution (Cheng et al., 2009; Reyhav & Weisberg, 2010). The survey result shows that both academic staff's and students' attitudes about knowledge sharing reflect their willingness to be involved in the process of knowledge sharing with another person.

Therefore, it seems that one of the important facets of knowledge sharing intention is the attitude toward knowledge sharing. Therefore, our first hypothesis is:

H1: Chinese students' attitude toward knowledge sharing has positive influence on his/her intention to share knowledge with the international students.

3.2.2 Subjective Norms (SN) and Intention to Share Knowledge (BI):

Subjective norms reflect personal views or opinions regarding whether their particular behavior is accepted or rejected, encouraged or discouraged, and implemented or not by the inspiration from the people from a specific social or group circle (Ajzen, 1985, 1991; Ajzen & Fishbein, 1980; Jabbar & Madhosi, 2014). Most of the prior literature showed a positive relationship between subjective norms and intention to share knowledge, in an organization. (Ajzen, 1985, 1991; Ajzen & Fishbein, 1980, 2005; Armitage & Conner, 2001; F. Y. Kuo & M. L. Young, 2008; Ryu et al., 2003). Moreover, in an educational institution, researcher also pointed out positive influence on intention to share knowledge (Jolae, Md Nor, Khani, & Md Yusoff, 2014). So, our proposed second hypothesis is:

H2: Chinese students' subjective norms have positive influence on intention to share knowledge with the international students.

3.2.3 Perceived behavior control (PBC) and Intention to share knowledge (BI):

Perceived behavior control means a judgment of the people regarding easiness or hurdle related to performing the knowledge-sharing behavior (Chatzoglou & Vraimaki, 2009). According to the TPB model (Ajzen, 1991), Perceived Behavior Control (PBC) have positive effects on intention to share knowledge in an organization, as attitudes and subjective norms variables have on the same. Many authors examine the relationship between PBC and intention to share knowledge in an organization and educational institution (Ajzen, 1985, 1991; Ajzen & Fishbein, 1980, 2005; Campbell, 1981; Chatzoglou & Vraimaki, 2009; Conner & Armitage, 1998; Kwok & Gao, 2005; Madden et al., 1992; Ryu et al., 2003; Tohidinia & Mosakhani, 2010). Thus, the third hypothesis for the proposed model is:

H3: Chinese students' perceived behavior control have a positive influence on intention to share knowledge with the international students.

3.2.4 Intention to Share Knowledge (BI) and Explicit Knowledge Sharing Behavior (Ex. Ks.B):

Explicit knowledge means academic or technical knowledge that is described in formal language, which can be communicated through print or electronic media; such as, manuals, mathematical expressions, copyright and patents (Davies, 2014). The TPB model has been used by many scholars to examine the relationships between intention and actual behavior of knowledge sharing (F.-Y. Kuo & M.-L. Young, 2008; Reyhav & Weisberg, 2010). Consequently, the fourth hypothesis for our proposed model happens to be:

H4: Chinese students' intention to share Knowledge have a positive influence on explicit Knowledge sharing Behavior with the international students.

3.2.6 Level of ICT Usage (ICT) and Explicit Knowledge Sharing Behavior (Ex.Ks.B):

Nowadays, tendencies to use ICT inside the organization push to remove all information

sharing barriers for fostering knowledge sharing activities (Alamgir & Ahmed, 2011). Information and Communication Technology (ICT) refers to technologies and information systems, such as, the internet, intranets, extranets, ERP and other such technologies that improve knowledge sharing behavior (Gupta, Dasgupta, & Gupta, 2008). Many researchers have argued that information technology has a significant impact on knowledge sharing behavior of the students (Dukić et al., 2012; Ismail, 2010; Mazman & Usluel, 2009; Omona, van der Weide, & Lubega, 2010). As a result, the fifth hypothesis for our proposed model pans out as:

H5: Chinese students' level of ICT usage have a positive influence on explicit Knowledge sharing behavior with the international students.

3.2.6 Collaborative Climate (CC) and Explicit Knowledge Sharing Behavior (Ex.Ks.B):

Previous researches have shown that knowledge sharing within a supportive environment increase sharing capability. Collaborative work climates inspire individual to improve their interpretations of tasks, work processes, and expectation within the group; end of the day, which enhance group performance (Sveiby & Simons, 2002). There have been several studies in the literature reporting relationship between collaborative climate and knowledge sharing behavior of the employee, yet, very few investigations were conducted to understand the impact of collaborative climate on knowledge sharing behavior for the students. Following this gap, the sixth hypothesis for our proposed model is:

H6: Chinese students' collaborative climate have a positive influence on explicit knowledge sharing behavior with the international students.

4.0 RESEARCH METHODOLOGY AND INSTRUMENT DEVELOPMENT

This study is quantitative in nature and is classified as an experimental study (Kumar, 2009, p. 126). It is designed by employing a 22-items-questionnaire pillared on the model of TPB extension. The population for our study involved all Chinese university students. To test the hypotheses, convenience sampling method was used for collecting data; in total 220 respondents from Wuhan University of technology, China,

were surveyed. Kumar (2009) suggested that convenience sampling is most appropriate and cost effective for collecting data when survey period is of short time. We distributed our questionnaire among 350 students in different departments; however, the response rate was 63% percent only; 220 usable complete copies of responds were received after two months. According to Marcoulides and Saunders (2006), to test the structural equation model for 5 latent variables, minimum 70 responders are required. However, many researchers note that there is a rule of thumb stating the requirement of only 10 cases for approaching an analysis of SEM (Chin, 1998; Hair, Ringle, & Sarstedt, 2011; Wong, 2013). The questionnaire had 3 sections. The first section of the questionnaire was used to collect demographic information about the Chinese students'. Second and third section were based on factors that affect Chinese students' knowledge sharing behavior with the international student. Twelve items were borrowed from the original TPB model (Ajzen, 1991), those are attitude toward knowledge sharing (KATUT) (3 items), subjective norms (SN) (4 items), perceived behavior control (PBC) (2 items), intention to share knowledge (BI) (3 items); additionally another 4 items related to the level of ICT usage (ICT) were taken from the studies of Bock and Kim (2000, 2002); again, collaborative climate (CC) (3 items) were taken from Sveiby and Simons(2002). To assess explicit knowledge sharing behavior (Ex.Ks.B) 3 items were taken from the works of Bock and Kim, 2002; Lee, 2001; Ryu et al., 2003; Lin and Lee, 2004 .For part B, the survey instrument has a 5-point Likert scale, ranging from (Scale -1 Very rarely to 5 - very frequently) and part C possesses a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). SPSS (Statistical Package for Social Science) 21 version and Smart PLS 2.0 M3 were used for investigating relationships, which is well-defined by the proposed model. According to Goodhue, Lewis, and Thompson (2006), to analyze small sample size to study in the field of Management Information Systems (MIS) and social science, Partial Least Squares (PLS) approach is an appropriate technique for analyzing than multiple regression and LISREL.

5. DATA ANALYSIS:

5.1 Characteristics of respondents:

The following table is depicting results (descriptive analysis) about the nature of the respondents in a summarized way:

Table 2. Demographic Profile of Respondents

Demography	Frequency	Percentage	Demography	Frequency	Percentage
Age			Gender		
Above 15	190	90.48	Male	145	69.05
Above 25	30	14.29	Female	65	30.95
Educational level			Knowledge sharing experience		
Secondary high school	0	0	Less than 6 months	11	5.2
Associate degree	0	0	6 months–1 year	105	50
Undergraduate degree	144	68.57	1 year–2 years	60	28.57
Graduate degree	63	30.0	2 years–3 years	18	8.57
Doctoral degree	03	1.43	Over 3 years	16	7.62

5.2 Measurement Reliability and Validity Assessment

Many researchers have argued that they can test item loadings and cross-loadings through the Smart-PLS software for measuring construct reliability and validity of the collected data (Hair et al., 2011; Henseler, Ringle, & Sinkovics, 2009; Peng & Lai, 2012). Recently researcher have used composite reliability (CR) insisted of Cronbach's alpha for estimating reliability or internal consistency, based on latent variables in PLS structural equation models (Ahlemann, 2010; Wong, 2013). In experimental research, range of 0.60 to 0.70 is considered as acceptable values for the composite reliability (CR) test, and above 0.70 is considered satisfactory (Henseler et al., 2009). Thus, composite reliability values for this study were satisfactory, since all the values were above 0.70. The calculated value of CR (ranging

from 0.876 to 0.957) is more than the accepted value. Consequently, all factor loadings, as well as the average variance extracted (AVE), were identified for evaluating the convergent validity and discriminant validity. F. Hair Jr, Sarstedt, Hopkins, and G. Kuppelwieser (2014) prescribed that outer factor loadings above 0.70 or higher are preferred; for exploratory research 0.4 or higher is acceptable and the acceptable value for each construct's average variance extracted (AVE) is 0.50 or higher.. For this study, most of the outer loadings were acceptable, since those were above 0.70 .AVE values in this study stand from 0.644 to 0.882, which are more than 0.50. Therefore, both validity and reliability analyzes suggest that these constructs are valid and reliable for further advanced analysis (Hair et. al, 2014). The following table summarizes the findings for factor loadings, CR and AVE:

Table 3: Result of Measurement Model

Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability
Intention to share Knowledge (BI)	BI1	0.841	0.843	0.905
	BI2	0.917		
	BI3	0.858		

Collaborative climate (CC)	CC1	0.855		
	CC2	0.869		
	CC3	0.819	0.809	0.885
Explicit Knowledge sharing behavior(Ex.Ks.B)	EX.KS..B2	0.947		
	EX.KS.B1	0.943		
	EX.KS.B3	0.927	0.933	0.957
Level of ICT usages (ICT)	ICT1	0.897		
	ICT2	0.917		
	ICT3	0.896		
	ICT4	0.904	0.925	0.947
Attitude towards Knowledge sharing (KATUT)	KATUT1	0.860		
	KATUT2	0.859		
	KATUT3	0.873	0.832	0.898
Subjective norms (SN)	SN1	0.928		
	SN2	0.835		
	SN3	0.814		
	SN4	0.596	0.832	0.876
Perceived behavior control (PBC)	PBC1	0.934		
	PBC2	0.881	0.790	0.903

According to Hair et al. (2011), Discriminant validity is assessed by AVE with the square of the correlations among constructs. Table 4 below shows the result of the square root of the AVE, given in the diagonals, which are higher than the correlation among the constructs. Gefen and Straub (2005) suggested that square root of the

AVE of each construct needs to be much larger (no clear guideline regarding the largeness), than any correlation between this construct and any other construct. This result indicates that there remains a further strength of discriminant validity in our current study. Moreover, it validates that the constructs met the accepted criteria.

Table 4. Discriminant Validity Analysis

	BI	CL	EXKS	IT	KATUT	PB	SN	AVE
BI	0.873							0.761
CL	0.125	0.848						0.719
EXKS	0.439	0.276	0.939					0.882
IT	0.419	0.084	0.492	0.903				0.816
KATUT	0.374	0.108	0.409	0.320	0.864			0.746
PB	0.395	0.093	0.364	0.286	0.295	0.908		0.824
SN	0.157	0.098	0.054	0.089	0.194	0.117	0.802	0.644

5.3 Structural Model and Test of Hypothesis

Suhr (2006) pointed out that structural equation modeling relies on several statistical tests to

determine the model fit to the data. Chin (1998) revealed that the path analysis on latent variables are utilized for identifying causal relationships

between exogenous and endogenous variables, based on the conceptual model. The path coefficient values are measured from ‘-1’ to ‘+1’, which indicates that, the value that is moving towards ‘+1’ exhibits a stronger positive association and the value nearer to ‘-1’ exhibits otherwise (Chin, 1998). Regarding PLS analysis, Hair Jr. et. al (2014, p. 86) mentioned that for sample sizes up to about 1,000 observations, path coefficients with standardized values above 0.20 are usually significant and those with values

below 0.10 are usually not significant (accepted as a rule of thumb). We found in our survey that attitude toward knowledge sharing, subjective norms and perceived behavior control have a positive impact on behavioral intention .On the other hand, collaborative climate and level of ICT usage, both have a significant relationship with explicit knowledge sharing behavior .The tested model and hypotheses of the study results are summarized in the following figure and table:

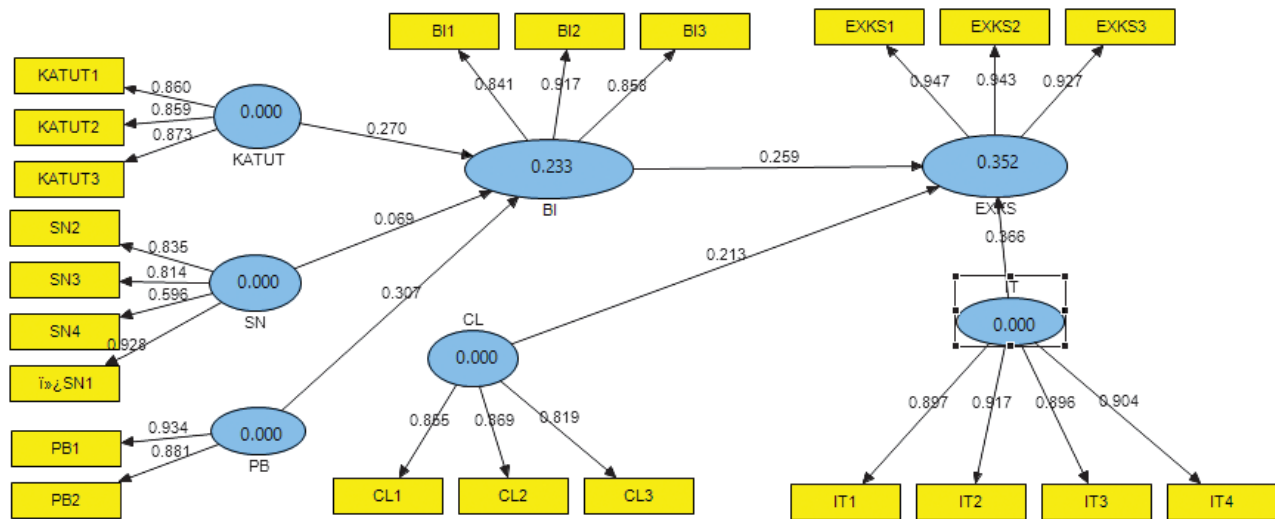


Fig 2: Structural model of KMS

Table 5: Summary of the tested result

Path	Path coefficient	T-Statistics	P-value	Support
BI-> EXKS	0.2593	2.5722	0.010767	YES
CL -> EXKS	0.2125	2.5108	0.012768	YES
IT-> EXKS	0.3656	3.3064	0.001104	YES
KATUT > BI	0.2698	2.2139	0.027867	YES
PB-> BI	0.3073	2.3416	0.020099	YES
SN-> BI	0.0685	0.58	0.562511	NO

$p < 0.05^*$ ($t > 1.645$) significant, $P < 0.01^{**}$ ($t > 1.96$) Very significant, $P < 0.001^{***}$ ($t > 2.58$) Extremely significant.

6.0 DISCUSSION AND FINDINGS

The proposed research model presented in Fig. 1 is analyzed here, by extending the concept of TPB. The coefficient of determination, R², is 35.2 % for the Ex.Ks.B endogenous latent variable. The three other latent variables (KATUT, SN, and PBC), all together, explain 23.3% of the variance in BI. The results show that level of ICT usage and collaborative climate are significant interpreters of explicit knowledge

sharing behavior of Chinese students’ with the international students; this result also aligns with past studies done by various authors, such as, Dukić et al., 2012 and Omona et al., 2010 . This study indicates that the more the students are using different types of ICT, the more they are sharing information with the international students. On the flip side, the outcome of our analysis also found that collaborative climate depicted significant influence on explicit

knowledge sharing behavior of Chinese students' with the international students, which is also supported by a past study done by Yang (2007). Furthermore, the outcome of analysis also found that SN factors have no significant impact on behavior intention, and past studies of F.Y. Kuo and M.L. Young (2008) also support that.

7.0 CONCLUSION AND DIRECTIONS FOR THE FURTHER RESEARCH

The present study is designed to determine the effect of six factors on Chinese students' knowledge sharing behavior with international students. Found results support the pre-stated research model, and hypotheses testing have also shown that all the indicators have direct linkages among the variables in concern. It illustrates a comprehensive understanding of knowledge sharing behavior of Chinese students with the international students, in Wuhan city. One of the limitations of this study is scope area, e.g., the respondents were considered from only one university in Wuhan city and the sample size is a bit small to represent the population in concern. Furthermore, it is possible that other variables, such as, trust, culture, demographical & traditional attributes, sense of well-being (e.g. self-perceived, self-esteem) may have direct/indirect impact on explicit knowledge sharing behavior of Chinese students (Chung et al., 2015; Hendriks, 1999; Howell & Annansingh, 2013; Ma & Chan, 2014; Teh et al., 2010). Hence, there remains a huge area for future research, if anybody wants to explore the impact of the said variables on Chinese students' explicit knowledge sharing behavior, with a large sample size. Finally, the empirical results from this study can be used by the university policy maker for improving social infrastructure within a university premise, to motivate more Chinese student, so that they may exercise explicit knowledge sharing behavior with the international students in a broader manner.

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