Abstract

Owing to transportation technological advances, more and more people go study abroad, Taiwan is no exception. This study investigated how exchange student’s personal commitment (internalization, identification, compliance) and organization (school) culture impact of their knowledge sharing behavior and whether there is something important to maximize knowledge sharing by adopting theory of reasoned action (TRA).

Keywords: Exchange Student, Knowledge Sharing.
1 Introduction

Knowledge is widely known as a critical asset for individual and organization to succeed in such a competitive environment nowadays (Alavi & Leidner, 2001; Cheng, Ho, & Lau, 2009; Yang, 2007). In 21st century, knowledge-based economy becomes a norm. All kinds of area like Economic, political, education changes a lot. It was also a period in which there were big changes in knowledge – especially how they manage it. And with the global integration of high educations, cooperation and communication among international universities is a common thing. Study exchange project is popular between different country’s universities. Every country reform and collaborate their higher education system, hoping to reserve their best students and attract more international students to study in their own country, Taiwan isn’t outside the box, in recent years, Taiwan government make efforts to attract students all over the world. In 2014, the population of exchange students first exceed 90 thousand, there are 92,685 non-citizen students study in Taiwan’s universities, colleges and junior colleges, its about 6.9 percent of all college students, compare to 2013, the non-citizen student population increased 12,955 students (16.2%), the increase rate come to a record high in two consecutive years. In recent 4 year (2011~2014), the average increased population is 11,800, and its about 2.6 times more comparing to year 2007~2010 increased population (4,600) (Note from Taiean Ministry Of Education). Obviously, it become more and more vital for native students and exchange students to share their knowledge.

2 Literature Review

(1) Knowledge sharing

In nowadays, more and more people seek for higher educations. As In Asia, knowledge sharing activities in academic environment also faced similar barriers as in business environment, and it seems that there is a missing culture of sharing (Basu & Sengupta, 2007).

Knowledge management could be similarly applied in academic institutions as in business organizations. If managed appropriately, it can also strengthen or create competitive advantage for academic institutions. Since knowledge is more effectively been “used”, it will benefit scholars and researchers to improve the knowledge cycle (Basu & Sengupta, 2007).

Knowledge sharing in academic is surely worth for us to pay more attention.
Knowledge sharing is a part of knowledge management (Scarborough, 2003), which is basically a social process, that must consider social and cultural factors (Clarke & Rollo, 2001) in common, sharing knowledge is about communicating knowledge within people between a minimum of two individuals to a bunch of people. In this study, knowledge sharing refers to a two-way, reciprocal knowledge transfer among classmates, groups, and organizations.

Sharing is the most important factor in KM implementation (Mason & Pauleen, 2003) and knowledge is something that the more it’s shared, the more powerful it will be. Knowledge sharing can maximize the value of knowledge (Bock & Kim, 2001; W.-B. Lin, 2008), while knowledge sharing promotes widespread learning, at the same time, minimizes the wasting resources to solve the same problem repeatedly (Dorsey, 2003). Knowledge sharing also contributes to cross-cultural effectiveness and global operations through enhanced interaction (Hutchings & Michailova, 2004). As various reason above, it has always been considered as the most important phase in knowledge management process.

(2) Theory Of Reasoned Action

To predict and explain complicated human intentions and social behaviors has been continuously a challenging task for many researchers and scholars. Theory of Reasoned Action model (TRA), a powerful predictive and explain ability for behavior, received huge attention from scholars and researchers over the last few decades. Empirical evidence has also show strong support for the usefulness and predictive ability of TRA.

The theory of reasoned action (TRA) examine the relationships between attitudes, intentions, and various types of behaviors. and widely applied to social psychology (Fukukawa, 2002) and all kinds of area, including consumer behavior (Follows & Jobber, 2000; Thompson & Thompson, 1996; Walker & Knox, 1997), marketing (Shim, Eastlick, Lotz, & Warrington, 2001), e-commerce (Pearson & Grandon, 2005), and e-banking (Ramayah, Rouibah, Gopi, & Rangel, 2009), organizational commitment and citizenship behavior (Becker, Randall, & Riegel, 1995), health care (Chang, 1998; Fortin, 2000), and education (Connell & Wellborn, 1991; Grotnick, Ryan, & Deci, 1991) … most importantly, The TRA has also been applied to knowledge sharing (Bock & Kim, 2001; Bock, Zmud, Kim, & Lee, 2005; H.-F. Lin & Lee, 2004).

TRA was introduced by Fishbein and Ajzen (1975) in order to understand behavioral intention. TRA asserts that two determinants of behavioral intention are attitudes and subjective norms toward behavior, and personal factor refers to attitude towards behavior and social factor represented by subjective norm towards attitude (Fishbein & Ajzen, 1975).

The TRA model developed by Fishbein and Ajzen (1975) is shown in Fig. 1.
3. Research method

(1) Research frame work

To predict and explain complicate human intentions and social behaviors has been continuously a challenging task for many researchers and scholars.

Theory of Reasoned Action model (TRA), a powerful predictive and explain ability for behavior, received huge attention from scholars and researchers over the last few decades. empirical evidence has also show strong support for the usefulness and predictive ability of TRA, hence, it is rational to believe the TRA can be a useful model for explaining the knowledge sharing behavior among exchange students. In this study, we considered organization culture and students three different levels of commitment and organization affects their knowledge sharing behaviors by adopting TRA. Figure 2 depicts our research model.
Hypotheses.

Fishbein & Ajzen, 1975 shows that attitude is a main variable that foresees directly behavioral intention, it’s a evaluative consideration of individuals belief of getting advantageous or the disadvantageous (pleasant,...) (Fishbein & Ajzen, 1975), in other hand, the better he/she expect, the more intention he will want to do, for example: if foreign students think that sharing knowledge with others can make friends or are able to cause some specific good results, they will have better intentions to share. In common, people are not willing to collaborate when their actions have no perceptible effect on the positive value of the sharing (Bock et al., 2005). In all kinds of studies, the evidences have proved that attitudes toward behaviors make clear contributions to the forecast of intentions (Ajzen, 2001; Taylor & Todd, 1995) Hence we proposed:

**H1:** Student’s knowledge sharing’s attitude is positively related to knowledge sharing intention.

Subjective Norm points out to a person that whether he should achieve an object that was expected by others or by the society (Fishbein & Ajzen, 1975). Namely, individually brings the pressure which some behavior anticipated. In other words, Fishbein & Ajzen, 1975 the social environment inclination support is involved in some behavior personally, individual subjective standard is also more intense. For example: the relationships or culture between students and professors may have the influence to behavior intention. In Bock and Kim’s (2002) studies, an
individual’s subjective norm of knowledge sharing may positively influence knowledge sharing intention

(Bock & Kim, 2001). Accordingly, we proposed:

\[ H2: \text{Student’s Subjective norm of knowledge sharing will be positively influence knowledge sharing intention} \]

In this paper, we use a commitment component to reveal the relationship between Knowledge Sharing activities and students commitment, and we defined commitment as students psychological attachment to knowledge sharing.

Kelman’s social influence theory set different types and level of commitment: internalization, identification, and compliance.

Internalization: Behavior adopt among internalization is a behavior that individual values their KS can help not only him or her self and also other students, by means of KS, students thinks that their KS behavior can improve learning quality

Identification: Behavior adopt through identification related to social-psychological (Bock et al., 2005), the behavior come with conditions, student try to maintain or satisfy the self-defining relationship with other people or group (Hwang & Kim, 2007)

Compliance: Behavior adopt through compliance is a commitment when student’s intentions to KS are driven from reward or incentives, but the student him or her self may not really value the KS behavior.

Whether knowledge sharing success or not is highly related to individual’s commitment, the commitment can influence the attitudes and intentions, which represents the degree of private acceptance (Hwang & Kim, 2007) while knowledge sharing behavior adopted through internalization tends to be combined with an individual’s existing values and it’s own belief. The students may feel satisfied from the behavior through internalization. As the same as Internalization, Identification is a process that receive student’s affective commitment and his or her existing value, the behavior come with conditions, people try to maintain or satisfy the self-defining relationship with other people or group (Hwang & Kim, 2007). It may also have similar influence on attitude. Both of Internalization and identification are based on personal norms that reflect an individual’s beliefs, it decide whether the student should share knowledge or not (Malhotra & Galletta, 2003), as a exchange student’s situation, chances that could improve their relationship with classmates seems like a good idea, as we expect, we propose:

\[ H3: \text{Internalization has a positive effect on attitude of knowledge sharing.} \]
H4: Identification has a positive effect on attitude of knowledge sharing.

Sharing of knowledge is a costly activity. Unless the perceived benefits exceed the costs of sharing, otherwise, sharing behavior is hard to bring out (Chua, 2003). Many researchers think that incentives and rewards, organizational culture and leadership greatly influence knowledge-sharing behaviors (Chua, 2003; W.-B. Lin, 2008; Omar Sharifuddin Syed-Ikhans & Rowland, 2004; Ruppel & Harrington, 2001) and it is most likely to happen when employees thinks the incentives exceed the costs (Kelley & Thibaut, 1978). As reasons above, extrinsic rewards is likely to have a positive affect on attitudes toward knowledge sharing, we proposed that:

H5: Compliance has a positive effect on attitude of knowledge sharing.

Knowledge management activities in organization are essential for the whole organization to finish there work (Linderman, Schroeder, Zaheer, Liedtke, & Choo, 2004) and while during knowledge activities, the Organizational culture must be seriously considered, because it has big impact on the ambition of share and gain knowledge (Ndlela & Du Toit, 2001) Bock & Kim, 2001 asserted that organization culture affects the knowledge sharing intention (Bock & Kim, 2001), and lots of leaders in organizations see organization culture as the most significant barrier to manage knowledge assets (David & Fahey, 2000).

With a cross-culture environment, Knowledge sharing behaviors and organization culture, these two contexts should be specially considered, while environment with same culture people is already an important issue. Accordingly we propsed:

H6: Organization Culture has a positive effect on attitude of knowledge sharing.

(3) Sample and Data collection:

To improve and examine our survey context, a pilot study was first taken in National Chung Hsing University, 3 exchange students from different country with diverse cultural backgrounds and have a common interest in knowledge sharing were involved.

The targeted sample are foreign student’s who study in Taiwan’s 15 different universities in Taiwan. In order to be more completely representing the special group, the sample were collected including the north, middle, and south of Taiwan. and it include a total of 196 exchange students in Taiwan. Questionnaires purpose was introduce by me, and the cover page also provides instruction for filling in the questionnaire. After, 175 valid questionnaires have been collected.
In regard to the demographic profile, 86 (49%) respondents were female, and 89 (51%) were male. By specialization, National Taiwan University 20 (11.4%) National Chengchi University 12 (6.8%), Tamkang University 8 (4.5%), National Taiwan Normal University 39 (22.3%), National Taipei University 5 (2.8%), National Tsing Hua University 10 (5.7%), National Chiao Tung University 11 (6.2%), National Chung Hsing University 12 (6.8%), Tunghai University 8 (4.5%), National Chung Cheng University 9 (5.1%), National Chiayi University 2 (1.1%), National Cheng Kung University 16 (9%), National Sun Yat-sen University 14 (8%), National University of Kaohsiung 2 (1.1)

4. Result

After finishing the questionnaire, the analysis was conducted with SPSS 20. and AMOS 21. The structural equation modeling (SEM) was meant to test the hypotheses. Anderson and Gerbing’s (Anderson & Gerbing, 1988) two-step approach were adopted for this study: 1: the fitness of model construction were tested through confirmatory factor analysis (CFA) and then 2, the significance of the coefficient was next examined.

(1) Confirmatory Factor Analysis (CFA)

The Factor Loading of each item must be greater than 0.6, if the factor loading didn’t not reached the suggestion value, then that item should be deleted (Hair, Black, Babin, Anderson, & Tatham, 2006). figure 3 shows the result.

(2) Reliability analysis

Cronbach’s alpha value and Composite Reliability were both used in this part. Cronbach’s alpha value is a common used index, when Cronbach’s alpha value is smaller than 0.6, the dimension should be reconstruct, in common, it is suggest that at least higher then 0.7, (Nunnally, Bernstein, & Berge, 1967) Composite Reliability, the CR value was suggest to be bigger than 0.7 (Hair et al., 2006) figure 3 shows the result.

(3) Content validity

The items of the questionnaire were developed by adapting measures that had already been validated by other researchers or by converting the definitions of dimension into an appropriate questionnaire therefore, the content validity is confirmed. figure 3 shows the result.

(4) Convergent validity
The convergent validity is confirmed by AVE (Average Variances Extracted) and the Composite Reliability (the CR value), basing on Hair(2006)(Hair et al., 2006). Each construction’s AVE value should achieve above 0.5(Fornell & Larcker, 1981). Figure 3 shows the result.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Question Number</th>
<th>Factor Loading</th>
<th>Cronbach’s α</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Sharing Intention</td>
<td>Int1</td>
<td>0.88</td>
<td>0.84</td>
<td>0.841</td>
<td>0.6402</td>
</tr>
<tr>
<td></td>
<td>Int2</td>
<td>0.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Int3</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Sharing attitude</td>
<td>Att1</td>
<td>0.81</td>
<td>0.894</td>
<td>0.89</td>
<td>0.6825</td>
</tr>
<tr>
<td></td>
<td>Att2</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Att3</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Att4</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>Sn1</td>
<td>0.66</td>
<td>0.817</td>
<td>0.8189</td>
<td>0.425</td>
</tr>
<tr>
<td></td>
<td>Sn2</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sn3</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sn4</td>
<td>0.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sn5</td>
<td>0.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalization</td>
<td>Inl1</td>
<td>0.91</td>
<td>0.764</td>
<td>0.7768</td>
<td>0.5449</td>
</tr>
<tr>
<td></td>
<td>Inl2</td>
<td>0.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inl3</td>
<td>0.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identification</td>
<td>Idt1</td>
<td>0.75</td>
<td>0.755</td>
<td>0.7652</td>
<td>0.5272</td>
</tr>
<tr>
<td></td>
<td>Idt2</td>
<td>0.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Idt3</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>Com1</td>
<td>0.84</td>
<td>0.839</td>
<td>0.8389</td>
<td>0.7226</td>
</tr>
<tr>
<td></td>
<td>Com2</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization Culture</td>
<td>Oc1</td>
<td>0.55</td>
<td>0.7</td>
<td>0.6985</td>
<td>0.3681</td>
</tr>
<tr>
<td></td>
<td>Oc2</td>
<td>0.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oc3</td>
<td>0.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oc4</td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3

Most of the value was close to the ideal value
(5) Structure model analysis

Model fit indexes in this section test the model we proposed, the first part of "absolute fit index", \( \frac{\chi^2}{df} \) The value is the degree of freedom divided by the chi-square value, \( \frac{\chi^2}{df} \) this value is suggest that not to exceed 3, the smaller the value, the higher the representative of model fit(Carmines & McIver, 1981); GFI shall be at least 0.8 (Bentler & Bonett, 1980); the value of RMR and RMSEA standards should be 0.08 and 0.06(Hair et al., 2006). The second part is "comparative fit index", including NFI, RFI, IFI and CFI ,it is suggest to be at least 0.9(Bentler & Bonett, 1980). The third part is " parsimonious fit index" including PGFI, PCFI and PNFI that was suggest to be at least 0.5 (Bentler & Bonett, 1980) figure 4 shows the result.

<table>
<thead>
<tr>
<th>index</th>
<th>Suggest standard</th>
<th>Test value</th>
<th>Compare to suggest standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute fit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \frac{\chi^2}{df} )</td>
<td>1~3</td>
<td>2.048</td>
<td>Good</td>
</tr>
<tr>
<td>GFI</td>
<td>&gt;0.8</td>
<td>0.815</td>
<td>Good</td>
</tr>
<tr>
<td>RMR</td>
<td>&lt;0.08</td>
<td>0.036</td>
<td>Good</td>
</tr>
<tr>
<td>RMSEA</td>
<td>&lt;0.08</td>
<td>0.078</td>
<td>Good</td>
</tr>
<tr>
<td>Comparative fit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFI</td>
<td>&gt;0.9</td>
<td>0.874</td>
<td>Slightly lower</td>
</tr>
<tr>
<td>NFI</td>
<td>&gt;0.9</td>
<td>0.784</td>
<td>Slightly lower</td>
</tr>
<tr>
<td>IFI</td>
<td>&gt;0.9</td>
<td>0.877</td>
<td>Slightly lower</td>
</tr>
<tr>
<td>RFI</td>
<td>&gt;0.9</td>
<td>0.754</td>
<td>Slightly lower</td>
</tr>
<tr>
<td>parsimonious fit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGFI</td>
<td>&gt;0.5</td>
<td>0.657</td>
<td>Good</td>
</tr>
<tr>
<td>PCFI</td>
<td>&gt;0.5</td>
<td>0.767</td>
<td>Good</td>
</tr>
<tr>
<td>PNFI</td>
<td>&gt;0.5</td>
<td>0.688</td>
<td>Good</td>
</tr>
</tbody>
</table>

figure 4

Most of the index achieve the suggest standard, but a few were slightly lower, therefor the fitness between the structure and measurement data is acceptable.

(6) Path analysis

basing on the Theory of Reasoned Action (TRA )and by using AMOS to analysis the model, this section test the hypothesis between dimensions. figure 5 shows the result.
Only Hypothesis 2 isn’t support, we will discuss in next section

5. Conclusions

By using the TRA model, most hypothesizes and data result seems to be explainable. As Bock asserted, organizational knowledge greatly resides within individuals (Bock et al., 2005). As some scholars asserted, an individual’s commitment towards knowledge sharing will determine the success or failure of Knowledge Sharing activities (Alavi & Leidner, 2001; Hwang & Kim, 2007; Malhotra & Galletta, 2003), in this case we got testified in H1 H3 H4 H5.

Subjective Norm points out to a person that whether he should achieve an object that was expected by others or by the society (Fishbein & Ajzen, 1975) We found that Subjective Norm through Intention (H2) is not support in our study, which is out of our exception. By the case, we think that a totally different environment need time and patient to get used to it, as a exchange student, let him or her self be more comfortable seems like to be the most priority, at the mean time the expectation from student and teacher may not have significant influence on it.

Lastly, we suggest that more activities and building a reward system between exchange and native students is likely to improve the knowledge sharing behavior, we could make our learning environment more suitable for all nation’s students.
References


