Antecedents of Knowledge Sharing Behavior among Nurses

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Abstract – *This study examined whether presenteeism, altruism and perceived usefulness of social network are the main antecedents to facilitate knowledge sharing behavior (KSB) among nurses. A systematic review technique is adopted to formulate a conceptual framework that integrates the Theory of Research Action and Technology Acceptance Model. Presenteeism in this study is generated by positive attitude to implement tasks by nurses. Indeed, their essence of knowledge and caring has led this study to propose altruism and perceived usefulness of social network (facebook) as factors that can influence KSB. A quantitative research method was employed utilizing survey method. Research data was collected from a sample of 386 Malaysian nurses. Structural Equation Modeling was carried out to examine the predictive behavior of the proposed factors of the research model. It was discovered from the study that the presenteeism, altruism and perceived usefulness of social network are important factors for predicting a nurse's knowledge sharing behavior.* **Copyright © 2015 Penerbit Akademia Baru - All rights reserved.**

Keywords: Knowledge sharing behaviour, Presenteeism, Altruism, Perceived usefulness of social network

1.0 INTRODUCTION

Knowledge has been viewed as a competitive advantage and a source of power for those who possess it at the right place and at the right time [1,2]. The importance of knowledge management or, more precisely, the need for organizations to manage knowledge, is a consequence of the perceived link between competitive advantage and knowledge. This link is frequently highlighted in the knowledge management literature [3-8]. In this research, we will define knowledge sharing as a persuasion rather than a natural act. Where knowledge sharing refers to peoples' behaviour or the action of either sharing or not sharing their knowledge with others as in donating or collecting knowledge. In this case we may relate knowledge sharing to a psychological process that requires a series of initiative to help employees identify the knowledge they possess and then to motivate, enable and encourage them to share that knowledge with others [9]. Christensen [10] define knowledge sharing as about identifying existing and accessible knowledge in order to transfer and tally this knowledge to solve specific tasks better, faster and cheaper than through other solving methods.

There have been various attempts to carve up and typify knowledge, although these all seem to share a common theme that knowledge, its creation and usage is undoubtedly a human endeavour [11,12]. Thus, individuals use knowledge, and its utility can only be realized through their interaction. One of the most common distinctions of knowledge frequently quoted is

explicit versus tacit [5,12]. Explicit knowledge is described as knowledge that can be easily expressed or codified, whilst tacit knowledge is personal and context dependent, and as such differs from explicit since it is very difficult to express, formalise or communicate. This distinction is frequently cited as being captured in the phrase we know more than we can tell [13].

For that reason, people need to be persuaded and human cohesion is demanded [14-18]. For instance, people's non-supportive beliefs in sharing knowledge either formally or informally can result in the failure of any knowledge management efforts in an organization [19]. This highlights awareness in sharing knowledge/skill/expertise to others is very important and should be cultivated among members of the organization in order to ensure that the importance and contribution of the knowledge sharing is understood and supported [20]. Taylor and Wright [21] also highlight that "the main barriers to implement knowledge management in organization were all people related". For that reason, non-technological problems [22], such as individual barriers [5] and supportive culture for knowledge sharing ([23,24] became the main issue.

1.1 Underspinning Theories

This study views knowledge sharing behavior as the degree to which nurses actually share their knowledge with their colleagues in order to solve problem-related tasks. In order to investigate KSB among nurses, we based our research on the theory of reason action (TRA) formulated by [25] which has been widely used by other researchers. This paper discusses the nature of nursing that rely on the caring-orientation to implement tasks effectively. Hence, further discussions on propositions relates KSB on individual perception of the easiness or difficulty of performing the behavior of sharing that resulted from presenteeism, altruism and perceived usefulness of social network. The individual's perception on intention to share knowledge that they have denote an interesting issue to investigate that knowledge sharing must be facilitated and it is not a natural act.

Beside TRA, in this paper technology acceptance model (TAM) being use as a basis to understand perceived usefulness of social network role in KSB. Though Chang and Chuang [26] stressed on reciprocity in representing relationships among communities, our study discusses the relationships from other views. The relationships that occurred among nurses are heavily relying on 'helping' concept that associates with knowledge donating. We assume that in nursing, nurses who perceived as reluctant to share all types of knowledge because of personal perspectives like ownership of knowledge are contradicting their own moral obligations [17].

1.2 Research Propositions

Sharing knowledge is based on individual behavior, in which the individual does not receive the value or importance of sharing knowledge unless they feel that action is important [27]. According to Ruggles [28], changing the behavior of an individual is a challenge in the process of sharing knowledge and rising the barriers to sharing knowledge within the organization [29]. Reluctance to share knowledge and hide the knowledge is the natural tendency of human [30], it shows that to absorb individual knowledge into organizational knowledge is a very challenging process [5, 31-33]. So, it is important to understand the factors that support or influence the knowledge sharing behavior of individuals as knowledge sharing behavior can be formed within the organization [34].

People are only motivated to share knowledge for their own interest such as when there are rewards and tangible returns such as promotion [35]. In contrast, people with moral obligations will act differently and are more willing to share. Yang [17] observes that 'knowledge hoarding' will occur when employees do not feel that their sharing will be reciprocated. This is referred to the basic norm of reciprocity [36]. It refers to how an individual offers his or her talents to the organization in exchange for the reward of organizational membership [16]. In nursing context, knowledge and caring are total concept for quality nursing care that focus on well-being of patients [37]. Basic knowledge only is not sufficient without the ability to care, hence nurses are required to understand the field of nursing and the art of caring [38]. Von Krogh [39] explains that care influence on knowledge creation in the sense that care translates into real help. When nurses help patients they demonstrate action of doing for other people what they cannot do for themselves. And this help requires zero expectation of reciprocal relationship. Nurses do this all the time and are required to possess knowledge and expertise to be effective in practice care [39], thus they need to share knowledge among them [37].

The discipline of nursing demand its community to diffuse knowledge through communicating research and involve innovating knowledge and expertise i.e clinical practice [40]. This is importance so that learning could be generated by understanding how tacit and explicit knowledge are inter-related to one another and should be given a balanced attention during sharing knowledge. At this point, we can assume that, socialization process is central to knowledge sharing, since individual sharing tacit knowledge is the product of socialization [41].

This explanation has posed interesting agenda on how the presenteeism, altruism and perceived usefulness of social network influence KSB. Our propositions on the relationship could be viewed on several justifications:

Proposition #1: How presenteeism influence KSB?

In this research we define presenteeism as either attending work when sick or working through illness [37]. Sickness presenteeism for instance is commonly occurs within occupations that offer services to people and because of a felt responsibility towards clients or felt their absence would have negative consequences for themselves, colleagues or a third party [42]. Normally, presenteeism is seen as health-related productivity loss while at work [37]. Presenteeism is often seen as a loss of productivity associated with health in the workplace, but Caverley *et al.* [43] in their study proves that factors such as job insecurity of employment, supervisor support and job satisfaction tends to cause the employee presenteeism and thus fully committed to their careers. Our proposition is based on previous discussion on caring culture that influence on knowledge creation of which 'real help' translate into knowledge donating among nurses.

Proposition #2: How altruism influence KSB?

In the context of KSB, altruism is seen as an individual motivator when individuals achieve goal in sharing knowledge and as a result their altruistic behavior will also increase (helping others without expecting anything in return) [44]. We believe that in nursing, altruism behavior is shown when nurses contribute knowledge and they gain satisfaction by helping others. For instance, when nurses diffuse knowledge during treating patients they must consider for helping other nurses by sharing knowledge and expertise so that mistakes will be minimized, level of caring will be increased and they perform task diligently and effectively [37]. Not only

helping others will strengthen their own religious faith, indeed nursing profession is attractive to them because nature of nursing is based on altruism and caring for sick people [37].

<center>Proposition #3: How perceived usefulness of social network influence KSB?</center>

The role of technology in knowledge sharing has been studied by many researchers [45-48] The emergence of information technology cause the information can be accessed by anyone, from wherever and at any time [45] in a flexible way [49]. Edwards *et al.* [48] emphasize, though a common network of information technology such as e-mail and intranet has been widely used, employees in the organization still cannot see it's significant with knowledge management. Therefore the employee still refuses and not motivated to share knowledge [50]. According to Yu *et al.* [49], individuals will be encouraged to use technology such as social networks if they believe that the use of social networks will benefit them.

The above propositions suggest the associations between the three antecedents of presenteeism, altruism and perceived usefulness of social network and knowledge sharing behavior. The linkages can be illustrated in the framework as below:
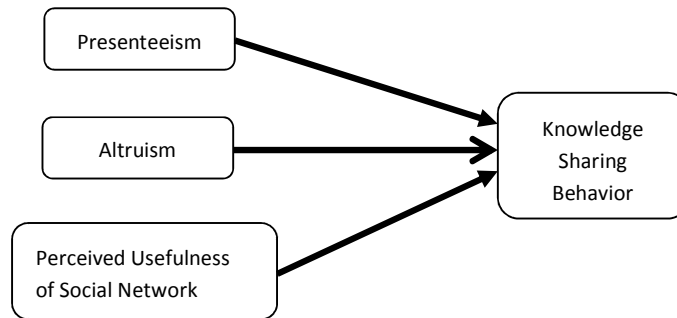

Figure 1: Framework of knowledge sharing behaviour for nursing

2.0 METHODOLOGY

In order to examine the antecedents, quantitative methods were used. Survey research is most commonly used in non-experimental design and is considered most appropriate for testing the antecedents. There are many types of surveys such as oral survey, written survey, online survey and example survey. This study focuses on written surveys. According to Fowler [51], a written survey can be grouped as administered questionnaires, mail survey or drop-off survey. A drop-off survey was used in this study.

2.1 Subjects

The sample comprised 386 nurses in Malaysia (29 male and 357 female; 90.4 % Malay, 3.4% Chinese, 4.6% Indian, and 1.6% others etnic). Participants' ages ranged from 29 to 59 years. The researchers selected the main government state hospitals in Malaysia. Within each hospital, random sampling was used to select nurses.

2.2 Procedure

Participants were asked to provide written consent for participation. All questionnaires were translated into the local language. Participants were assured that their responses would remain confidential and would be used only for research purposes.

2.3 Data Analysis

Descriptive statistics, correlation and hierarchical multiple regression, and structural equation modeling were used to test for the significance of the association between the variables of presenteeism, altruism, perceived usefulness of social network and knowledge sharing behavior.

3.0 RESULTS AND DISCUSSION

3.1 Measurement Model Development

The unidimensionality and internal consistency assessment of the items of each factor were assessed. Exploratory Factor Analysis (EFA) was conducted to offer evidence of unidimensionality of the items of each measurement. The purpose of the measurement model was to determine the reliability and validity of a set of items in each latent construct. Cronbach's Alpha was conducted to assess the reliability of each factor. According to Hair *et al*. [52]. Cronbach's Alpha score of at least 0.7 can be considered as acceptable of internal consistency. Reliability value of each factor is shown in Table I. All reliability values those are greater than 0.7 are considered as acceptable. The construct validity was examined by investigating the convergent validity and discriminant validity. Convergent validity was measured utilizing composite reliability and Average Variance Extracted (AVE) [53]. A commonly used value for Composite reliability should be at least 0.7 whereas the Average Variance Extracted (AVE) should be 0.5 or higher to be considered acceptable [54].

According to Table 1, the loading value of each factor is greater than or equal to 0.5 and also reach the significance level of $p < 0.001$. Discriminant validity measures the difference between a construct and its indicators from another construct and its indicators [55]. It is also used to measure the extent to which a construct is really different from other constructs [56]. Fornell and Larcker [53] states that the correlations among items in any two constructs should be less than the square root of the AVE shared by items within a construct. For acceptable discriminant validity, each indicator highly measures its intended constructs [57]. Additionally, the AVE shared between a construct and its measures should be higher than the AVE shared by the constructs in the model [58]. In this study the correlation method was used to determine discriminant validity, see Table 2. Table 1 show the results of the convergent validity. All constructs show good convergent validity because all the criteria were met.

Table 1: Construct reliability

Factor	Item	Factor Loading	Cronbach's Alpha	CR	AVE
Presenteeism			0.845	0.845	0.524
	P1	0.74			
	P2	0.81			
	P3	0.78			
	P4	0.66			
	P6	0.61			
Altruism			0.817	0.838	0.571
	A1	0.83			
	A2	0.86			
	A3	0.75			
	A4	0.54			
Perceived Usefulness of Social Network			0.904	0.918	0.618
	PRS1	0.63			
	PRS2	0.60			
	PRS3	0.76			
	PRS4	0.70			
	PRS5	0.76			
	PRS6	0.76			
	PRS7	0.79			
	PRS8	0.77			
	PRS9	0.81			
Knowledge Sharing Behavior			0.895	0.920	0.622
	GPP1	0.69			
	GPP2	0.69			
	GPP3	0.74			
	GPP4	0.80			
	GPP5	0.81			
	GPP6	0.87			
	GPP7	0.88			

Note: CR= Composite Reliability; AVE= Average Variance Extracted

Table 2: Correlation between the variables in the model

	PUSN	P	A	KSB
PUSN	**0.507**			
P	0.4083	**0.524**		
A	0.2043	0.250	**0.539**	
KSB	0.1927	0.1764	0.1156	**0.618**

3.2 Structural Model Evaluation

Analysis of Moment Structure (AMOS) Version 18 was employed to evaluate the goodness fit of the structural model, so as to examine the significance of hypothesized paths in the research model and also to examine the variance (R^2) explained by each path. The study evaluated the following six goodness of fit indices: x^2-square test, the goodness-of-fit index (GFI), the comparative fit index (CFI), the Tuker-lewis Index (TLI), and root mean square error of approximation (RMSEA). For a good fit of the model, the TLI, GFI, CFI should be greater than or equal to 9.0 and x^2-square should be less than 3 [59]. Moreover, the root mean square error of approximation (RMSEA) should be less than 0.08 [52]. Common criteria for (AMOS) have been suggested earlier and the outcomes are presented in Table 3. From these outcomes, the structural model indicates adequate fit with the observed data, in comparison with the suggested fit criteria.

The test produces the standardized path coefficients between model constructs, and also their statistical significance. Moreover, the test offers the squared multiple correlation (R^2), which indicate the variance of the dependent constructs which can be shown by independent constructs. Based the result, knowledge sharing behavior was predicted by presenteeism (β = .25, $p < 0.001$), altruism (β = .20, $p < 0.05$) and perceived usefulness of social network (β = .13, $p < 0.05$). Those variables together explained 23% of the knowledge sharing behavior (R^2 = 0.23). Therefore, presenteeism, altruism and perceived usefulness of social network significantly influence knowledge sharing behavior. Figure 2 shows the results of structural model.

Table 3: Results of the model goodness-of-fit

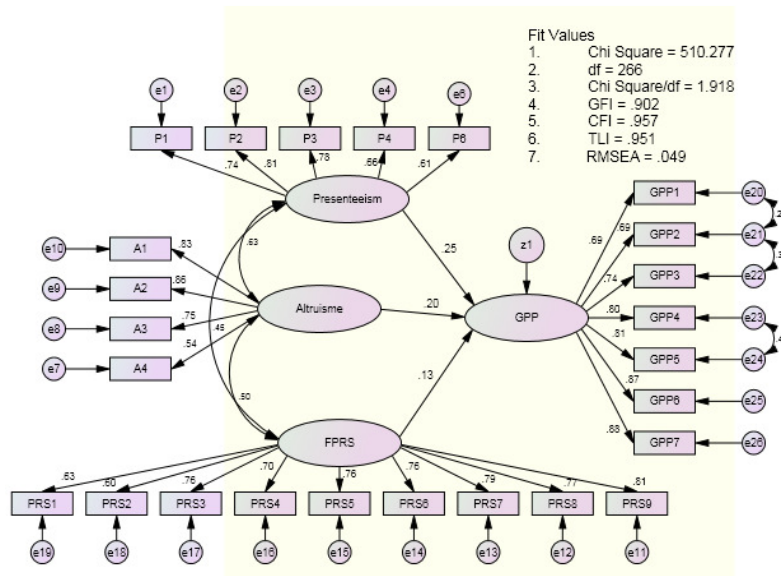| Model fit Index	Criteria	Tahap yang Dicapai
RMSEA	RMSEA<0.08	0.049
GFI	GFI>0.90	0.902
CFI	CFI>0.90	0.957
TLI	TLI>0.90	0.951
Chisq/df	Chi square/df<3.0	1.918

Figure 2: The result of structural model

Normally, presenteeism is seen as health-related productivity loss while at work. However, Converly *et al.* [60] in their study proved that because of work factors e.g. job security, supervisor support and job satisfaction, has resulted employees substituting presenteeism for absenteeism. The result in this research shows how nature and essence of nursing that practice care in their service effect on presenteeism behavior and also is connected to eagerness in expanding knowledge and expertise and thus influence intention to share knowledge among colleague.

Our result also shows that in nursing, altruism behavior is shown when nurses contribute knowledge and they gain satisfaction by helping others. For instance, when nurses diffuse knowledge during treating patients they must consider for helping others (colleague) by sharing knowledge and expertise so that mistakes will be minimized, level of caring will be increased and they perform task diligently and effectively. Nasrabadi *et al.* [61] supports our result by sharing how registered nurses experiences of nursing felt that caring had originated from religious or spiritual feeling in helping others. Not only helping others will strengthen their own religious faith, indeed nursing profession is attractive to them because nature of nursing is based on altruism and caring for sick people.

The use of social network gave a positive impact on the accumulation of knowledge [49] as well as facilitate the knowledge to be storage for reuse in the future [62]. Edwards *et al*. [48] emphasize, though a common network of information technology such as e-mail and intranet has been widely used, employees in the organization still cannot see its significant with knowledge management. Therefore the employee still refuses and not motivated to share knowledge [50]. According to Yu *et al.* [49], individuals will be encouraged to use technology such as social networks if they believe that the use of social networks will benefit them. In the context of nurses, our result shows that perceived usefulness of social network gave influence to their knowledge sharing behavior.

4.0 CONCLUSSION

This paper has contributed to an understanding that there is a controversial issue between the moral obligation to share knowledge and the reciprocity of sharing knowledge in nursing context. Providing care-orientation services require KSB to occur for public good rather than private good. Presenteeism, altruism and perceived usefulness of social network are the antecedents that significantly determine KSB among nurses. Presenteeism in this study is viewed as positive factor that has substituted from absenteeism due to altruistic behavior that will influence on KSB. Regardless of work nature among nurses, we assumed that nurses gain benefits from sharing through facebook, whatsapp and blog towards problem solving tasks and also has resulted from the altruistic behavior.

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