THE EFFECT OF CULTURAL INTELLIGENCE TO KNOWLEDGE SHARING BEHAVIOR IN UNIVERSITY STUDENTS

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ABSTRACT

Knowledge sharing as part of Knowledge Management activity is not just limited to the company, the education domain as well promoted knowledge sharing as part of their learning activities. One can argue, knowledge sharing was affected by the cultural background of the people who involve. This study, based on a survey of 128 students of Master of Business Administration (MBA) Institut Teknologi Bandung (ITB), tried to find the correlation between cultural intelligence (CQ) and student knowledge sharing behavior. The results showed that CQ and four of its domains (metacognitive, cognitive, motivational, and behavioral) has a significant positive correlation with knowledge sharing behavior.

Keywords: Knowledge Sharing Behavior, Cultural Intelligence, University students

INTRODUCTION

In this era of knowledge economy, human knowledge becomes an important asset for organizations, as sources of competitive advantages [19]. Organizations need to manage knowledge, so it can benefit the organization, the activities in managing knowledge known as Knowledge Management. Knowledge management is the system that include activities such as creating, sharing, validating and utilizing the knowledge (both tacit and explicit knowledge), at multi layer level (individual, group, organizational, and community), through the integration of people, process, and technology, for benefits of those that involved with [15].One factor that determines the effectiveness of knowledge management is knowledge sharing behavior [19]. Knowledge sharing is known as a process that involving the exchange of knowledge whether it is between individuals and inter-groups [6]. By having knowledge sharing behavior embedded in the organization culture, it can give benefit to the organization.

Each individual may have different capability to adapt with the new culture [16]. Since the raise of globalization, it is easier for people from different places to join the organization that resulted

the organizations have members from multi-cultural background. Thus, it becomes more challenging for someone to be able to adapt and interact with others in their organizations. One factor that can affect someone ability to adapt in environment that has different culture is cultural intelligence [2]. Cultural intelligence (CQ) is an individual's ability to behave and manage effectively in culturally diverse contexts [2].

This situation is not just limited to employees in company but also to students in university. For the students, knowledge is something very important to them, not only to get a high grade but also to improve their capability, so they will ready to face the world of practice. Therefore, having high level of knowledge sharing will help a student to exchange their knowledge with other students that can enrich their own knowledge, and help them in their study. Since a university in Indonesia, may accepted their students that come from different places and ethnics, therefore the ability of each students to adapt in such situation may also affected the process of knowledge sharing.

This study will try to explore the relationship between cultural intelligence and knowledge sharing behavior among students at MBA ITB, since the students that enroll were coming from different ethnics which has different cultural background.

BACKGROUND

Knowledge Sharing Behavior

Knowledge is defined in various terms by scholars. Nonaka defined knowledge as multidimensional concept [13] while Davenport and Prusak stated that knowledge is something more than just data and information [6]. Knowledge also can be considered as information, idea, and expertise that can be used by individuals, teams, or organizations to perform their task effectively [3].

A lot of scholar agreed that knowledge is key asset that can provide an organization with sustainability competitive advantage [14] [17] [19]. Therefore the activities such as knowledge sharing and knowledge transfer become important activities in order to enhance and utilize knowledge within organization. Knowledge sharing is an activity that link people in organization by transmitting knowledge either among individuals or between individuals and the organization so it can be used as a source to bring competitive value to organization [19].Knowledge sharing can be defined as a process that involving the exchange of knowledge whether it is between individuals or groups [6]. Meanwhile, Alavi and Leidner defined knowledge sharing as knowledge transfer which is the process of spreading knowledge all over the organization [1].

Factors that can promote or discourage someone's willingness to share their knowledge still poorly defined [18]. Sharing knowledge sometimes is hard because people tend to not share their knowledge if they think their knowledge is valuable and important [4]. Poor sharing knowledge activities may result on loss of knowledge and can give disadvantages to the organization [18]. Therefore, it is a challenge for the organization to find what can affects knowledge sharing behavior and how to utilize it.

Cultural Intelligence

The word of intelligence is already known since the beginning of 20th century. At first time, this intelligence refer to someone's brain capacity that used to solve problems and usually measured by some tests that includes several aspects such as words definition, remembering passages, manipulating geometric shapes, and other similar skills [9]. This type of intelligence was intelligence that someone already has since born and considered difficult to change [9].

Then, this concept of intelligence evolved from time to time. Before cultural intelligence (CQ) appeared, there are some types of intelligence that already familiar by scholars such as social intelligence and emotional intelligence [5] [10]. Recently, after the emergence this type of intelligence, the concept of CQ was introduced as a person's ability to interact with other people from different cultures [5].

This CQ has been defined by scholars in several definitions. Early and Ang in their books defined CQ as someone's capability to be able to adapt effectively when they face new cultural contexts [7]. Meanwhile Thomas in his review said that CQ is a person's ability to understand and interact effectively with people that coming from different culture [16]. In line with it, based on research done by Ang, *et al.* to 794 respondents from field and educational contexts in USA and Singapore, CQ is an individual's ability to behave and manage effectively in culturally diverse contexts [2].

Based on Ang, *et al.*, this CQ has four domains as its elements [2]. First is *metacognitive* that refers to mental processes that individuals use to acquire and understand cultural knowledge, including knowledge of and control over individual thought processes relating to culture; second is *cognitive* that refers to knowledge of the norms, practices and conventions in different cultures acquired from education and personal experiences; third is *motivational* refers to the capability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences; and last is *behavioral* refers to the capability to exhibit appropriate verbal and nonverbal actions when interacting with people from different cultures [2].

STUDY FRAMEWORK

Despite of organizational and IT factor, individuals factor has a big influence into someone knowledge sharing behavior [4] [17] [18]. However, Messarra, Karkoulian, and Younes stated that when individual move to new place with new setting they can adjust their social motivation into refrain to interact with others or involve with others activities to leave good impression [12]. Therefore, the differences of someone's culture could possibly affect someone knowledge sharing behavior.

In line with that, Messarra, Karkoulian, and Younes found that three of four CQ domains (metacognitive, motivational, and behavioral) have positive correlation with knowledge sharing intentions event though they found that there is no correlation between cognitive and knowledge sharing behavior [12]. Therefore, this research has five independent variables (CQ cognitive, CQ Metacognitive, CQ Motivational, CQ Behavioral, and CQ) and one dependent variable (Knowledge sharing behavior). Then, this research formulates five hypotheses as follow:

H_1 : Cognitive in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

H_2 : Metacognitive in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

H_3 : Motivation in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

H_4 : Behavioral in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

H_5 : Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

METHODOLOGY

In order to testing the hypotheses, this research using survey method by combining questionnaire from Ang*et al.*[2] about cultural intelligence and questionnaire from Yi [19] about knowledge sharing behavior. For cultural intelligence questionnaire, this research use the full version (four-factors model questionnaire) while for knowledge sharing behavior questionnaire, this research only use the part about personal interaction since this research want to examine the individual factor in knowledge sharing behavior. This questionnaire then modified to meet the university situation. A CQ questionnaire from Ang et al. was selected because it already showed good validation and reliability. while knowledge sharing behavior questionnaire from Yi was selected to enrich the use of Yi instrument—in term of nomological validity to test the use of adapted instrument that represent the construct, in this study the nomological validity is accepted by all relationship between construct is statistically significant (see Table 2). This questionnaire then distributed to respondent using paper-pencil based questionnaire to get high response rate.

The respondents of this researchwere students of MBA-ITB. The total of respondents in this research was 128 respondents. From all those respondents, there were more males ($n = 69$) than females ($n = 57$) and two respondents that did not give their gender information. From those respondents, the distribution of their from can be seen in table 1

Table 1
Distribution of respondents' origin

Island	Number of Respondents	Percentage
Java (include Javanese, Sundanese, Madura)	76	59.38%
Sumatera (Include Minang, Palembang, Padang, Batak, Aceh, Lampung)	28	21.88%
Sulawesi	8	6.24%
Others	5	3.91%
Blank	11	8.59%
Total respondents	128	100.00%

All these data then entered into SPSS (statistic software) for analyzing the correlation between variables. However, before the data be analyzed, the data was checked if there were any missing or false input data (for example fill all questions with only one rating). Fortunately, there were not any errors found. The overall reliability in this research was measured using Cronbach' alpha (α) and showed respectable with $\alpha = .787$ [8].

RESULT

Correlation analysis was used to test if there is the relation between independent and dependent variables. The spearman's rho correlation was used in this research because the ordinal scale was employed in the survey [11] and the result was presented in table 2 below

Table 2
Result of Spearman's rho

	Correlations					
	Metacognitive in CQ	Cognitive in CQ	Motivational in CQ	Behavioral in CQ	Cultural Intelligence (CQ)	Knowledge Sharing behavior
Knowledge Sharing Behavior	.509(**)	.235(**)	.295(**)	.225(**)	.481(**)	1

*Notes.*** Correlation is significant at the 0.01 level (1-tailed).

Based on the correlation in table 1, metacognitive in CQ (r = .509) has a significant positive value ($p<.01$) with knowledge sharing behavior. Cognitive in CQ (r = .235) also showed a significant positive value ($p<.01$). Moreover, motivational in CQ (r = .295) and behavioral in CQ (r = .225) also indicated positivecorrelation with knowledge sharing behavior in significant level ($p<.01$). Then finally, CQ (r= .481) has a significant positive relation ($p<.01$) with knowledge sharing behavior. From that, all the relationship between dependent and independents variables have a positive value. Moreover, all the values were significant.

DISCUSSION

Hypothesis 1: Cognitive in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

From the result, it showed that someone's cognitive in CQ can significant positively affect someone knowledge sharing behavior (r = .235). Different with findings in this result, Messarra, Karkoulian, and Younes found that there is no significant correlation between cognitive in CQ with knowledge sharing intention [12]. This phenomenon can happen probably because cognitive in CQ is someone's knowledge about different culture that includes norms, practices, and conventions [2], therefore the higher someone cognitive means the more knowledge they have about people from different culture. This can lead them to understand how to communicate with someone from different culture. Therefore, it is easier for them to communicate each other and also sharing their knowledge. Then Hypothesis 1 was supported.

Hypothesis 2: Metacognitive in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

In terms of metacognitive in CQ, this research found that there is a significant positive correlation between someone's metacognitive in CQ with knowledge sharing behavior (r = .509). In line with it, Messarra, Karkoulian, and Younes also stated that metacognitive CQ positively affect someone knowledge sharing intentions [12]. This situation could happen because

metacognitive in CQ is related with someone's consciousness related with their cultural knowledge when they interact with people from other culture [2]. Then, they can adjust their own culture to match with people from different culture so it could be easier for them to share their knowledge. Therefore this result supported hypothesis 2.

Hypothesis 3 : Motivation in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

For motivational in CQ, this research also showed that motivational in CQ has a significant correlation with someone's knowledge sharing behavior ($r = .295$). This finding also supported by research done by Messarra, Karkoulian, and Younes [12]. The reason why this happen probably because someone with high motivational in CQ will have high enthusiasm to be successful when they interact with people from different culture [2]. Therefore, they are willingly to share their knowledge with others so they can successfully adapt with new culture. This result supported hypothesis 3.

Hypothesis 4 : Behavioral in Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

This research also found that behavioral CQ was also has a significant positively correlation with someone's knowledge sharing behavior ($r = .225$). This finding was in line with Messarra, Karkoulian, and Younes research [12]. This could happen because people with high behavioral CQ will be able to adjust their verbal and nonverbal when they interact with people from different culture. This can cause them to interact effectively so that communication and mutual trust can increased and be able to improve the tendency of a person to share their knowledge. Then hypothesis 4 was supported.

Hypothesis 5 : Cultural Intelligence has positive correlation with knowledge sharing behavior in personal interaction

Then, as overall, CQ has a significant positively correlation with knowledge sharing behavior ($r = .481$). This is probably because the higher someone CQ means the higher their likelihood to be successfully to adapt in new cultural context. Therefore, it can increase the effectiveness in communication and interaction that make it easier to share their knowledge. Therefore the hypothesis 5 was supported.

CONCLUSION AND RECOMMENDATIONS

The important of knowledge is not just limited in organization but also in educational domain. Knowledge sharing behavior among university students becomes important factor that decide their success in university life. Moreover, the raise of globalization makes a university to have students that coming from various cultural backgrounds. Cultural intelligence (CQ) is one indicator that can be used to measure how capable a person to be able to adapt in different culture environment [2]. This research was aim to find the relationship between students' CQ and their knowledge sharing behavior.

This research used four-factor model to identify students CQ: metacognitive, cognitive, motivational, and behavioral. Therefore, besides try to find correlation between CQ and

knowledge sharing behavior, this research also try to find correlation for each domain with knowledge sharing behavior.

From the responses from 128 students in MBA-ITB, this research found that all the domains and also CQ has a significant positive correlation with knowledge sharing behavior. It means the higher students' CQ can lead to their willingness to share their knowledge with other students. The practical significance of this study, it is important for university to increase students CQ so they will have good knowledge sharing behavior. It can be done by several ways. First, university can give the knowledge about different culture for their students because the better their cognitive and metacognitive CQ will make their knowledge sharing behavior better, for instance by giving the students the course about cross-culture or having lecturer from different cultural background that can share their experience. Second, university can create the environment that lets students to be able to interact with students from different culture, for instance create students group that consist of students from different culture. So it can increase students motivational and behavioral CQ and also give them time to share their knowledge to each other.

The theoretical significance of this study are supporting the previous research by Messarra, Karkoulian, and Younes, that stated, CQ is promoting knowledge sharing activities. This study also has contribution in nomological validity for the instrument of knowledge sharing behavior that developed by Yi, since the dimension of knowledge sharing behavior were represented in individual level—instead of use all of the level in Yi's instrument. This research also enrich the body of knowledge about CQ and knowledge sharing in Indonesia since there still few research about correlation between CQ and knowledge sharing with Indonesia as sample.

This research also still can be expanded by using other countries as samples. Moreover, this research also can be done not just limited to educational context but also in organization or social context since Indonesia is a country that consist of various ethnic that have different cultural background.

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Appendix

Correlations result from SPSS

			ksb	met	cog	mov	beh	cq
Spearman's rho	ksb	Correlation Coefficient	1.000	.509(**)	.235(**)	.295(**)	.225(**)	.481(**)
		Sig. (1-tailed)	.	.000	.004	.000	.005	.000
		N	128	128	128	128	128	128
	met	Correlation Coefficient	.509(**)	1.000	.297(**)	.432(**)	.305(**)	.703(**)
		Sig. (1-tailed)	.000	.	.000	.000	.000	.000
		N	128	128	128	128	128	128
	cog	Correlation Coefficient	.235(**)	.297(**)	1.000	.213(**)	.404(**)	.661(**)
		Sig. (1-tailed)	.004	.000	.	.008	.000	.000
		N	128	128	128	128	128	128
	mov	Correlation Coefficient	.295(**)	.432(**)	.213(**)	1.000	.278(**)	.666(**)
		Sig. (1-tailed)	.000	.000	.008	.	.001	.000
		N	128	128	128	128	128	128
	beh	Correlation Coefficient	.225(**)	.305(**)	.404(**)	.278(**)	1.000	.716(**)
		Sig. (1-tailed)	.005	.000	.000	.001	.	.000
		N	128	128	128	128	128	128
	cq	Correlation Coefficient	.481(**)	.703(**)	.661(**)	.666(**)	.716(**)	1.000
		Sig. (1-tailed)	.000	.000	.000	.000	.000	.
		N	128	128	128	128	128	128

** Correlation is significant at the 0.01 level (1-tailed).