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The relationship of long-term orientation with knowledge sharing in virtual community

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ABSTRACT

Some studies have looked at how people from different countries share knowledge, information and ideas but the research is still limited. Therefore, this research takes up the challenge to find out the relationship of societal culture and knowledge sharing in multi-national and cross-cultural 'virtual community.'

The purpose of this paper is to quantitatively assess the relationship of long-term orientation which influences sharing of knowledge, ideas and information in virtual community among different cultural groups. Data were collected from the world's second largest multinational PC manufacturing company that serves customers across 160 countries. The analysis from five of the countries specifically examines the relationship of long-term orientation with knowledge sharing in the virtual community context. The finding is a positive relationship implying that managers of virtual communities need to provide both resources and time for members to build relationships and to positively share and co-create knowledge (aimed at the future) rather than concentrate on the past and present thus stifling knowledge sharing.

The study contributes by uniquely combining in one study, long-term (cultural) orientation, and knowledge sharing in virtual communities from different countries. The limitation of the study is the use of only one cultural dimension of Hofstede. Future studies should use other dimensions as well as dimensions other than Hofstede's. Nonetheless, this study has given practical guides to managers of virtual communities.

Keywords: Long-term orientation, knowledge sharing, virtual community

INTRODUCTION AND BACKGROUND TO THE RESEARCH

Knowledge management is a key tool contributing to the competitiveness and survival of an organisation (Siau, Erickson and Nah, 2010). It can significantly change how companies perform their functions; and some companies have made it the basis of their entire strategies (Bashir, Usoro and Khan, 2012; Hussain, Lucas and Ali, 2004).

In the past three decades, organisations have paid attention to profits, expenses, production, human resources and similar issues (Bashir, Usoro and Khan 2014). However, today they are focusing on knowledge, networks, intangibles, and emotional intelligence (Allee, 2003). Bashir, Usoro and Khan (2014) cite two authors (Martinkenaite, 2011; Burke, 2011) who argue that in today's knowledge economy, the success of an organisation depends heavily on knowledge – an intangible asset that must be organised and properly managed.

Knowledge

Knowledge is a complex concept but is increasingly important professionally and in research (Fassehi, 2013; Li, 2009). There are different types of knowledge. Table 1 shows tacit knowledge and explicit knowledge.

Table 1 Types of knowledge

Type	Where stored	Example
Tacit knowledge	In people's minds	Awareness, skills, mental models, expertise, judgements, wisdom and corporate memory.
Explicit knowledge	In objects	Books, publications, reports, photos, diagrams, computer codes, presentations, speeches, lectures, stories, lesson learned and recordings.

Different scholars have presented different concepts of knowledge in different periods of times. In the 1950s, Polanyi and Wittgenstein were the two scientists who explained that knowledge is explicit, capable of being coded and stored, easy to transfer and they followed on their explanation with scientific research in the areas of social and psychological sciences. Polanyi (1966) divided knowledge into two different categories, (a) explicit and (b) tacit. On the other hand MacFarlane views knowledge as “*a complex and elusive concept*” (MacFarlane, 1998). Nonanka and Takeuchi (1995) point out that “*the history of philosophy since the ancient Greek period can be seen as the process of searching for an answer to the question, ‘what is knowledge?’ Western philosophers have generally agreed that knowledge is justified true belief and knowledge is a concept that was first introduced by Plato in his Memo*” (Nonanka and Takeuchi, 1995, p. 21).

Knowledge sharing

Different definitions of knowledge sharing suggest that it is a two-way process. This view about knowledge sharing is supported by many scholars including Davenport and Prusak (1998),

Hoof and Ridder (2004), Liyanage, *et al*, (2009), Majewski (2012) and Li (2008).

Figure 1 shows the two-way process of knowledge sharing.

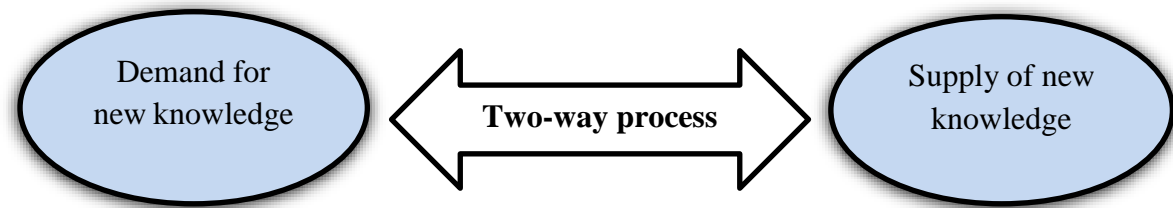


Figure 1 Two-way process of knowledge sharing

This study accepts the following main points about knowledge sharing:

- Knowledge sharing is a two-way process
- A receiver and giver are involved in this process

Virtual community

Traditionally, the word “community” is associated with a geographical area such as a neighbourhood (Wellman and Gulia, 1999. Wang and Shi (2011) report that a “community is a group where individuals come together for a shared purpose or based on an obligation to one another” (p.802). The notion of the communities has gained popularity among knowledge management practitioners (Bolisani and Scarso, 2014).

Virtual communities have dramatically changed our lives because individuals from face-to-face communities can also meet each other through virtual communities. They use ICT tools ranging from emails to virtual conferences to “extend the boundaries of traditional face to face communities that enable global asynchronous and real-time collaboration” (Usoro, Sharratt and Shekhar, 2007, p. 200).

Knowledge sharing in virtual community

Knowledge sharing has generally received greater attention than other KM processes in the literature (Sloan and Gyrd-Jones, 2015; Sharratt and Usoro, 2003; Davenport and Prusak, 1998). A strategically important benefit of knowledge sharing in a virtual community is that it connects peoples across cultures. Managers of electronic communities use ICT applications, such as email and virtual conferences, to “extend the boundaries of traditional face-to-face communities by creating virtual communities that enable global asynchronous and real-time collaboration” (Usoro, Sharratt and Shekhar; 2007, p. 200). Virtual community managers can

network and share knowledge worldwide without moving out of their offices. In recent years, we have seen efforts to move every individual from the idea of “*working harder*” to “*working smarter*” (Lloyd, 2007, p. 5).

Investigating the societal culture factors and their relationships to knowledge sharing in virtual communities is a popular area among researchers (Bashir et al, 2015).

Long-term orientation

Hofstede (1980, 1991) identifies five dimensions of culture, which are power distance, uncertainty avoidance, individualism, masculinity and long-term orientation. This study focuses on the relationship between long-term orientation and knowledge sharing in virtual community.

According to Hofstede *long-term orientation* refers to the extent to which a culture programs its members to accept delayed gratification of their material, social, and emotional needs.

Members of long-term oriented societies focus on the future. In contrast, members of short term oriented society focus on the past and present (Wei et al, 2008; Alkhaldi, Yousof and Aziz, 2011). In long-term oriented societies, members tend to adapt traditions to a modern context, and respect social and status obligations within links (Hofstede, 1995). In a short-term orientated society, quick results are expected (Hofstede, 1991). Members of a long-term orientated society may adapt themselves easily if they join a virtual community, and feel more comfortable and confident than those from a short-term oriented society, leading to the initiation of online discussions and replies.

In order to build good relationships in VCs in a long-term oriented society, members may offer their knowledge by taking part in discussions and answering questions. They are forward looking and therefore persevere in their knowledge sharing activity. Thus, we may hypothesise that:

H: Long term orientation has a positive relationship with knowledge sharing in VCs.

This hypothesis is illustrated in Figure 2 where the plus sign (+) signifies a positive relationship in the research model.

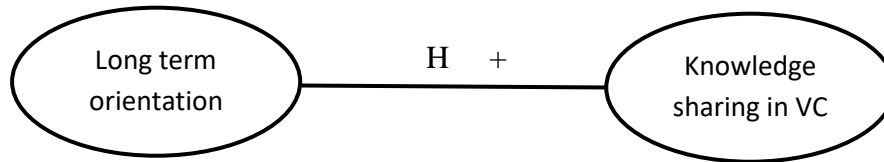


Figure 2 Research model

METHODOLOGY

Research methodology is “a way of connecting the research to the world; a way of supplying a framework for posing questions and answering them” (Cross, et al, 1996, p. 110).

The questionnaire is the best way to collect data from a multinational corporation where virtual communities play an important role for knowledge sharing purposes between geographically distributed people. Many similar studies have used the questionnaire method; for example, Li et al (2009) used the questionnaire method for data collection process in a multinational and multicultural environment. This study will focus on questionnaire method. Table 2 shows the questions in the questionnaire.

Table 2 Research questionnaire

Construct	Variable	Operationalisation	Questionnaire Item
	Long term Orientation	Previous experience has a big influence on my current things	1
		Present experience has a big influence on my current things	2
Knowledge sharing in virtual community	Giver	I frequently share my knowledge with others in the community	3
		I frequently contact other members for knowledge sharing	4
		I share new things I learn with other members	5
		I perceive that my contributions to the community enable others to develop new knowledge	6
		The knowledge I share with the community has a positive impact on the business	7

	Receiver	I receive positive replies about the knowledge I share with others	8
		I often get useful response from other members if I asked them any question	9
		I like to read new post from other member	10
	Optional questions	How old are you?	11
		What is your gender?	12
		What is your Nationality?	13
		What is your highest level of education?	14

The questionnaire consisted of three sections. The first section asked questions related to long-term orientation. The questionnaire items recommended by Hofstede (1980, 1991) for future cross-cultural survey research were used. The second section of the questionnaire asked questions about knowledge sharing in a VC context. The last section was optional and asked about demographic information: age, gender, nationality and level of education.

Questionnaire responses were measured using a Likert scale, where 1 is equal to strongly disagree, 2 disagree, 3 slightly disagree, 4 neutral, 5 slightly agree, 6 agree and 7 is equal to strongly agree.

Table 3 Likert scale

<p>Previous experience has a big influence on my current things</p> <p>(1) <i>Strongly disagree</i> (2) <i>Disagree</i> (3) <i>Slightly disagree</i> (4) <i>Neutral</i> (5) <i>Slightly agree</i> (6) <i>Agree</i> (7) <i>Strongly agree</i></p>	<p>Present experience has a big influence on my current things</p> <p>(1) <i>Strongly disagree</i> (2) <i>Disagree</i> (3) <i>Slightly disagree</i> (4) <i>Neutral</i> (5) <i>Slightly agree</i> (6) <i>Agree</i> (7) <i>Strongly agree</i></p>
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It was easy for the respondents to select their choice from 1 to 7 (Dillman, Smyth and Christian, 2009).

DATA ANALYSIS

Data were collected from five different countries from one multinational corporation Lenovo virtual community. 247 respondents completed the questionnaires online: n=35 from Lenovo UK, n=92 from Lenovo China, n=45 from Lenovo Slovakia, n=37 from Lenovo Argentina and n=38 from Lenovo United States of America. Statistical Package for the Social Sciences (SPSS) software was used for the data analysis.

Lenovo is a US\$30 billion personal technology company and the world's second-largest PC vendor, with over 30,000 employees in more than 60 countries, serving customers across 160 countries. A global Fortune 500 company, they have headquarters in Beijing, China and Morrisville, North Carolina, U.S.; major research centres in Yokohama, Japan; Beijing, Shanghai and Shenzhen, China; and Morrisville; and manufacturing operations around the world from Greensboro, North Carolina and Monterrey, Mexico, India, China and Brazil.

Each individual in each societal culture completed the societal culture questionnaire online using a SurveyMonkey® link. Table 4 shows the numbers of participants from all countries.

Table 4 Participants information

No	Name of Countries	Frequency	%	Valid Percent	Total No of participants
1	United Kingdom	male = 22 female = 13	m=62.9 f=37.1	male = 62.9 female = 37.1	35
2	Argentina	male = 18 female = 19	m=48.6 f=51.4	male = 48.6 female = 51.4	37
3	China	male = 64 female = 28	m=69.9 f=30.4	male = 69.6 female = 30.4	92
4	Slovakia	male = 25 female =20	m=55.6 f=44.4	male = 55.6 female = 44.4	45
5	United States of America	male = 20 female = 18	m=52.6 f=47.4	male = 52.6 female = 47.4	38

Different authors suggest different interpretations. According to Julie Pallant (2010, p. 134), a

correlation of 0 indicates no relationship at all, a correlation of 1.0 indicates a perfect positive correlation, and a value of -1.0 indicates a perfect negative correlation and Cohen (1988, p. 79-81) suggests the guidelines which are shown in figure 3.

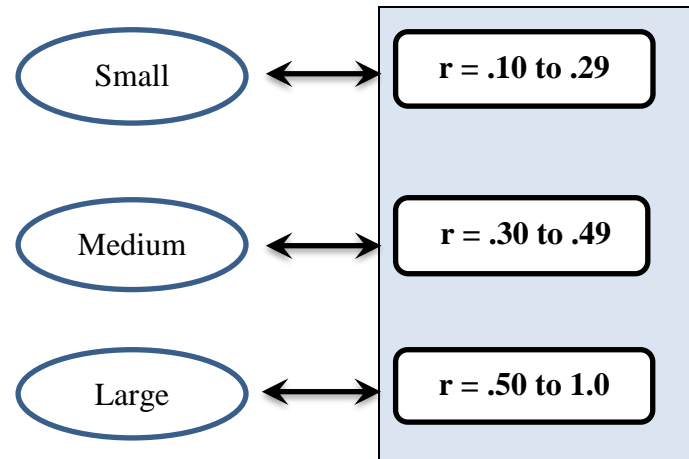


Figure 3 Correlation guideline

CORRELATION

The purpose of this research was to study the relationship of long term orientation with knowledge sharing in a virtual community.

Spearman correlation is used when the study wants to explore the strength of the relationship between two variables. This gives an indication of both positive and negative (Pallant, 2013).

The relationship between knowledge sharing and Long term orientation was investigated using Spearman correlation coefficient.

Correlation analysis for United Kingdom

The result of Spearman's correlation coefficient test for the United Kingdom data shows that long term orientation ($r=0.251$, $n=35$) is positively related with knowledge sharing but the relationship is not significant as shown in the last column.

Table 5 Correlation results from United Kingdom Lenovo

Constructs		Hypotheses	Correlation co-efficient	Significance of correlation
Long term orientation	Knowledge sharing	H ₅₊	0.251	0.073

*Scale=1-7, *Correlation is significant at the 0.05 level.
Scale=1-7, **Correlation is significant at the 0.01 level.*

Correlation analysis for Argentina

With Argentina, Spearman's correlation coefficient test shows that long term orientation ($r=0.107$, $n=37$) has a positive relationship with knowledge sharing. However, the last column of table 6 shows that the result is not significant.

Table 6 Correlations results from Argentina Lenovo

Constructs		Hypotheses	Correlation co-efficient	Significance of correlation
Long term orientation	Knowledge sharing	H ₊	0.107	.265

*Scale=1-7, *Correlation is significant at the 0.05 level.
Scale=1-7, **Correlation is significant at the 0.01 level.*

Correlation analysis for China

The relationship between knowledge sharing and long term were investigated with the Spearman's correlation coefficient. The correlation analysis shows that Long term orientation ($r=.307$, $n=92$), have positive relationships with knowledge sharing. The last column of table 7 shows that the result is significant.

Table 7 Correlations results from China Lenovo

Constructs		Hypotheses	Correlation co-efficient	Significance of correlation
Long term orientation	Knowledge sharing	H ₊	0.307**	0.001

*Scale=1-7, *Correlation is significant at the 0.05 level.
Scale=1-7, **Correlation is significant at the 0.01 level.*

Correlation analysis for Slovakia

The relationship between knowledge sharing and long term orientation in Slovakia were investigated using the Spearman's correlation coefficient. The correlation analysis shows that long term orientation ($r=0.155$, $n=45$) is positively correlated with knowledge sharing in a virtual community context. However, the correlation is not significant.

Table 8 Correlations results from Slovakia Lenovo

Constructs		Hypotheses	Correlation co-efficient	Significance of correlation
Long term orientation	Knowledge sharing	H+	0.155	0.157

*Scale=1-7, *Correlation is significant at the 0.05 level.*

*Scale=1-7, **Correlation is significant at the 0.01 level.*

Correlation analysis for United States of America

The results of Spearman's correlation coefficient test for the United State of America data shows that Long term orientation ($r=0.361$, $n=38$) is positively related with knowledge sharing.

Table 9 Correlations results from United States of America Lenovo

Constructs		Hypotheses	Correlation co-efficient	Significance of correlation
Long term orientation	Knowledge sharing	H+	0.361*	0.013

*Scale=1-7, *Correlation is significant at the 0.05 level.*

*Scale=1-7, **Correlation is significant at the 0.01 level.*

SUMMARY OF FINDINGS AND DISCUSSION

Table 10 summarizes the result of the data analysis as per each of the 5 countries that were surveyed. On the whole, there is a positive relationship between long term orientation (LTO) and knowledge sharing in virtual community (KS in VC) context. It is therefore safe to accept the hypothesis of the study.

Table 10 Relationships between LTO and KS in VC

Country	Relationship	Significance
United Kingdom	Positive	No
Argentina	Positive	No
China	Positive	Yes
Slovakia	Positive	No
United States of America	Positive	Yes

At the country level, only in China and United States of America do the two variables show significant relationships (0.001 and 0.013 respectively). The outcome of this study is precedent because existing studies on cultural orientations and virtual communities have apparently not addressed the specific relationship of long-term orientation with knowledge sharing in the context of virtual communities. For example, Gil-Saura et al (2011) studied long term orientation but not as related to knowledge sharing nor in the context of virtual communities. Mueller (2012) found positive relationships between team and other orientations other than long term orientation and knowledge sharing in teams. It is surprising how the outcome of the study is the same for USA and China which are often reported to have different cultural orientations. For example, Ray (2014) characterises China with long-term culture and USA with short-term culture. However, Kanzler et al (2012) did not find significant differences between the Western (represented by Germany) and the Eastern (represented by China) cultures in their study of knowledge sharing in research and development environment. Therefore, they concluded that the differences “might have diminished over the past decades.” (p 6).

CONTRIBUTION AND IMPLICATIONS

This study is unique in the sense that it apparently is the first one to systematically study Hofstede’s long-term orientation as it affects knowledge sharing in virtual communities. Also, it benefits from data collected from five different countries and therefore has authoritative recommendations to managers of virtual communities.

The positive relationship between long-term orientation and knowledge sharing implies that virtual community members value perseverance and look forward to future rewards instead of simply being tied to tradition and principally concentrating on the past and the present. Therefore, managers have to provide not only resources but time for members to positively

contribute to the community. If these are provided, the members will be less fearful of apprehension which may lead to lower opinion and knowledge sharing. Instead they will feel freer to share tacit knowledge and to create new knowledge. From the outcome of the study, this implication is more applicable to USA and China as well as similar countries.

CONCLUSION AND LIMITATIONS

Bashir et al's (2015) research highlighted the importance to managers and the need to study the relationship of Hofstede cultural factors with knowledge sharing in virtual community context. This paper has present research on one of the important factors – long term orientation – and investigates its relationship with knowledge sharing in virtual communities. Data were collected from five different countries: United Kingdom, Argentina, China, Slovakia and United State of America.

The results from all participated countries show that the relationship between Long term orientation and knowledge sharing in VCs is positive, especially in USA and China. The implication is that manager of virtual communities should provide resources as well as time for members to build relationships and exchange, as well as co-create knowledge. These provisions will prevent a “face-saving” strategy that is short term and stifles knowledge sharing. This finding has contributed to managers’ knowledge of how to encourage knowledge sharing in virtual communities.

This study concentrated on Hofstede’s cultural dimensions and only reported on long-term orientation. Future articles should also report on other dimensions eg power distance and masculinity. Besides, it would be interesting to investigate other cultural orientations other than Hofstede’s and likely to compare and contrast with those of Hofstede in the context of knowledge sharing in virtual communities.

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