FACULTY PERCEPTIONS OF KNOWLEDGE SHARING BEHAVIOR

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ABSTRACT

Knowledge sharing is recognized as being important activities in many organizations, including in universities. One main reason why knowledge sharing is important is the ability of knowledge sharing to enhance not only knowledge of the person who owns but also others that are given or transformed the knowledge by that person. There are many studies about knowledge sharing. Those studies are concerning the different factors influencing sharing knowledge such as job satisfaction, reward, motivation, reward, and organizational knowledge capabilities. However, little is known about empirical studies regarding faculty perceptions of knowledge sharing behavior. Therefore, this research applied the theory of planned behavior (TPB) to examine knowledge sharing behavior among faculty. A self-administered questionnaire was used to collect the data for this study. Questionnaires were distributed to respondents by the drop-off/pick-up method and a total of 127 completed questionnaires were used in the analysis. The data was then analyzed using structural equation modeling. Two out of five hypotheses were supported. Those hypotheses are the relationship between attitudes toward knowledge sharing and intention to share knowledge, and the relationship between intention and knowledge sharing behavior.

Key words: knowledge sharing, theory of planned behavior, faculty

BACKGROUND TO THE RESEARCH PROBLEM

Today’s business environment is highly competitive environment, which often characterized by radical changes. One essential tool to the survival of many organizations is an understanding in knowledge management (Wheatley, 2001). Furthermore, in the literature concerning knowledge management within an organization, most researchers acknowledge the important role knowledge sharing (for example: Small & Sage, 2005; Cummings, 2003; Alavi & Leidner, 2001 cited by Bartol & Srivastava, 2002).

Knowledge sharing is important. This activity can enhance not only knowledge of the person who owns but also others that are given or transformed the knowledge by that person (Halal, 2008; Gurteen, 1999). Furthermore, Gurteen (1999) pointed out several reasons why sharing knowledge is important. First, knowledge is a perishable. In other words, knowledge is increasingly short-lived, if the people do not use their knowledge then it will rapidly loses its value. Second, sharing knowledge is a synergistic process which people who share will gain more then lose. Third, many organizations today require a collaborative effort from their employees. In other words, when one individual try to work alone, s (he) is likely to fail. This is because many people need other people to support their works. Being open with other people and sharing with them will help us to achieve our objectives.

There are many researches about knowledge sharing. Those research concerning the different factors influencing sharing knowledge such as job satisfaction (de Vries, van den Hooft, & de Ridder, 2006), reward (Bartol & Srivastava, 2002), motivation (Lin, 2007; Yuen & Majid, 2007;
Burgess, 2005), and organizational knowledge capabilities (Yang & Chen, 2007). However, empirical studies regarding the influence of religiosity on knowledge sharing behavior have been rarely conducted. Therefore, this research applied the theory of planned behavior (TPB) by incorporating Christian values as antecedent variable of attitude to examine knowledge sharing behavior.

**LITERATURE REVIEW**

**Knowledge and knowledge sharing**

Knowledge is defined as “a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information (Davenport & Prusak, 1998 cited by Ipe, 2003). In other words, it can be stated that knowledge refers to the fact or condition of knowing something gained through experience.

There are 12 characteristics of knowledge (Halal, 2008). Those characteristics are: (1) created by anyone, (2) acts as a fluid, (3) organized hierarchically, (4) reduces conflict, (5) changes value, (6) distributed cheaply, (7) increases when shared, (8) transmitted in networks, (9) abhors a vacuum, (10) guided by spirit, (11) unique for individuals, and (12) an infinite resource. As stated before, one characteristic of knowledge is increases when shared.

Knowledge is an intangible asset that increases when shared (Halal, 2008). In other words, the owner of knowledge can duplicate this knowledge and share it with others in return for their knowledge. Both parties would then continue to own their original knowledge, while also having the new knowledge they gained, thereby increasing the total amount of knowledge in use (Halal, 2008, p.6). This leads to the importance of knowledge sharing.

Lin (2007) defined knowledge sharing as a social interaction culture, involving the exchange of employee knowledge, experiences, and skills through the whole department or organization. Other researchers, for example, Bartol and Srivastava (2002) and Lee (2001, cited by Pai, 2006) defined knowledge sharing as activities of transferring or disseminating organizationally relevant information, ideas, suggestions, and expertise with one another.

There are several theories that can be used to understand knowledge sharing. For instance, Wu and Li (2007) used theory technology acceptance model (TAM) to understand knowledge sharing behavior. Other researchers such as So and Bolloju (2005) and also Lin and Lee (2004) used the theory of planned behavior (TPB). This research applied TPB because TPB is a comprehensive theory in understanding human behavior (Cheng, Lam, & Hsu, 2006). Furthermore, the accumulated evidence shows that TPB is useful in explaining human behavior (e.g., Oreg & Katz-Gerro, 2006; Tarkiainen & Sundqvist, 2005; George, 2002; East, 2000; Dharmmesta & Khasanah, 1999).

**The theory of planned behavior (TPB)**

The theory of planned behavior is known as a general and parsimonious model of behavior-specific that has been shown to predict a range of behavior (Conner & Abraham, 2001). For example, the TPB has been successfully applied in a wide variety of behaviors such as organizational behavior (Cordano & Frieze, 2000; Morris & Venkatesh, 2000; Maurer & Palmer, 1999), complain behavior (Cheng, Lam, & Hsu, 2006; East, 2000), proenvironmental behavior...
(Oreg & Katz-Gerro, 2006; Cheung, Chan, & Wong, 1999; Stern, Dietz, Kalof, & Guagnano, 1995), health protection (Conner & Abraham, 2001), and purchase behavior (Tarkiainen & Sundqvist, 2005; George, 2002; Dharmmesta & Khasanah, 1999; Kalafatis, Pollard, East, & Tsogas, 1999; Kokkinaki, 1999; Kanler & Todd, 1998; Thompson & Thompson, 1996).

Theory of planned behavior is an extension of the theory of reasoned action (TRA; Azjen & Fishbein, 1980). In its original form, TRA proposes that behavior can be predicted from a behavioral intention which attitude and subjective norms influence the behavioral intention. Furthermore, TRA assumes that a person behavior is under volitional control (Ajzen, 1988). However, problems are encountered when the theory (i.e., TRA) is applied to behaviors that are not fully under volitional control. In other words, for some behaviors there may be personal deficiencies or external obstacles that may limit goal achievement. Therefore, the importance of volitional control has lead Ajzen (1988) to develop the theory of planned behavior (TPB).

The TPB is made necessary by the original model’s limitations in dealing with behaviors over which people have incomplete volitional control (Ajzen, 1991). Briefly, the theory postulates that individual’s action is influenced by behavioral intention. Behavioral intention, in return, is a function of three factors: attitude toward the behavior, subjective norm, and perceived behavioral control (Figure 1). Attitude is defined as people’s overall definition of their performing behavior. Subjective norms refer to people’s perception of social pressure to perform the behavior. Perceived behavioral control measures how well a person can execute the behavior (Ajzen, 1991).

![Image 1. Theory of planned behavior](source: Ajzen (1988, p.133))

There are two assumptions in TPB. First, the theory assumes that perceived behavioral control has motivational implications for behavioral intentions. In other words, people who believe that they have resources and opportunities are likely to form strong behavioral intentions. Second, the theory assumes that there is possibility of a direct link between perceived behavioral control and behavior. Furthermore, perceived behavioral control can also influence behavior indirectly via behavioral intentions (Ajzen, 1988).

Based on the theory of planned behavior, five hypotheses can be stated as follows:

**H1:** There is significant and positive relationship between attitudes toward knowledge sharing and behavioral intentions to share knowledge.

**H2:** There is significant and positive relationship between subjective norms regarding knowledge sharing and behavioral intention to share knowledge.

**H3:** There is significant and positive relationship between perceived behavioral control and behavioral intention to share knowledge.

**H4:** There is significant and positive relationship between perceived behavioral intention to share knowledge and knowledge sharing behavior.

**H5:** There is significant and positive relationship between perceived...
behavioral control and knowledge sharing behavior.

RESEARCH METHOD

Measurement. Following Bratson, Coote, and Rudd (2006) and Sekaran (2003), whenever possible and appropriate, the measures used in this questionnaire were adapted from existing scales drawn from marketing and management literature. This research measured six constructs: attitude toward knowledge-sharing, subjective norms, perceived behavioral control, intention, and knowledge-sharing behavior. All constructs’ indicators were adapted from Lin and Lee (2004) and Lin (2007). All items were measured using a seven-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree).

Attitude toward knowledge-sharing was measured by using two items (e.g.: “encouraging knowledge-sharing with colleagues is a good idea”). Subjective norms were measured through three items (e.g.: “my supervisor influences my decision think that I should share knowledge with colleagues”). Perceived behavioral control was assessed through two items (e.g.: “I have the resources in sharing knowledge with colleagues”). Behavioral intentions were measured by using two items (e.g.: “I plan to share knowledge with my colleagues”). Sharing behavior was a self-stated rather than observed. Respondents indicated the extent to which they share knowledge with their colleagues. Sharing behavior was measured by two items (e.g.: “My colleagues in my university share knowledge obtained from their education”).

Survey. A self-administrated questionnaire was used to collect data. The questionnaire was pre-tested in order to uncover biased or ambiguous questions before they are administered at large (Sekaran, 2003). Moreover, pretesting helps to validate all the variables selected and wherever necessary, to modify the scales intended to measure the variables. It also sought to ascertain if the questionnaire was eliciting the responses required and to incorporate any changes suggested by the respondents in the final questionnaire. In this research, the pretesting involved a group of respondents selected on a convenience basis (Sekaran, 2003). A total of 20 sets of questionnaires were distributed to full-time and part-time lecturer. The instrument then was refined after pretesting. The result shows that Cronbach’s alpha value of every construct is more than 0.7, exceeding the common threshold values recommended by Hair, Black, Babin, Anderson, and Tatham (2006).

Sample and questionnaire administration. Data was collected over a month period, using a convenience sample of 200 full-time and part-time faculty members in a private university. This research followed Hair et al. (2006, p.741) which recommended sample size is 200, which provides a sound basis for estimation. However, not all questionnaires could be collected and used for this study. In the specific, 127 complete questionnaires can be used; the effective response rate was 63.5 percent.

Analysis Data. A structural equation modeling was used to test the relationship between constructs. For the overall fit of the model, this research several indices such as CMIN/DF, GFI, AGFI, and RMSEA as suggested by Giles (2002).

RESULTS

Description of the sample. A total of 200 questionnaires was distributed and collected from full-time and part-time lecturers in a private
university. Of these, 127 samples can be used for further analysis, which constitutes a 63.5 per cent usable response rate. The profile of the sample reveals that male constituted about 59.8 per cent of the sample. Those between 31-35 years old represent 19.7% of the sample, and the oldest (more than 51 years old) represent 15% of the sample. The majority of the respondents are full-time lecturers (5 days work). Almost one-third of the respondents has teaching experience more than 11 years (31.7%).

Reliability and validity assessments. In assessing the psychometric properties of the instrument, issues of reliability and validity have been considered. First, reliability analyses were conducted. Table 1 shows the reliability of the measures. According to Hair et al. (2006), the generally agreed upon lower limit for Cronbach’s alpha is 0.70. The reliability (i.e., Cronbach’s Alpha) of the scales of all variables ranged from 0.776 to 0.921, proving evidence of internal consistency of the measures.

![Table 1](image)

To assess construct validity, a factor analysis was run using Varimax rotation. Each scale was subjected to exploratory factor analysis loading on the dominant factor (at least 0.50) with a sum of the items in the factor explaining more than 50 per cent of the factor's variance (Table 2). Based on Gerbing and Anderson (1988), confirmatory factor analysis (CFA) using maximum likelihood estimation procedures was performed for measure validation. Table 3 shows that the results indicate acceptable model fits, demonstrating adequate convergent validity.

![Table 2](image)

In order to provide support for discriminant validity, Pearson product-moment correlations among the study variables were computed. For this purpose, composite scores for each dimension were calculated by averaging scores representing that dimension. Table 4 provides the full set of correlations among the constructs of interest in this research. The highest correlation occurred between attitude and behavioral intention to do
knowledge sharing (0.467) and reversely, the lowest correlation was found between perceived behavioral control and knowledge sharing behavior (-0.090). The results provide support for the discriminant validity of the scale (Anderson & Gerbing, 1988).

Table 4.
Correlations among constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attitude</td>
<td>0.184**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Subjective norms</td>
<td>0.153</td>
<td>0.125</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived behavioral control</td>
<td>0.434**</td>
<td>0.037</td>
<td>-0.090</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. Behavioral intention</td>
<td>0.467**</td>
<td>0.026</td>
<td>-0.338**</td>
<td>-0.490</td>
<td>1</td>
</tr>
<tr>
<td>5. Behavioral knowledge sharing</td>
<td>0.196</td>
<td>0.046</td>
<td>-0.296</td>
<td>0.110</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: analysis of field data

Hypotheses testing results.
Structural equation modeling was applied to estimate parameters of the structural model. The results show that the overall acceptability of the overall model was acceptable (Table 5).

Table 5.
Structural Model Results

<table>
<thead>
<tr>
<th>Hypothesized Relationship</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t-Ratio</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Attitude toward knowledge sharing → behavioral intention to share knowledge</td>
<td>0.492</td>
<td>0.373</td>
<td>0.593</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: Subjective norms about knowledge sharing → behavioral intention to share knowledge</td>
<td>0.105</td>
<td>0.035</td>
<td>0.302</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3: Perceived behavioral control to share knowledge → behavioral intention to share knowledge</td>
<td>0.320</td>
<td>0.251</td>
<td>1.283</td>
<td>Not supported</td>
</tr>
<tr>
<td>H4: Behavioral intention to share knowledge → knowledge sharing behavior</td>
<td>0.333</td>
<td>0.202</td>
<td>1.650</td>
<td>Supported</td>
</tr>
<tr>
<td>H5: Perceived behavioral control to share knowledge → knowledge sharing behavior</td>
<td>-0.212</td>
<td>-0.054</td>
<td>-3.911</td>
<td>Not supported (different direction)</td>
</tr>
</tbody>
</table>

Source: analysis of field data

The first hypothesis predicted a positive relationship between attitudes toward knowledge sharing and behavioral intentions to share knowledge. The results substantiated the hypothesis (CR = 3.573). The second hypothesis predicted a positive relationship between subjective norms about knowledge sharing and behavioral intentions to share knowledge. However, the results did not substantiate the hypothesis (CR = 0.185).

This research proposed that there was a positive relationship between perceived behavioral control and intention to share knowledge (hypothesis three). Contrary to expectations, the result did not substantiate hypothesis three (CR = 1.210). Then, the fourth hypothesis proposed a positive relationship between behavioral intention and knowledge sharing behavior. The results did not support the hypothesis (CR = 3.110). The fifth hypothesis stated a positive relationship between perceived behavioral control to share knowledge and knowledge sharing behavior. The results supported the hypothesis (CR = -2.054). In spite of its statistical significance, this result does not support hypothesis 5.

DISCUSSION
The objective of the present study was to test the theory of planned behavior to examine knowledge sharing behavior. The present study shows that attitude affect behavioral intentions to knowledge sharing. Furthermore, behavioral intention affects knowledge sharing behavior. However, there were three hypotheses that were not supported in this research. Those hypotheses were the positive relationship between subjective norms regarding knowledge sharing and behavioral intention to share knowledge, the positive relationship between perceived behavioral control and behavioral intention to share knowledge, and the positive relationship between perceived behavioral control and knowledge sharing behavior.

No relationship between subjective norms and behavioral intention was found in this study. Therefore, respondents’ intention to share knowledge was not related with perceived social pressure from important referents. The finding was inconsistent with previous studies that applied TPB in understanding knowledge sharing behavior (e.g., Lin & Lee, 2004). The inconsistency of the
research could be a reflection of nature of the study sample. Specifically, this research used faculty members in a private university as study respondents. 

Based on exploratory research, this study found that two relevant referents for this study are head department and colleagues. However, findings from descriptive statistics (mean= 4.19, minimum= 1, maximum= 7) show that head department was not considered as person that can affect respondents’ intention to share knowledge. In other words, it can be stated that respondents’ intention to share knowledge was not because of the pressure from the head department.

Head department and colleagues were stated above as two important referents for respondents. However, Leenders (2002, cited by Cheng, Lam & Hsu, 2006) pointed out that the more frequent and intense the communication is between and individual and his or her important others, the more likely it is that an individual will adopts the beliefs from them. On the other hand, faculty’s responsibilities such as teaching load, research, and community service may result in infrequently contact or talk with other faculty members and even with the head department. Statistics descriptive also show that colleagues (mean= 4.52) and others perceived important referents for the respondents (mean= 4.74) were also not really considered as person that can affect respondents’ intention to share knowledge.

No relationship between perceived behavioral control and behavioral intention to share knowledge was found in this study. Furthermore, perceived behavioral control was significantly related to knowledge sharing behavior, however, in a different direction (i.e., negative direction).

Perceived behavioral control refers to people’s appraisal of their ability to perform the behavior. According to several researchers (Triandis, 1977; Sarver, 1983; Liska, 1984 cited by Lam and Hsu, 2006), there are several factors that affect perceived behavioral control such as facilitating factors, the context of opportunity, and available resources. In relating to the results of this research, no relationship between perceived behavioral control and behavioral intention to share knowledge was found in this study. Therefore, it can be stated that when a faculty member feels that he or she has no resources (such as abilities and experience), and then he or she may have no intention to share knowledge. Because of the nature of the sample (faculty member), a respondent may feel that s (he) has no resources because s (he) has expertise differently compared with other colleagues. In other words, when a respondent with expertise in marketing subject, s (he) may feel that s(he) has no resources (i.e. abilities and experience) in finance when have opportunities talking with other colleagues with finance background. Again, because of the nature of this sample (faculty members), respondents of this study may have own expertise. They may have general topic discussion rather than sharing knowledge or discussion in a specific subject area. Thus, no relationship between perceived behavioral controls to share knowledge.

The estimated standardized coefficient for the relationship between perceived behavioral control to knowledge sharing and knowledge sharing behavior was -0.212 (CR= -2.054). This indicates that the higher the degree of knowledge sharing barriers is perceived by faculty members, the lower the behavior of knowledge sharing. Therefore, when a faculty
member want to share his or her knowledge, but there is no available resources such as formal or informal discussion and seminars, it may result to the decrease of knowledge sharing behavior.

LIMITATIONS AND FUTURE RESEARCH
The main objectives of this study are to explore the effect of attitude toward sharing knowledge, subjective norms, perceived behavioral control, behavioral intention, and sharing knowledge behavior. However, there are two main limitations of this study. First, this research used self-reports of sharing knowledge were obtained, rather than actual sharing knowledge behavior. Second, this research tests the fit of the model within a single university. Therefore, further research should attempt to replicate this research in other universities and in other contexts.

CONCLUSIONS
This research applied the theory of planned behavior in order to understand the underlying drivers of lecturers’ knowledge sharing behaviors. The results showed those lecturers’ attitudes toward knowledge sharing also significantly impacted behavioral intention. Then, behavioral intention significantly impacted knowledge sharing behavior. However, subjective norms about knowledge sharing and perceived behavioral control to knowledge sharing did not significantly influence lecturers’ behavioral intention. Also, this research found that perceived behavioral control to knowledge sharing significantly impact knowledge sharing behavior in a different direction. In other words, it was expected the relationship between perceived behavioral control and knowledge sharing was positive. However, the result of this research pointed out that the direction was negative and significant.

REFERENCES
Psychology & Marketing, 2, 3, 181-199.


Consumer Marketing, 23, 5, 248-265.


